MET/TEAM Software Operation and Reference Guide

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(Version 20160331)

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System Requirements

For MET/TEAM® (MET/TEAM® is Fluke Corporation's registered trademark in the USA and/or other countries or regions) to operate properly, some required frameworks and other software packages must be installed on the server and some client computers. These prerequisite packages are detailed in the sections that follow. The Fluke Calibration Software download and media include all the necessary prerequisite software packages. Individual installation files that you download from the web do not contain the prerequisite software packages. To install correct prerequisite software packages, you must always use the full installer for new installations and major upgrades.

Note: *Always run Windows Update after the installation process is complete. This action updates your system with the latest security patches.*

The MET/TEAM Server, MET/TEAM Customer Portal, and MET/TEAM Mobile software only run on the following platforms:

- Windows 7 (64-bit)
- Windows 8/8.1 (64-bit)
- Windows 10 (64-bit)
- Windows Server 2008 R2 (64-bit)
- Windows Server 2012 (64- bit)
- Windows Server 2012 R2 (64-bit)

Note: *Attempts to install and run MET/TEAM Server on other operating systems including "Home" editions of Windows is not supported.*

The MET/TEAM Server database must be hosted by:

- SQL Server 2008 R2 (not supported on Windows 10; still being tested on Windows Server 2012 R2)
- SQL Server 2012
- SQL Server 2014 (still being tested on Windows Server 2008 R2 and Windows Server 2012)

The installer includes the Express edition of SQL Server® 2008 R2 which should be sufficient for stand-alone or small networked databases. For larger databases, it is recommended that you use a full version of SQL Server®. Installing the MET/TEAM Server database on a 32-bit version of SQL Server® is not supported. The MET/TEAM Server installation configures the MET/TEAM website to be hosted by Microsoft® Internet Information Services (IIS) 7.5 or later.

The MET/TEAM website can be accessed from any computer that is running a compatible web browser. MET/TEAM is compatible with all modern web browsers that support HTML5 such as Microsoft® Internet Explorer (at this writing we recommend IE9, IE11, or Edge) and Google Chrome. With each update of MET/TEAM, your browser cache will automatically be flushed for the MET/TEAM website.

The MET/CAL Runtime and MET/CAL Editor client software run on a variety of platforms:

- Windows 7 (32 and 64-bit)
- Windows 8/8.1 (32 and 64-bit)
- Windows 10 (32 and 64-bit)
- Windows Server 2008 R2 (32 and 64-bit)
- Windows Server 2012 (32 and 64- bit)

- Windows Server 2012 R2 (64-bit)

Note: *Prior versions of Windows are no longer supported.*

The Fluke Calibration website contains any information on requirements that may have changed since the Help was updated. Refer to http://us.flukecal.com/ .

Hardware Requirements

The minimum hardware requirements are:

MET/TEAM Server

Database and Web Server (single machine)

- 2.0 GHz quad core processor or equivalent
- 16 GB of RAM
- 20 GB of available hard drive space (depending on database size)

Web Server (separate machine from Database server)

- 2.0 GHz quad core processor or equivalent
- 4 GB of RAM
- 500 MB of available hard drive space

Database Server (separate machine from Web server)

- 2.0 GHz quad core processor or equivalent
- 16 GB of RAM
- 20 GB of available hard drive space (depending on database size)

MET/TEAM Client

- 1.0 GHz Pentium 4 processor or equivalent
- 2 GB of RAM
- Minimum screen/display resolution listed is 1024x768

MET/CAL Client

- 2.0 GHz Pentium 4 processor or equivalent
- 4 GB of RAM
- 6 GB of available hard drive space

The optional General Purpose Interface Bus (GPIB) connects a PC to a programmable instrument. Before installation, make sure that the optional GPIB (IEEE 488) Interface is installed. Fluke Calibration Software only supports GPIB controllers from National Instruments.

You can download hardware drivers from the National Instruments website: http://www.ni.com/support/.

If you plan to use or calibrate National Instruments PXI cards, the PXI chassis must be connected to the workstation computer before the computer is powered on. Also, any time you need to insert or remove cards from the PXI chassis, the workstation computer that the PXI chassis is connected to must be powered off first. For more information, visit the National Instruments website: http://www.ni.com/pxi/.

The Fluke Calibration website contains any information on requirements that may have changed since the Help was updated. Refer to http://us.flukecal.com/ .

MET/TEAM Mobile Requirements

This document briefly outlines the recommended way to configure a MET/TEAM Server installation with the necessary settings for MET/TEAM Mobile to operate properly. This document does not provide detailed information on how to accomplish each step, but indicates what must be done.

Configuring Active Directory

- Create a security group for 'METTEAM Mobile Users'.
- Add user accounts for all MET/TEAM Mobile users to this security group.

This step is ***optional*** but recommended when there will be many MET/TEAM Mobile users and/or the list of MET/TEAM Mobile users will change over time. If there is only a small number of MET/TEAM Mobile users that will not change, you can use individual user accounts instead of a security group.

Configuring the MET/TEAM Server Machine

- Configure the 'metcal' share properties as follows:
  - Share Permissions – Make sure either 'Everyone' (default) or the 'METTEAM Mobile Users' security group (or individual users) is configured with Full Control.
  - NTFS Permissions – Add 'METTEAM Mobile Users' security group (or individual users) and give it Full Control.

Configuring the Main SQL Server® Machine

- MET/TEAM Mobile can be used with either SQL Server® 2008 R2, SQL Server® 2012 or SQL Server® 2014, as long as the mobile machines are using the same version of SQL Server® as the server machine. It does not matter what edition is installed on each machine (i.e. Standard, Enterprise, Express, etc.)
- Make sure SQL Server® is configured to allow remote connections as indicated in the MET/TEAM Installation Guide (TCP/IP protocol enabled, SQL Browser service running, Windows firewall configured, etc.)
- Use SQL Server® Management Studio to create a login for the 'METTEAM Mobile Users' security group (or individual users).
- Either give this login the 'sysadmin' role, or create a user for the 'metteam' database using the 'METTEAM Mobile Users' security group (or individual users) and assign this user the 'db_owner' role.

Note: *The main SQL Server® machine may or may not be the same machine as the MET/TEAM™ Server machine.*

Configuring MET/TEAM Mobile Machines

This process must be repeated on each machine that is intended to run MET/TEAM Mobile.

- MET/TEAM Mobile can be used with either SQL Server® 2008 R2, SQL Server® 2012 or SQL Server® 2014, as long as the mobile machines are using the same version of SQL Server® as the server machine. It does not matter what edition is installed on each machine (i.e. Standard, Enterprise, Express, etc.)
- Install the MET/TEAM Mobile Prerequisites on each computer where MET/TEAM Mobile needs to run. The installer is located on the 'metteam' share on the server (\\<server>\metteam\Installers\Mobile).
- Be sure to follow the instructions for installing SQL Server® on a MET/TEAM Mobile computer exactly as found in the MET/TEAM Installation Guide, including installing SQL Server® as the Default instance (not a named instance) Failure to follow the instructions exactly will prevent MET/TEAM Mobile from working!

- Use SQL Server® Management Studio to create a login for the 'METTEAM Mobile Users' security group in the local SQL Server® instance and give it the 'sysadmin' role (if this was not done during installation of the MET/TEAM Mobile Prerequisites).
- Make sure the SQL Browser service is running. Use SQL Server Configuration Manager to check and/or start this service, if necessary.
- Select Control Panel > User Accounts > Manage User Accounts and add the mobile user's account to this machine. Change the Properties to make this user an Administrator on this machine.
- If MET/CAL is to be run on a MET/TEAM Mobile machine, install the MET/CAL Runtime and/or MET/CAL Editor by running the MET/CAL Client installation on the mobile machine. The installer is located on the 'metteam' share on the server (\\<server>\metteam\Installers\METCAL).

MET/TEAM and Windows Authentication

Using Windows Authentication causes MET/TEAM to bypass the MET/TEAM Log-In screen. The following requirements must be met to use the Windows Authentication with MET/TEAM.

1. You must configure IIS to support the correct type of authentication.
2. You must activate the System Default *Login – Use Windows Authentication*.
3. You must match the MET/TEAM username to the person's Windows username.

Configure IIS (Windows Authentication)

Configuring IIS as described below, will allow all major browsers to handle NTLM authentication and to automatically log you in.

- Open IIS
- Find your site in the list
- Double click "Authentication"
- Disable *Anonymous Authentication*
- Disable *Form Authentication*
- Disable *ASP.NET Impersonation*
- Disable *Basic Authentication*
- Enable *Windows Authentication*
  - Under "Advanced Settings"…
    - Verify that "Enable Kernel-mode authentication" is selected
    - Make sure the "Extended Protection" setting is set to "Off" if using MET/CAL
- Close IIS

With this setting enabled, MET/TEAM will require browsers to do a windows NTLM negotiation before accessing the website.

Note: *All client computers will have to be on the associated domain to access MET/TEAM.*

Activating System Default Login – Use Windows Authentication

The Windows System Defaults are found under the Configure menu System Defaults submenu. The Find System Defaults screen is opened. Locate the *Login – Use Windows Authentication* System Default. Activate by checking the Active checkbox and saving.

MET/TEAM Usernames

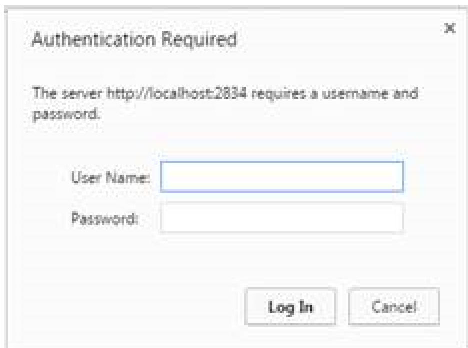
When Windows Authentication is active, MET/TEAM users must be setup with their Windows username as the MET/TEAM Username on the MET/TEAM User screen. Use the Setup menu Users submenu to enter the person's Windows username in MET/TEAM.

QC Approved By and Windows Authentication

When Windows Authentication is active, MET/TEAM QC Approved By field require the user's Windows password to be enter. Not the user's MET/TEAM password.

Chrome Browser and Windows Authentication

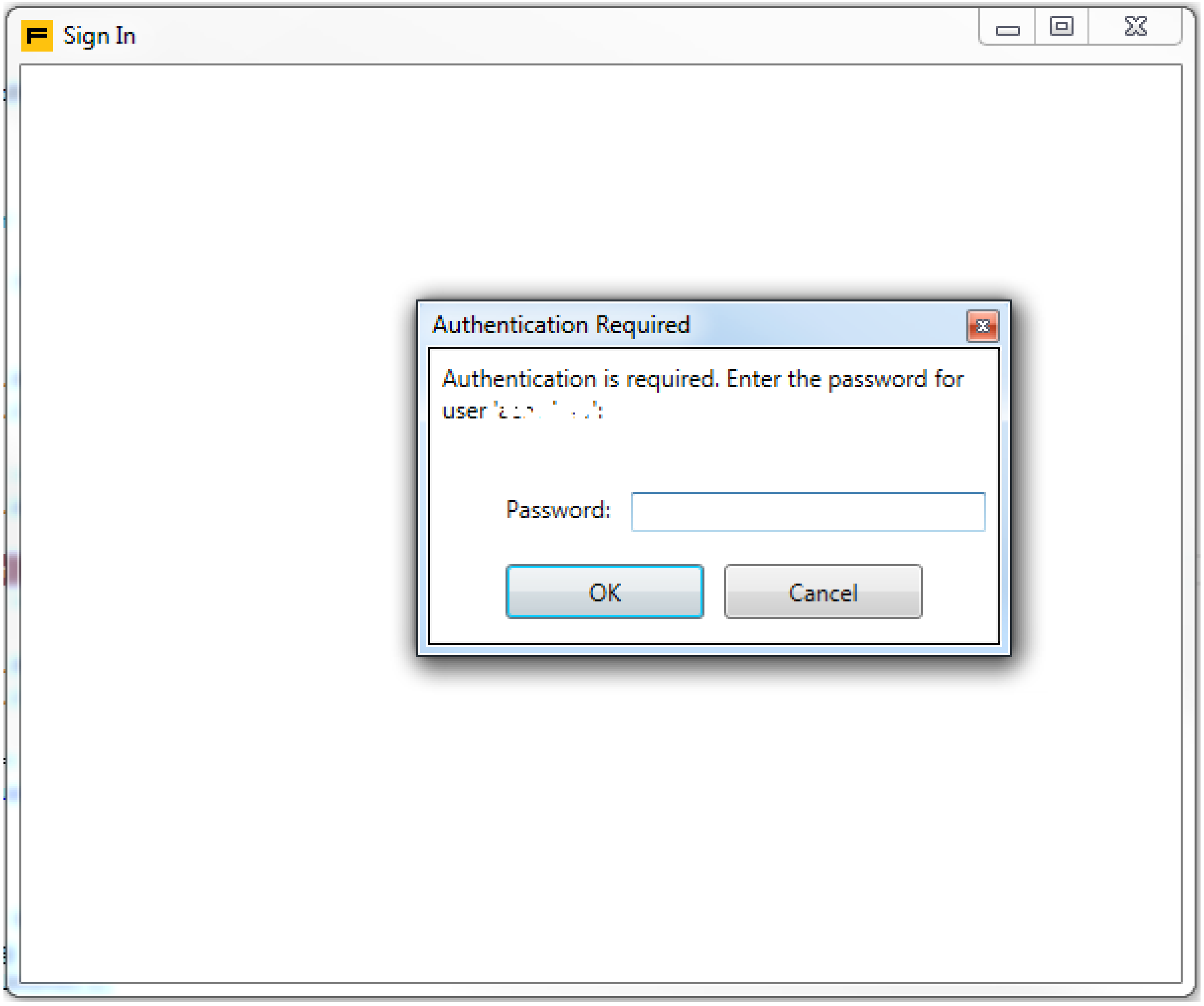
When using the Chrome browser and Windows Authentication, you are required to complete the "Authentication Required" dialog by entering your Windows credentials. This dialog is only displayed the first time.



MET/CAL and Windows Authentication

The metcal.ini file contains an entry for the MET/TEAM URL. This URL typically consists of the name of the server and the port, although it could be the fully qualified domain name (FQDN) and port or it could be the server's IP address and the port.

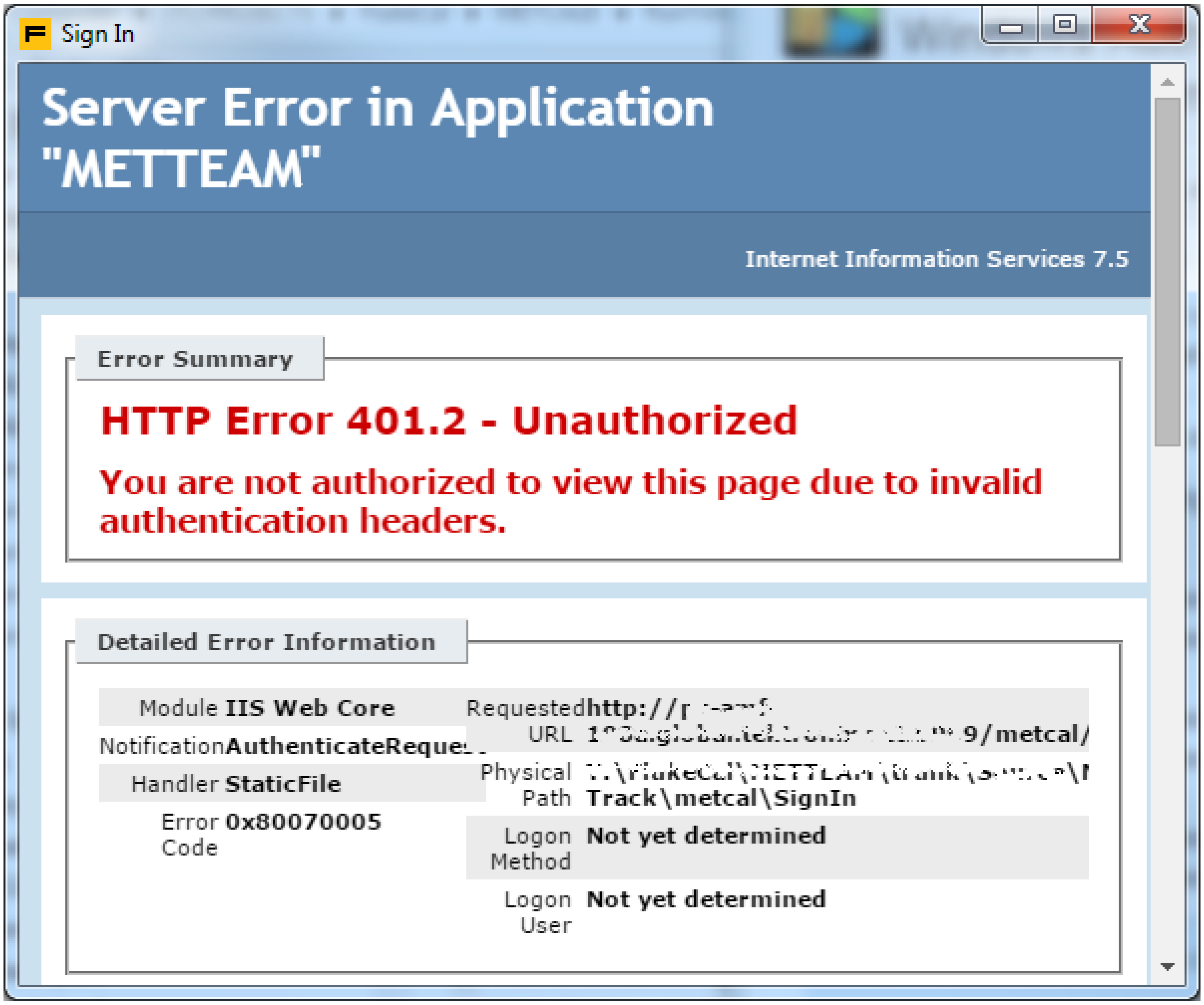
MET/CAL uses a Chrome based browser to access MET/TEAM web pages. For this reason, when the MET/TEAM URL includes a FQDN or IP address, you will be prompted to enter the Windows password for the current Windows user.



Because MET/CAL does not attempt to cache this password, it must be entered every time MET/CAL is launched, including when being launched from a MET/TEAM Work Order.

To avoid this authentication prompt, change the MET/TEAM URL in the metcal.ini file to use only the server's name and port only (i.e. http://myserver:35853). Using this shortened URL should work, unless you are attempting to run MET/CAL over a VPN connection or in other specific situations.

Clicking Cancel on this authentication dialog will abort the login process and display an HTTP Error 401.2 message in the Sign In window. Simply close this window by clicking the red "X" in the upper right corner.



MET/TEAM Security

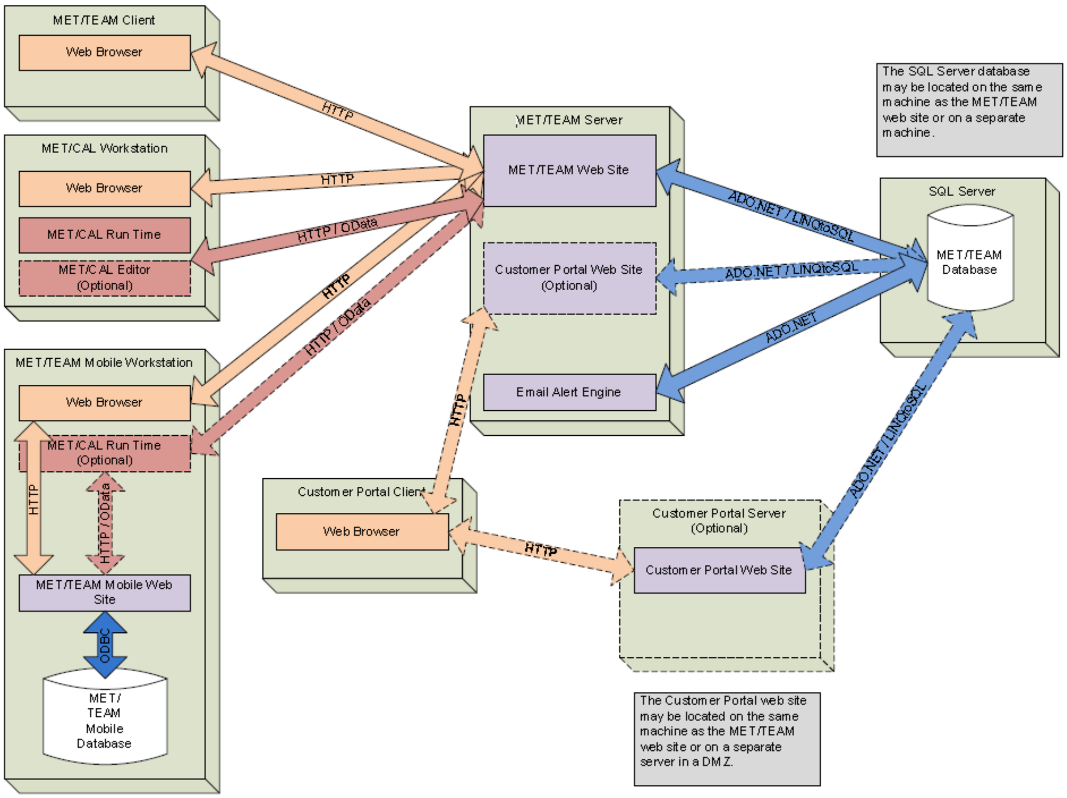
For security questions related to product installation, refer to the Fluke Calibration Software Installation Guide. This guide explains the required security needed related to installation.

MET/TEAM requires each user to have a password. However, MET/TEAM does not employ password policies.

MET/TEAM Architecture

The following diagram shows the software architecture.

MET/TEAM Architecture



Localization

The MET/TEAM Installation and MET/TEAM application support (via string translations and data input) the following languages: English, German, French, Chinese (Simplified), Japanese, Portuguese, Spanish, Russian, and Italian.

When a calibration via MET/CAL is performed from within MET/TEAM, the browser language setting is passed down, so that the MET/TEAM screens presented within MET/CAL use the same setting. The last browser language used in MET/CAL is memorized in metcal.ini, so that when MET/CAL is launched from the desktop, it is applied as well. To manually choose a browser language for running MET/CAL from the desktop set the “browserLanguage” setting in the [StartUp] section to one of the following:

browserLanguage=de	German
browserLanguage=en	English
browserLanguage=es	Spanish
browserLanguage=fr	French
browserLanguage=it	Italian
browserLanguage=ja	Japanese
browserLanguage=pt-BR	Portuguese
browserLanguage=ru	Russian
browserLanguage=zh	Chinese

MET/TEAM allows displaying using other Browser Language Date and Number formats as listed below.

Note*: The official locale files supported via string translations and data input are highlighted in bold red italicized font. These files have been tested.*

Although the non-official local files have been tested by whoever created them, Fluke has not thoroughly tested all of them. See the column "Tested by Fluke". If you see a problem with one of the non-official language files, please contact softwaresupport@flukecal.com.

Code	Locale	Tested by Fluke
af	African	
am	Amheric (Ethiopia)	
bg	Bulgarian	
ca	Catalan	
cs	Czech	
da	Danish	
de	***German***	
el_Gr	Greek	
en	***English***	
en_AU	English (Australia)	
en_CA	English (Canada)	
en_GB	English (United Kingdom)	
en_IE	English (Ireland)	X
en_IN	English (India)	
en_NZ	English (New Zealand)	X
es	***Spanish***	
fa	Farsi	
fi	Finnish	
fr	***French***	
fr_CA	French (Canada)	
gr	Greek	
he	Hebrew	
hr	Croatian	
hu	Hungarian	
id	Indonesian	
it	***Italian (Standard)***	
ja	***Japanese***	
ko	Korean	
lt	Lithuanian	
lv	Latvian	
mk	FYRO Macedonian	
nl	Dutch	

no_NB	Norwegian, Bokmal (Norway)	
no_NN	Norwegian, Nynorsk (Norway)	
pl	Polish	
pt	Portuguese	
pt_BR	***Portuguese (Brazil)***	
pt_PT	Portuguese (Portugal)	
ro	Romanian	
ru	***Russian***	
sk	Slovak	
sl	Singhalese	
sr	Serbian	
sr_RS	Serbian (Serbia)	
sv_SE	Swedish (Sweden)	**X**
th	Thai	
tr	Turkish	
ukr	Ukrainian	
vn	Vietnamese	
zh_CN	***Chinese (Simplified, PRC)***	
zh_TW	Chinese (Taiwan)	

Installing MET/TEAM

Refer to the Installation Guide for installation information.

Backing Up a SQL Server® Database

For information on scheduling and automating the backup of your SQL Server® database, refer to the following link.

http://support.microsoft.com/kb/2019698

Restoring a MET/TEAM Database

Outline

This section outlines the process of restoring a SQL Server® database backup file for MET/TEAM. This process should be followed for setting up a migrated MET/BASE database for MET/TEAM or when performing disaster recovery following a system failure.

When setting up a migrated MET/BASE database, a link will be provided to download the MET/TEAM database archive file. Download the file and save it to a local directory. Extract the .bak file from the downloaded archive file to a local directory on the machine where SQL Server® is installed before proceeding.

Always ensure the database is compatible with the version of MET/TEAM installed on PC. Otherwise, unexpected behavior may result.

Process

1. Make sure all users are logged out of the MET/TEAM, MET/TEAM Customer Portal, and MET/TEAM Email Alerts web sites.

2. Stop the MET/TEAM web sites.
    a. Click the Start button and select Control Panel > Administrative Tools > Internet Information Services (IIS) Manager. If Administrative Tools does not appear in the Control Panel window, change the **View by setting** in the upper right corner to Large icons or Small icons.
    b. Expand the nodes in the Connections pane on the left until you see the METTEAM items under Sites.
    c. Select the METTEAM item.
    d. On the far right pane, click the Stop link in the Manage Web Site section.
    e. Repeat this for the METTEAM Customer Portal and METTEAM Email Alerts sites.
    f. Leave the Internet Information Services (IIS) Manager window open as (IIS) will needed later to start the web sites.
3. Delete the current MET/TEAM database.

WARNING: Deleting the existing *metteam* database permanently wipes out all data in the database! Do not proceed without first backing up the current database unless the current database does not contain critical data that is not found in the backup being restored!

    a. Launch **SQL Server® Management Studio** and connect to the server. This shortcut is typically found in **All Programs > Microsoft SQL Server 2008 R2**.
    b. In the left pane, expand the **Databases** node.
    c. Right-click the *metteam* database and select **Delete** from the popup menu.
    d. On the Delete Object screen, check the Close existing connections checkbox at the bottom of the screen and click OK to delete the database.
4. Restore the backup of the migrated MET/TEAM database.
    a. In **SQL Server® Management Studio**, right-click the **Databases** node and select **Restore Database**.
        i. On the Restore Database screen, enter *metteam* in the To database box.
        ii. Select the **From device** option and click the "…"button.
            1. On the Specify Backup screen, select the File option.
            2. Click the Add button.
                a. On the Locate Backup File screen, navigate to the directory where the .bak file is located, select the file and click OK.
            3. Click OK on the Specify Backup screen.
        iii. On the Restore Database screen, check the box in the **Restore** column in the grid and click OK.
5. Close **SQL Server® Management Studio**.
6. Start the MET/TEAM web sites.
    a. In the **Internet Information Services (IIS) Manager** window, select the *METTEAM* item under the **Sites** node.
    b. On the far right pane, click the **Start** link in the **Manage Web Site** section.
    c. Repeat this for the *METTEAM Customer Portal* and *METTEAM Email Alerts* sites.
7. Close the **Internet Information Services (IIS) Manager** window
8. Launch the MET/TEAM web site and log in using one of your user accounts.

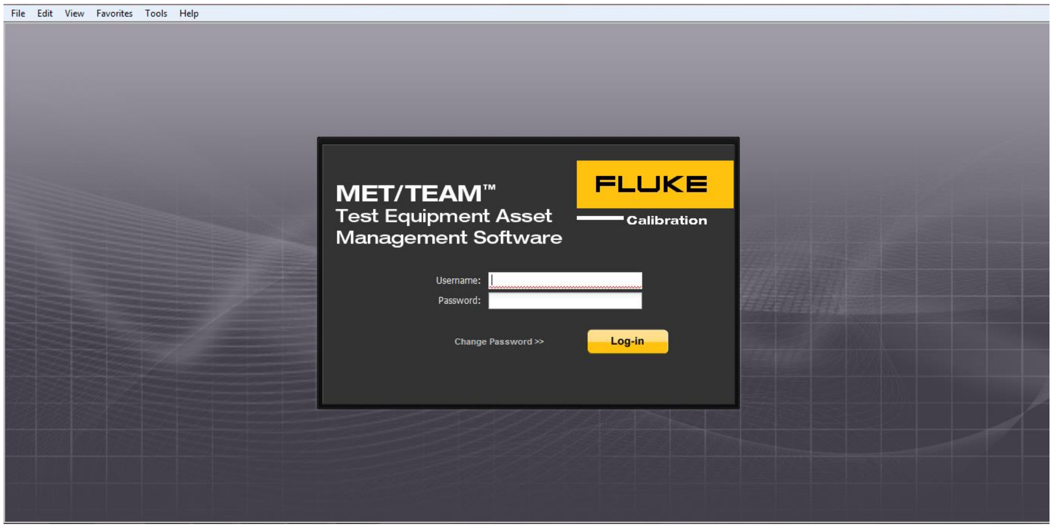
Log-In

MET/TEAM can be configured to use Windows Authentication when logging in. By default, this feature is inactive until a System Administrator activates the System Default *Login – Use Windows Authentication*.

To begin using MET/TEAM, you must know the URL for the MET/TEAM server that you will be connecting to. After you have entered the URL into a Web browser, either the main MET/TEAM screen (Windows Authentication active) or the MET/TEAM Log-In screen (Windows Authentication inactive) is displayed.

Windows Authentication Not Active

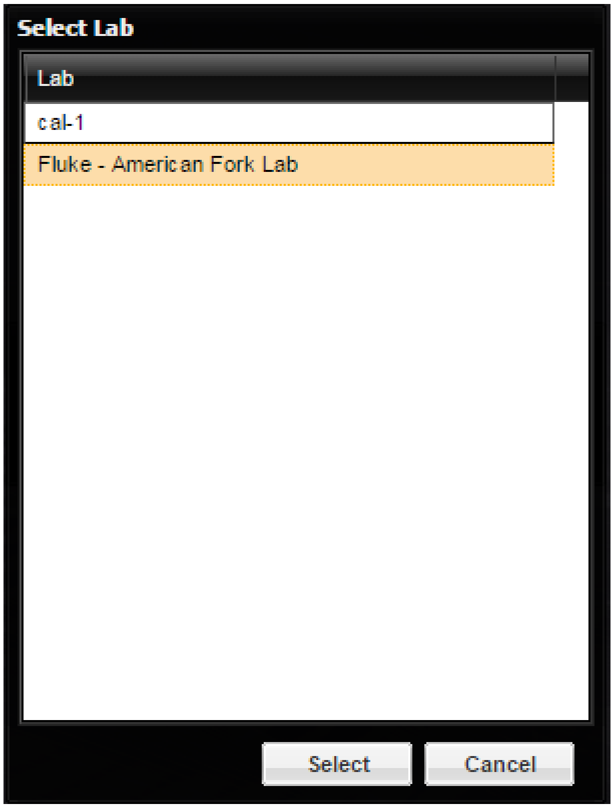
When Windows Authentication is not active, the MET/TEAM Log-In screen is displayed when the MET/TEAM icon is selected from the user's desktop or the URL is entered into a Web browser.



To login, enter your username and then enter your password. These should have been assigned to you by the Administrator of your MET/TEAM site. If you are the Administrator, you begin by entering in the Administrator username and password and then use the Setup menu Users submenu to add users. Refer to the MET/TEAM Installation Guide for the default Administrator username and password.

Select the Log-in button. If you are not assigned to multiple Labs, the main MET/TEAM screen is displayed

If you are assigned to multiple Labs, the Select Lab screen is displayed with your default Lab highlighted.



- Press the Select button to continue to the main MET/TEAM screen logging in to the default Lab.
- Highlight a different Lab and then press the Select button to continue to the main MET/TEAM screen logging into a Lab other than your default Lab.
- Press the Cancel button to return to the Log-In screen.

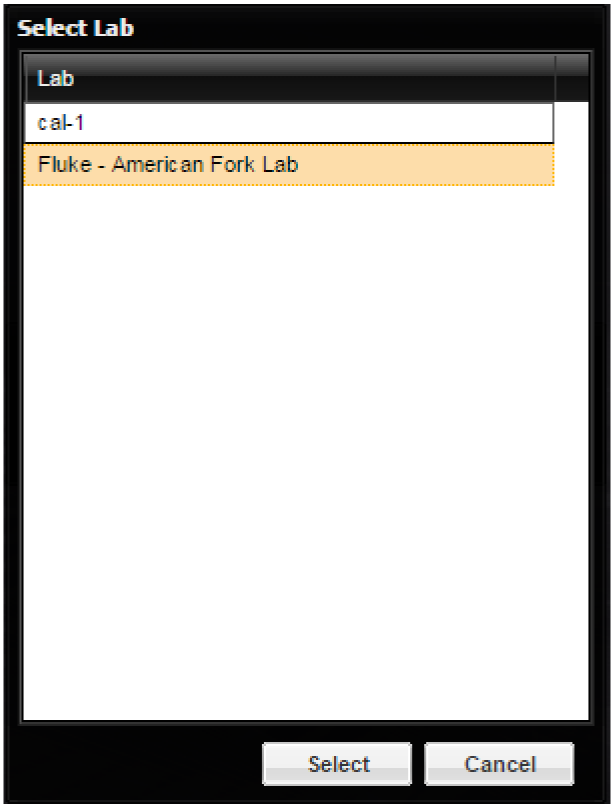
Windows Authentication Active

When Windows Authentication is active, the MET/TEAM Log-In screen is ***not*** displayed when the MET/TEAM icon is selected from the user's desktop or the URL is entered into a Web browser.

Note: *When Windows Authentication is active, MET/TEAM users must be setup with their Windows username as the MET/TEAM Username on the MET/TEAM User screen (Setup menu Users submenu).*

If you are not assigned to multiple Labs, the main MET/TEAM screen is displayed

If you are assigned to multiple Labs, the Select Lab screen is displayed with your default Lab highlighted.



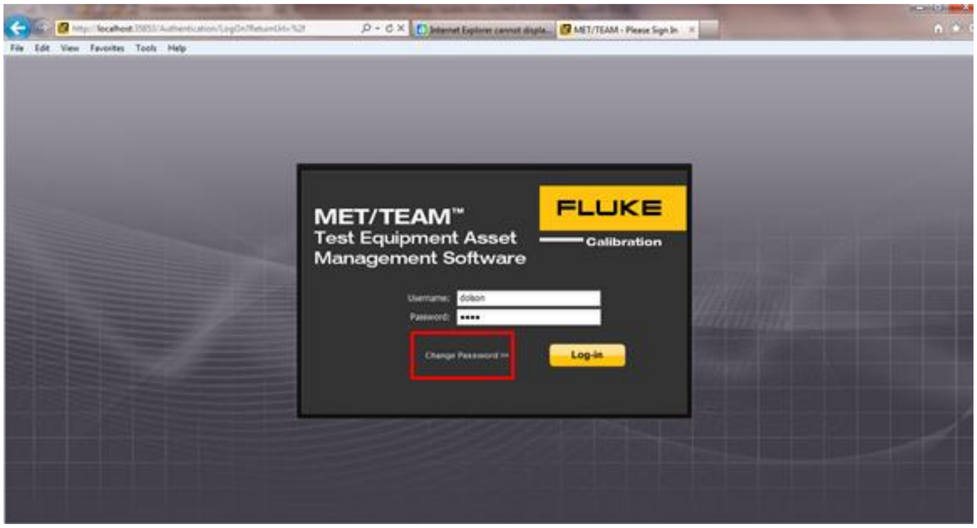
- Press the Select button to continue to the main MET/TEAM screen logging in to the default Lab.
- Highlight a different Lab and then press the Select button to continue to the main MET/TEAM screen logging into a Lab other than your default Lab.
- Press the Cancel button. You are prompted to close the browser. Selecting Yes causes the browser to try and close the browser tab. Based on your browser security settings, this will not always work. In the case that your browser prevents this action, the tab is left in a clean state and may be manually closed. Selecting No, leaves the browser in a clean state ready to be manually closed.

Logging Out when Windows Authentication is Active

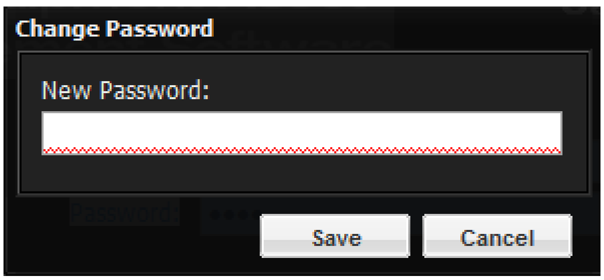
When you log out of MET/TEAM, your user license is released and all resources are cleaned up. You are prompted to close the browser. Selecting Yes causes the browser to try and close the browser tab. Based on your browser security settings, this will not always work. In the case that your browser prevents this action, the tab is left in a clean state and may be manually closed. Selecting No, leaves the browser in a clean state ready to be manually closed.

Change Password from Log-In

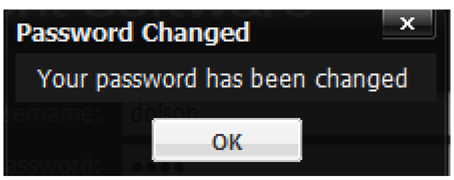
To change your password from the Log-In screen, enter your username and your current password. Hover over and select the words “Change Password >>”.



The Change Password screen is display.



Type in the new password and select Save. A prompt is displayed stating that your password was successfully changed. There are no minimum or maximum length requirements for passwords.



You are returned to the Log-In screen. Type your new password in and select the Log-In button.

Licensing

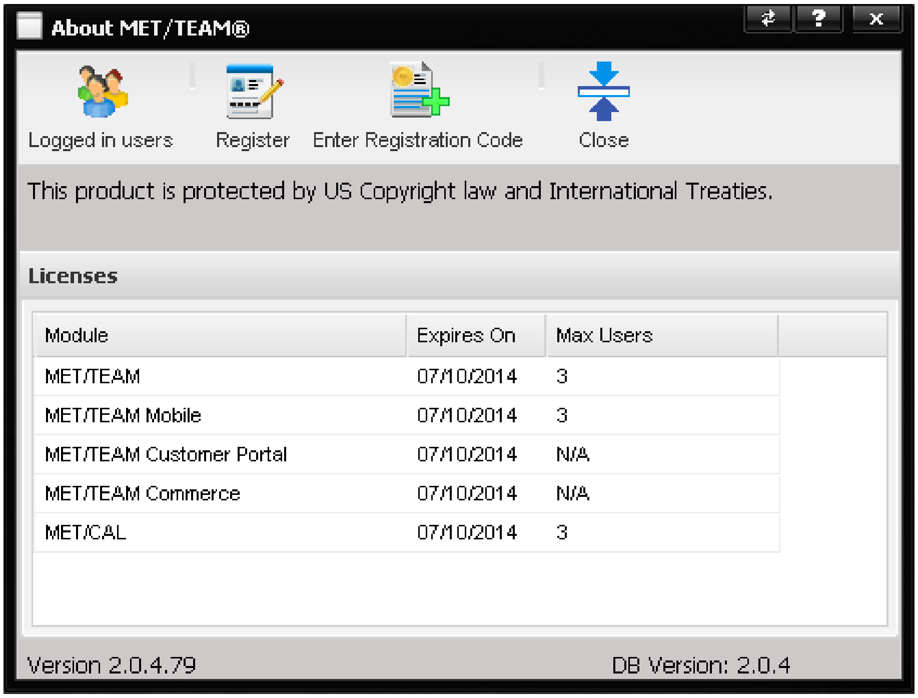
The MET/TEAM application defaults to a Trial license which consists of 3 user licenses for MET/TEAM, MET/TEAM Mobile, and MET/CAL. The MET/TEAM Commerce module is enabled. The Trial license is valid for 60 days.

We may update the licensing information, out of sync with the Help. To view updated licensing information, refer to https://flukecorporation.zendesk.com/hc/en-us/articles/202937264-How-to-request-and-apply-License-s-for-MET-TEAM

To view, request, or apply licenses, use the Help -> About menu option.

About

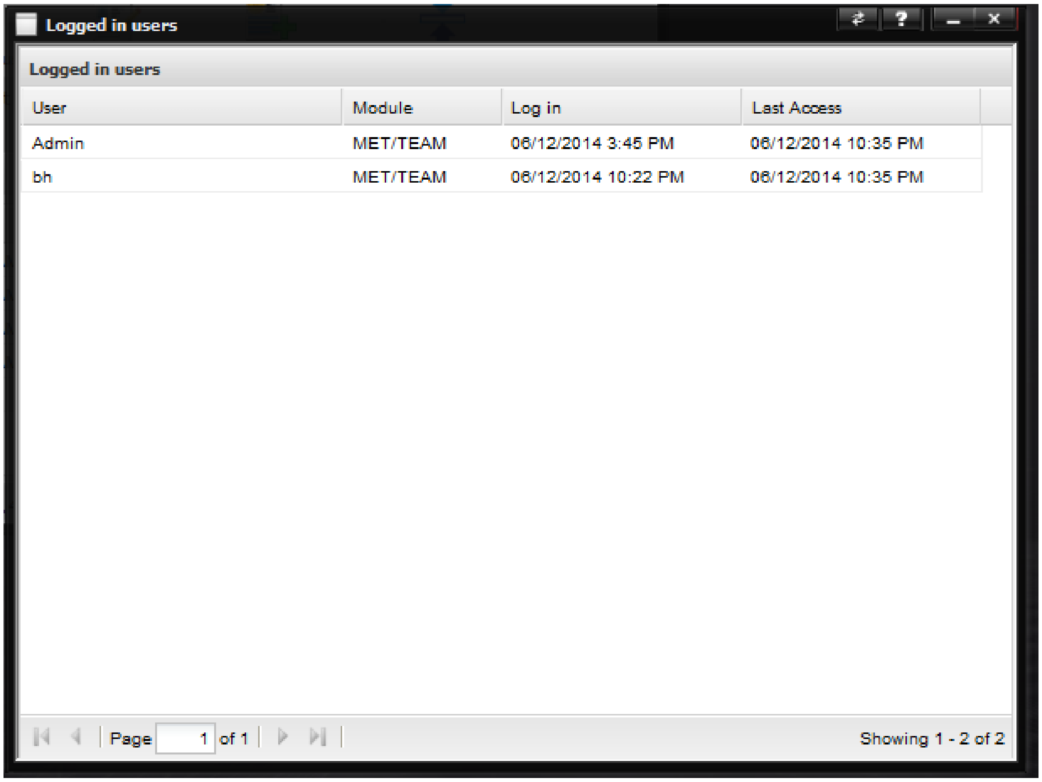
The About MET/TEAM dialog allows the user to view Logged in Users, process a license registration request, or apply a license registration request.



- **Logged in Users** – Displays a list of all users currently logged into applications licensed within MET/TEAM.
- **Register** – Used for entry of registration data and creates the license registration request.
- **Enter Registration Code** – Used for entry of the license request once it is returned via email to the requesting user

Logged in Users

The Logged in Users dialogs displays the users that are currently logged in, the module the user is logged into, the date and time of sign-in and the date and time of last access (when the user last performed an action).

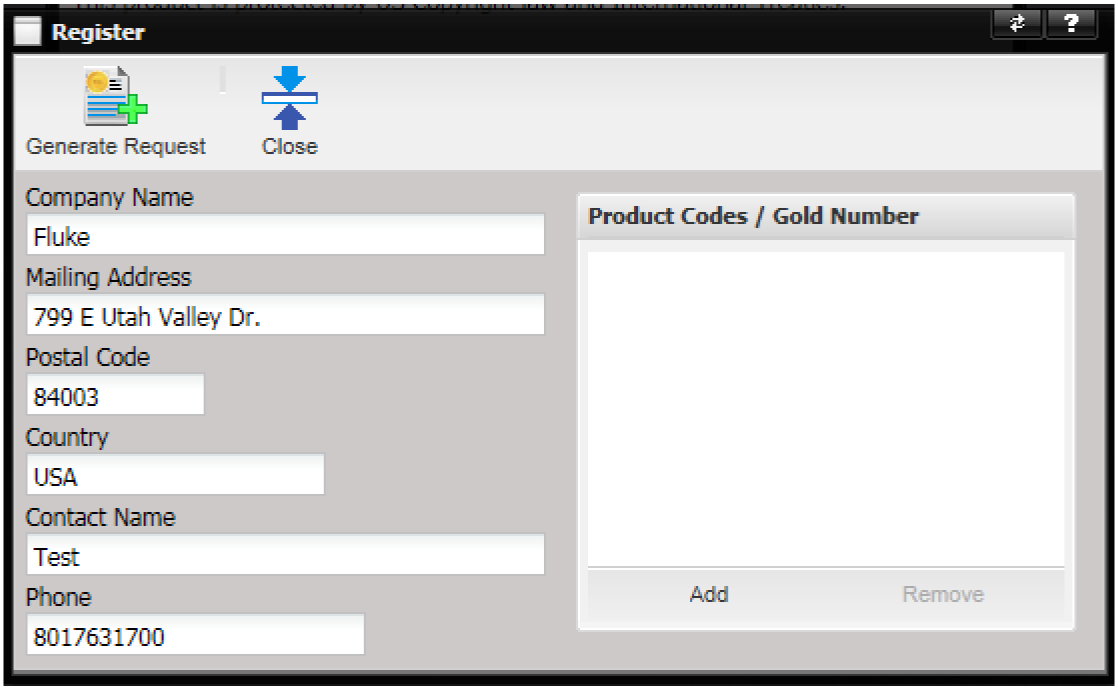


A user can be forcibly logged off by an administrator by right-clicking on a row in the grid and selecting Log Off from the popup menu. When a user is forcibly logged off, the license is released. Use this feature with extreme caution as it will prevent the logged off user from saving their work!

***Note**: This process can also be used to release a MET/TEAM Mobile or MET/CAL license. Be aware that releasing a MET/TEAM Mobile license in this way prevents the MET/TEAM Mobile instance from being able to perform a Check-In, and releasing a MET/CAL license forces an active MET/CAL user to have to log in again before any work can be saved! It is recommended that this feature only be used when absolutely necessary.*

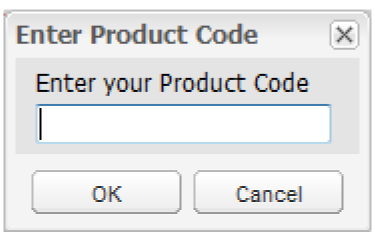
Register

The Register dialog contains information related to the user that is necessary for submitting a license registration request. The user is prompted for Company Name, Mailing Address, Postal Code, Country, Contact Name, and Phone.

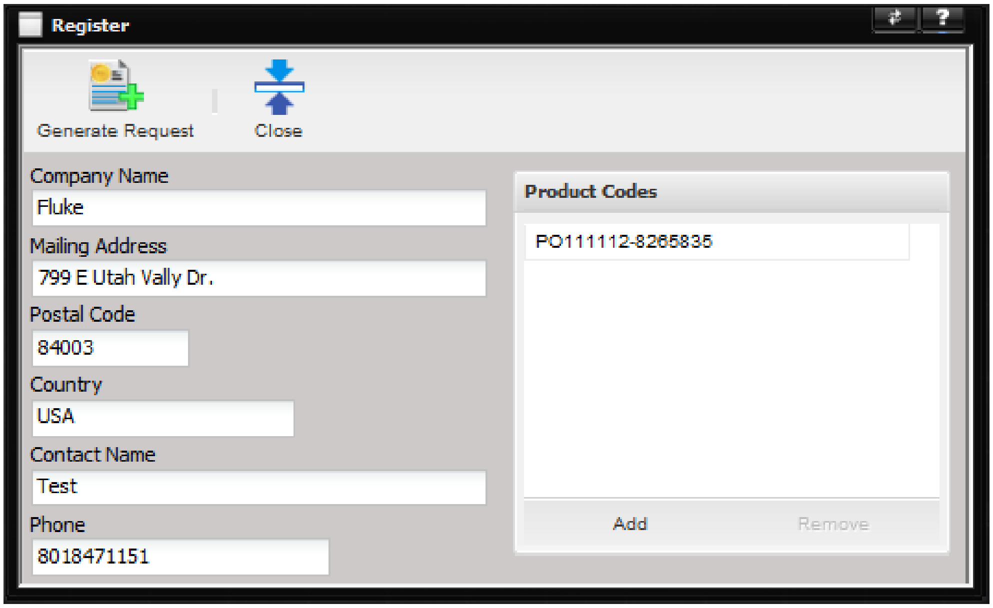


The user then selects the Add button to enter one or multiple product codes and/or their Gold Membership number. Each product code must be entered one at a time.

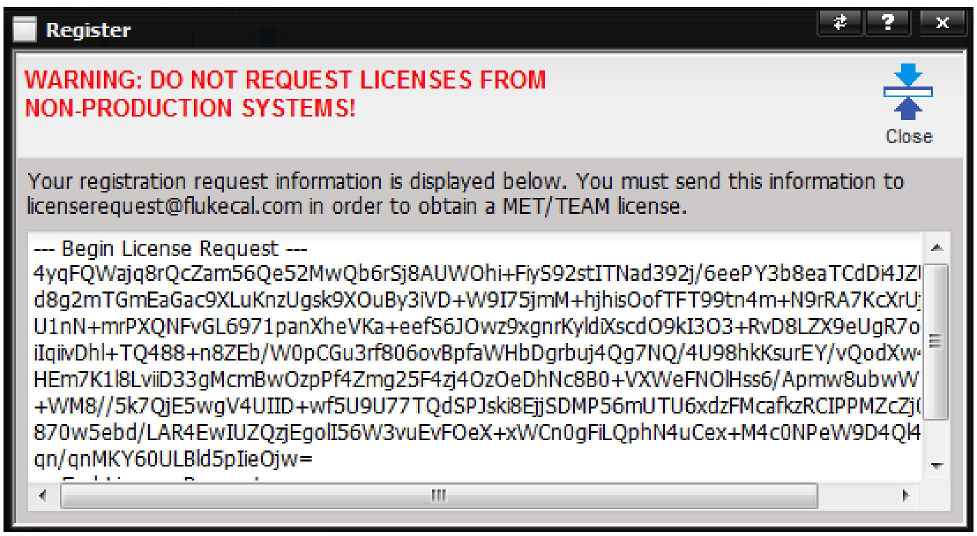
***Note:** Product Codes are shipped to the address on the purchase order at the time of purchase. If you do not have product codes, please contact your purchasing agent.*



For first time registration, include your Gold Membership number and all product codes in the request. At a later time, if you need to register again, the Gold Membership number can be used.

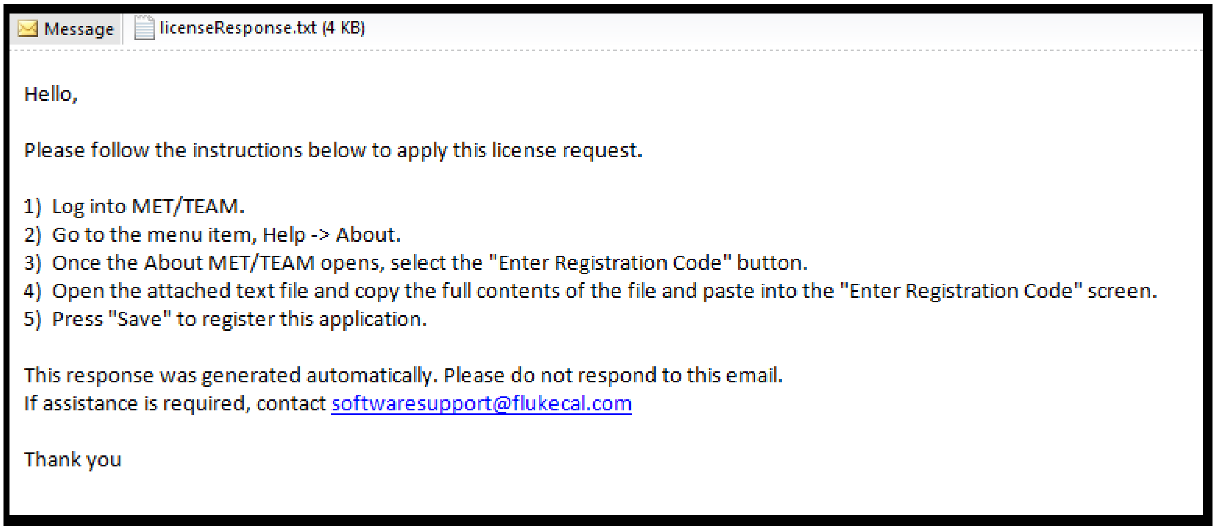


When the Generate Request button is selected, the information provided by the user is translated into a License Request. The Register screen is displayed with the license request displayed.



Copy the information exactly as is into the body of an email, including the ---Begin License Request --- and --- End License Request --- tags, addressed to licenserequest@flukecal.com. Do not add additional information to the license registration request.

Once your license request is processed and assuming the license request information was valid, you will receive an email reply from licenserequest@flukecal.com.


Message licenseResponse.txt (4 KB)

Hello,

Please follow the instructions below to apply this license request.

1) Log into MET/TEAM.
2) Go to the menu item, Help -> About.
3) Once the About MET/TEAM opens, select the "Enter Registration Code" button.
4) Open the attached text file and copy the full contents of the file and paste into the "Enter Registration Code" screen.
5) Press "Save" to register this application.

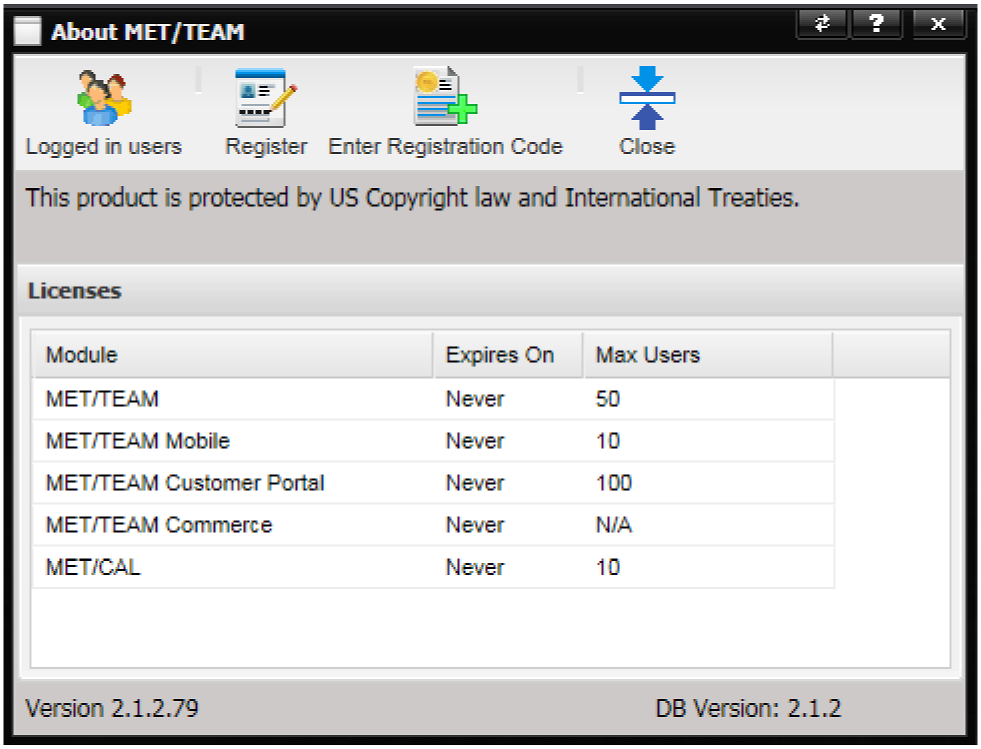
This response was generated automatically. Please do not respond to this email.
If assistance is required, contact softwaresupport@flukecal.com

Thank you

Enter Registration Code

To apply the license request, select the Enter Registration Code button on the About MET/TEAM screen. Paste the entire license response information from the email text file attachment that you received, into the box on the Enter Registration Code dialog and select the Save button. The licenses are applied and the About MET/TEAM dialog is updated.

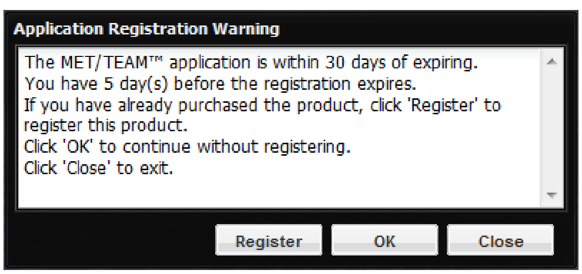
WARNING: Applying licenses immediately forces all users to disconnect from MET/TEAM, including the login being used to apply the licenses! This can potentially cause a loss of data! Before applying licenses to MET/TEAM, make sure all users are notified to save all changes and log off.

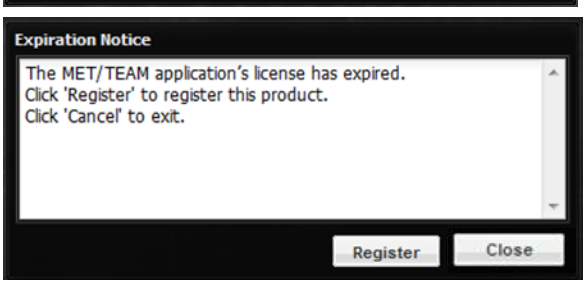


The About MET/TEAM dialog now reflects the licenses that were just applied to the system. The above screen shot should pr

License Expiration

If you are using a TRIAL license, eventually you will receive the Expiration Notice dialog upon log in if MET/TEAM has not been licensed. At this time, MET/TEAM must be purchased to continue to use the application. Thirty days prior to the license Expiration Notice, you will receive the Application Registration Warning.





- **Register** – Displays the Register dialog for entering user information to register the product.
- **OK** – Continues with the Log-In process displaying the MET/TEAM main screen with the menu across the top
- **Close** – Closes the browser instance that MET/TEAM started

Open Source Location

The root folder of the distribution media contains a PDF file that indicates copyright information for all of the open source libraries used by the software. In addition, there is a folder on the media called \OpenSource that contains a copy of the license agreements and source code (where applicable) for all of the open source libraries used by the software. Open source license agreements can also be found in the same folders as the binaries after the installation is complete.

Training Videos

Videos are available on various topics to assist with training and understanding of MET/TEAM. At the time of publishing this Help, the following were available. Videos continue to be added, please see this link to view available videos.

- How to make an import definition for Assets
- How to make a page read only
- How to configure for a new certificate report
- How to configure a combo list
- How to add a MET/CAL procedure to a type of device in MET/TEAM software
- High level using MET/CAL with MET/TEAM software
- How to use an import definition for Assets
- Update Crystal Report connection information
- Set up default value functionality

MET/TEAM Software Overview

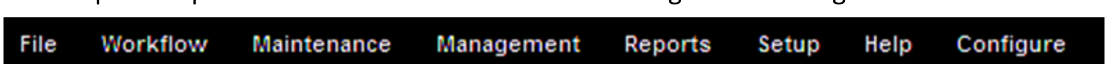
MET/TEAM is a browser-based calibration Asset management software solution. MET/TEAM Email Alerts and the combination of optional modules: MET/TEAM Commerce, MET/TEAM Mobile, MET/TEAM Customer Portal, work with MET/TEAM to form an enterprise data solution from the mobile user to the data warehouse. The MET/TEAM Commerce module provides capability to perform quoting, billing, and invoicing.

The MET/TEAM application blends knowledge, expertise, and technology to provide a solution suitable for large and small business needs. MET/TEAM also interfaces with industry-leading MET/CAL calibration runtime software, providing a complete software solution for calibration and Asset management needs. Processes exist for converting data into MET/TEAM.

MET/TEAM's flexible interface can be modified to use terms and labels that are already common to the user without the expense of customization. In addition, trained power users can use customer terms to define labels, grid contents, and drop down lists. MET/TEAM can track additional data elements, required by the customer, and respond to defined business practices through custom validations.

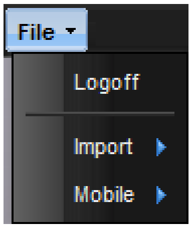
Main Menu

The MET/TEAM menu contains all the options for performing operations within the application. The majority of the menu options open to the Find screen for both searching and selecting a data element or adding data element.

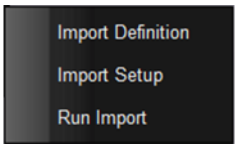


File Menu

The File menu is used for logging off, importing data, and initiating Mobile Check In or Check Out.

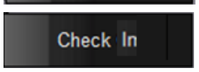


- **Logoff** – Allows the user to log off without exiting MET/TEAM.
- **Import** – Allows importing of data into MET/TEAM.

  Import Definition – Creates an import definition data file.
  Import Setup – Creates a new import setup file.
  Run Import – Processes the data to be imported using the import definition file and import setup file.
- **Mobile** – This menu item is only available when valid licenses exist for MET/TEAM Mobile.

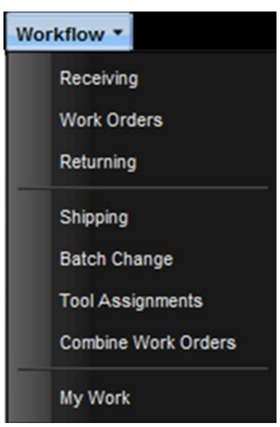
  

  or
  

  Check In – With MET/TEAM Mobile the user can check in data collected or modified while working on site (If not visible, data is currently checked in). This menu option only appears when running a Mobile instance of MET/TEAM.
  Check Out – With MET/TEAM Mobile the user can check out data for the maintenance facility and go on site working as a standalone member of the maintenance facility (If not visible, data is currently checked out). This menu option only appears when running a Mobile instance of MET/TEAM.

Workflow Menu

The Workflow menu is used for initiating and processing Work Orders, batch changing Work Orders, tracking locations of Assets that have been loaned to others, and track technician time.



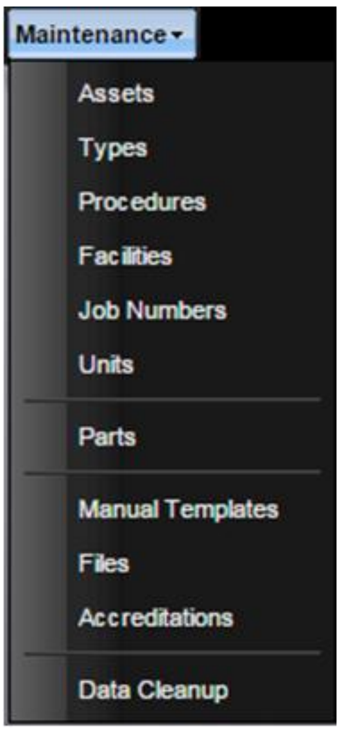
- **Receiving** – Used to receive Assets into the maintenance facility by creating work orders. The receiving process is a batch process allowing for quick and efficient induction of equipment into the maintenance facility.
- **Work Orders** – Used to collect and process maintenance data and actions against open Work Orders.
- **Returning** – Used to close open Work Orders for Assets that have had maintenance completed.

Note: This action will make the Work Order process a history event.

- **Shipping** – Used to ship Assets and other items to facilities.
- **Batch Change** – Used to change multiple Work Orders at one time. Log notes can be added, Work Orders can be subcontracted or QA approvals can be done.
- **Tool Assignments** – Used to track the process of loaning Assets to contacts. Provides a complete history for both Assets and contacts.
- **Combined Work Orders** – Used to combine Work Orders.
- **My Work** – Used by a technician to add or modify their time and view assigned Work Orders.

Maintenance Menu

The Maintenance menu is for creating, editing, and managing Assets, customers, job numbers, manual templates, files, accreditations, and data cleanup.

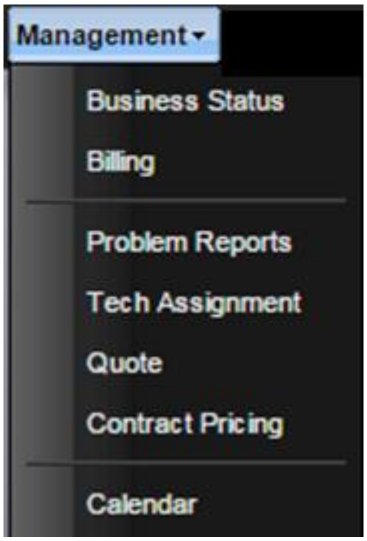


- **Assets** – Used to add, edit, delete and manage Assets. Assets are individual pieces of equipment that are derived from Types.
- **Types** – Used to add, edit, delete and manage types. Types are general characteristics of an object, like catalog items.
- **Procedures** – Used to add, edit, delete and manage procedures. Procedures are the instructions used for performing actions.
- **Facilities** – Used to add, edit, delete and manage facilities. Facilities are any entities such as customers, manufacturers, sub-contractors, and labs.
- **Job Numbers** – Used to add, edit, delete and manage job numbers. Job numbers (P.O. numbers) are funding lines of credit attached to one or more facilities.
- **Units** – Used to add, edit, delete, and manage prefix and base units.
- **Parts** – Used to add, edit, delete and manage parts.
- **Manual Templates** – Used to create and modify templates where manual data point collection will be entered.

- **Files** – Used to add external files to MET/TEAM. These files can be referenced or attached to maintenance events. These files are stored in the database removing any external management.
- **Accreditations** – Allows the user to enter Accreditations or Traceability information referenced by maintenance events.
- **Data Cleanup** – Used to consolidate records that are considered duplicates and to delete record that are marked for deletion but have not been removed from the database.

Management Menu

The Management menu is for managing the business and performing financial tasks.



- **Business Status** – Facility managers use this dialog to manage and review many aspects of the Facility and its workload. Use this function to identify opportunities within the Service Facility.
- **Billing** – Used to generate invoices for customers.

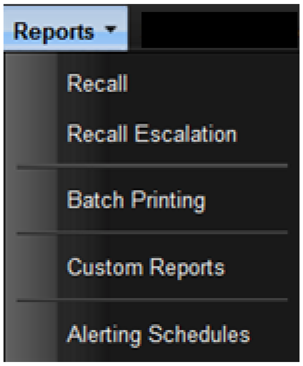
  Note: *Enabled when valid MET/TEAM Commerce module licenses exist.*
- **Problem Reports** – Used to document and track issues in the Facility that may be incorrect or need improvement. Typically, a problem is reported by a technician for a procedure or a type and the follow-up is done by a manager or QA person.
- **Tech Assignment** – Used to assign, un-assign, and modify Work Orders to technicians. Combined with standard hours, this interface displays how much work each technician has been assigned ensuring a complete day's work.
- **Quote** –Used to create quotes for customers based on Types.

  Note: Enabled when valid MET/TEAM Commerce module licenses exist.
- **Contract Pricing** –Used to manage contract pricing for customers.

  Note: *Enabled when valid MET/TEAM Commerce module licenses exist.*
- **Calendar** – Used by the facility to track facility wide appointments and tasks.

Reports Menu

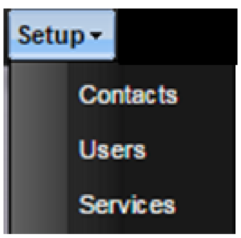
The Reports Menu is for perform recalls, batch cert printing, and printing custom reports.



- **Recall** – Used to review and produce customer recall reports. The recall process allows selecting Assets by date range, customer, department and physical location.
- **Recall Escalation** – Used to manage, configure, create and e-mail automated recall reports.
- **Batch Printing** – Generate certificates, work sheet reports or stickers for multiple work orders at once. Output to combined PDF or compressed archive of individual PDFs.
- **Custom Reports** – Unlike system reports, these are not tied to a particular screen; parameters are prompted for at run time.
- **Alerting Schedules** – Used to create and manage email alerts sent to Contacts.

Setup Menu

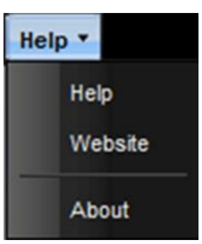
The Setup Menu is for adding and editing users, contacts, and services.



- **Contacts** – Used to add, edit, delete and manage contacts. Contacts are not users of MET/TEAM. Contacts are people needing to be referenced as a customer contact. Contacts are also used for the Tool Assignment screen and MET/TEAM Customer Portal. Contacts are typically related to a facility, but this is not required.
- **Users** – Used to add, edit, delete and manage users.
- **Services** – Used to add, edit, and delete service types that are performed and tracked in MET/TEAM.

Help Menu

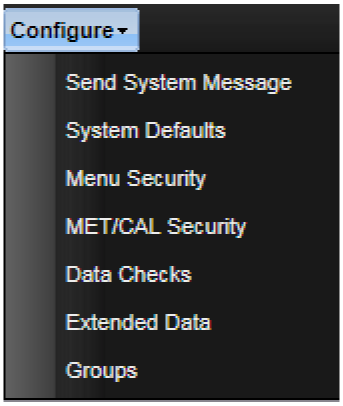
The Help Menu is for searching Help, going to the Website, and processing licenses.



- **Help** – Displays the MET/TEAM Help system. Topics can be searched on or looked up in the Table of Contents.
- **Website** – Links you directly to the website defined in the “HelpWebsite” system default.
- **About** – Displays license information, allows users to update their licensing information, and view logged in users.

Configure Menu

The Configure Menu is only available for users that are in the Administrator or Configure group.



- **Send System Message** – Sends message to every logged in user in MET/TEAM.
- **System Defaults** – Used to add, edit, delete and manage system defaults.
- **Menu Security** – Used to configure security for MET/TEAM menu items.
- **MET/CAL Security** – Used to configure security for MET/CAL SETUP View, RUN View, and CONFIGURE View.
- **Data Checks** – Allows expert creation of customized data accuracy checks.
- **Extended Data** – Configure additional data collection points in several areas of MET/TEAM.
- **Groups** – Add, edit, delete, and manage security groups.

Reports

MET/TEAM uses Crystal Reports to design and integrate reporting into the program. Reports can be printed from various screens within MET/TEAM, indicated by the Print button. Crystal Reports Designer can be used to customize reports that ship with the system. The same applies to Customer Portal. Refer to Reports (Customer Portal).

When a report is printed, the report opens in a new browser tab or new window. Depending on which browser you use, the title may be different. In all instances, the browser attempts to assign a title based either on the report name or the MET/TEAM URL that was invoked to generate the report. Which report is used from a particular screen is configurable in system defaults (multiple entries for a System Default Setting indicate multiple reports to be printed):

System Default Setting	Report File	Order
Barcode - Report	barcode.rpt	0
Billing	Invoice_Detail.rpt	0
BusinessProcessed	CompletedWork.rpt	0
BusinessWIP	WIP.rpt	0
Calendar	calendar.rpt	0
Facility - Inventory	Inventory.rpt	0
Manual Template	ManualTemplateFields.rpt	0
Problem Report – Report	ProblemReportNew.rpt	0
Pricing report	Pricing.rpt	0
Quote	quote.rpt	0
Recall	MaintenanceRecall.rpt	0
Recall - Customer Portal	Recall Customer Portal.rpt	0
Recall - No group	RecallNoGroup.rpt	0

Receiving	ReceivedLog.rpt	0
Receiving	Worksheet_UID.rpt	1
Returning	PackingSlip.rpt	0
Returning	Worksheet_UID.rpt	1
Shipping Report	shipping.rpt	0
Technician Work	TechWork.rpt	0
TimeCard	Timekeeping.rpt	0
ToolRoomReport	ToolRoom.rpt	0
Work Order - Forward Trace Report	ttrace.rpt	0
Work Order - Reverse Trace Report	ttrace.rpt	0
Work Order Report	Worksheet_UID.rpt	0

For example, to print a different report from the Print button on the Recall screen, the system default entry for "Recall" must be changed from "maintenancerecall.rpt" to the new report name and the new report must be placed in the reports system directory (see below).

MET/TEAM Reports Directory

Reports printed directly from a screen are referred to as System reports. These are located in the reports system directory set up in system defaults.

Note: These reports should never be moved to the Reporting\Reports directory.

System Default Setting	Reports Path
Reports - Default System directory	C:\inetpub\wwwroot\METTEAM\Reporting\System\

Reports accessible from the *Custom Reports* menu item are located in the reports directory set up in system defaults:

System Default Setting	Reports Path
Reports - Default Reports directory	C:\inetpub\wwwroot\METTEAM\Reporting\Reports\

Customer Portal Reports Directory

Reports printed directly from a screen in Customer Portal are referred to as System reports. These are located in the reports system directory set up in system defaults.

Note: These reports should never be moved to the Reporting\Customer Portal directory.

System Default Setting	Reports Path
Reports - Default System directory	C:\inetpub\wwwroot\CustomerPortal\Reporting\System\

Reports accessible from the Customer Portal *Reports* menu item are located in the reports directory set up in system defaults:

System Default Setting	Reports Path
Reports - Default Reports directory	C:\inetpub\wwwroot\CustomerPortal\Reporting\Customer Portal\

MET/TEAM Facility Addresses and Reports

MET/TEAM allows multiple addresses per facility, on some reports one may be prompted to select an address. The process for determining the appropriate address is as follows:

1. MET/TEAM filters for the desired type of address (Billing, Shipping, or Default).
2. If there is only one record for the type, it is used without prompting.
3. If there is more than 1 address for the type, the Find Facility screen is displayed for selecting the desired address.
4. If there are no addresses for the specific type, MET/TEAM filters for "Default" addresses.
5. If there are no default addresses, the filter is removed and all addresses are evaluated.
6. If there is only one address for the facility, it is used without prompting.
7. If there is more than 1 address, the Find Facility screen is presented, allowing picking from all addresses for the facility.

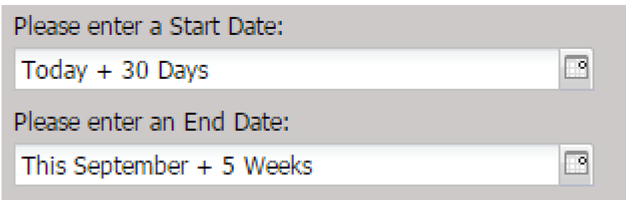
Report Parameter Combinations

Many of the reports require date parameters. If the report has parameters of data type *datetime*, the following combinations can be used in date fields on Report Parameter screens.

Today and **Now** and with adding or subtracting an integer (x) and with **Days, Weeks, Months, Years**	**Last, Next, This, First** with Month Name (where Month Name is *Month, January, February, March, April, May, June, July, August, September, October, November, December*) and with adding or subtracting an *integer* (x) and with **Days, Weeks, Months, Years**	**Last, Next, This, First** with Weekday (where Weekday is *Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday*) and with adding or subtracting an integer (x) and with **Days, Weeks, Months, Years**
Today + x Days	Last *Month Name* + *x* Days	Last *Weekday* + *x* Days
Today - x Days	Last *Month Name* - *x* Days	Last *Weekday* - *x* Days
Today + x Weeks	Last *Month Name* + *x* Weeks	Last *Weekday* + *x* Weeks
Today - x Weeks	Last *Month Name* - *x* Weeks	Last *Weekday* - *x* Weeks
Today + x Months	Last *Month Name* + *x* Months	Last *Weekday* + *x* Months
Today - x Months	Last *Month Name* - *x* Months	Last *Weekday* - *x* Months
Today + x Years	Last *Month Name* + *x* Years	Last *Weekday* + *x* Years
Today - x Years	Last *Month Name* - *x* Years	Last *Weekday* - *x* Years
Now + x Days	Next *Month Name* + *x* Days	Next *Weekday* + *x* Days
Now - x Days	Next *Month Name* - *x* Days	Next *Weekday* - *x* Days
Now + x Weeks	Next *Month Name* + *x* Weeks	Next *Weekday* + *x* Weeks
Now - x Weeks	Next *Month Name* - *x* Weeks	Next *Weekday* - *x* Weeks
Now + x Months	Next *Month Name* + *x* Months	Next *Weekday* + *x* Months
Now - x Months	Next *Month Name* - *x* Months	Next *Weekday* - *x* Months
Now + x Years	Next *Month Name* + *x* Years	Next *Weekday* + *x* Years
Now - x Years	Next *Month Name* - *x* Years	Next *Weekday* - *x* Years
	This *Month Name* + *x* Days	This *Weekday* + *x* Days
	This *Month Name* - *x* Days	This *Weekday* - *x* Days
	This *Month Name* + *x* Weeks	This *Weekday* + *x* Weeks
	This *Month Name* - *x* Weeks	This *Weekday* - *x* Weeks
	This *Month Name* + *x* Months	This *Weekday* + *x* Months
	This *Month Name* - *x* Months	This *Weekday* - *x* Months
	This *Month Name* + *x* Years	This *Weekday* + *x* Years
	This *Month Name* - *x* Years	This *Weekday* - *x* Years
	First *Month Name* + *x* Days	First *Weekday* + *x* Days

	First *Month Name* - *x* Days	First *Weekday* - *x* Days
	First *Month Name* + *x* Weeks	First *Weekday* + *x* Weeks
	First *Month Name* - *x* Weeks	First *Weekday* - *x* Weeks
	First *Month Name* + *x* Months	First *Weekday* + *x* Months
	First *Month Name* - *x* Months	First *Weekday* - *x* Months
	First *Month Name* + *x* Years	First *Weekday* + *x* Years
	First *Month Name* - *x* Years	First *Weekday* - *x* Years

Examples:

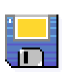


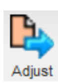
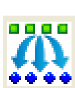
Dialog Menu Action Buttons

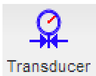
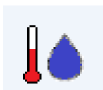
MET/TEAM allows the user to open more than one part of the application at a time. The user can edit on one screen while leaving another screen open.

All of the MET/TEAM screens contain a menu bar. The menu bar drives the functionality of the screen and supplies security. Menu bar functions from screen to screen remain the same to provide the user with a consistent, easy to understand, interface.

The Dialog Menu buttons are the buttons found at the top of the interface dialogs

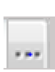
	**Show Inactive** – When pressed, the Find dialog displays both active and inactive records or in the case of Work Orders, shows history (closed) events.
	**Find** – Initiates the find process. MET/TEAM will take the entered search criteria and use it to find data within the MET/TEAM database.
	**Save** – Saves changes to data made by the user.
	**Add** – Adds a record.
	**Delete** – Deletes the selected record.
	**Cancel** – Cancels changes made by the user and returns to the previous state.
	**Close** – Closes the screen.

	**Print** – Prints the Crystal Report associated with the data.
	**Export** – Exports the information to a .CSV file. For optimal compatibility, a tab character is used as the delimiter in the .CSV file.
	Barcode – Places the Find screen in “Barcode” mode, prints Barcode in other screens.
	**Reset or Reset All** – **Reset** – clears the Search Value(s) associated with the Search Fields. **Reset All** – prompts the user for action. • If “Yes” is selected, the Search Value fields and Starts With, and Exact checkboxes are set back to the original defaults. • If No is selected, the Search Field column is blanked allowing the user to fill in the fields; customize the search criteria. • If “Cancel” is selected, no action is taken.
	**Process** – Processes the selected items.
	**Prints a Certificate** – Hold [SHIFT] button to skip previewing and send report directly to printer.
	**Unlock** – Unlocks a history shipping record.
	**Adjust** – Recalculates numbers within the billing process.
	**Refresh** – Redraws the data on the screen using the parameters entered by the user.
	**Copy** – Copies the currently selected record, speeding up the entry of new data. This button is available on Assets, Types, Procedures, and Manual Templates (Calibrate screen).
	**Returning** – Displays the Returning dialog from the Work Order screen.
	**Bulk Change** – Allows updating of multiple fields on multiple Assets.

	**Receive** – This button is only available on the Asset screen. When selected, the Asset is received and a Work Order is created.
	**Transducer –** Used on the Manual Template screen, for entering output values.
	**Get Ambient –** Gets ambient condition data from the MET/CAL RHT.INI file and populates the Temperature and Humidity fields on a Work Order. This button is only enabled when the System Default “Work Orders – Temperature and Humidity Data” is active and the Work Order is not closed.

Control Buttons

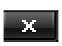
The MET/TEAM control buttons are designed to give the user access to actions and information with a single button click. The control buttons are general within the screen or available on tabs within the screen.

	**Add** – Allows the user to add data to a grid. Prompts the user with a selection or entry screen for entering data.
	**Delete** – Allows the user to delete data from a grid.
	**Modify** – “Quick Link” to the **viewed data**. This button is available to take the user directly to the selected data instead of having to use the menu and Find process. Assists in improving data entry and accuracy.
	**Modify Link** – “Quick Link” to view and possibly modify the reference link between data.
	**Move Up** – Moves the currently selected grid item up one position. The button is disabled if the item selected in the grid is already in the first position.
	**Move Down** – Moves the currently selected grid item down one position. The button is disabled if the item selected in the grid is already in the last position.
	**Lookup (ellipsis)** – Allows the user, through the Find screen, to select data elements that exist and are maintained elsewhere in MET/TEAM.

	**Section Status** - If the Work Order is assigned a procedure that contains Procedure Sections, the details of which portions were executed are displayed by selecting this button.

Window Control Buttons

The MET/TEAM window control buttons appear in the upper right corner of most windows and are designed to give the user control of the window size and position and access other special features with a single button click.

	**History Log** – Clicking this button displays the History Log dialog which contains a list of changes that have been made to the current record. The Change Tracking System Default setting must be active and enabled to use this feature.
	**Refresh** – Clicking this button forces the dialog to be reloaded. Any unsaved changes will be lost!
	**Help** – Clicking this button displays the online help topic for the current dialog.
	**Minimize** – Clicking this button minimizes the dialog to a button along the bottom of the browser window. Clicking the button for a minimized dialog restores it to its normal state.
	**Close** – Clicking this button closes the dialog. If the dialog has a Close button on the toolbar, it is recommended to use that instead of clicking this button.

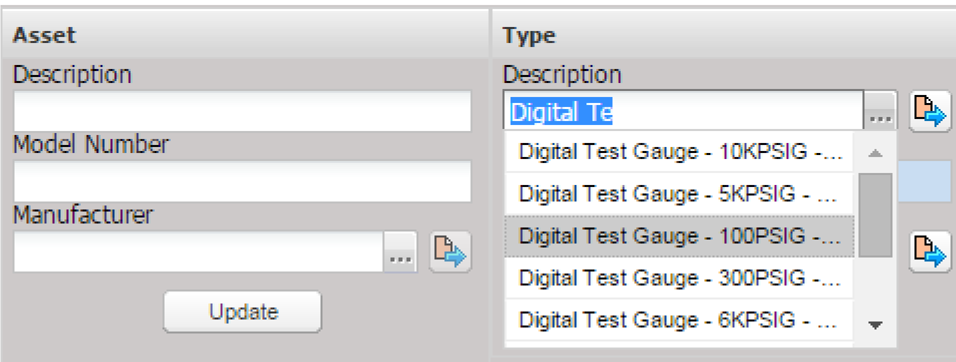
Shortcut Keys

Applies To	Key Sequence	Action
Multi-select Find dialog	CTRL+A	Selects all items in the top window and copies the items to the bottom window focus must be in the 1st grid of the multi-select
Notes fields	ALT+Q	Opens the Select Note screen for adding, deleting, or modifying Quick Note text
Browser	CTRL++	Resizes the Website size (larger)
Browser	CTRL+-	Decreases the Website size (smaller)
Browser	F11	Toggles between full-screen and other views in the browser

Field Auto Lookups

MET/TEAM includes the ability to perform auto lookups on fields that have the "…" button by typing the beginning letters of the information you wish to use to fill in the field. As you type, matching suggestions are presented below or above the field. Use keyboard up and down arrows to navigate to your highlight your selection. Use the Enter key or click the highlighted item to accept your selection and display it in the field. If no selection is made, the field reverts to what was in the field prior to typing.

The following screenshot shows an example. The more that is typed, the finer the selection suggestions. The scroll bar allows for scrolling the selection.

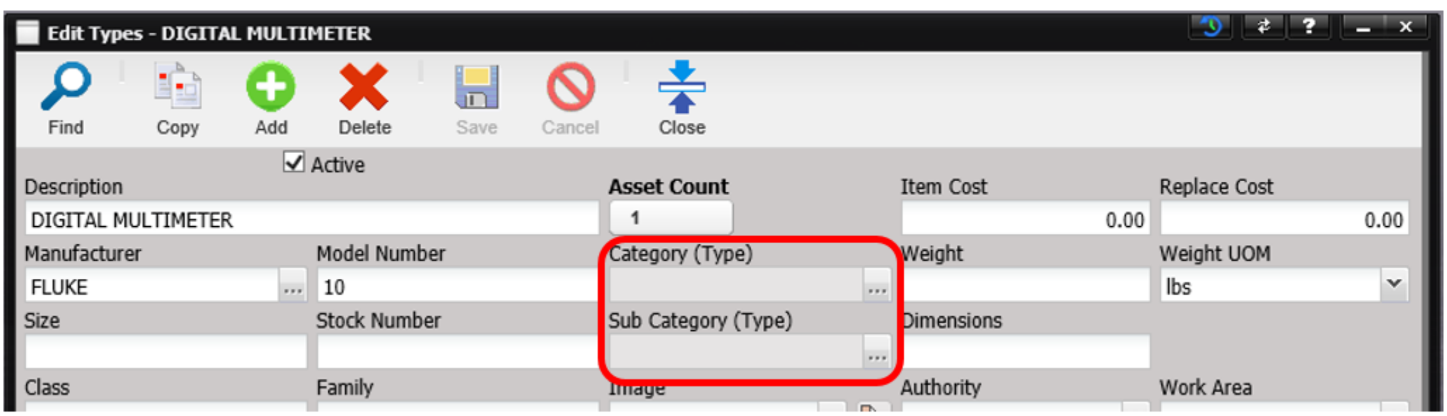


The generated matching suggestions are defined by the field configuration page which is located under the Maintenance menu Data Tool submenu and then by selecting the Configure button.

Excluded Lookups Field

Some fields in MET/TEAM do not allow auto lookup due to additional functionality and business rules that occur when information is added to these fields. This additional functionality and business rules takes place when the "…" is used and the Find screen is displayed. Therefore, the following list of fields have been disabled from the Auto Lookup capability.

These excluded fields are designated on the screens with a grayish background color.



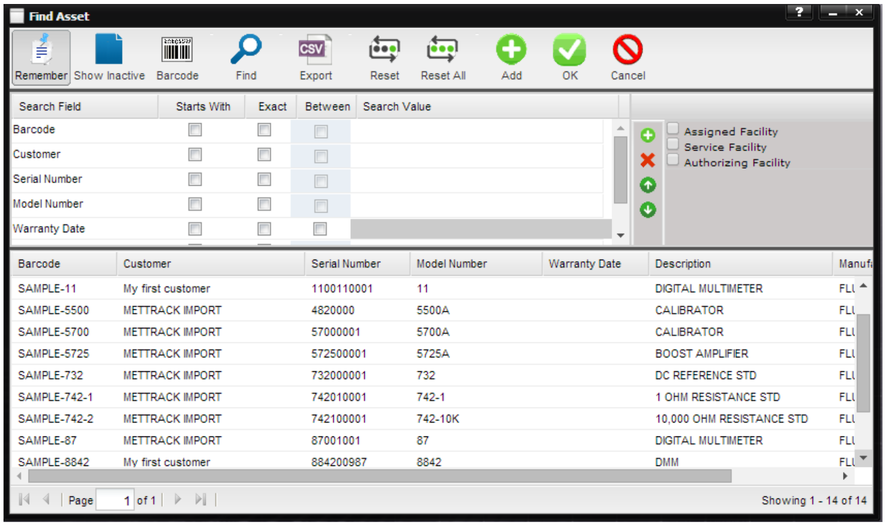
***Note**: The following fields on the specified screens do not allow auto lookup.*

Screen Name	Field
Schedule Alert	Alert Parameter Sheet
Receiving	Department

	Job Number Category and Sub Category
Work Order	Job Number Procedure Used Data Sheet Category and Sub Category Job Number (on the Parts tab when using the "+" button, selecting an existing part and the Parts screen is displayed)
Add Labor (when accessed from either Work Order or My Work)	Job Number Category and Sub Category
Assets	Category and Sub Category Department
Edit Asset Service	Service Type
Types	Category and Sub Category
Procedures	Category
Facilities	Category and Sub Category
Parts	Category
Accreditation	Category and Sub Category
Business Status	Department
Billing/Invoicing	Job Number (on the Invoice screen) Job Number (when adding a Part to the invoice using the "+" button, selecting an existing part and the Parts screen is displayed)
Contract Pricing	Type Procedure Default
Problem Report	Work Order (when in Add mode) Procedure Customer (when in Add mode) Type (when in Add mode)
Quote	Work Order Procedure (on Create Quote Item-Type)
Recall	Department

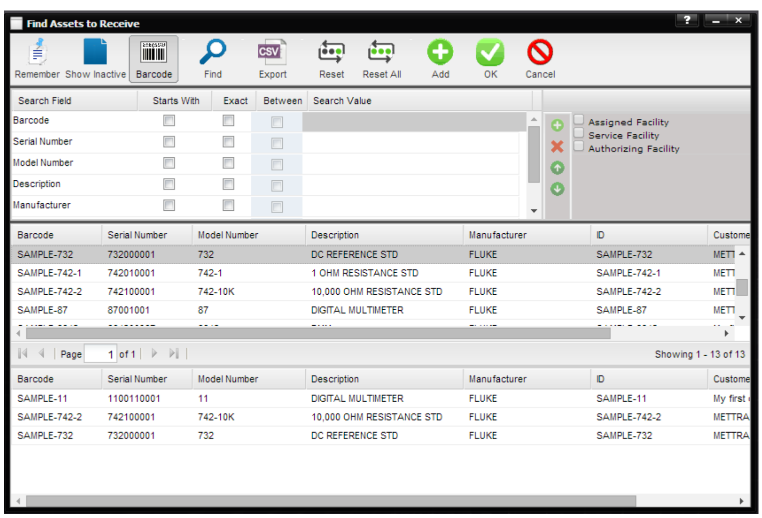
Find Dialogs

For more intense finds and to export to a CSV queried date, use the MET/TEAM dynamic Find dialogs. MET/TEAM has two different Find processes, the single select and multi-select finds. Both of these finds have the same basic features and allow the user to find and select the desired data quickly and easily.



FIND DIALOG SINGLE-SELECT

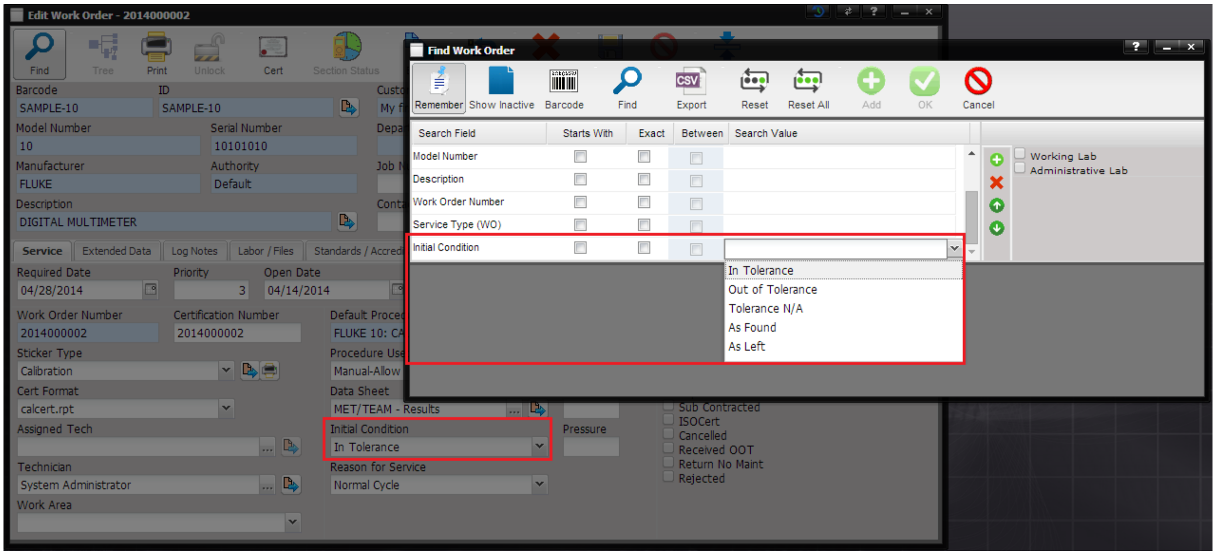
Each Find screen Search Criteria and Search Values are configurable by the user. Allowing each user in MET/TEAM to configure the Find dialogs to display only the data they need without affecting others users within MET/TEAM.



FIND DIALOG MULTI-SELECT

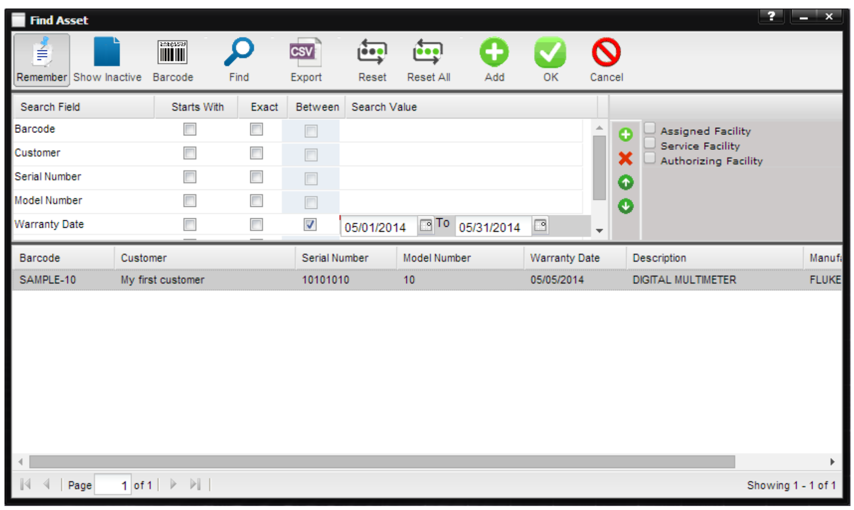
Find criteria are remembered by MET/TEAM when the Remember button is depressed. When the user returns to the Find dialog the last used data is still present expediting user input and making the search for data in MET/TEAM fast and user friendly.

If the Search Field is a dropdown on the associated screen, the Search Value appears as a dropdown on the Find screen. For example, on the Asset screen, the field 'Disposition' is a dropdown. When the cursor is positioned in the Search Value for the Search Field 'Disposition' on the Find Asset screen, the dropdown and values are presented to the user.

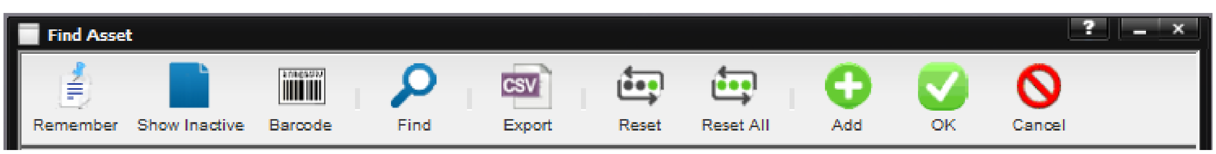


If the Search Field is a date field, the checkbox in the Between column is enabled. When checked, the Search Value appears as a set of date pickers and allows a date range to be selected. Leaving either one of the date pickers blank causes that date to be set to today's date.

Note: Dates selected from the date picker or entered prior to 1970 are not valid.



Find Dialog Toolbar



Remember – When depressed, the user's last search field criteria are remembered and the search fields are configurable.

Note: *If the Remember button is not selected, vertical buttons on the right of the Search are not enabled. These buttons are: add, delete, move up, and move down for the Search Fields.*

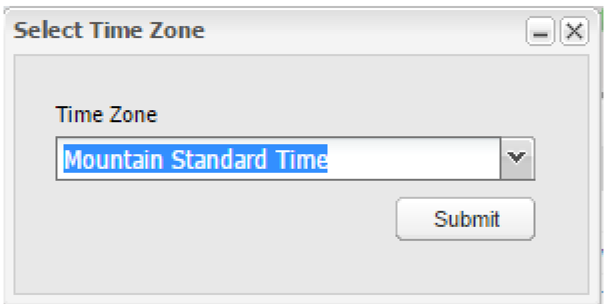
Show Inactive – By default, Find dialogs show only active records within MET/TEAM. If data has been referenced within MET/TEAM but is no longer used, it may be marked as inactive. In order for the user to view or select inactive data, the Show Inactive button must be depressed. Once the user has entered the search criteria and selected Find, the results are displayed for both active and inactive records. To hide the inactive records, toggle the Show Inactive button again and select the Find button to refresh the screen. One exception to this rule is in the Work Order screen. By depressing the inactive button, the Find dialog includes closed (history) Work Orders.

Barcode – Selecting this button places the Find dialog in Barcode mode. The user can then use a scanner or other reading device to enter data into the find process. If the Find dialog returns only one record meeting the Search Criteria, the find automatically processes the results and takes the user to the selected data.

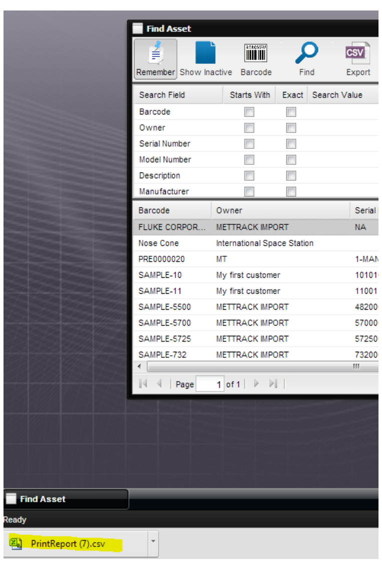
Find – Starts the find process. After the user enters the search criteria, the Find button is selected to start the search (pressing the “Enter” key also starts the search).

Export – Creates a .CSV file containing the search contents and presents it to the user to open. For optimal compatibility, a tab character is used as the delimiter in the .CSV file.

When exporting data to a .CSV file, the Select Time Zone prompt is displayed. The drop-down lists all time zones with the same UTC offset as your current time zone. This is used to facilitate converting any exported dates to local time, including adjusting for Daylight Saving time, as applicable. Select the appropriate time zone to use for the export and click Submit to initiate the export process.



The file download is shown at the bottom of the browser.



Reset – Clears the current search criteria, allowing the user to enter new search criteria.

Reset All – Resets the search criteria and search fields to the default configuration. The user is presented with a prompt.

- If "Yes" is selected, the Search Value fields and Starts With, and Exact checkboxes are set back to the original defaults.
- If No is selected, the Search Field column is blanked allowing the user to fill in the fields; customize the search criteria.
- If "Cancel" is selected, no action is taken.

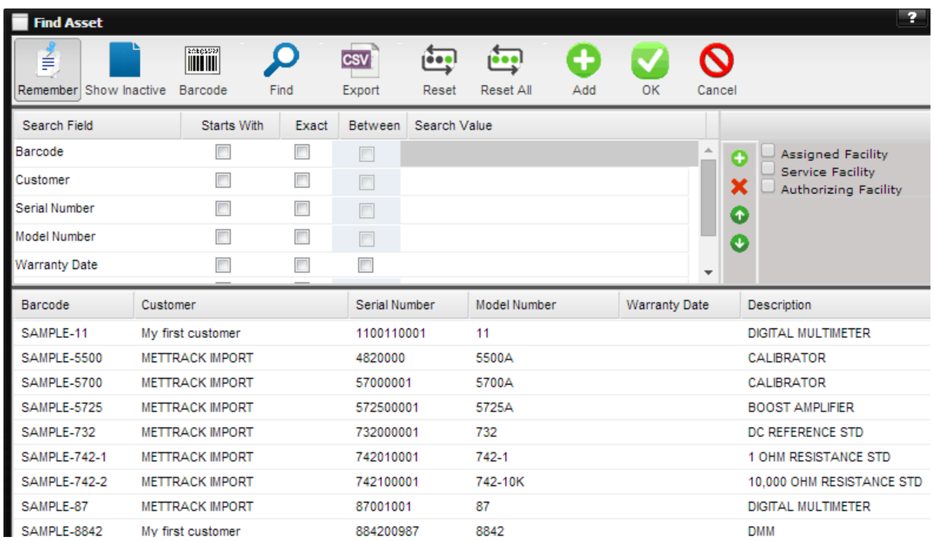
Add – Opens the corresponding screen for creating a new entity. For example, if the Find Assets screen is open and the Add button is selected, the New Asset screen is displayed for adding a new asset. The Add button is disabled when adding a new entity is not available.

OK – Uses the selected record(s) and processes the data. When in single select mode, this can also be accomplished by double clicking the desired record.

Cancel – Cancels the find process and exits.

Search Conditions

Searches can be performed in many different ways.

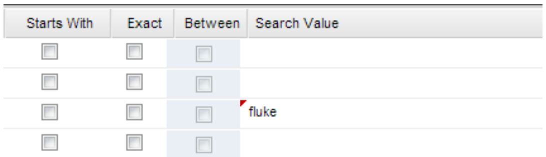


- Searching can use compound search criteria by entering values in more than one of the "Search Value" boxes.
- Search values are additive, meaning that all values entered are used to filter the data being returned in the search.
- Data can be further filtered by check boxes made available to the user. Checking one or more of these boxes adds additional filtering to the data selected. Like the fields available in the find dialog, these check boxes can change or disappear depending upon the context in which the Find dialog is called.
  - Find Asset – filtering by: Assigned Facility, Service Facility, Authorizing Facility – finds Assets associated ***only*** with the Facility that the user is associated with. For example, if on the Asset screen the Assigned Facility is "Cal Shop" and "Cal Shop" is not listed in the User screen (facility grid at the bottom) for the user that is logged in, this user will not see the Asset on the Find Asset screen if the "Assigned Facility" checkbox is selected.
  - Find Asset – All no filtering (this is the same as when none of the check boxes are selected).

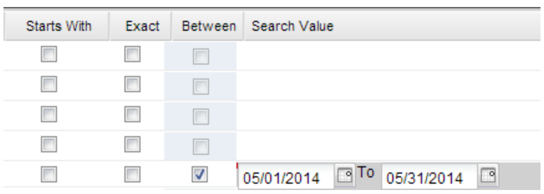
Data Selection Methods

Search values can be found using one of three methods:

1. **Contains** – The default setting for MET/TEAM which returns any data that contains the search value(s) entered. If there is no data that contains the search value, nothing is returned. To use "Contains", enter the search value, and leave "Starts With" and "Exact" unchecked.
2. **Starts With** – Searches for data that starts with the search value(s) entered. If there is no data that contains the start with value, nothing is returned. To use "Starts With"; check the "Starts With" box on the data element of choice.
3. **Exact** – Searches for data that is an exact match to the search value(s) entered. . If there is no data that exactly matches the value, nothing is returned. To use "Exact" check the "Exact" box on the data element of choice.



4. **Between** – Searches for dates that fall between the date range selected using the date pickers in the search value field. Leaving any date picker blank causes that date to be set to today's date. This method is only available for date fields.

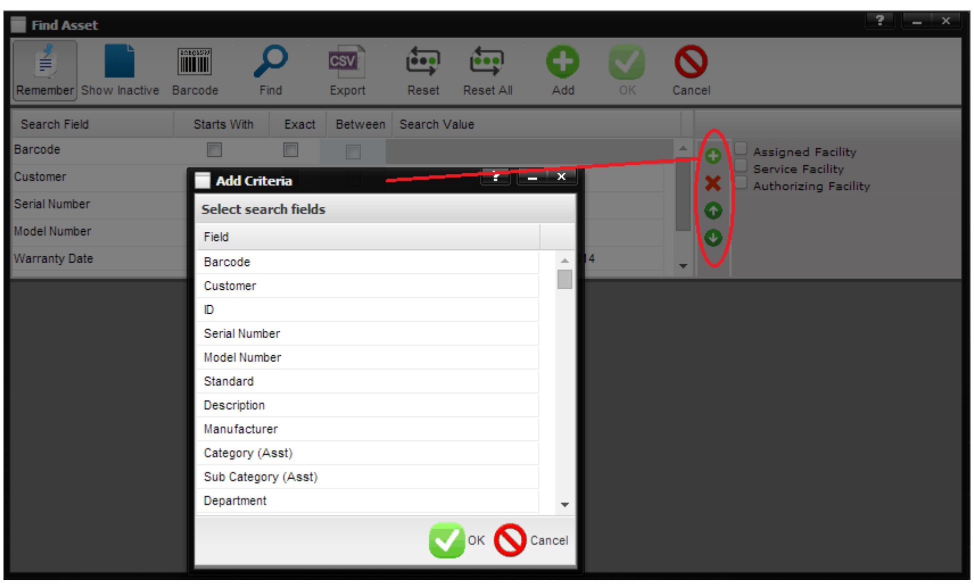


Organizing your Search

Find dialogs in MET/TEAM can be modified by the user to fit specific needs.

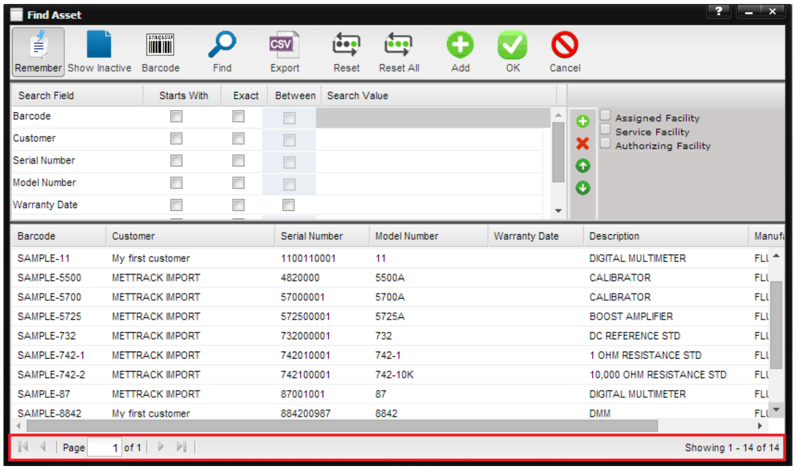
Once the Remember button is pressed, the Search Condition fields can be tailored for each user to contain only the data elements they wish to have returned.

To add fields to the Search Conditions, click the "+" button. An available list of fields is displayed to choose from.



To remove fields from the Search Conditions, highlight the field and click the delete "X" button.
To modify the order of the Search Conditions, highlight a field and click the "↑" or "↓" buttons to move the selections.

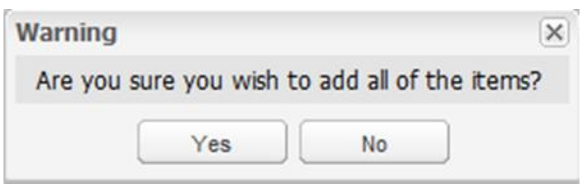
The order of the search field rows determines the column order in the results grid. Data within the results grid can be resorted by clicking the column header name - first click *ascending*, second click *descending*. If the results grid contains more data than fits on one screen, the status bar on the bottom displays how many items have been returned by your search and controls paging.



Expediting the Select Process in Multi-Select Finds

When using a multi-select Find dialog (two grids on the screen), all items in the top window can be selected and copied to the bottom window:

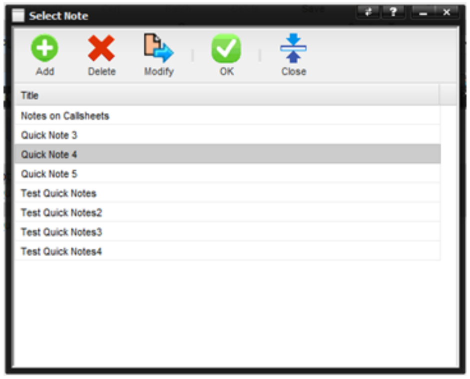
1. Press [CTRL] +[A] keys
2. Click Yes



Quick Notes

In some areas of MET/TEAM, where note fields exist, click in the field and press [ALT]+[Q] keys. This opens the Select Note page which is designed to speed up the data entry process by allowing the user to select predefined blocks of text that are inserted into the Notes field.

The text blocks within Quick Notes can contain one or many lines of text, supporting tabs, and spaces allow the pre-formatting of text. Quick Notes is a systemic feature, meaning that notes entered can be used by all MET/TEAM users.



The Select Note screen displays the *title* of each defined note. To add one of these to the Note field, double click the title.

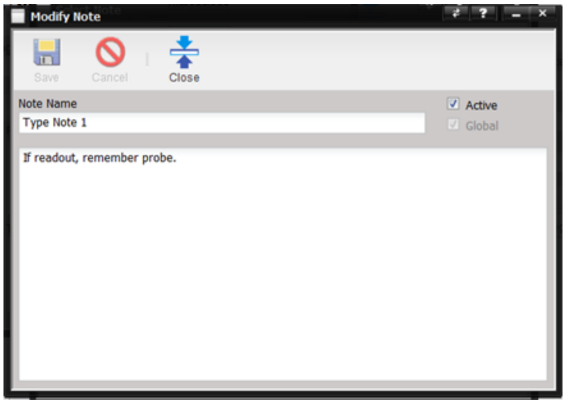
Add Quick Notes

Quick Notes can be added by selecting the Add button. The Add Note dialog is displayed.

- **Note Name** – The title or name of the note.
- **Active** – If checked, the Quick Note is available for use throughout MET/TEAM. If unchecked, the Note is no available.
- **Global** – If checked when ***creating*** a Quick Note, the user can decide whether or not the Quick Note is accessible to all note controls or only to the note control that was selected when the Quick Note was added. If the "Global" check box is checked, the Quick Note is available for all note boxes. If the checkbox is unchecked, the Quick Note is only available for note area that the user was in when the Quick Note was created. The "Global" checkbox is disabled once the Quick Note is saved.
- **Text Box** – The area where the text that will be displayed for this note is typed.

Modify Quick Notes

To modify, or view a Quick Note, highlight the *title* of the Quick Note and select the Modify button. The Modify Note dialog is displayed.

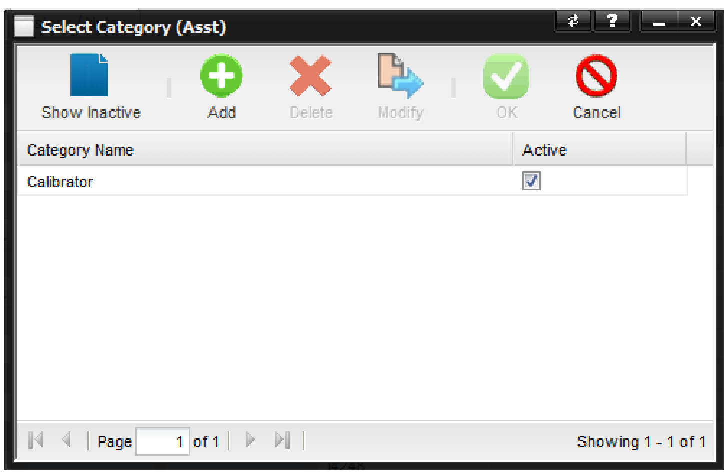


Modify the active status, note name or body of the Note as desired and select the Close button. The Global checkbox is only available when the note is created.

Categories and Sub Categories

Many different sections of MET/TEAM allow the use of *categories* and *sub categories* to classify information for later retrieval or analysis. Each category defined by the user has its own sub categories, giving the user an infinite number of ways to categorize information within MET/TEAM. (A similar screen is displayed for sub categories.) Categories are context-sensitive, meaning categories that are created for Asset characteristics, for example, do not appear in the list when selecting a category for a part, facility, procedure, etc. By the same token, when selecting or creating sub categories, they are always linked to the currently selected category.

The category and sub category is specific to the screen it is called from. The snapshot below is displaying the category for the Asset screen as designated by "(Asst)".



Show Inactive – By default only active categories and sub categories are shown. Categories and sub categories that are no longer needed or desired can be marked as inactive, making them unavailable to be selected. Categories and sub categories referenced in MET/TEAM cannot be deleted without the reference first being removed.

Add – Adds a new category or sub category. By default, new categories and sub categories are always marked as active.

Delete – Deletes a category or sub category. If a category or sub category is referenced in MET/TEAM, a message is displayed stating that the item cannot be deleted and should be marked inactive instead.

Modify – Allows you to change the name and/or active state of the category or sub category.

OK – Selects the highlighted category or sub category.

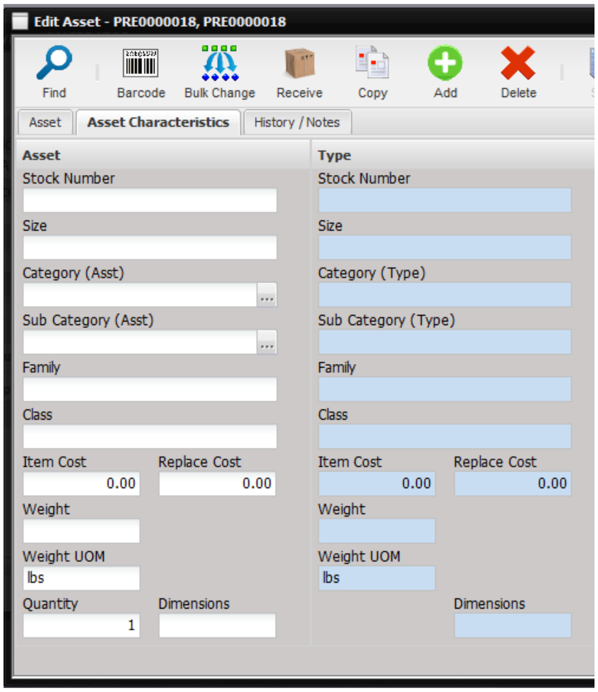
Cancel – Cancels the choice and returns the user to previous condition.

A simple example of creating categories and sub categories for Asset characteristics may look something like this:

- Category: Electrical
  - Sub categories: DMM, Oscilloscope, Power Meter, Ammeter, etc.
- Category: Temperature
  - Sub categories: Readout, Bath, Furnace, Dry Block, Fixed-Point Cell, etc.
- Category: Pressure
  - Sub categories: Controller, Piston Gauge, Deadweight Tester, etc.

Read-Only Fields

Fields within MET/TEAM that are read-only are designated by blue fill.



Repurposing Fields

Some fields within MET/TEAM that should not be repurposed while others cannot be repurposed.

The following table lists fields that have right-click capability (customization) but should be repurposed with caution. The fields with a 'No' are used throughout the application.

Screen	Fields	Repurpose
Work Order	On Site	No
	Expedite	No
	Sub Contracted	No
	ISOCert	No
	Cancelled	No
	Received OOT	No
	Return No Maint	No
	Rejected	Yes

The following table lists fields that do not have right-click capability (customization).

Screen	Fields	Customize	Notes
Shipment	Shipped (checkbox)	No	Functionality associated with this field is tied to the Date Shipped. Therefore the field does not have the right-click customization menu.
Work Order - Labor	No Charge (checkbox)	No	Functionality associated with this field is tied to the Cost. Therefore the field does not have the right-click customization menu.
Facility	Customer (checkbox)	No	Functionality associated with this field is tied to No Tax. Therefore the field does not have the right-click customization menu.
Facility	Lab (checkbox)	No	Functionality associated with this field is tied to Inspect All. Therefore the field does not have the right-click customization menu.
Facility	No Tax (checkbox)	No	Functionality associated with this field is tied to Tax Rate. Therefore the field does not have the right-click customization menu.

Date/Time Fields

MET/TEAM writes all date/time information to the database as UTC (Coordinated Universal Time). Other date/time terms used in this document are: Server Time and SQL Server Time which are the same as long as the SQL database is on the same server as the MET/TEAM application or in the same time zone. Local time is the PC local time of the user that is logged in.

Dates on the User Interface

The MET/TEAM User Interface displays time in PC local time unless otherwise stated on the User Interface. The MET/TEAM User Interface states server local time where used. For example, on the Alert Schedule Edit Schedule screen the clock in the right hand corner shows server local time as displayed in the Tooltip.

Dates Using the Import

When an import is performed using the File menu Import Run Import submenu, PC local time is assumed and used for the offset to UTC time.

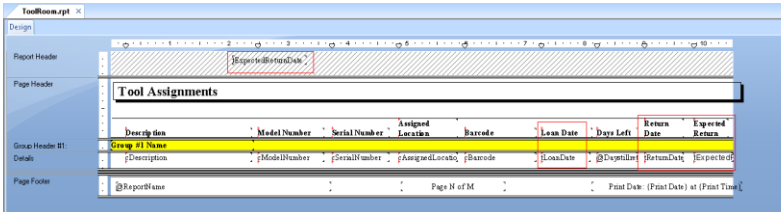
Dates on Reports

All the reports that ship with MET/TEAM include a Crystal Report function around date fields that make the date from the database appear on the reports in the user's local PC time.

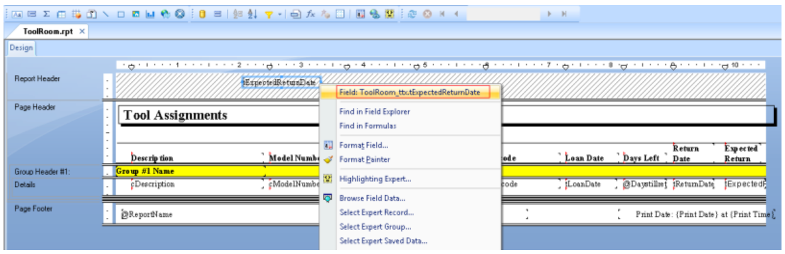
If you are creating your own reports, we recommend that you also use this Crystal Report function. Instructions using this function are detailed below.

Updating Crystal Reports to UTC

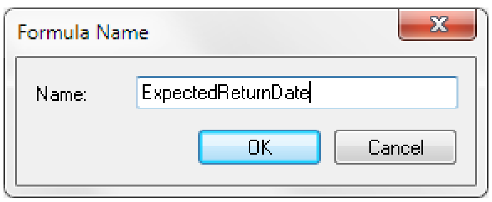
1. Identify the date/time fields on the report.



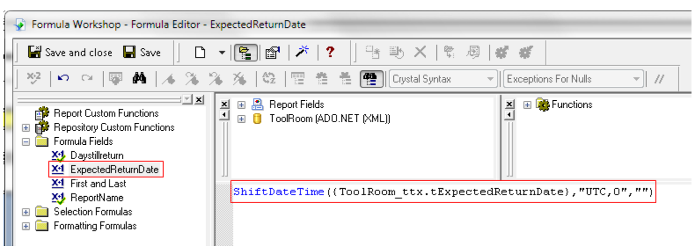
2. Make a formula field for each, using ShiftDateTime() and replace the existing field on the report.
   a. Locate the date/time field.



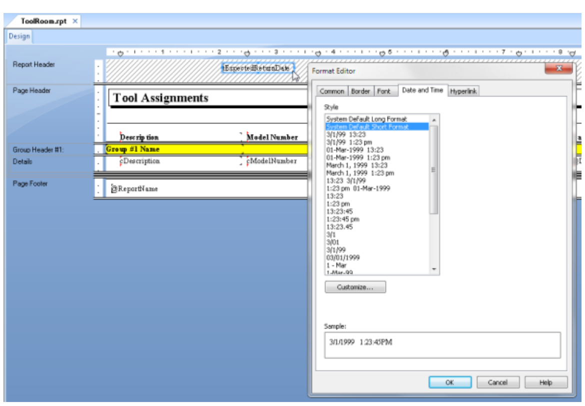
   b. Make a formula field.

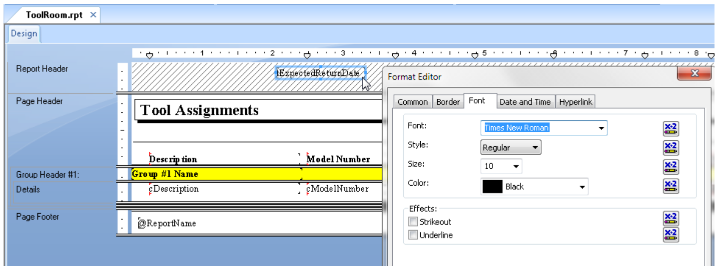


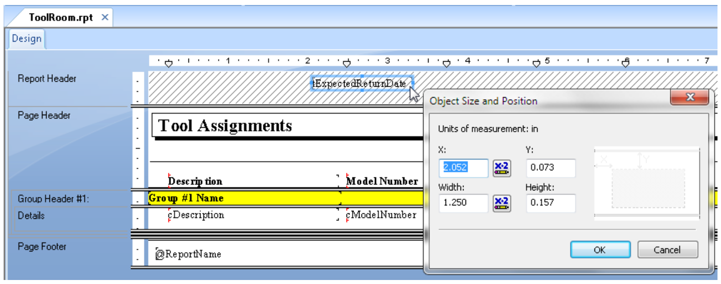
   c. ShiftDateTime(<date field value>, from timezone, to timezone) can be used to adjust date/time to current (server) time.



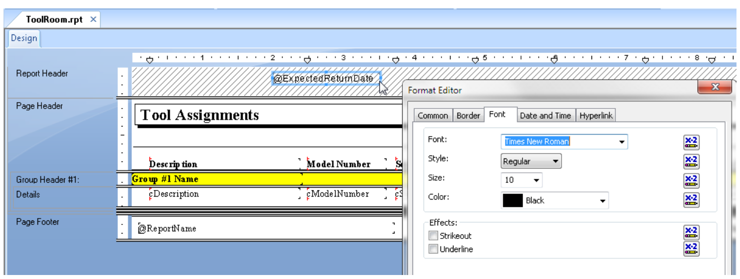
   d. Capture the formatting.

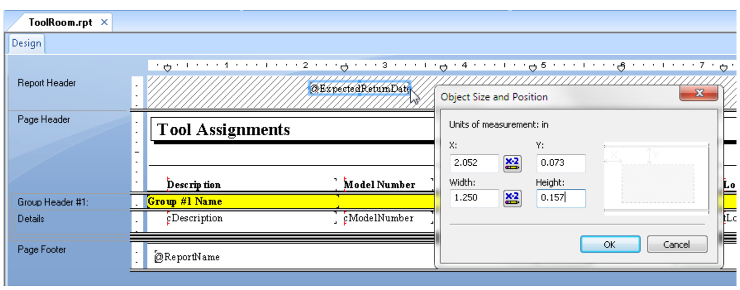






e. Delete the field.
f. Insert the formula field.
g. Restore the formatting.



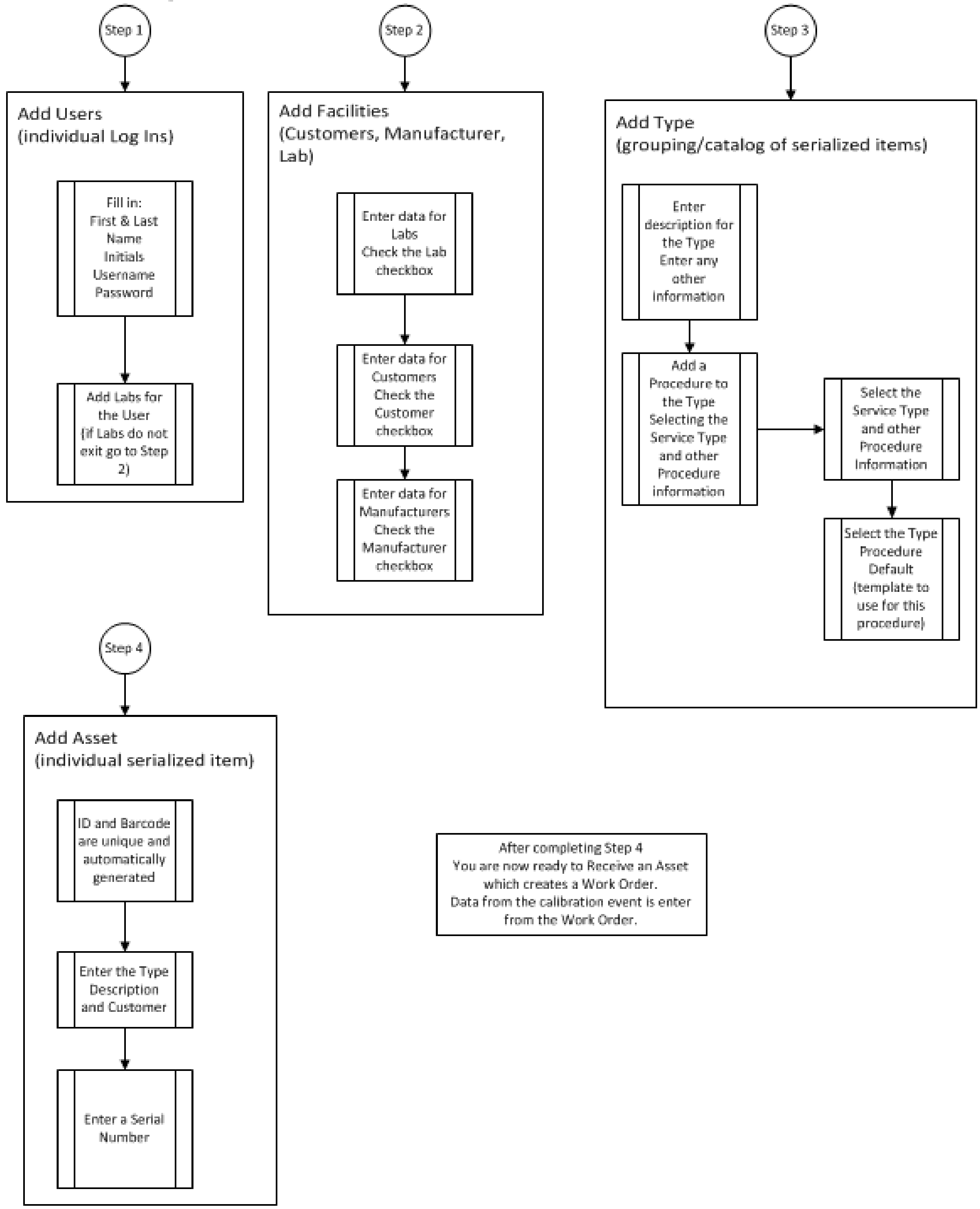


3. Test the report using SSMS, dates on report should reflect server time.

How to Get Started Using MET/TEAM

The following flowcharts provides a high level view of how to get started with MET/TEAM. Information in the Minimum Information Required to Receive and Process Equipment provides the details for each of the steps in this flowchart.

MET/TEAM Getting Started



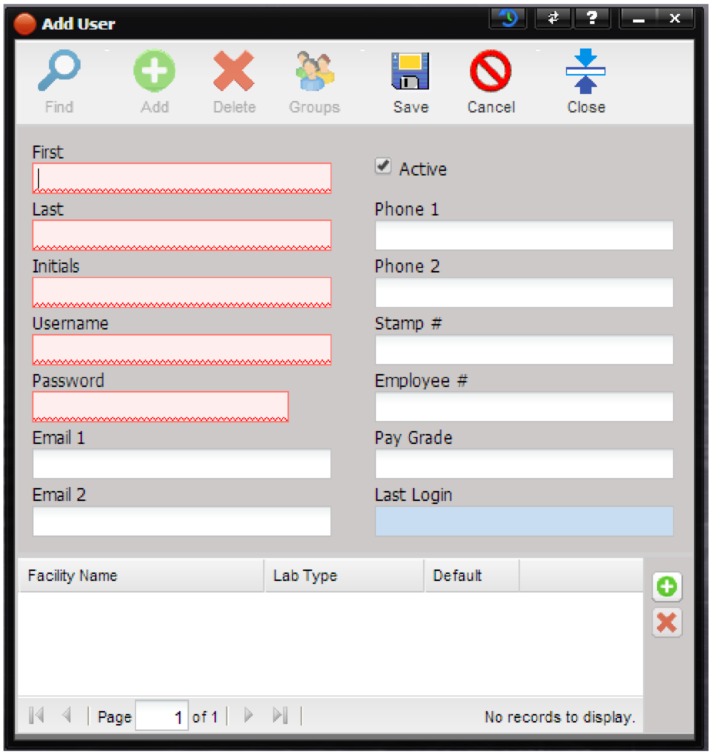
Follow the steps below to start using and entering data into MET/TEAM. The step order below and content is intended to utilize as much functionality as possible without a data conversion.

***Note:** Most screens open to a Find dialog, to add a new record select the Add button.*

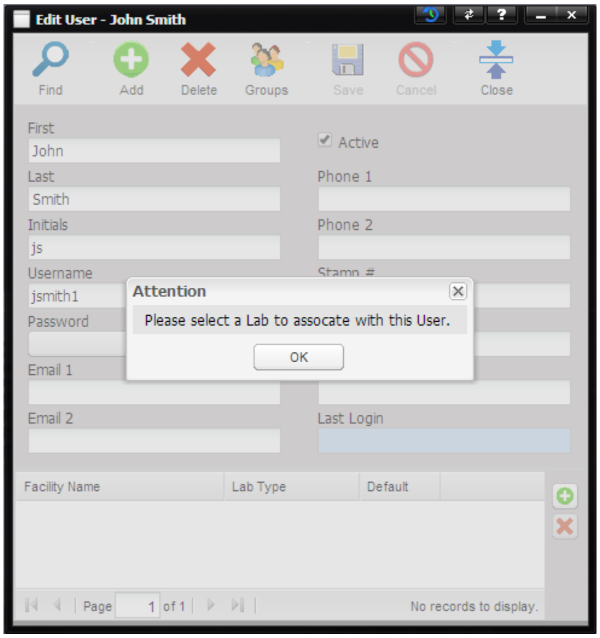
Minimum Information Required to Receive and Process Equipment

Adding Users (individual log in)

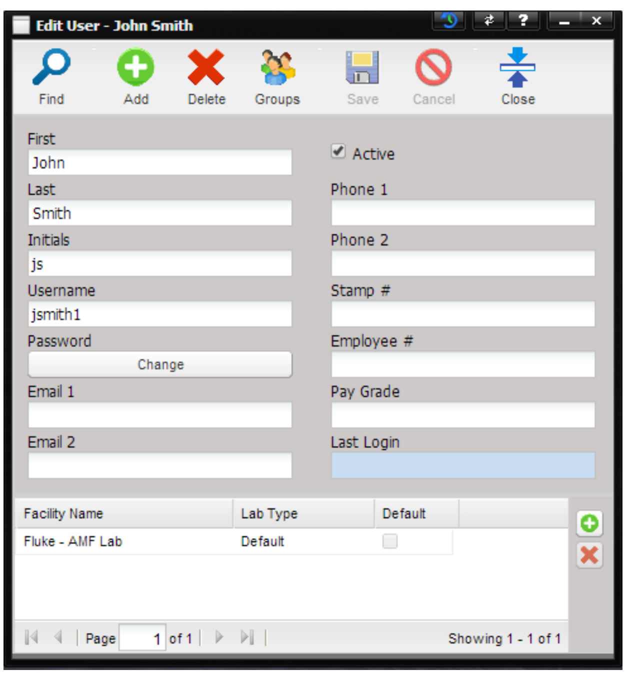
1. Select the Users submenu from the Setup Menu.
2. Select the Add button on the Find User screen to enter the Add User screen in add mode.



3. Enter data for the user. The minimum data required is the user's first name, last name, initials, username, and password as indicated by the red squiggled text boxes. Select the Save button.
4. You are prompted to add a Lab for the user. Each user must be associated with a Lab.



5. When the OK button is selected on the prompt, the Find New Lab screen is displayed, select the Find button. The available Labs are displayed in the Find grid. ***Note:*** *a Facility is a Lab if the Lab checkbox on the Facility screen is checked.* If the Lab you are trying to assign to this user to is not displayed, the Lab checkbox on the Facility screen for the lab was not checked. No need to exit this screen just select the Facilities option under the Maintenance menu, find the Facility, check the Lab checkbox, and save the Facility. Return to the Find New Lab screen for the user and select the Find button. The screen is refreshed and the Lab is in the list. Double click the desired Lab and select the OK button. The Find screen is closed and the Lab is displayed at the bottom of the Edit User screen. Additional labs can be added by selecting the "+" to the right of the grid.



6. To add a user to a User Group, select the Groups button at the top of the screen. The Assign Groups dialog is displayed for assigning users to Groups.
7. Select the desired group(s) and select the Save button when done.

Adding Facilities (customer, manufacturer, lab)

1. Select the Facilities submenu from the Maintenance Menu.
2. Select the Add button on the Find Facility screen. The Add Facility screen is displayed.
3. Enter data for the Facility. The Facility Name field and at least one type of Facility (Customer, Manufacturer, Sub Contractor, and/or Lab) are required.
4. Select the Save button.
5. Add an Address for the Facility by selecting the Address tab and then the "+" button on right side. Enter the Facility address information on the screen and save.
6. Add a Contact for the Facility by selecting the Contacts tab and then the "+" button on the right side. Then, find a Contact by selecting the Find button on the Add Contact screen or enter the Contact information on the screen and save.
7. Continue entering Facilities using the steps above. The Add button can also be used on the Facility screen toolbar instead of going back to the main menu.
8. Select the Close button when done.

Adding Types (grouping/catalog of serialized items)

1. Select the Types submenu from the Maintenance Menu.
2. Select the Add button on the Find Type screen to enter the Add Type screen.
3. Enter data for the Type. The minimum data required is the description as indicated by the red squiggled text box.
4. Enter any other data such as Manufacturer, Model Number, Item Cost, etc. as desired.
5. Select the Save button.
6. Add a Procedure for this Type by selecting Procedures tab and then the "+" button on right side.
7. Select a Procedure by pressing the "…" button next to the Procedure Name on the Add Type Procedure Default screen.
8. From the Find Procedure screen select the appropriate Procedure. (If the desired Procedure does not exist, use the steps below to add the Procedure.)
9. Select the Service Type from the dropdown list.
10. Enter the Standard Hours (number of hours it normally takes to perform this service) and the Std. Price (price charged for this service).
11. Enter the interval for the service.
12. Select the "…" button next to the Data Sheet box.
13. From the Find screen that is displayed, select the file that contains the template to use.
14. Select Save on the Type Procedure Default screen.
15. Select Save on the Types screen.
16. Select the Close button when done.

You have now successfully created a user. The Username and Password can be used to log into MET/TEAM.
You have successfully created a Facility) and Type which provide a grouping for individual serialized items.
Now let's add a Procedure and create the individual serialized items.

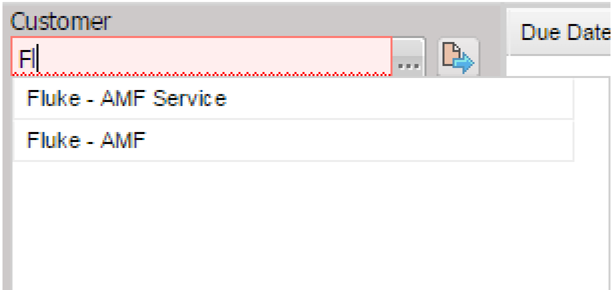
Adding Procedures

1. Select the Procedures submenu from the Maintenance Menu.
2. Select the Add button on the Find Procedure screen. The Add Procedure screen is displayed.
3. The minimum data required is the Procedure Name as indicated by the red squiggled text box.
4. Enter information about the procedure.

5. Select the Save button.
6. Select the Close button when done.

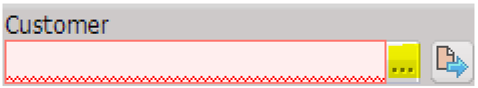
Adding Assets (individual serialized items)

1. Select the Assets submenu from the Maintenance Menu.
2. Select the Add button on the Find Asset screen. The Add Asset screen is displayed.
3. The ID and Barcode are automatically generated.
4. The minimum information required is the Type Description and Customer as indicated by the red squiggled text boxes.
5. Select the Customer either by
    a. Typing the first characters of the Customer name in the Customer box and a dropdown box appears from which you can select the Customer.

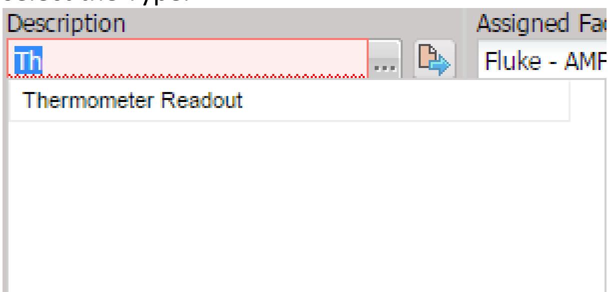


Or

    b. Selecting the "…" button next to the Customer text box. Select the Find button on the Find Facility screen and then select the Facility (Customer) for this asset.

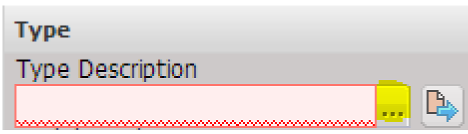


6. Select the Type Description by
    a. Typing the first characters of the Type in the Type box and a dropdown box appears from which you can select the Type.



Or

    b. Selecting the "…" button next to the Type Description text box. Select the Find button on the Find Type screen and then select the Type for this asset.



7. Enter in a Serial Number.
8. When asked to "Update all Asset data with current Type data?" select Yes.

9. If the Manufacturer is empty, start typing the first characters of the Manufacturer in the Manufacturer box and a dropdown box appears from which you can select the Manufacturer or select the "…" button next to the Manufacturer box and select the appropriate manufacturer.

Note: *Other data can be entered, however this is the minimum data that should be entered when creating an Asset.*

10. Select the Save button.
11. Select the Close button when done.

You should now have the minimum information needed to receive and process a piece of equipment.

Please refer to the appropriate sections of the Help for further data explanations and information.

Additional Information – Manual Templates and External Files

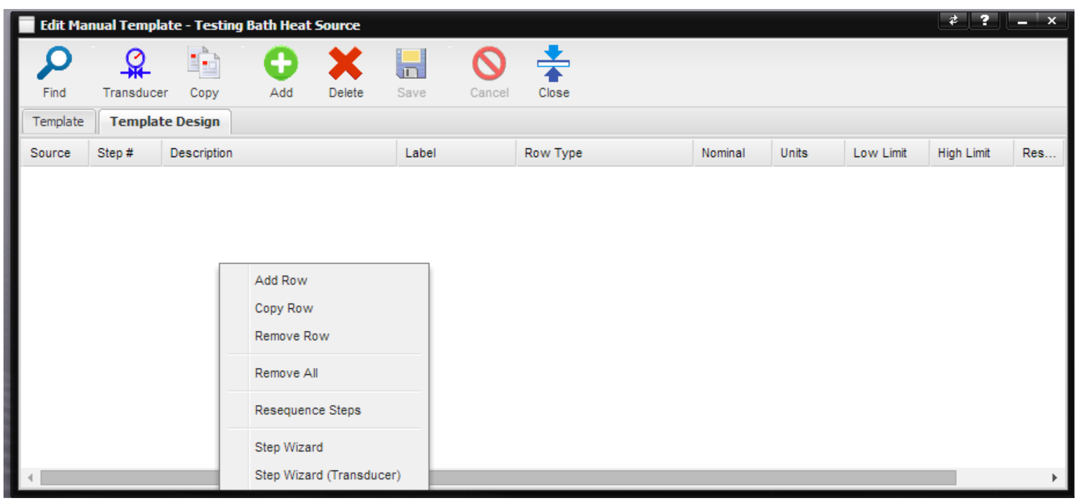
Manual Templates are used to define the necessary pieces of data to be collected during ta manual calibration or maintenance process. A simple example would be 1VDC, 10 VDC and 100 VDC.

MET/TEAM also provides the ability to store files from your computer or network directly into the data base via the external files functionality. Once these files are stored in MET/TEAM, they become available to all users, including "Mobile" users, without dependency on network mapping or user rights.

Adding Manual Templates

Note*: Manual Templates are not required if you are using MET/CAL or Excel ™ for your data collection*

1. Select the Manual Templates submenu from the Maintenance Menu.
2. Select the Add button on the Find Manual Template screen to enter the Add Manual Template screen.
3. Select the Template tab and enter a Template Name which is required as indicated by the red squiggled text box
4. Select the Template Design tab and begin entering test points by using the menu provided after right clicking in the grid.



5. Once the template is complete, select the Save button.
6. For more information on Manual Templates, refer to the Manual Template section of this On-Line Help.

Adding an External File (Spreadsheet) to MET/TEAM

1. Select the Files submenu from the Maintenance Menu.
2. Select the Add button on the Find File screen to enter the Add File screen.
3. In the File Type drop down list select "Checklist".
4. Select the Browse… button next to the File Name box and select the desired file.
5. Select the Save button.

Note: *To add additional files repeat steps 3-6 using the add button at the top of the screen.*

6. Select the Close button.

Setting Up a Type to Use the Newly Added Template

1. Select the Types submenu from the Maintenance Menu.
2. Select the Find button on the Find Type screen to view the list of available Types. Highlight the desired Type and select the OK button (or double click the desired Type).
3. If there is Procedure listed in the Procedures tab, highlight the Procedure in the list on the Procedure tab. Select the Modify Procedure Link (4th button) on the right side of the Procedures tab. Go to step 9.
4. Select the "+" on the right side of the Procedures tab. The Edit Type Procedure Default screen is displayed.
5. Select the "…" button next to the Procedure box.
6. Select the Find button on the Find Procedure screen to view the list of available Procedures. Highlight the desired Procedure and select the OK button (or double click the desired Procedure).
7. Enter in the Std. Price for the service.
8. Enter the interval for the calibration
9. Select the "…" button next to the Data Sheet box.
10. Select the Find button on the Attach File find screen to view the list of available Files. Highlight the desired File and select the OK button (or double click the desired File).
    HINT: If you are trying to select a spreadsheet enter XLS in the File Name search field then select the Find button. Only the File Types with an .XLS file extension will be displayed.
11. Select the Save button on the Edit Type Procedure Default screen
12. The Procedure has been added to the list in the Procedures tab.
13. Select the Save button on the Types screen.
14. Select the Close button.

Note: *When an Asset using this type is received and the Data Sheet button is selected on the Work Orders screen, the Manual Template will be used for gathering the data points.*

Funding

The processing of work related costs throughout MET/TEAM is calculated when the Work Order is returned. The table below explains the hierarchy used for the calculations, the formulas, and several examples.

Funding Calculation Hierarchy
1. Kind of Job Number
2. Customer Hourly Rate * Work Order Labor (if charged)
3. Service Facility Hourly Rate * Work Order Labor (if charged)

Job Number = Standard Hours Formula	if(JN="Standard Hours",(SP*AQ),0) + (if(OHR<>0, if(WLHC="Y", OHR*WLH,0),if(WLHC="Y", SHR*WLH,0)))+ if(ISOB="Y",ISO,0) + (WOPQ*WOPP) ***Note:*** *Once labor is added to the Work Order, the cost does not change when the Customer hourly rate or Service Facility hourly rate changes. The labor must be removed if the calculation of the labor cost is incorrect and a new labor entry created. If an expedite fee is charged, it is per asset.*
Job Number = Level of Effort Formula	if(JN="Level of Effort",0,(SP*AQ)) + (if(OHR<>0, if(WLHC="Y", OHR*WLH,0),if(WLHC="Y", SHR*WLH,0))) + if(ISOB="Y",ISO,0) +(WOPQ*WOPP) ***Note:*** *Once labor is added to the Work Order, the cost does not change when the Customer hourly rate or Service Facility hourly rate changes. The labor must be removed if the calculation of the labor cost is incorrect and a new labor entry created. If an expedite fee is charged, it is per asset.*

Funding Attributes	**Job Number = Standard Hours.** No associated std. price, hourly rates, or labor.	**Job Number = Standard Hours.** Std. price exists, no hourly rate or labor. ISO fee exists not used.	**Job Number = Standard Hours.** Std. price exists, no hourly rate or labor. ISO fee exists and used.	**Job Number = Standard Hours.** Std. price exists, Customer hourly rate exists but no labor added to Work Order. ISO fee exists not used.	**Job Number = Standard Hours.** Std. price exists, Customer hourly rate exists but no labor added to Work Order. ISO fee exists and used.
Kind of Job Number (JN)	Standard Hours	Standard Hours	Standard Hours	Standard Hours	Standard Hours
Type Procedure Standard Hours (SH)	5	5	5	5	5
Type Procedure Standard Hours Type	Average	Average	Average	Average	Average
Type Procedure Std. Price (SP)	0	100	100	100	100
Asset Characteristics Quantity (AQ)	1	2	1	1	3
ISO Cert Fee (ISO)	0	225	225	225	225
Customer Hourly Rate (OHR)	0	0	0	50	50
Service Facility Hourly Rate (SHR)	0	0	0	0	0
Work Order ISOCert Checked (ISOB)	N	N	Y	N	Y
Work Order Labor Hours (WLH)	0	0	0	0	0
Charge Work Order Labor (WLHC)	N/A	N/A	N/A	N/A	N/A
Work Order Parts Qty (WOPQ)	0	0	0	0	0
Work Order Parts Price (WOPP)	0	0	0	0	0
Returning Cost (RC)	$ -	$ 200	$ 325	$ 100	$ 525

Comments	**Job Number = Standard Hours.** Std. price exists, Customer hourly rate exists, labor added to Work Order but not charged. ISO fee exists not used.	**Job Number = Standard Hours.** Std. price exists, Customer hourly rate exist labor added to Work Order but not charged. ISO fee exists and used.	**Job Number = Standard Hours.** Std. price exists, Customer hourly rate exist labor added to Work Order and charged. ISO fee exists not used.	**Job Number = Standard Hours.** Std. price exists, Customer hourly rate exist labor added to Work Order and charged. ISO fee exists and used.	**Job Number = Standard Hours.** Std. price exists, Customer hourly rate exists, labor added to Work Order and charged. Parts added to Work Order. ISO fee exists not used.
Kind of Job Number (JN)	Standard Hours	Standard Hours	Standard Hours	Standard Hours	Standard Hours
Type Procedure Standard Hours (SH)	5	5	5	5	5
Type Procedure Standard Hours Type	Average	Average	Average	Average	Average
Type Procedure Std. Price (SP)	100	100	100	100	100
Asset Characteristics Quantity (AQ)	1	3	1	2	1
ISO Cert Fee (ISO)	225	225	225	225	225

Customer Hourly Rate (OHR)	50	50	50	50	50
Service Facility Hourly Rate (SHR)	0	0	0	0	0
Work Order ISOCert Checked (ISOB)	N	Y	N	Y	N
Work Order Labor Hours (WLH)	2.5	2.5	2.5	2.5	2.5
Charge Work Order Labor (WLHC)	N	N	Y	Y	Y
Work Order Parts Qty (WOPQ)	0	0	0	0	4
Work Order Parts Price (WOPP)	0	0	0	0	3.25
Returning Cost (RC)	$ 100	$ 525	$ 225	$ 550	$ 238

Comments	**Job Number = Standard Hours.** Std. price exists, Customer hourly rate exist labor added to Work Order and charged. Service Facility hourly rate added but no labor entered at that rate. Parts removed from Work Order. ISO fee exists not used.	**Job Number = Standard Hours.** Std. price exists, Customer hourly rate removed. Previous labor on Work Order at Customer's previous hourly rate; charged. Service Facility hourly rate added but no labor entered at that rate. ISO fee exists Not used.	**Job Number = Standard Hours.** Std. price exists, Customer hourly rate removed. Previous labor on Work Order removed. Service Facility hourly rate exists but no labor entered at that rate. ISO fee exists not used.	**Job Number = Standard Hours.** Std. price exists, Customer hourly rate doesn't exist. Service Facility hourly rate exists and labor entered and charged at Service Facility rate. ISO fee exists not used.	**Job Number = Standard Hours.** Std. price exists, Customer hourly rate doesn't exist. Service Facility hourly rate exists and labor entered and charged at Service Facility rate. Part added to Work Order. ISO fee exists not used.
Kind of Job Number (JN)	Standard Hours	Standard Hours	Standard Hours	Standard Hours	Standard Hours
Type Procedure Standard Hours (SH)	5	5	5	5	5
Type Procedure Standard Hours Type	Average	Average	Average	Average	Average
Type Procedure Std. Price (SP)	100	100	100	100	100
Asset Characteristics Quantity (AQ)	2	1	3	1	1
ISO Cert Fee (ISO)	225	225	225	225	225
Customer Hourly Rate (OHR)	50	0	0	0	0
Service Facility Hourly Rate (SHR)	75	75	75	75	75
Work Order ISOCert Checked (ISOB)	N	N	N	N	N
Work Order Labor Hours (WLH)	2.5	2.5	0	3	3
Charge Work Order Labor (WLHC)	Y	Y	N/A	Y	Y
Work Order Parts Qty (WOPQ)	0	0	0	0	8
Work Order Parts Price (WOPP)	0	0	0	0	3.25

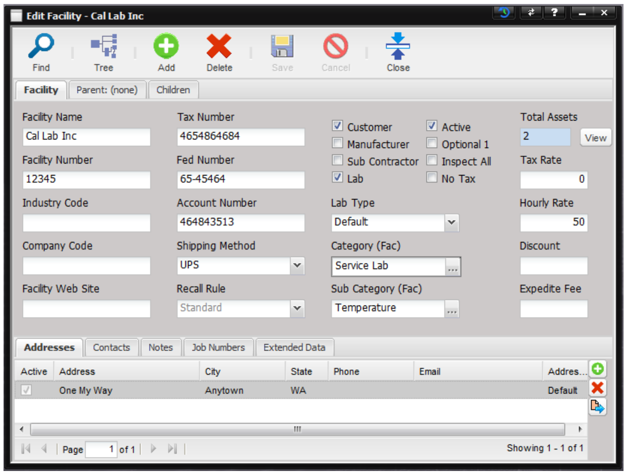
Returning Cost (RC)	$ 325	$ 225	$ 300	$ 325	$ 351

Comments	**Job Number = Level of Effort.** Standard Hours and Std. Price exists have no effect. ISO fee exists not used.	**Job Number = Level of Effort.** Standard Hours and Std. Price exists have no effect. Customer hourly rate exists, labor is added to the Work Order and charged. Service Facility hourly rate added but no labor entered at that rate. ISO fee exists not used.	**Job Number = Level of Effort.** Standard Hours and Std. Price exists have no effect. Customer hourly rate does not exist. Service Facility hourly rate exists and labor entered on Work Order at that rate. ISO fee exists not used.	**Job Number = Level of Effort.** Standard Hours and Std. Price exists have no effect. Customer hourly rate exists. Service Facility hourly rate exists. Labor entered on Work Order uses Customer hourly rate. Parts added to Work Order and charged. ISO fee exists not used.	**Job Number = Level of Effort.** Standard Hours and Std. Price exists have no effect. Customer hourly rate exists. Service Facility hourly rate exists. Labor entered on Work Order uses Customer hourly rate. Parts added to Work Order and charged. ISO fee exists and used.
Kind of Job Number (JN)	Level of Effort	Level of Effort	Level of Effort	Level of Effort	Level of Effort
Type Procedure Standard Hours (SH)	5	6	5	5	5
Type Procedure Standard Hours Type	Average	Average	Average	Average	Average
Type Procedure Std. Price (SP)	100	100	100	100	100
Asset Characteristics Quantity (AQ)	2	1	3	1	1
ISO Cert Fee (ISO)	225	225	225	225	225
Customer Hourly Rate (OHR)	0	50	0	50	50
Service Facility Hourly Rate (SHR)	0	75	75	75	75
Work Order ISOCert Checked (ISOB)	N	N	N	N	Y
Work Order Labor Hours (WLH)	0	1	1	1	1
Charge Work Order Labor (WLHC)	N/A	Y	Y	Y	Y
Work Order Parts Qty (WOPQ)	0	0	0	8	8
Work Order Parts Price (WOPP)	0	0	0	3.25	3.25
Returning Cost (RC)	$ -	$ 50	$ 75	$ 76	$ 301

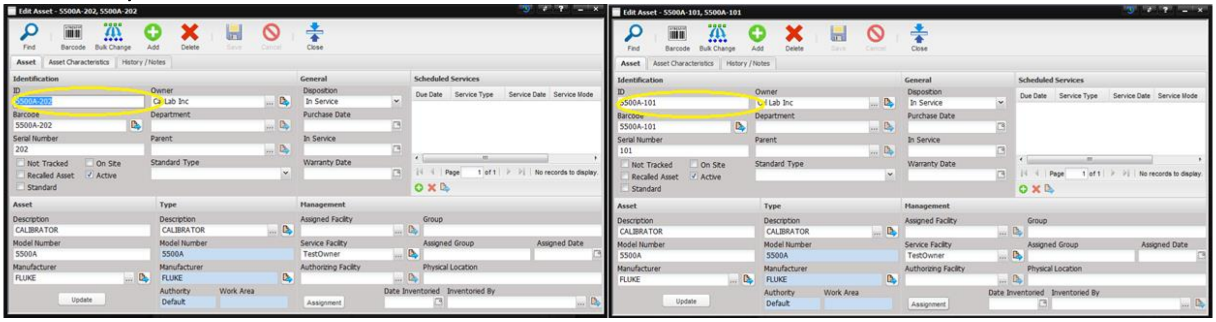
Job Number – Standard Hours

The following provides an example of how costs are calculated using the Standard Hours algorithm.

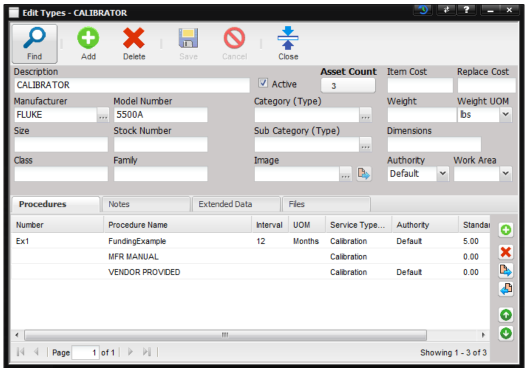
1. Create a Facility and assign an hourly rate. In this example the Facility Name is “Cal Lab Inc” and the hourly rate is $50.



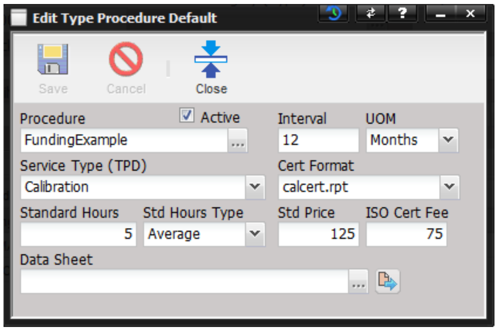
2. The Facility owns two Assets with IDs of 5500A-101 and 5500A-202.



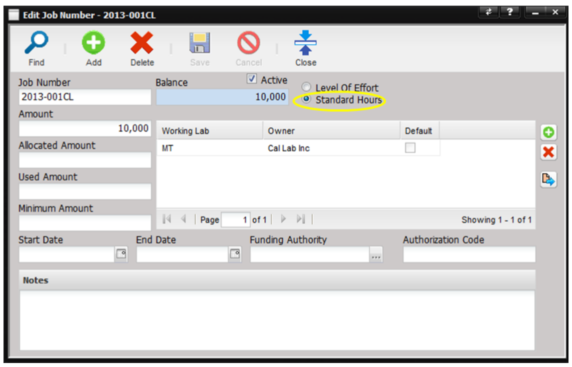
The Procedure associated with the Asset type (5500A) is called "FundingExample" and is displayed on the Type screen.



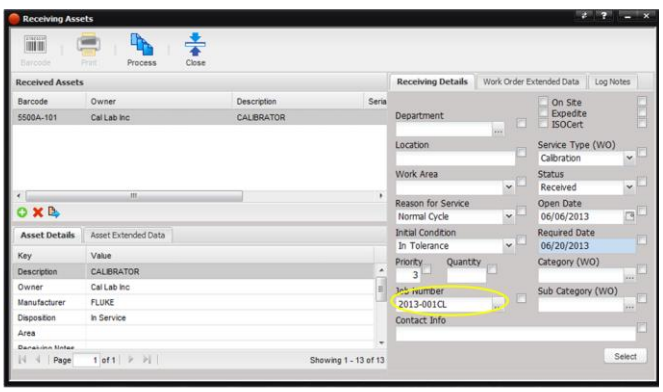
The "FundingExample" procedure states 5 standard hours, a standard price of $125, and ISO cert Fee of $75.



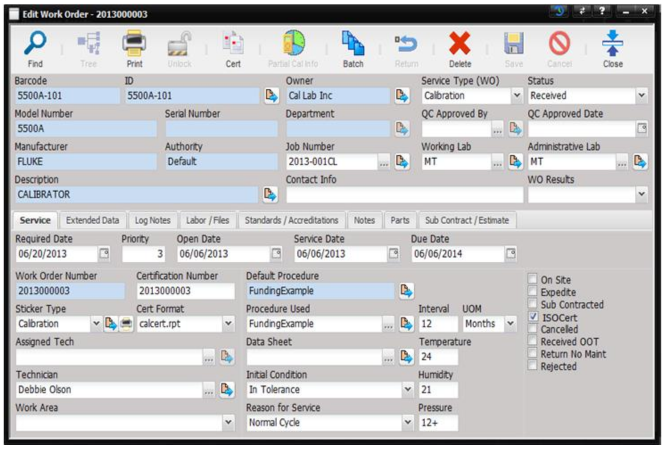
3. Create a Job Number for the Facility “Cal Lab Inc”. Specify that the costing will be based on “Standard Hours” by selecting the Standard Hours option and with an amount of $10,000.



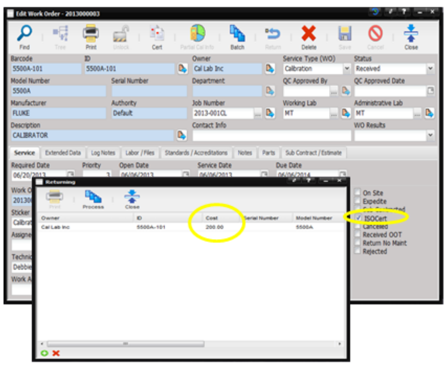
4. Receive Asset 5500A-101 into the Servicing Lab by selecting the Receiving menu option and then Processing the Asset. Notice the Job Number is brought into the Receiving screen.



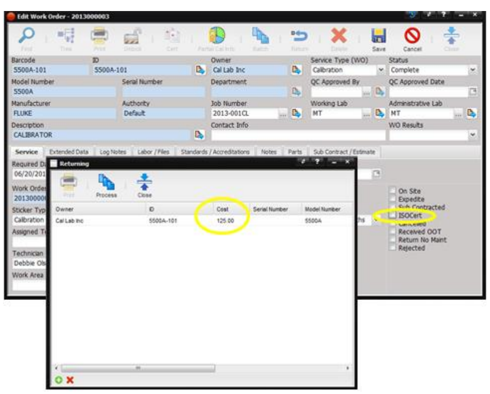
5. Open the Work Order that was created during the receiving process. In this example, the Work Order number is “2013000003”. Enter a Service Date, Due Date, and Procedure Used (“FundingExample”). Select the Save button.



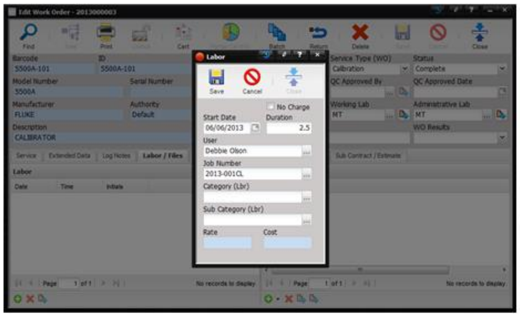
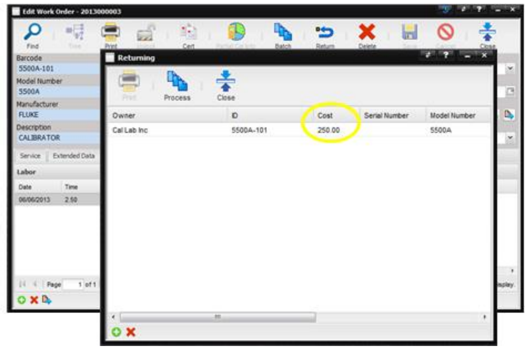
6. A Work Order can only be returned if the Status is “Complete”. Create a Log Note, select “Complete” as the Status, and save the Work Order. Now select the Return button.
   - The Return screen displays a cost of $200 which is derived from the Std. Price and in this case the ISO Cert Fee from the FundingExample procedure.
     - Calculation = $125 (Std. Price) + $75 (ISO Cert Fee) refer to step #2.



   - Uncheck the ISOCert check box on the Work Order and the Returning cost = $125 (Std. Price).
     - Calculation = $125 (Std. Price)



   - With the ISOCert check box unchecked, add 2.5 hours of Labor to the Work Order by going to the Labor/Files tab and selecting the green “+” button on the left side at the bottom of the screen. Select the Return button and the Returning cost = $250.

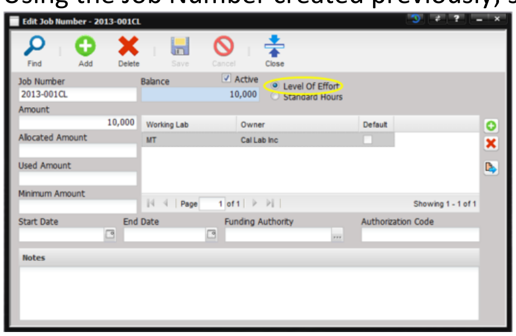
Note: The dollar amount on the labor record WILL NOT change once saved even if the labor rate changes. To adjust the dollar amount the labor record must be deleted and reentered.

- Change the Std. Price on the "FundingExample" procedure to $0, keep the ISOCert check box unchecked on the Work Order, the Return screen displays a cost of $375.
    - Calculation = 5 (std hours)* $50 (customer rate) + 2.5 (labor hours on Work Order) * (customer rate)
    - If the Customer hourly rate is removed from the Facility screen, this calculation remains the same because the labor was added prior to the Customer hourly rate being removed.

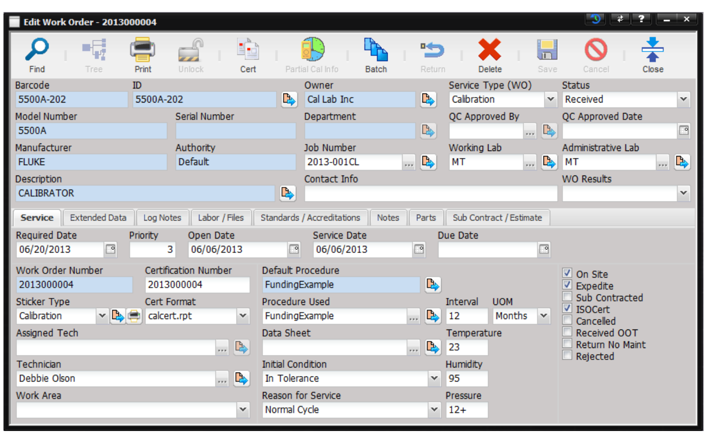
Job Number – Level of Effort

The following provides an example of how costs are calculated using the Level of Effort algorithm.

1. Using the Job Number created previously; select the radio button "Level of Effort".

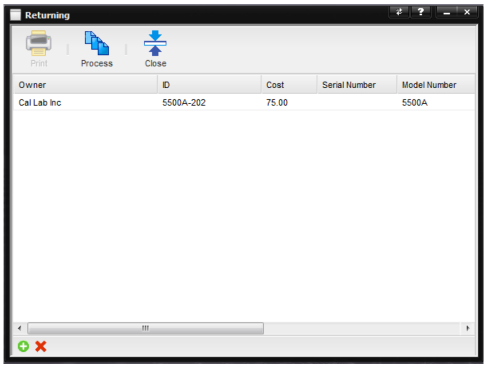


2. Receive Asset 5500A-202 into the Servicing Lab by selecting the Receiving menu option and then Processing the Asset. Notice the Job Number is brought into the Receiving screen. Open the Work Order that was created.

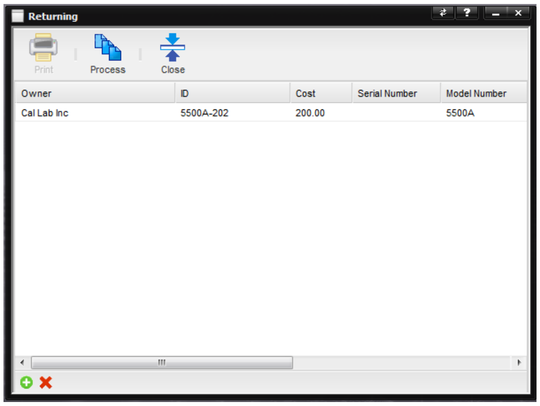


3. Entering a Service Date, Due Date, and complete the Work Order by creating a Log Note. Then select the Return button at the top of the screen.

- The Return screen displays a cost of $75 which is derived from the ISO Cert Fee from the FundingExample procedure.
    - Calculation = $75 (ISO Cert Fee)

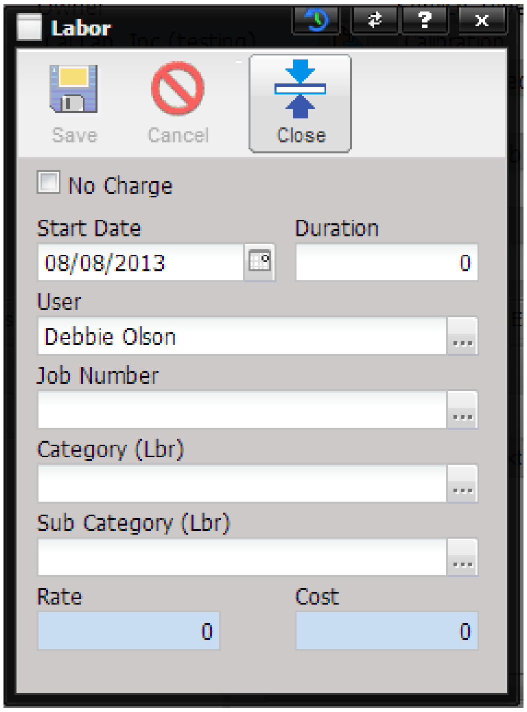


- Enter Labor of 2.5 hours using the Labor/Files tab. When the Return button is selected the Return screen displays $200 which is derived from the labor charge and the ISO Cert Fee.
    - Calculation = 2.5 (labor hours) * $50 (customer Rate) + $75 ISO Cert Fee.



Adding Labor

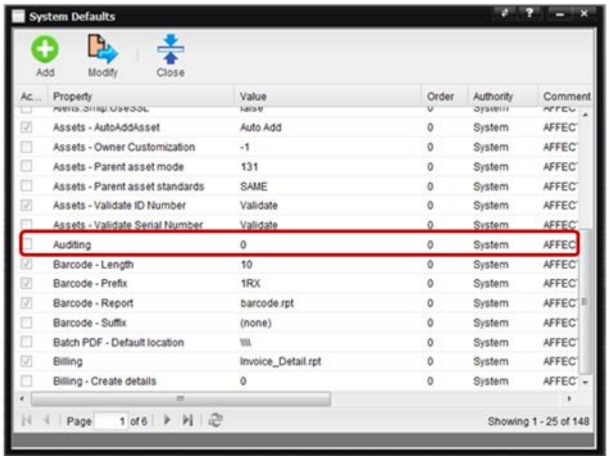
The Labor screen appears when adding labor from the Work Order Labor/Files tab and from the My Work screen.

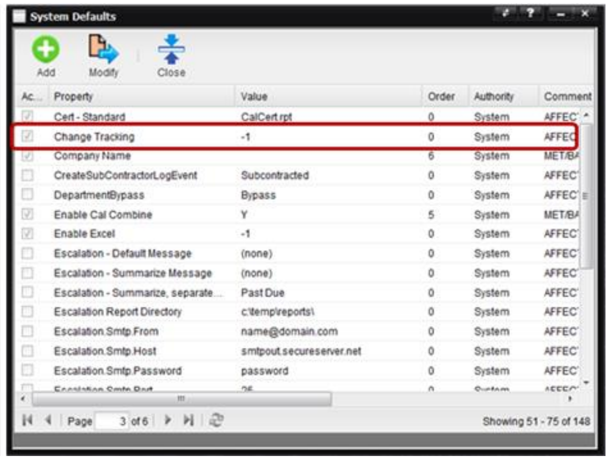


- **No Charge** – Tells the system when calculating labor costs, this time entry should not be included in the labor charge. This check box cannot be customized because the functionality is associated with the calculated Cost field on this screen.
- **Start Date** – The date of the time record.
- **Duration** – The duration of the labor in hours and tenths. This is designed to be entered daily. The maximum value is 24 hours and the minimum is 0.
- **User** – Name of the person entering the labor record.
  - The user can be changed by selecting the "…" button.
- **Job Number** – The job number this labor is charged to (pre-filled with the Work Order job number)
  - The job number can be changed by selecting the "…" button.
- **Category (Lbr)** –The category of the labor (not required).
  - The category can be changed by selecting the "…" button.
- **Sub Category (Lbr)** – The subcategory of the labor. (not required)
  - The sub category can be changed by selecting the "…" button.

Auditing and Change Tracking

MET/TEAM provides the ability to track changes. There are two System Defaults used for tracking changes: Auditing and Change Tracking.

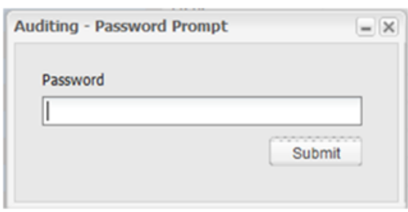


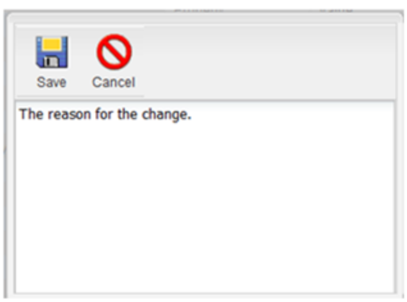


Auditing

When Auditing is active, the user is prompted for a password. If the password, is correct a dialog is displayed for entering a reason for the change. A change reason must be entered before selecting the Save button.

Note: *Changing the active state of the Auditing System Default requires users to log off and close the browser for the change to take effect.*





Note: *To view the auditing history, the Change Tracking System Default must be active.*

Change Tracking

When auditing is not required but tracking of changes is desired, activate the Change Tracking System Default. When active, changes to most of the database tables are tracked, keeping a history.

Note: Change tracking operates on the database level, which means that the tracking mechanism is not limited to screens that show the actual change tracking history icon/button. Unless a table/column is not included in tracking, any change to it, from MET/TEAM, MET/CAL, or running a query in SQL Server Management Studio is captured. For the latter case, the user that made the change or the application the change came from, may be inaccurate, because the information may not be available.

History Log

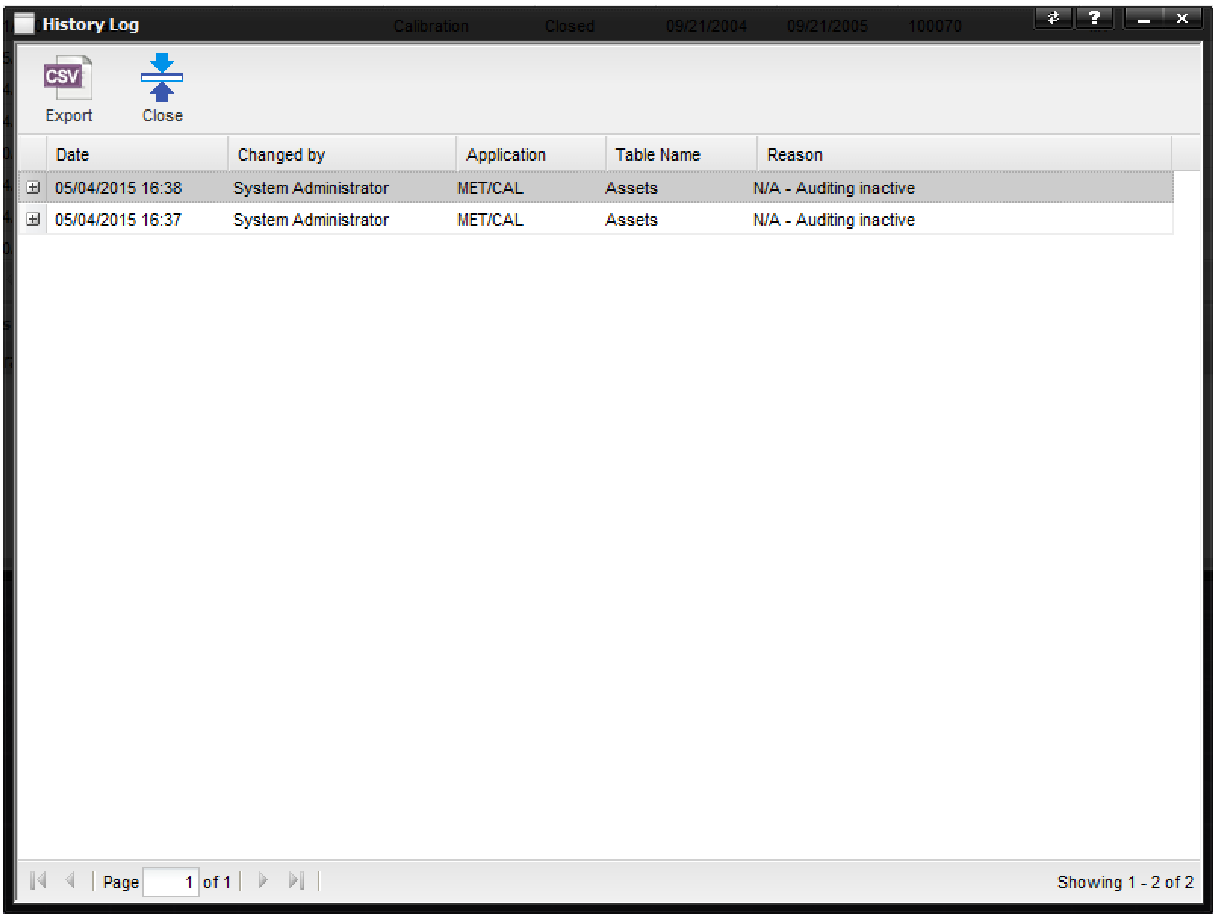
The history of changes made due to Auditing or Change Tracking being active, can be viewed by selecting the History Log button in the upper right hand corner.

1. Enable the Change Tracking System Default.

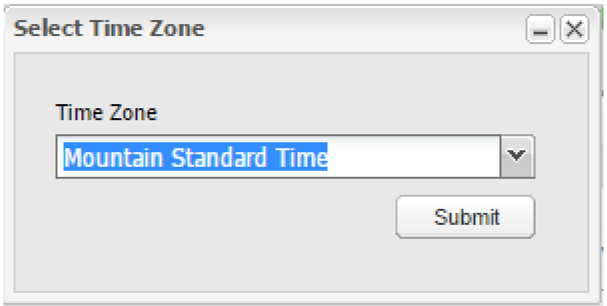
- When Change Tracking is **active** and Auditing is **inactive**, changes are logged to the database. The user making the change is not prompted to enter a reason for the change. In this case, the History Log indicates "N/A – Auditing inactive" in the Reason column because Auditing was inactive.
- When Change Tracking is **active** and Auditing is **active**, the user making the change is required to enter a reason for the change.

2. Go to the screen where the history changes were made or that you are interested in viewing.
3. Select the History Log button next to the Refresh button on the upper right hand corner of the screen.

4. The History Log dialog is displayed. Select the "+" on the left side to expand that particular change and view the details. The information can be exported to a .CSV file format by selecting the Export button.



When exporting data to a CSV file, the Select Time Zone prompt is displayed. The drop-down lists all time zones with the same UTC offset as your current time zone. This is used to facilitate converting any exported dates to local time, including adjusting for Daylight Saving time, as applicable. Select the appropriate time zone to use for the export and click Submit to initiate the export process.



- History Logs for System Defaults can be viewed by editing the individual System Default and then selecting the "History Log" button from that individual System Default. The "History Log" button is not available on the System Defaults main screen.
- History Logs for Calendar can be viewed by editing the individual Calendar task and then selecting the "History Log" button from that individual Calendar task. The "History Log" button is not available on the Calendar main screen.
- History Logs for Data Checks can be viewed by editing the individual Data Check and then selecting the "History Log" button from that individual Data Check. The "History Log" button is not available on the Data Check main screen.
- For tables that have an accompanying "Ex" table, e.g. Assets and Asset Ex, history is generated for the main record and/or the "Ex" record, in separate entries, depending on what was changed.
- Changes are not tracked on the following:
    - Escalation Data
    - Work Order Files Tab
    - Invoice Items
    - Shipment Items
    - Work Order Log

Report Writing with Crystal Reports 2011

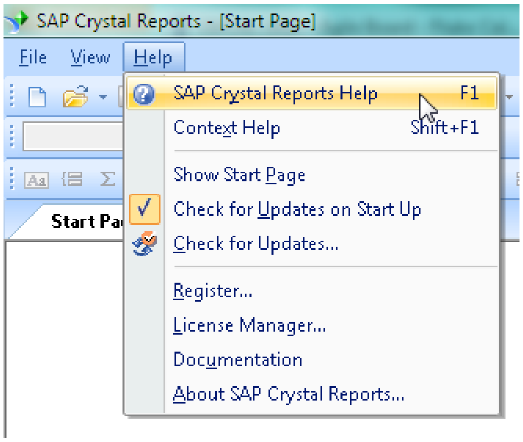
Helpful Links

SAP Community Forum for Crystal Reports
http://scn.sap.com/community/crystal-reports

SAP Crystal Solutions: What's New in 2013 (PDF)
Whitepaper:
http://www.sdn.sap.com/irj/scn/go/portal/prtroot/docs/library/uuid/809f9f8e-8f32-3110-f8bf-e34cd2298343

SAP - Comparison of Features by Version for the SAP Crystal Reports Family (PDF)
Whitepaper:
https://www.sapstore.com/medias/Reports-Versions.pdf?context=bWFzdGVyfHJvb3R8Mjg2MzA0MXxhcHBsaWNhdGlvbi9wZGZ8aGU2L2hkMy84Nzk3MTg0MTk2NjM4LnBkZnwyODczZWIwZGY2MTlmZTIzMzkzYTVmYmE5NDFiNmZjNDM0ZjY3MTg3NzhlMTY0N2VjMjE3NDQ2YWVjYjg4Yzg1

Online Help (CHM)
This is accessible from the Crystal Reports Designer, under Help, SAP Crystal Reports Help (F1)



Prerequisites

MET/TEAM has been installed on the web server or the current PC, running standalone. The database installed is called METTEAM and can be accessed using the MET/TEAM application. The report writer has access to the database, via integrated security (domain account access) or an explicit user name and password, provided by the SQL Server® administrator.

The data used for demonstration purposes is what is available via the default database installation option.

***Note:** To successfully run the Turnaround Time Report on just the default data, it may be necessary to update CallSheetResults.nTechnicianUID with a valid Users.nUserUID.*

This can be done like this, for example:

```
UPDATE dbo.CallsheetResults SET nTechnicianUID = (SELECT nUserUID FROM dbo.Users WHERE
cUsername = 'fluke') WHERE nTechnicianUID IS NULL;
```

Furthermore, CallSheets.tOpenDate may contain the same value as CallSheets.tMaintDate. In order to produce a more illustrative report, an update like this may be of help:

```
UPDATE dbo.CallSheets SET tOpenDate = DATEADD(DAY,-2,tOpenDate) WHERE tOpenDate =
tMaintDate
```

Do not run these updates on production data.

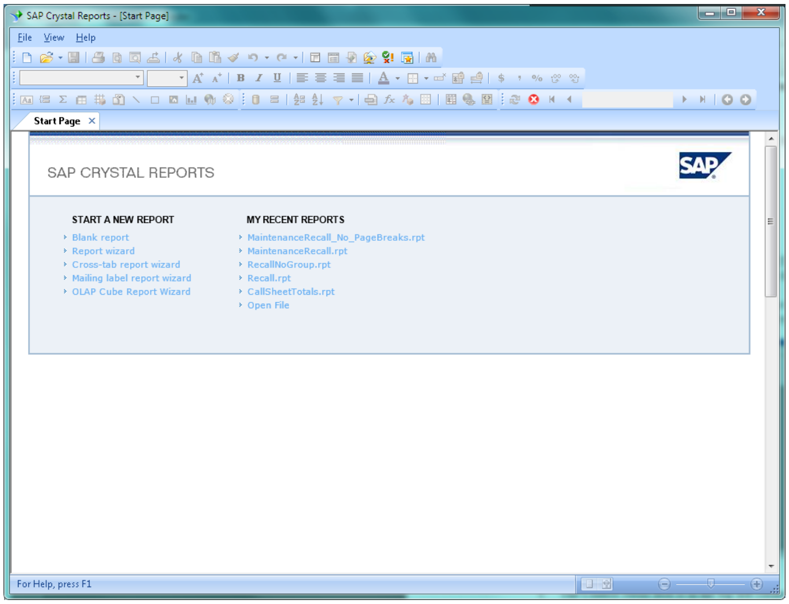
Crystal Report Icons

Button Icon	Use
	New Report
	Record Sort Expert
	Insert Line
	Insert Box

	Formula Workshop

Creating a Simple Report

To open the Crystal Reports Designer, click Start > All Programs > Crystal Reports 2011 > Crystal Reports 2011.

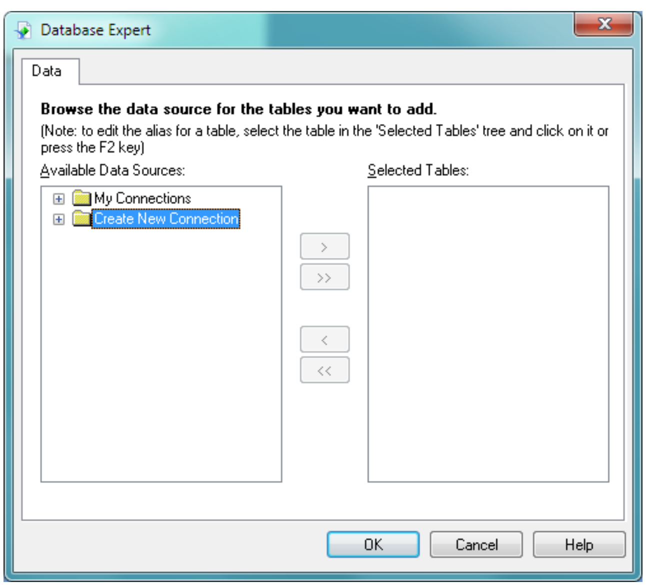


The shortcuts on the startup screen provide options to create a blank report, launch one of several report wizards, as well as opening an existing report, via recent report shortcuts or the Open File shortcut.

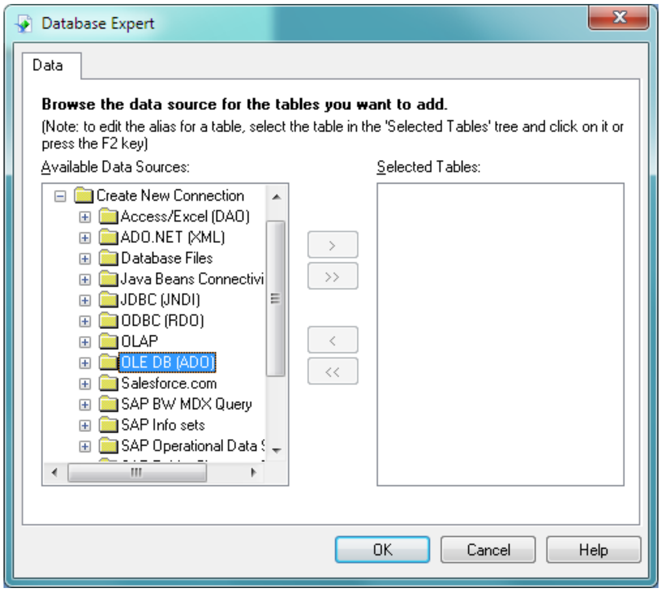
Start a new blank report via the Blank Report shortcut, pressing CTRL+N or clicking the New Report icon on the top toolbar.

Connecting to the database

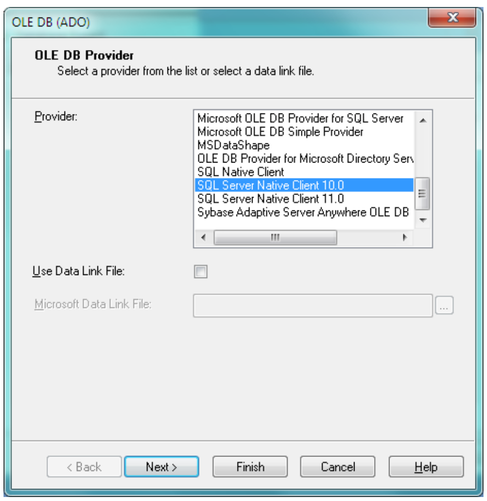
The Database Expert window opens and from here we will add database items to the report.



Expand the Create New Connection, and then expand OLE DB (ADO).

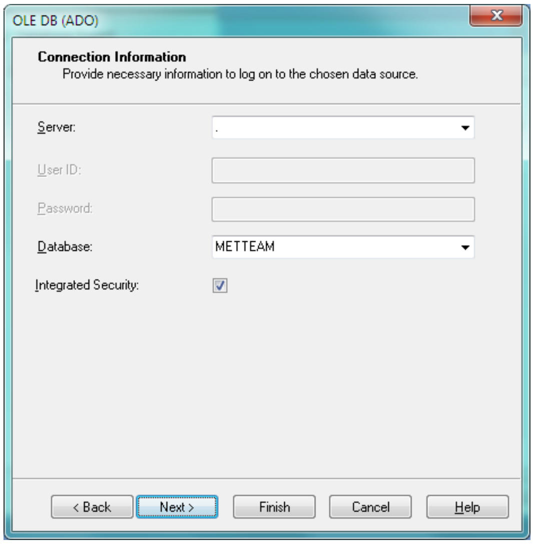


Select SQL Server Native Client 10.0 from the list of OLE DB Providers.



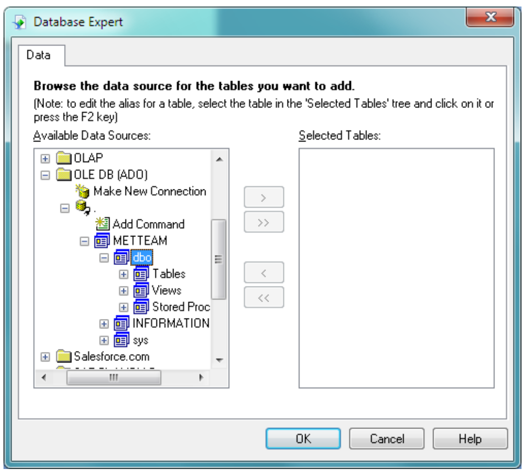
SQL Server Native Client 10.0 ships with SQL Server® 2008 R2 and is forward-compatible for use with SQL Server® 2012. SQL Server Native Client 11.0 ships with SQL Server® 2012 and cannot be used to connect to a SQL Server® 2008 R2 Database.

Press the Next button and on the Connection Information screen, select the server to connect to from the dropdown, enter user credentials and select the METTEAM database from the Database dropdown.



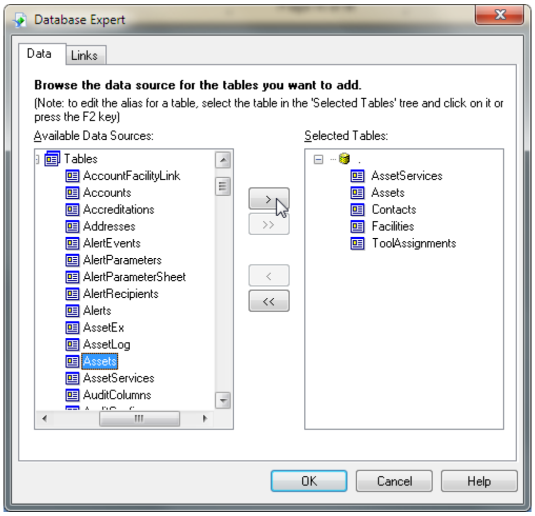
Adding tables to the report

Press Finish, which will close the OLE DB (ADO) dialog and get us back to the Database Expert window, where METTEAM is now available under OLE DB (ADO). Expand the dbo (database owner) node to list the types of items we can add to the report, namely Tables, Views and Stored Procedures.

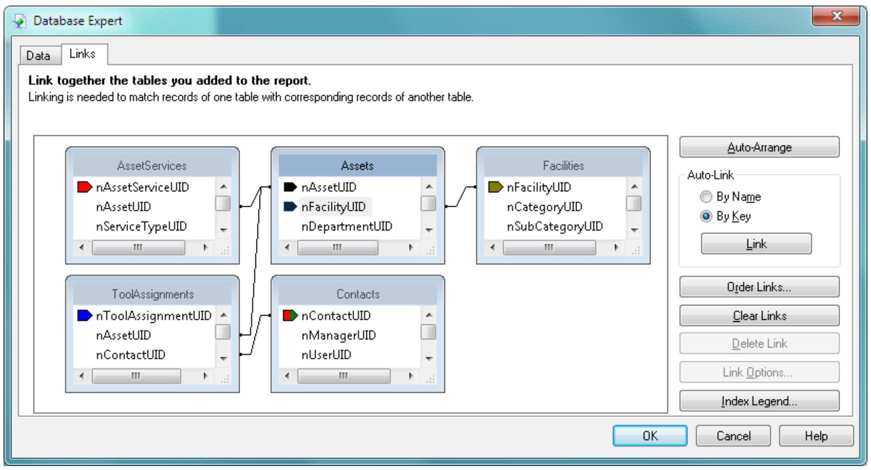


Select the following tables, copying each to the right box using the arrow > button and then click OK:

- Assets
- AssetServices
- Contacts
- Facilities
- ToolAssignments



The Database Expert will now show the linking between the tables.



Our Report will be a simple **Assets Due for Calibration** Report. In order to select the data used in the report it is necessary to understand which MET/CAL tables we will be using and how they are linked.

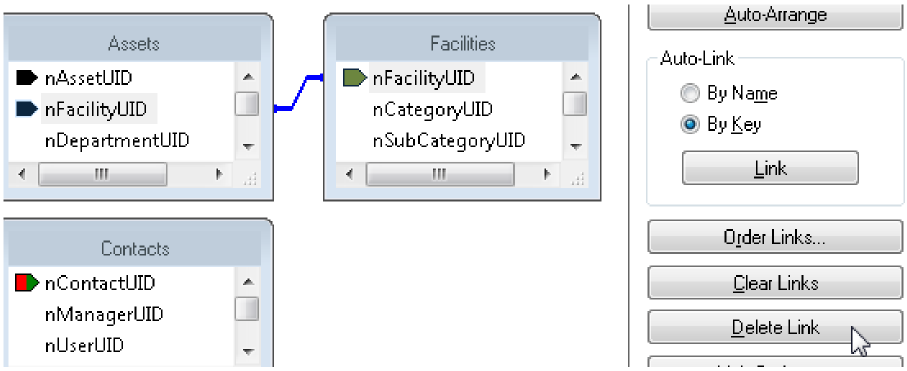
For our report we will need fields:

Assets.cID	Asset ID
Facilities.cFacilityName	Manufacturer
Assets.cModelNumber	Model
Assets.cDescription	Description
Contacts.cFirstName	User (First) Name
Contacts.cLastName	User (Last) Name
AssetServices.tNextMaintDate	Cal Due Date

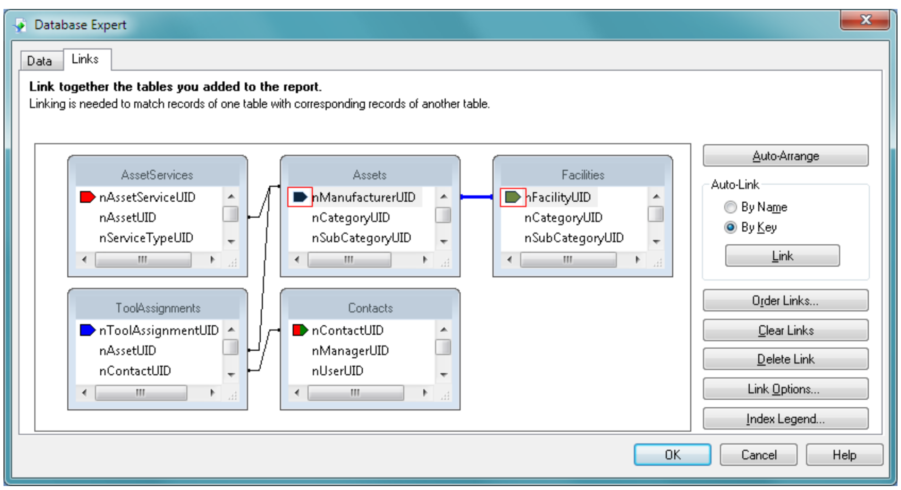
The link between Assets and AssetServices as well as ToolAssignments is via the nAssetUID field in each of the tables. The Contacts to ToolAssignments link is via the nContactUID field in both tables. Each of these links is found automatically by the Databases Expert. For the link from Assets to Facilities, we need to make sure that we get the facility for the manufacturer, via the nManufacturerUID in Assets. The automatic smart link performed by the Database Expert defaults to the Asset's owner link, i.e. nFacilityUID in Assets is linked to nFacilityUID in Facilities.

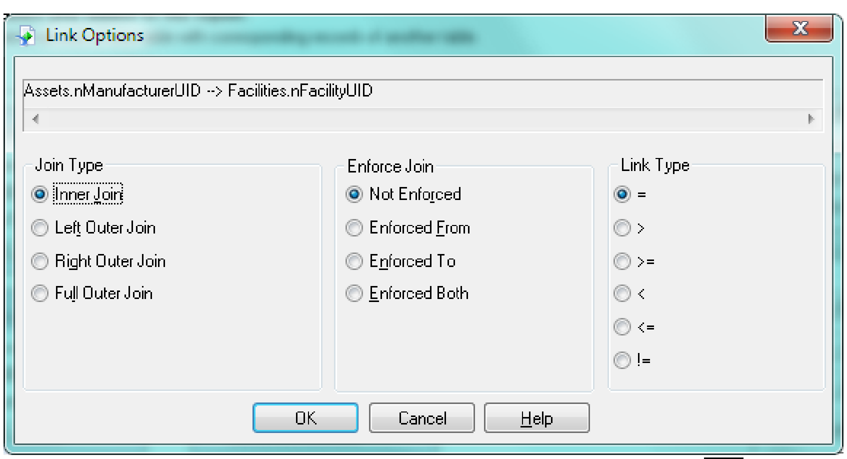
Right-click the link between Assets and Facilities, and select Link Options.

To relink Assets and Facilities correctly, let's delete the automatic link and insert a new one. Highlight the link between Assets and Facilities, so it turns blue, and press the Delete Link button.



Now locate nManufacturerUID in the Assets field list and drag the pointer symbol to the nFacilityUID column in the Facilities field list. A new link is established, highlighted in blue. Double-check we have the correct link by right-clicking on it and selecting Link Options again.

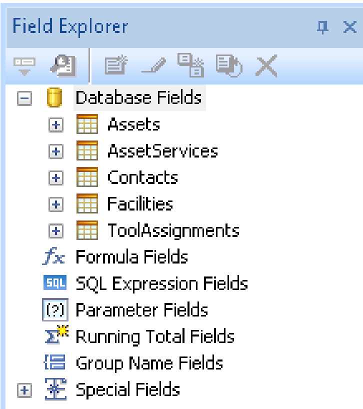




Now, Assets and Facilities are joined correctly and Facilities.cFacilityName in our result set will reflect the Asset's manufacturer name.

Inserting Data Fields

Now let's turn our attention to the Field Explorer on the right side of the main designer window. If it is not already visible, on the main menu bar, click View then Field Explorer.



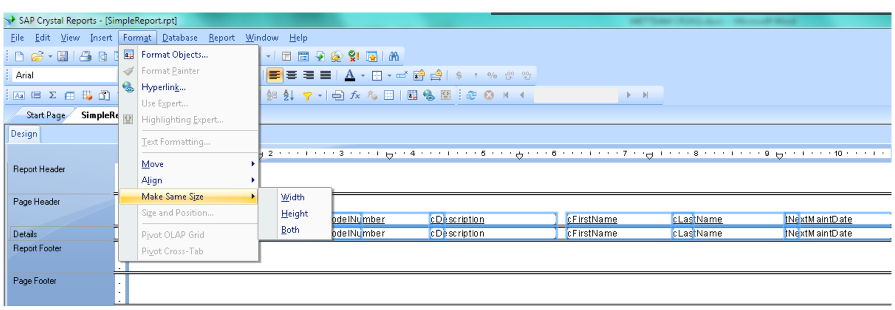
Expand Assets and select cID. A box will appear on your cursor when moved out of the Field Explorer box. Move your cursor to the Details Section of your report and place it where you want the data to show on your report and click the mouse button. If you placed the data box in the Details Section an automatic heading will appear with cID in the heading. We will adjust the headings once all the fields have been added to the report. Now proceed with the other data fields for the report.

Changing Field Formats

It may be necessary to change the size of the data fields. Left-click to highlight the field, then move the mouse cursor to the small resizing handle on one of the ends of the highlighted box. The mouse cursor will change into a double arrow. Hold down the left mouse button and change the size of the field. Do the same for the respective heading. Better yet, select both field and heading (left-click while holding the CTRL key), to resize both at the same time.

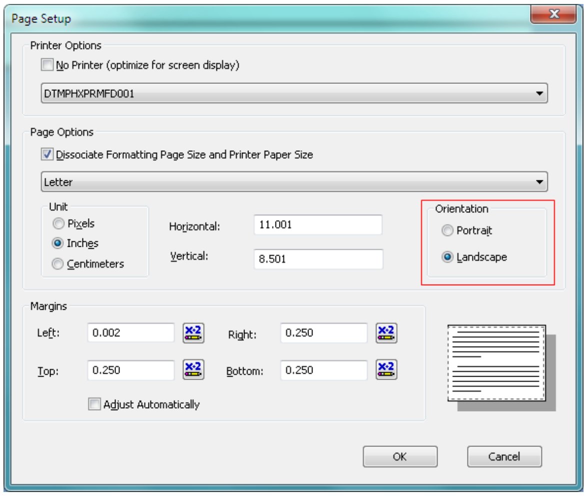
Formatting Assistance

On the main menu, under Format, there are several options to re-arrange the fields. Select the fields you want to re-arrange by holding the CRTL key and left-clicking with the mouse (select all by pressing CTRL+A) and explore the options on the Format menu, Align and Make Same Size.



Changing the Report Orientation

Since the selected fields are rather large, it may be best to change the report orientation to Landscape format. To do that, go to Page Setup on the File menu and change the Orientation to Landscape.



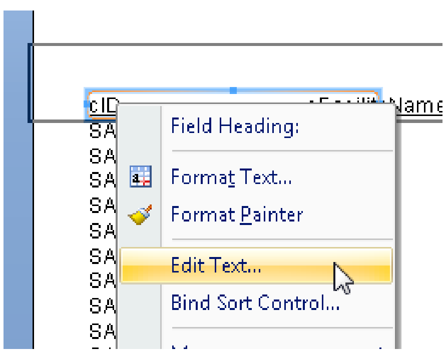
Keep in mind that these options may vary, depending on the printer selected.

Previewing the Report

Let's take a look at what the report will look like at this point. Do this by pressing the F5 key, to preview the report. The report will appear just the way it would be if printed at this point. In Preview mode, you may also move the data around by highlighting the data field and holding down the left mouse button, drag the data field to where you wish it and let go.

Adjusting the column headers

Changing the column headers from their default database field names to more user friendly descriptions is something we had planned to do but not yet done. The report preview is the perfect place to adjust the headings, since we will see right away how it will be printed later. Right-click each heading and select Edit Text. Alternately, left-click the heading and press F2.



Now type the new heading for each field, Asset ID, Manufacturer, Model, Description, First Name, Last Name and Cal Due Date. To change font, color, bold, etc. select the Format Text option from the right-click menu instead.

Inserting Text Fields

Now let's add a title to the report. We can add text in two ways:

- Type the text directly onto the report.
- Insert a text object.

For this example, we will insert a text object. To insert a text object, click Insert on the main Menu and choose Text Object. Move the cursor to position the text object in the Header section then click. Type in: Assets Due For Calibration. When finished, Click anywhere off the edit text object box. **Note**: It is easier to do this in design mode.

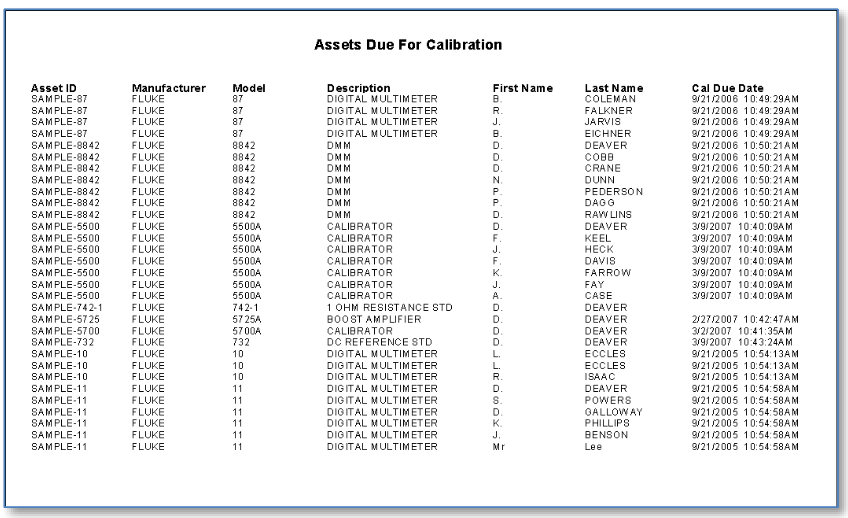
Formatting Fields

Now we have a basic Assets Due for Calibration report. Let's spend some time formatting the fields so that they are presentation quality. Let's begin by formatting the report title. We need to expand the title size to the width of the report.

1. Increase the font size of the title to 14 point by clicking on the font size down arrow.
2. Click the Report Title field to select it.
3. Position your cursor on the right edge of the field box until you get a double-arrow resizing cursor.
4. Drag the right edge of the field box until it is even with the right edge of the data in the right column in the Preview Window. You may need to release the field box, scroll the window to the right, and then continue expanding the field box until it is even with the right edge of the column.
5. Scroll to the left edge of the Preview Window when finished. What you have done now is created a large field that extends from the left edge to the right edge of your report. Now we're going to center align the title in that field so it will automatically be centered above your report date.
6. At the bottom of the window is the Format Bar. Click (the center alignment button) to center the report title inside the text field.

   To format a field, right-click on the field and a pop-up menu will appear. Use Format Text… to change the font, font size, style, effects, border and/or color for selected elements on the report.

Our report should look something like this:



Assets Due For Calibration

Asset ID	Manufacturer	Model	Description	First Name	Last Name	Cal Due Date
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	B.	COLEMAN	9/21/2006 10:49:29AM
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	R.	FALKNER	9/21/2006 10:49:29AM
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	J.	JARVIS	9/21/2006 10:49:29AM
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	B.	EICHNER	9/21/2006 10:49:29AM
SAMPLE-8842	FLUKE	8842	DMM	D.	DEAVER	9/21/2006 10:50:21AM
SAMPLE-8842	FLUKE	8842	DMM	D.	COBB	9/21/2006 10:50:21AM
SAMPLE-8842	FLUKE	8842	DMM	D.	CRANE	9/21/2006 10:50:21AM
SAMPLE-8842	FLUKE	8842	DMM	N.	DUNN	9/21/2006 10:50:21AM
SAMPLE-8842	FLUKE	8842	DMM	P.	PEDERSON	9/21/2006 10:50:21AM
SAMPLE-8842	FLUKE	8842	DMM	P.	DAGG	9/21/2006 10:50:21AM
SAMPLE-8842	FLUKE	8842	DMM	D.	RAWLINS	9/21/2006 10:50:21AM
SAMPLE-5500	FLUKE	5500A	CALIBRATOR	D.	DEAVER	3/9/2007 10:40:09AM
SAMPLE-5500	FLUKE	5500A	CALIBRATOR	F.	KEEL	3/9/2007 10:40:09AM
SAMPLE-5500	FLUKE	5500A	CALIBRATOR	J.	HECK	3/9/2007 10:40:09AM
SAMPLE-5500	FLUKE	5500A	CALIBRATOR	F.	DAVIS	3/9/2007 10:40:09AM
SAMPLE-5500	FLUKE	5500A	CALIBRATOR	K.	FARROW	3/9/2007 10:40:09AM
SAMPLE-5500	FLUKE	5500A	CALIBRATOR	J.	FAY	3/9/2007 10:40:09AM
SAMPLE-5500	FLUKE	5500A	CALIBRATOR	A.	CASE	3/9/2007 10:40:09AM
SAMPLE-742-1	FLUKE	742-1	1 OHM RESISTANCE STD	D.	DEAVER	
SAMPLE-5725	FLUKE	5725A	BOOST AMPLIFIER	D.	DEAVER	2/27/2007 10:42:47AM
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	D.	DEAVER	3/2/2007 10:41:35AM
SAMPLE-732	FLUKE	732	DC REFERENCE STD	D.	DEAVER	3/9/2007 10:43:24AM
SAMPLE-10	FLUKE	10	DIGITAL MULTIMETER	L.	ECCLES	9/21/2005 10:54:13AM
SAMPLE-10	FLUKE	10	DIGITAL MULTIMETER	L.	ECCLES	9/21/2005 10:54:13AM
SAMPLE-10	FLUKE	10	DIGITAL MULTIMETER	R.	ISAAC	9/21/2005 10:54:13AM
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	D.	DEAVER	9/21/2005 10:54:58AM
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	S.	POWERS	9/21/2005 10:54:58AM
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	D.	GALLOWAY	9/21/2005 10:54:58AM
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	K.	PHILLIPS	9/21/2005 10:54:58AM
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	J.	BENSON	9/21/2005 10:54:58AM
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	Mr	Lee	9/21/2005 10:54:58AM

Selecting Records

The report we just created shows all of the data from the tables joined together in our query, which yields multiple records per Asset, due to inactive records that need to be excluded from the result set.

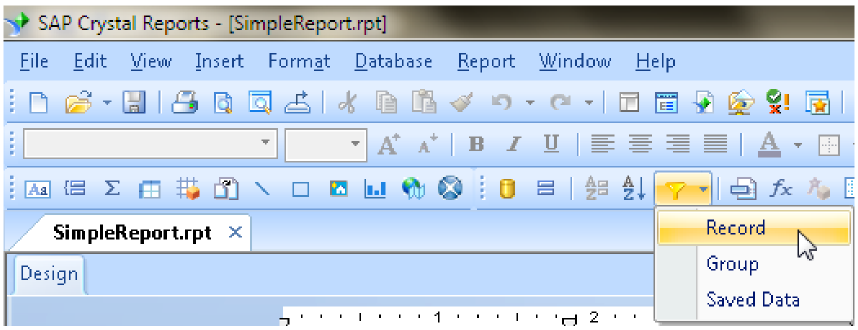
Crystal Reports provides two options for selecting records:

- Select Records Expert, which we are going to use here, and
- Edit Record Selection Formula, which is covered later.

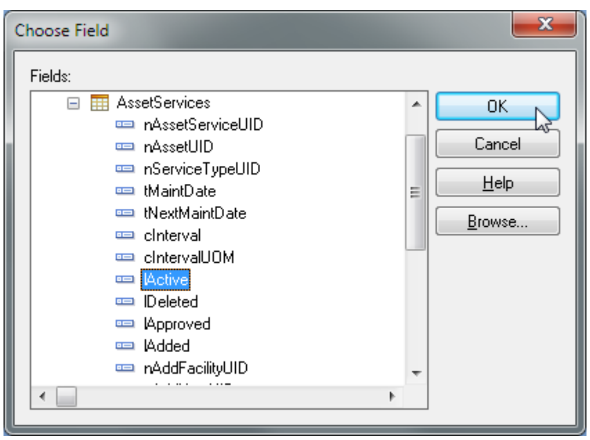
Record Selection using the Select Records Expert

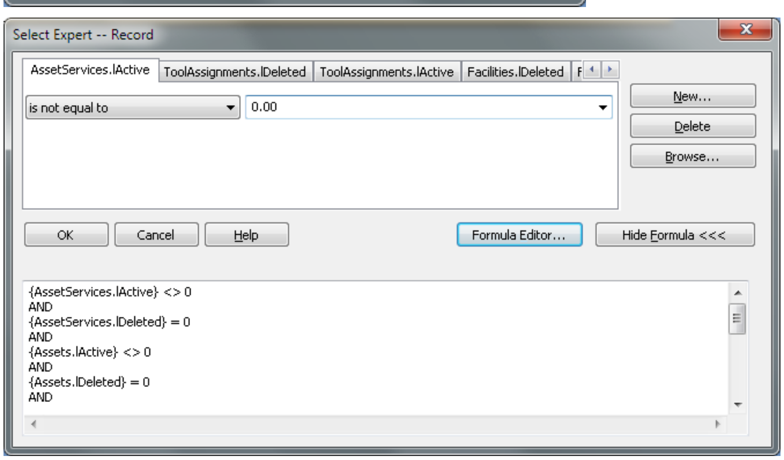
The Select Records Expert is a straightforward way to create a record selection expression. It will guide us through the creation process. There are three ways to access the Select Records option:

- Select a field and click the right mouse button to reveal a pop-up menu. Choose Select Expert Record… from the menu.
- Choose Selection Formulas, Record from the Report menu. The Formula Workshop Record Selection Formulas Editor dialog box will appear.
- Click the Select Expert dropdown on the button bar and select Record.

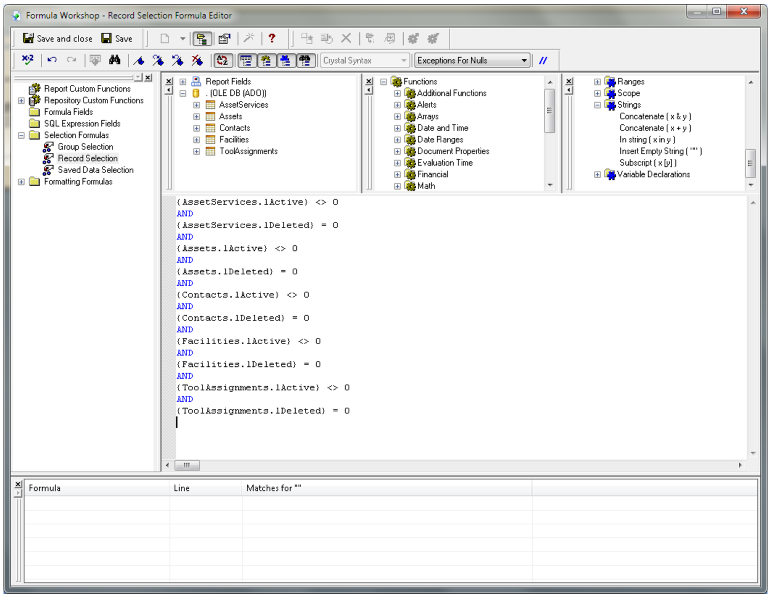


For each table in the report, first select the lActive field, select *is not equal to* and enter 0; then select the lDeleted field, select *is equal to* and enter 0. Press the New… button on the Select Expert to navigate to the next field.

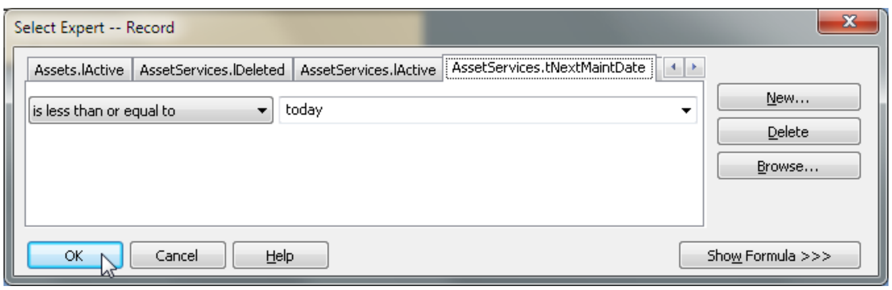




We can also enter all the filters in the Formula Workshop. To repeat, we want to exclude all records that are inactive or deleted. lActive on each record should not be 0 and lDeleted on each record should be 0:



Finally, let's make sure the cal due dates aren't in the future, by limiting AssetServices.tNextMaintDate to dates less or equal to today.



Now, the report is reduced to the relevant data set:

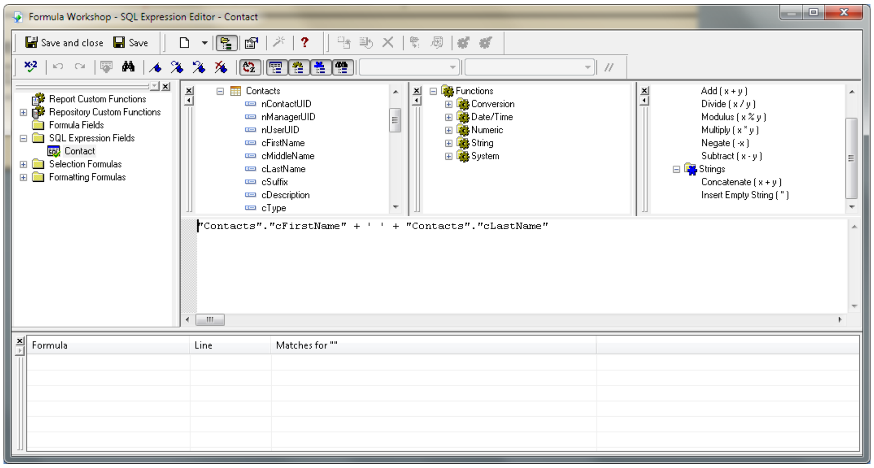
Assets Due For Calibration

Asset ID	Manufacturer	Model	Description	First Name	Last Name	Cal Due Date
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	B.	EICHNER	9/21/2006 10:49:29AM
SAMPLE-8842	FLUKE	8842	DMM	D.	RAWLINS	9/21/2006 10:50:21AM
SAMPLE-5500	FLUKE	5500A	CALIBRATOR	A.	CASE	3/9/2007 10:40:09AM
SAMPLE-742-1	FLUKE	742-1	1 OHM RESISTANCE STD	D.	DEAVER	
SAMPLE-5725	FLUKE	5725A	BOOST AMPLIFIER	D.	DEAVER	2/27/2007 10:42:47AM
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	D.	DEAVER	3/2/2007 10:41:35AM
SAMPLE-732	FLUKE	732	DC REFERENCE STD	D.	DEAVER	3/9/2007 10:43:24AM
SAMPLE-10	FLUKE	10	DIGITAL MULTIMETER	R.	ISAAC	9/21/2005 10:54:13AM
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	Mr	Lee	9/21/2005 10:54:58AM

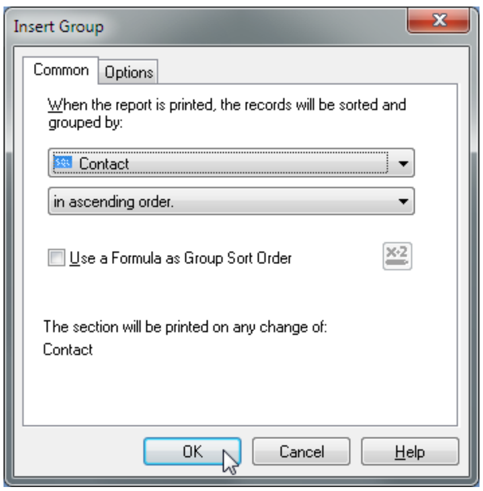
Inserting Groups

So far we have selected specific information for our report using record selection, but it is presented to us in the order which it is stored in the database. We can group information by report fields or even by fields that are not on the report. We would like to group information in this report by the contact and within that, sort the records by due date, then by model.

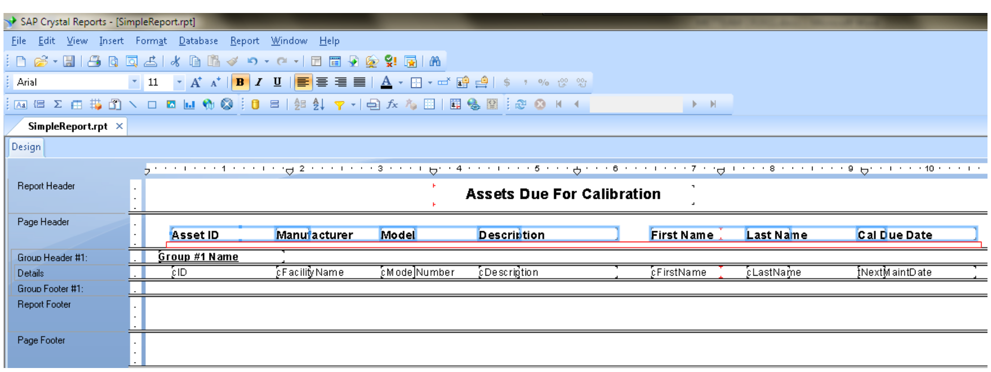
Since the contact consists of two fields, first and last name, we first make a SQL Expression, concatenating the two fields and call it "Contact".



Now select Group… from the Insert menu and select the newly created SQL Expression field, which has been added to the end of the report field list. Select *in ascending order* from the second dropdown.



Click OK. In the Design view we will see two new sections: the Group Header #1 and the Group Footer #1. Now we have the contact composite field above the group, but it is not pretty. So let's right-click on the Group #1 Name field and change the font to underline and bold, via Format Field…. We should also move the page headers up a notch, so that there is some space between the headings and the group headings. To do that, click the column headings one-by-one while holding the CTRL key. When all fields are selected, press the up arrow key, which will move the headings up a notch.



Record Sort Order

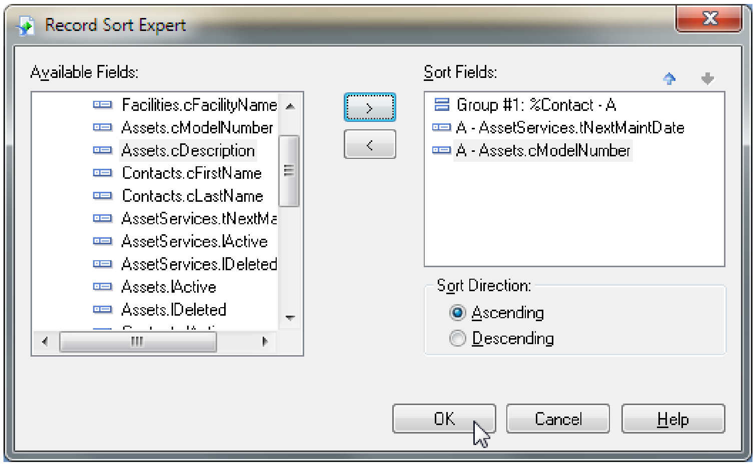
So far we have selected specific information for our report and grouped like information together. The records in each group are not sorted however; they appear in the same order as they appear in the database. Let's sort our report by due date and model. We can do this in two ways:

- Click Record Sort Expert button on the Button Bar

or

- Select Record Sort Expert from the Report menu

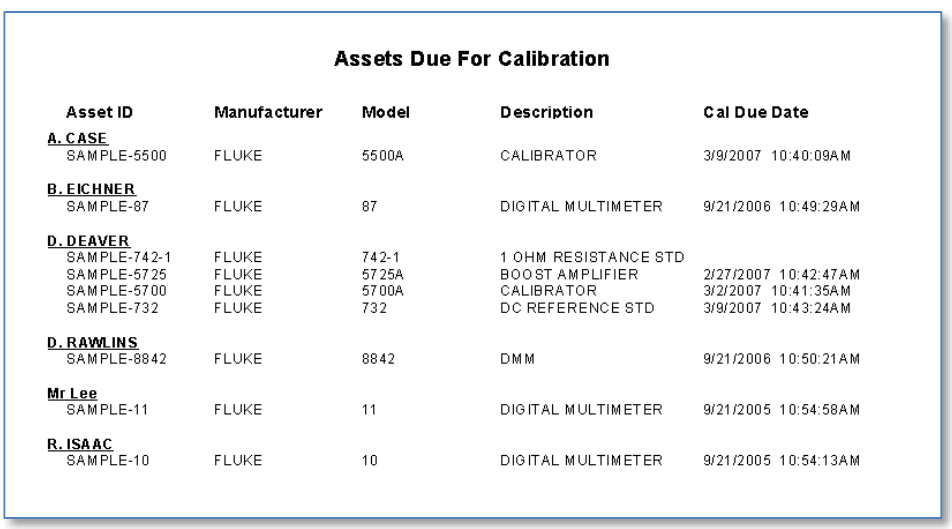
The Record Sort Expert dialog box appears.



The records are already sorted by the Contact composite field we created via the SQL Expression; now add AssetServices.tNextMaintDate and Assets.cModelNumber to the sort fields as well.

At this point, it makes sense to remove the first and last name columns from the report data since the information is already in the group headers. That way, we can save some real estate and change the page layout to portrait as well.

Now our report looks like this:



Assets Due For Calibration

Asset ID	Manufacturer	Model	Description	Cal Due Date
A. CASE				
SAMPLE-5500	FLUKE	5500A	CALIBRATOR	3/9/2007 10:40:09AM
B. EICHNER				
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	9/21/2006 10:49:29AM
D. DEAVER				
SAMPLE-742-1	FLUKE	742-1	1 OHM RESISTANCE STD	
SAMPLE-5725	FLUKE	5725A	BOOST AMPLIFIER	2/27/2007 10:42:47AM
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	3/2/2007 10:41:35AM
SAMPLE-732	FLUKE	732	DC REFERENCE STD	3/9/2007 10:43:24AM
D. RAWLINS				
SAMPLE-8842	FLUKE	8842	DMM	9/21/2006 10:50:21AM
Mr Lee				
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	9/21/2005 10:54:58AM
R. ISAAC				
SAMPLE-10	FLUKE	10	DIGITAL MULTIMETER	9/21/2005 10:54:13AM

Inserting Summaries

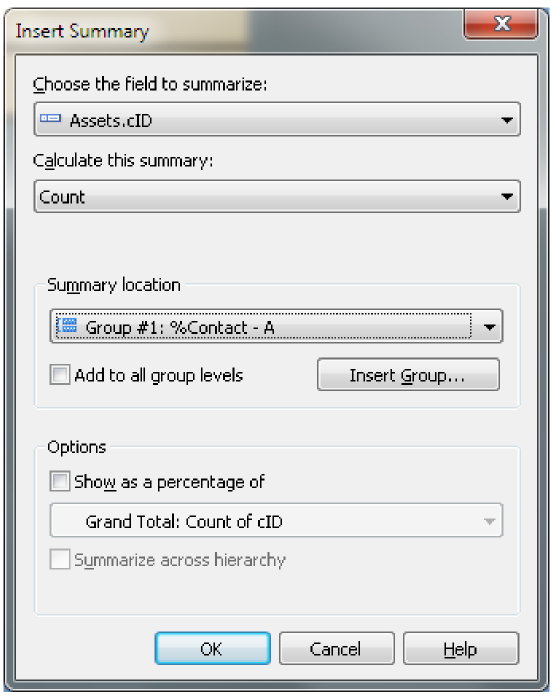
Now we have a report where we have selected specific information and grouped and ordered that information logically. Let's assume that we would like to add some summary information (for example a count of Assets Due for Calibration for a given user name). We add summary information into the Group Footer, where Summaries and Subtotals can be inserted.

***Note:** Crystal Reports allows you to group and summarize in a single step. We're using multiple steps to familiarize us with the fundamentals.*

To Insert a Summary or Subtotal:

First we highlight the field we want to summarize. If the field is a string field, like Asset Number, then we are going to be inserting a summary such as a count of Asset Number for each user. If we had a numeric field, we would insert a subtotal. Right-click the cID field, select Insert, Summary. The Insert Summary dialog box appears. Select Count from the dropdown for calculating the summary. Select Group # 1 – %Contact - A from the Summary location dropdown. This will also add a grand total to the report footer.

The dialog box will look like this:



Click OK and a number will appear below each user name group. Now put a text field on the report to tell what this number means by selecting Text Object from the Insert menu and typing "Subtotal for User:" into it. Position it in front of the number. Now our report will now look like this:

Assets Due For Calibration

Asset ID	Manufacturer	Model	Description	Cal Due Date
A. CASE				
SAMPLE-5500	FLUKE	5500A	CALIBRATOR	3/9/2007 10:40:09AM
Subtotal for user: **1**				
B. EICHNER				
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	9/21/2006 10:49:29AM
Subtotal for user: **1**				
D. DEAVER				
SAMPLE-742-1	FLUKE	742-1	1 OHM RESISTANCE STD	
SAMPLE-5725	FLUKE	5725A	BOOST AMPLIFIER	2/27/2007 10:42:47AM
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	3/2/2007 10:41:35AM
SAMPLE-732	FLUKE	732	DC REFERENCE STD	3/9/2007 10:43:24AM
Subtotal for user: **4**				
D. RAWLINS				
SAMPLE-8842	FLUKE	8842	DMM	9/21/2006 10:50:21AM
Subtotal for user: **1**				
Mr Lee				
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	9/21/2005 10:54:58AM
Subtotal for user: **1**				
R. ISAAC				
SAMPLE-10	FLUKE	10	DIGITAL MULTIMETER	9/21/2005 10:54:13AM
Subtotal for user: **1**				

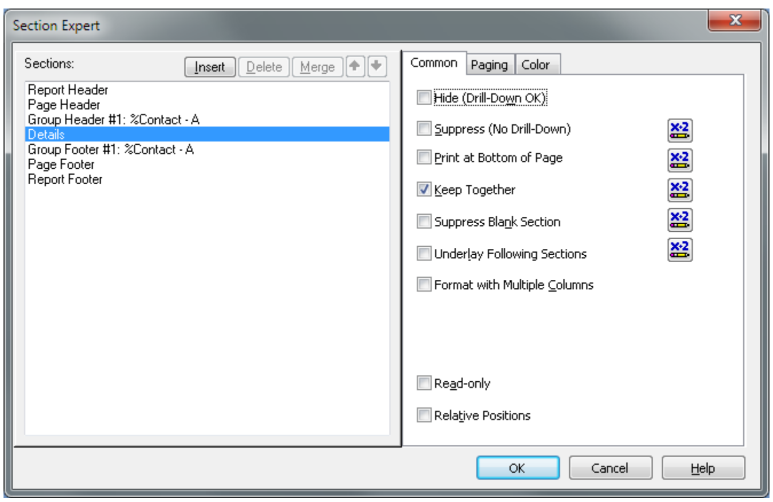
Formatting the Sections

We now have the information we want presented to us on the report. We have selected specific records, grouped records and sorted both records and groups. We have also placed some summary information on the report. We will now look at the formatting options available for entire sections. For example, we may want to insert a page break before each section or hide a section so it doesn't print.

To Format a Section

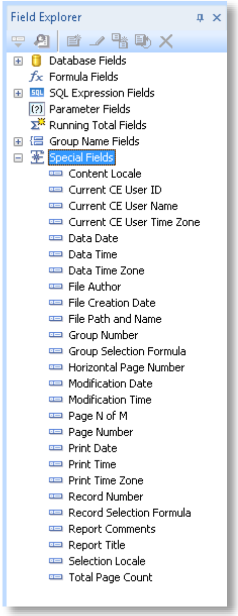
There are two methods for formatting a section:

- Right-click on one of the sections on the left of the Design Window. Select the Section Expert option.
- The Section Expert is also accessible from the Report menu



Inserting Special Fields

There is some information that is not in a database but is useful report information such as Report Date and Page Number. In the Field Explorer window on the right hand side of the screen, there is a node called Special Fields and underneath are the available options.



Select Page N of M and place it in the Page Footer.

Inserting Lines and Boxes

If we want to make some data stand out or just improve the presentation quality of our report we may wish to highlight it with lines and boxes.

To Draw a Line:

Use one of the following methods to draw a line:

- Click Insert Line button
- Select Line from the Insert menu

Once you have selected one of the above, you will see a pencil cursor on the screen. Click the left mouse button where you would like the line to be and holding down the mouse button, move to where the line should end and release the mouse button.

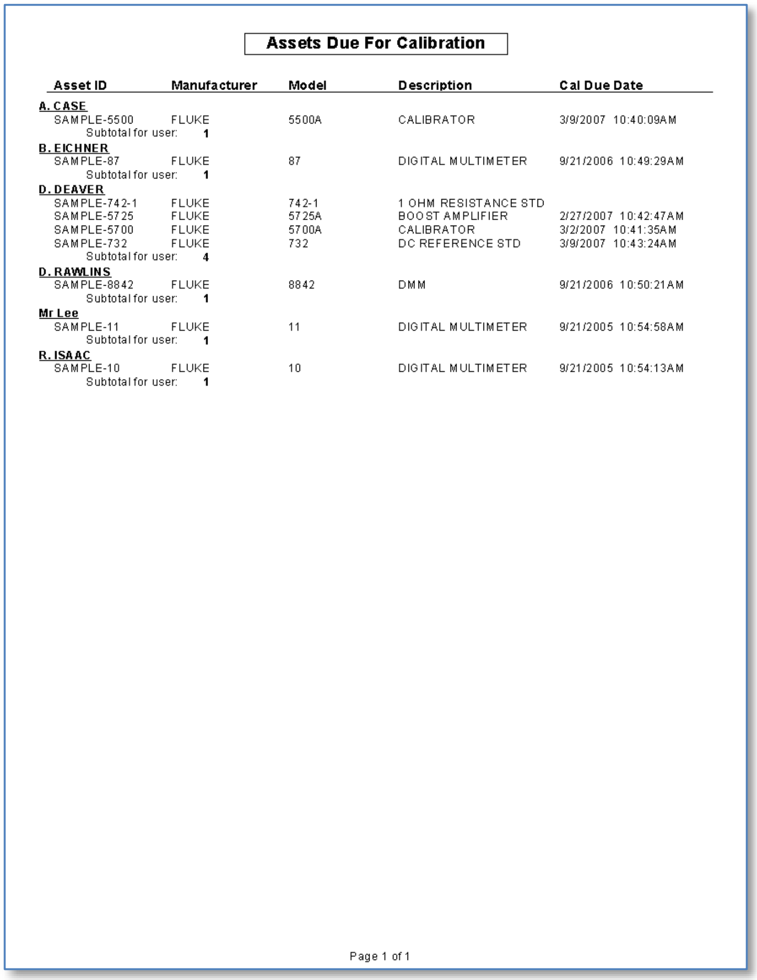
To Draw a Box:

- Click Insert Box button
- Select Box from the Insert menu

Once you have selected one of the above, you will see a pencil cursor on the screen. Click where you want the upper left corner of the box to be. Hold the mouse button and drag the pencil cursor to where the lower right corner should be placed on the report.

Using the above method, draw a line under the headers and a box around the report title.

Our report now looks like this:



Assets Due For Calibration

Asset ID	Manufacturer	Model	Description	Cal Due Date
A. CASE				
SAMPLE-5500	FLUKE	5500A	CALIBRATOR	3/9/2007 10:40:09AM
Subtotal for user: 1				
B. EICHNER				
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	9/21/2006 10:49:29AM
Subtotal for user: 1				
D. DEAVER				
SAMPLE-742-1	FLUKE	742-1	1 OHM RESISTANCE STD	
SAMPLE-5725	FLUKE	5725A	BOOST AMPLIFIER	2/27/2007 10:42:47AM
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	3/2/2007 10:41:35AM
SAMPLE-732	FLUKE	732	DC REFERENCE STD	3/9/2007 10:43:24AM
Subtotal for user: 4				
D. RAWLINS				
SAMPLE-8842	FLUKE	8842	DMM	9/21/2006 10:50:21AM
Subtotal for user: 1				
Mr Lee				
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	9/21/2005 10:54:58AM
Subtotal for user: 1				
R. ISAAC				
SAMPLE-10	FLUKE	10	DIGITAL MULTIMETER	9/21/2005 10:54:13AM
Subtotal for user: 1				

Page 1 of 1

Select Save As… from the File menu and give the report a name, for example Calibrations Due.rpt. We will build upon it in the following sections, so **make sure you have a copy of it in this stage**, to be able to go back to it later.

Advanced Report Writing

Using Formulas

Often we would like to present data slightly different than it is stored in the database. For example, we would like to see our report changed slightly to gather data on the average amount of time each instrument of a given type takes to go through the calibration process and how much time each technician spends working on a given instrument type. This will give valuable information about the efficiency of our calibration lab and the training of our techs. We can do this in MET/CAL by using Crystal Reports Formula fields.

To do this report, we will use the report we just created, rename it by saving it as TURN.RPT. Our report will need the following information not on the report we just created:

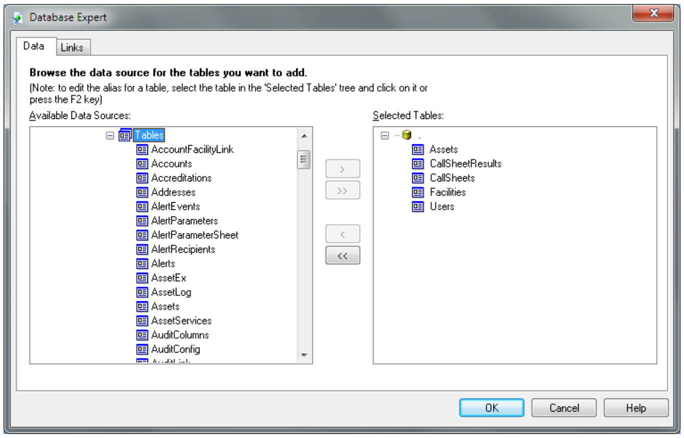
- Work order open date
- Work order maintenance date
- Technician who did the calibration

In order to do so, we need to add the work order table to the report, which is called **CallSheets**, as well as the **CallSheetResults** table, which contains the information about the technician. Since one CallSheets record can have more than one CallSheetResults record, we may get more than one technician returned, for who performed this calibration.

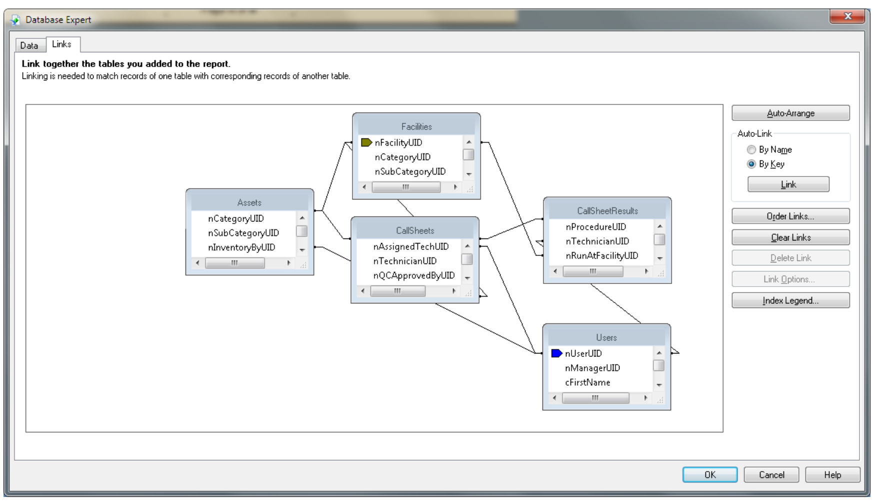
The technician reference reflects the user that was logged into MET/CAL at the time of calibration. To get the user information, we will also need to add the **Users** table.

While we're adding these new tables we can get rid of tables we no longer need at the same time and remove **AssetServices**, **ToolAssignments** and **Contacts** from the tables on this report.

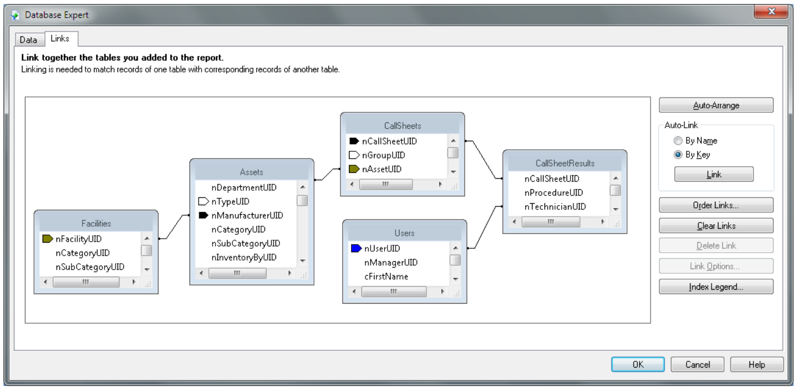
Let's go back to the Database Expert and swap out the tables:



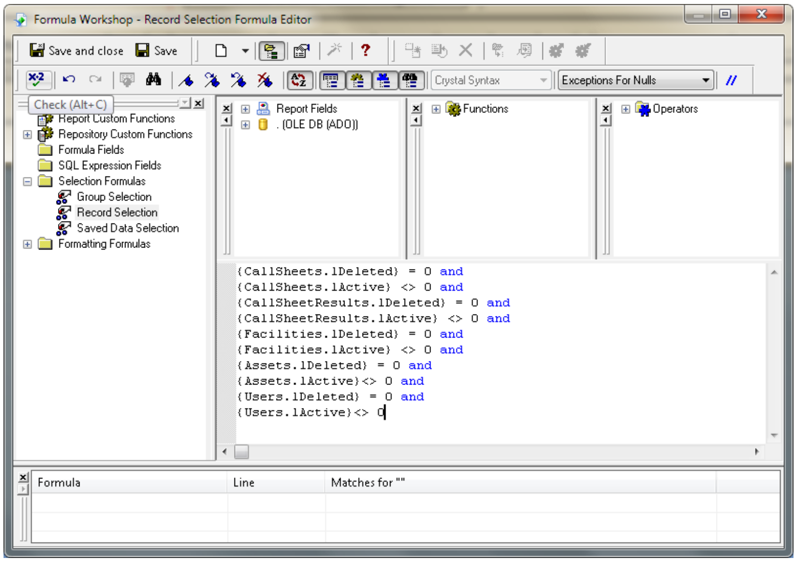
Now we need to do some cleanup of the automatic table linking performed by Smart Linking. Switch to the Links tab and delete all links to the Users table. Then add one link from CallSheetResults.nTechnicianUID to Users.nUserUID. Likewise with Facilities, the only link we want is from Assets.nManufacturerUID to Facilities.nFacilityUID, as we had it set up prior to adding the new tables.



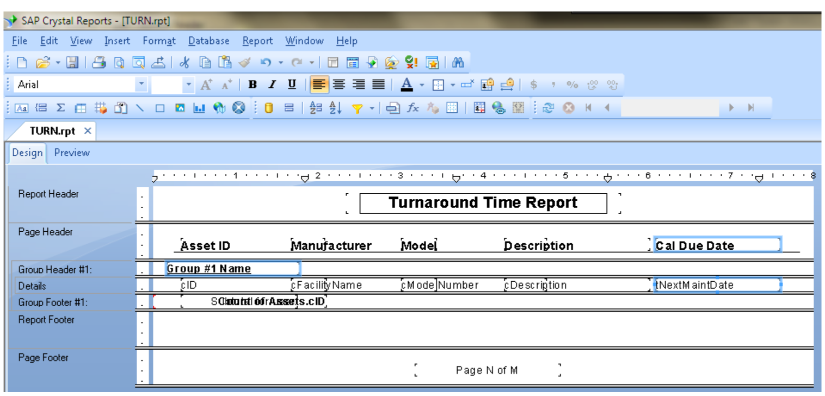
The final result should look like this:



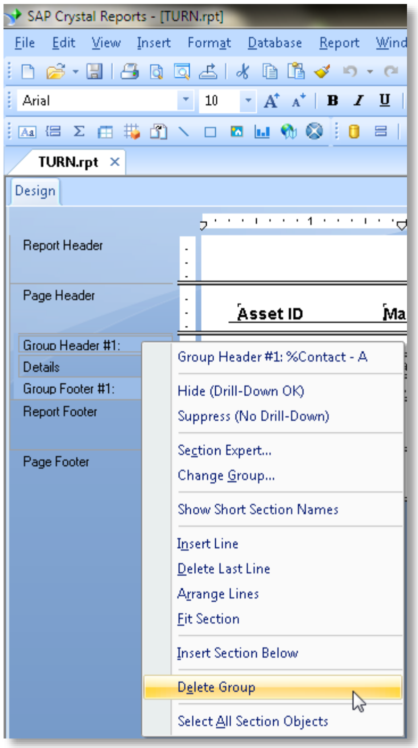
Now let's go back to the Formula Workshop, remove the fields of the tables that are no longer on the report and add the filters for lActive and lDeleted for the tables added. The final result should look like this:



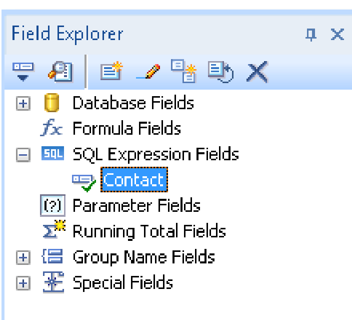
Now remove the fields for the due date and the composite field for the contact and change the report heading to "Turnaround Time Report".



Now right-click on Group Header #1 and select Delete Group.



On the Field Explorer on the right hand side of the report designer window, select the Contact SQL Expression Field and press the Delete key to remove it.



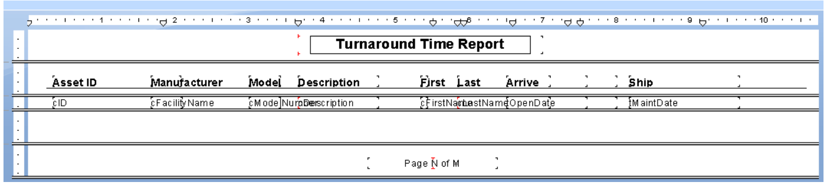
We will also need to develop a formula to calculate the amount of time spent in the lab. This assumes the open date is the date received into the lab and the maintenance date is the date it was shipped back to the user.

We now need to add these new data fields to the report:

- CallSheets.tMaintDate
- CallSheets.tOpenDate
- Users.cFirstName
- Users.cLastName

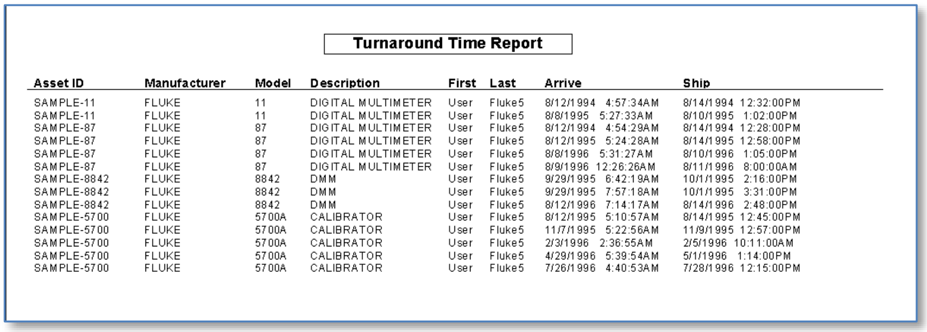
Since we removed one column and are now adding four, it will be best to change the report layout to landscape, in order to fit the data neatly.

Now add the new columns from the Field Explorer on the right hand side, Users.cFirstName, with a heading of “First”, Users.cLastName with a heading of “Last”, CallSheets.tOpenDate with a heading of “Arrive” and CallSheets.tMaintDate with a heading of “Ship”.



Like we did before, we need to change the headings from their default database column names and format them, so they are bold, 11 size and in the right place, aligning with the existing columns. Adjusting the columns is best done in preview mode, where changes are apparent immediately.

Our report should look like this:



Turnaround Time Report

Asset ID	Manufacturer	Model	Description	First	Last	Arrive	Ship
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	User	Fluke5	8/12/1994 4:57:34AM	8/14/1994 12:32:00PM
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	User	Fluke5	8/8/1995 5:27:33AM	8/10/1995 1:02:00PM
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/12/1994 4:54:29AM	8/14/1994 12:28:00PM
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/12/1995 5:24:28AM	8/14/1995 12:58:00PM
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/8/1996 5:31:27AM	8/10/1996 1:05:00PM
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/9/1996 12:26:26AM	8/11/1996 8:00:00AM
SAMPLE-8842	FLUKE	8842	DMM	User	Fluke5	9/29/1995 6:42:19AM	10/1/1995 2:16:00PM
SAMPLE-8842	FLUKE	8842	DMM	User	Fluke5	9/29/1995 7:57:18AM	10/1/1995 3:31:00PM
SAMPLE-8842	FLUKE	8842	DMM	User	Fluke5	8/12/1996 7:14:17AM	8/14/1996 2:48:00PM
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	8/12/1995 5:10:57AM	8/14/1995 12:45:00PM
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	11/7/1995 5:22:56AM	11/9/1995 12:57:00PM
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	2/3/1996 2:36:55AM	2/5/1996 10:11:00AM
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	4/29/1996 5:39:54AM	5/1/1996 1:14:00PM
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	7/26/1996 4:40:53AM	7/28/1996 12:15:00PM

We now have almost everything necessary to run this report except a way to do the necessary calculations. We will do this with a formula placed in the details section of our report.

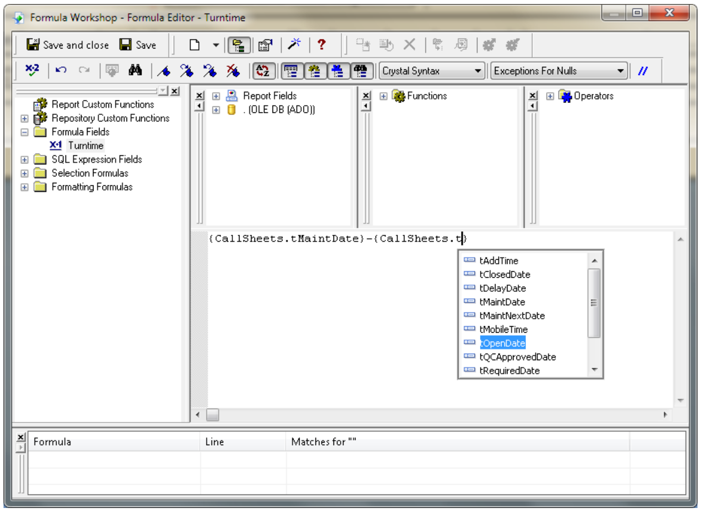
Inserting Formulas

To Insert a Formula Field:

- Click the Formula Workshop button
- Right-click Formula Fields in Field Explorer on the right hand side of the designer and select New…

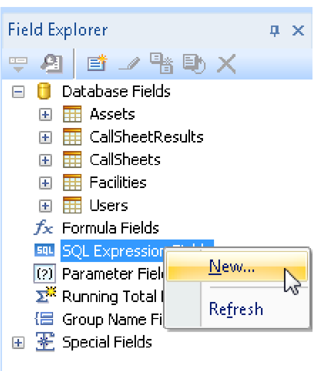
Name it “Turntime” and in the Formula Editor, type an opening curly brace which will start the guidance via popups, first offering a list of tables to select from. Select CallSheets and press enter. Now a new list will pop up with the fields for the selected table. Select tMaintDate and press enter. Then enter a minus sign and another opening curly brace. Repeat the process for CallSheets.tOpenDate and press enter.

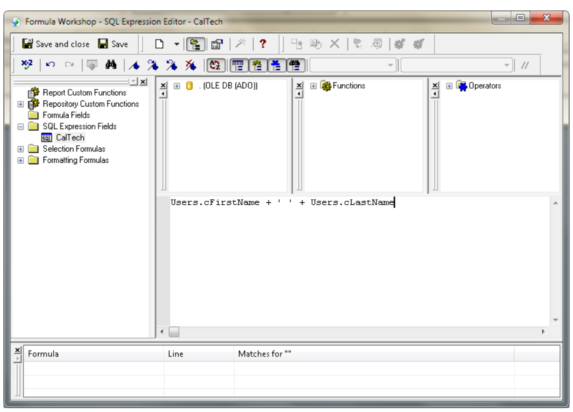
What we have now entered is a formula to subtract the open date from the maintenance date. To check if the formula entered is valid, press the x-2 button on the toolbar.



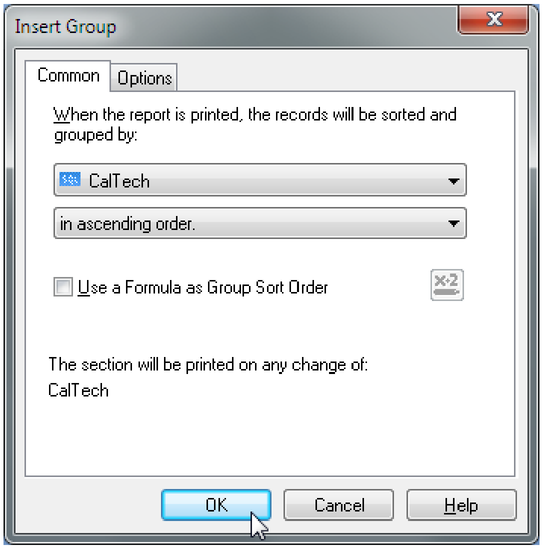
When the formula is valid, a message “No Errors Found” will pop up. At this time, press the Save and close button. Then add the newly created formula field Turntime to the report. Right-click the new field, select Format Field… and change the number format so that we won’t get fractional days.

Now we can re-establish a record grouping, this time based on the cal tech. Again, first we’ll create a composite column made up of Users.cFirstName + ‘ ‘ + Users.cLastName and name it CalTech.



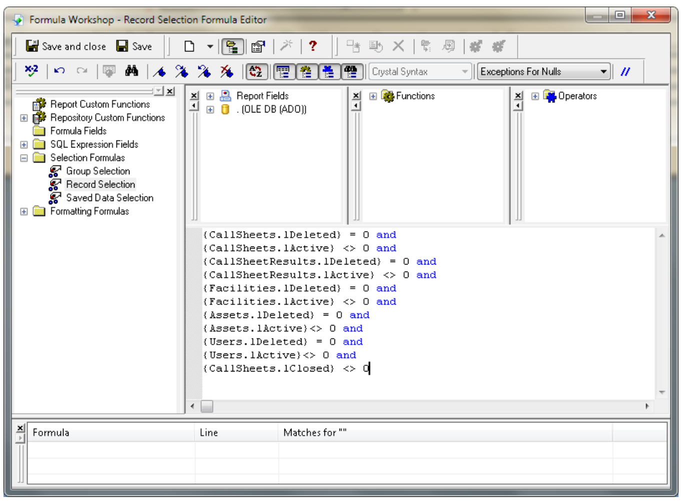


Then select Group… from the Insert menu and find the new CalTech column in the dropdown on the Insert Group dialog.



We want to make sure we're not looking at open work orders for this report, since they are still being worked on. For that, we'll only include records where CallSheets.lClosed <> 0 (i.e. true).

Go to the Record Selection Formula Editor by selecting Report, Selection Formulas, Records and add the condition.

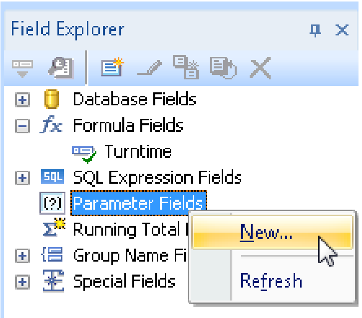


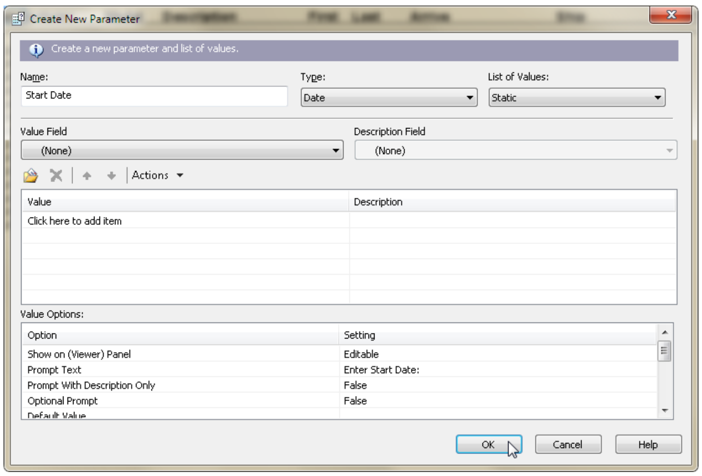
Now our report looks like this:

Turnaround Time Report

Asset ID	Manufacturer	Model	Description	First	Last	Arrive	Ship	Turntime
User Fluke5								
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	User	Fluke5	8/12/1994 4:57:34AM	8/14/1994 12:32:00PM	2
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	User	Fluke5	8/8/1995 5:27:33AM	8/10/1995 1:02:00PM	2
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	8/12/1995 5:10:57AM	8/14/1995 12:45:00PM	2
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	11/7/1995 5:22:56AM	11/9/1995 12:57:00PM	2
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	2/3/1996 2:36:55AM	2/5/1996 10:11:00AM	2
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	4/29/1996 5:39:54AM	5/1/1996 1:14:00PM	2
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	7/26/1996 4:40:53AM	7/28/1996 12:15:00PM	2
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/12/1994 4:54:29AM	8/14/1994 12:28:00PM	2
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/12/1995 5:24:28AM	8/14/1995 12:58:00PM	2
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/8/1996 5:31:27AM	8/10/1996 1:05:00PM	2
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/9/1996 12:26:26AM	8/11/1996 8:00:00AM	2
SAMPLE-8842	FLUKE	8842	DMM	User	Fluke5	9/29/1995 6:42:19AM	10/1/1995 2:16:00PM	2
SAMPLE-8842	FLUKE	8842	DMM	User	Fluke5	9/29/1995 7:57:18AM	10/1/1995 3:31:00PM	2
SAMPLE-8842	FLUKE	8842	DMM	User	Fluke5	8/12/1996 7:14:17AM	8/14/1996 2:48:00PM	2

To wrap up the turnaround time report, let's add some parameters, so that it will prompt for start and end dates of the time frame to be captured. In Field Explorer, right-click Parameter Fields and select New…



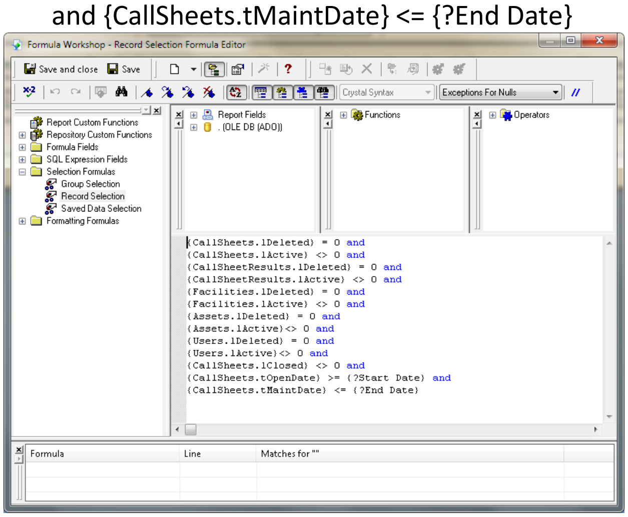


Name the new parameter Start Date, select a type of Date and Static for the list of values. Then repeat the process for the second parameter, called End Date.

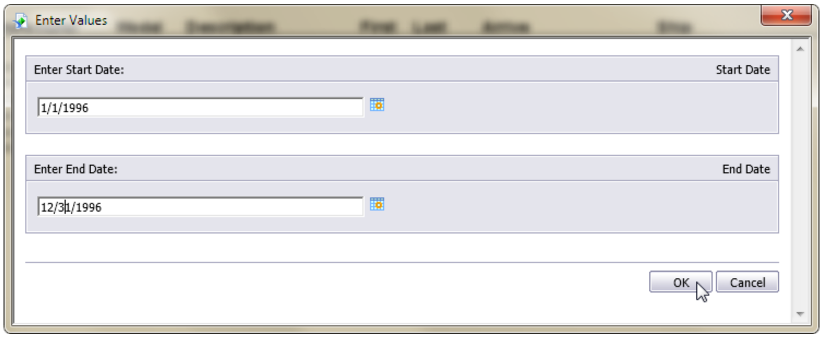
***Note:** Although, the Crystal Report Designer allows for symbols (i.e. +,*,$,#, etc) in parameter names, symbols should not be used in parameter names when writing reports for use in MET/TEAM.*

To tie into the new parameters, select Selection Formulas, Record from the Report menu and add these two lines:

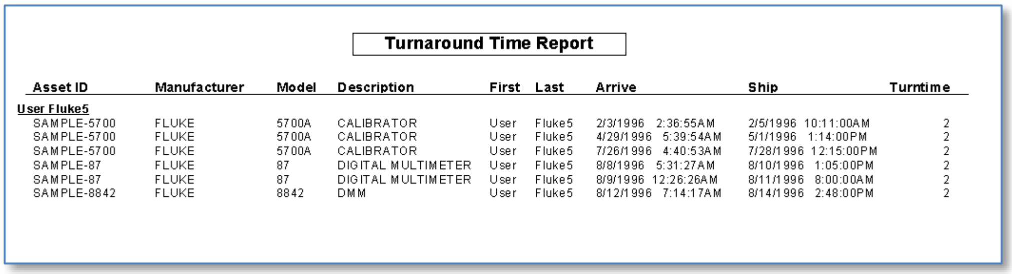
and {CallSheets.tOpenDate} >= {?Start Date}
and {CallSheets.tMaintDate} <= {?End Date}



When refreshing the report via F5, we get a prompt for start and end date of the reporting period.



Now, the report data is limited to the one year time frame entered in the prompts.



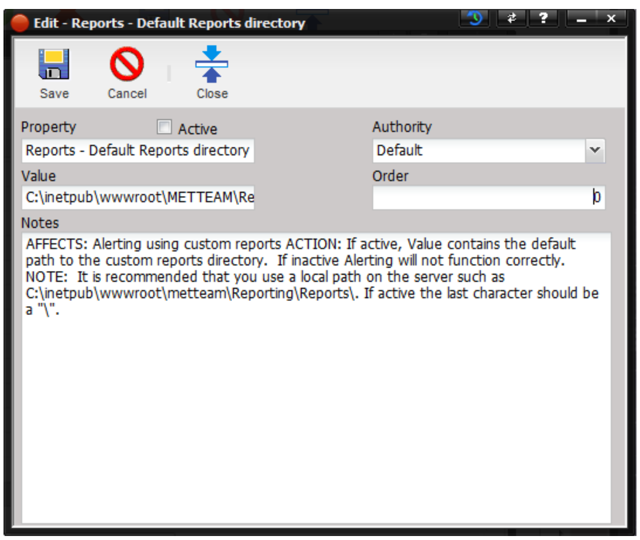
Turnaround Time Report

Asset ID	Manufacturer	Model	Description	First	Last	Arrive	Ship	Turntime
User Fluke5								
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	2/3/1996 2:36:55AM	2/5/1996 10:11:00AM	2
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	4/29/1996 5:39:54AM	5/1/1996 1:14:00PM	2
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	7/26/1996 4:40:53AM	7/28/1996 12:15:00PM	2
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/8/1996 5:31:27AM	8/10/1996 1:05:00PM	2
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/9/1996 12:26:26AM	8/11/1996 8:00:00AM	2
SAMPLE-8842	FLUKE	8842	DMM	User	Fluke5	8/12/1996 7:14:17AM	8/14/1996 2:48:00PM	2

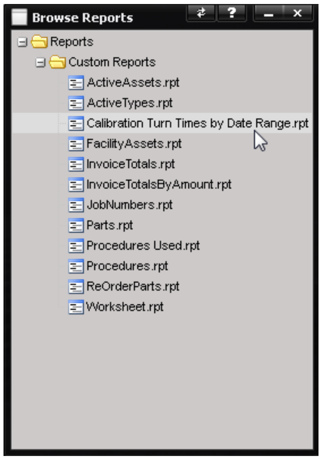
Adding a Report to MET/TEAM

Custom reports can be added to MET/TEAM by placing them in the directory identified in the Value field of the System Defaults "Reports – Default Reports directory". Custom reports in MET/TEAM are listed by their report name.

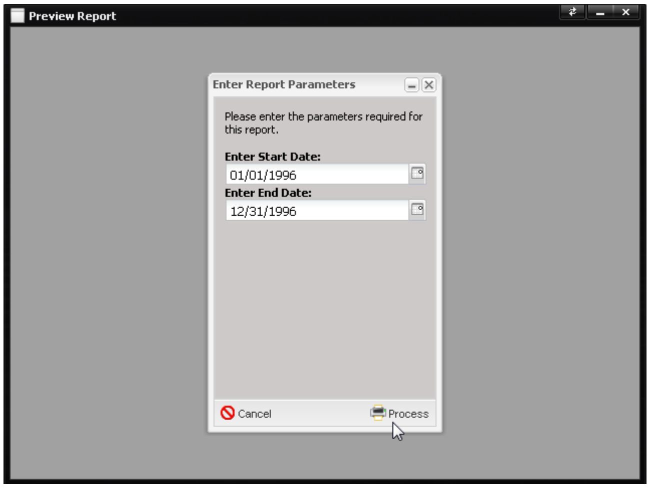
To see the directory where the custom reports are stored, select the System Defaults option from the Configure menu. Locate the System Default with the property of "Reports – Default Reports directory".

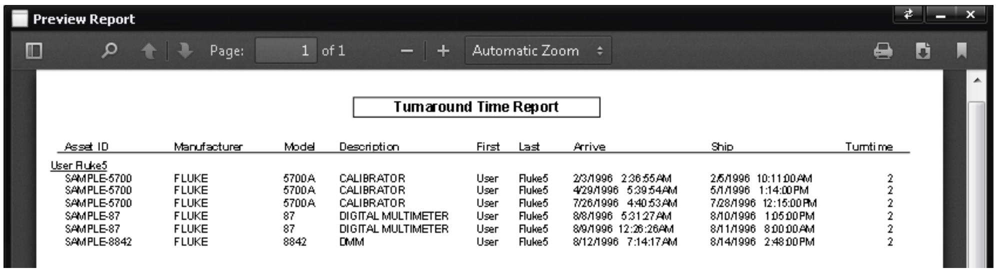


The entry in the Value field must contain a valid location and the System Default must be active. Select the Active check box to make this System Default active. Copy the report to the directory shown in the Value field. Use the *Reports* menu and *Custom Reports* option to see the list of available customer reports.



To run the report, double-click the report in the list. If additional information is required to run the report, a parameter screen will be displayed. Enter the parameters and select the Process.





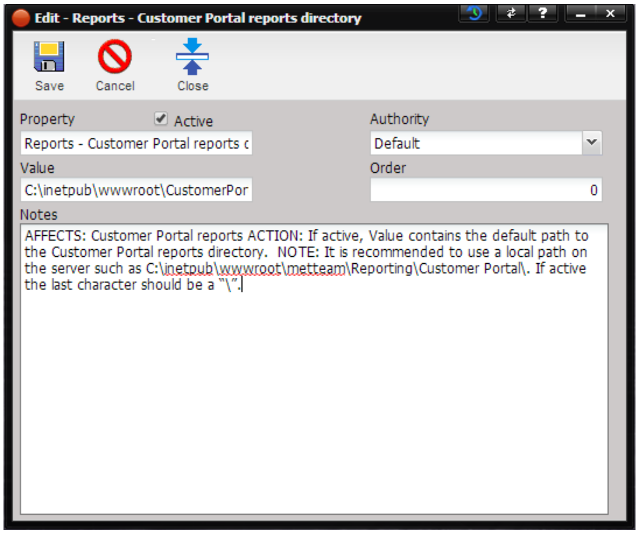
Turnaround Time Report

Asset ID	Manufacturer	Model	Description	First	Last	Arrive	Ship	Turntime
User Fluke5								
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	2/3/1996 2:36:55AM	2/5/1996 10:11:00AM	2
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	4/29/1996 5:39:54AM	5/1/1996 1:14:00PM	2
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	7/26/1996 4:40:53AM	7/28/1996 12:15:00PM	2
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/8/1996 5:31:27AM	8/10/1996 1:05:00PM	2
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/9/1996 12:26:26AM	8/11/1996 8:00:00AM	2
SAMPLE-8842	FLUKE	8842	DMM	User	Fluke5	8/12/1996 7:14:17AM	8/14/1996 2:48:00PM	2

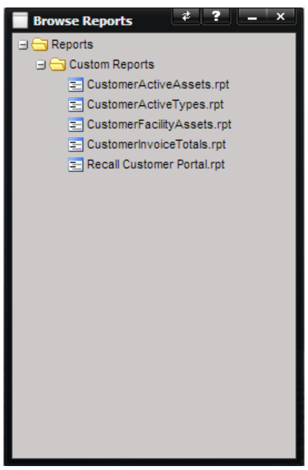
Adding a Report to Customer Portal

Custom reports can be added to Customer Portal by placing them in the directory identified in the Value field of the System Defaults “Reports – Customer Portal reports directory”. Custom reports in Customer Portal are listed by their report name.

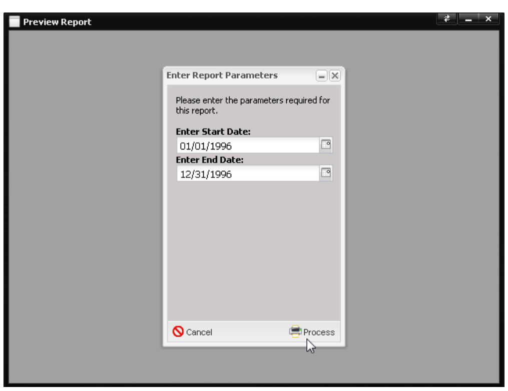
To see the directory where the custom reports are stored, select the System Defaults option from the Configure menu. Locate the System Default with the property of “Reports – Customer Portal reports directory”.

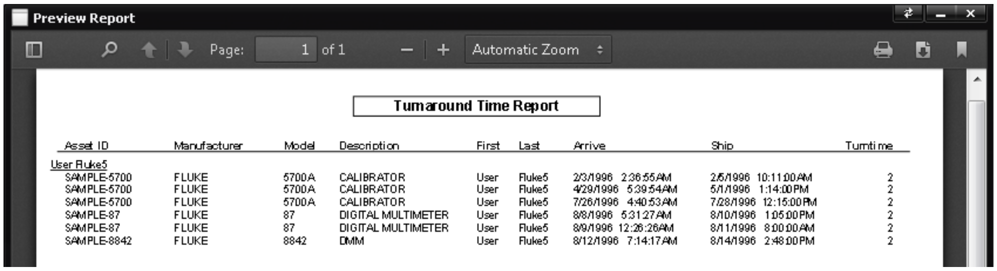


The entry in the Value field must contain a valid location and the System Default must be active. Select the Active check box to make this System Default active. Copy the report to the directory shown in the Value field. Use the Reports menu in Customer Portal to see the list of available custom reports.



To run the report, double-click the report in the list. If additional information is required to run the report, a parameter screen will be displayed. Enter the parameters and select the Process.





Turnaround Time Report

Asset ID	Manufacturer	Model	Description	First	Last	Arrive	Ship	Turntime
User Fluke5								
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	2/3/1996 2:36:55AM	2/5/1996 10:11:00AM	2
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	4/29/1996 5:39:54AM	5/1/1996 1:14:00PM	2
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	User	Fluke5	7/26/1996 4:40:53AM	7/28/1996 12:15:00PM	2
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/8/1996 5:31:27AM	8/10/1996 1:05:00PM	2
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	User	Fluke5	8/9/1996 12:26:26AM	8/11/1996 8:00:00AM	2
SAMPLE-8842	FLUKE	8842	DMM	User	Fluke5	8/12/1996 7:14:17AM	8/14/1996 2:48:00PM	2

Advanced Formulas

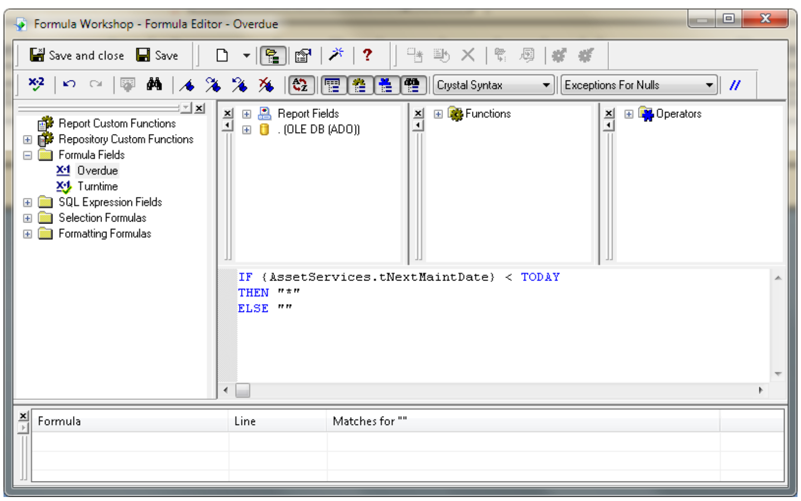
The Formula Editor

Formulas are used in Crystal Reports to provide selection criteria for the data and may be used as a named formula or as a record selection criterion. The Formula Editor is a dialog box that contains all the tools we need to create and validate formulas. We can

- assign a name to a formula
- enter a formula
- check it to make sure you have entered it correctly
- accept it for use in the report

As one would expect, when the report is printed, Crystal Reports prints the results of the formula, not the formula itself.

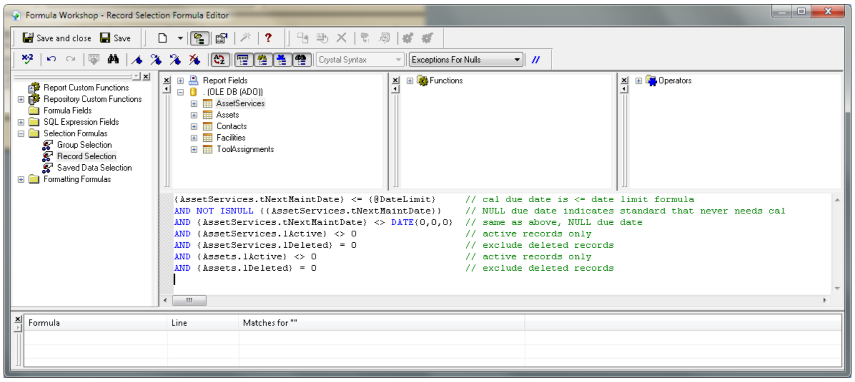
To open the formula editor, right-click on Formula Field in Field Explorer on the right hand side of the designer window and select New…, type a name for the formula (the example shows Overdue) and the formula editor opens.



The IF… THEN… ELSE… control structures are often found in formulas and allow for easy conditional evaluations. They can be typed in manually or entered from the Operators tree in the top-right window.

Formulas may also be used when creating selection criteria for obtaining the desired data. To do this, select Selection Formulas, Record on the Report menu.

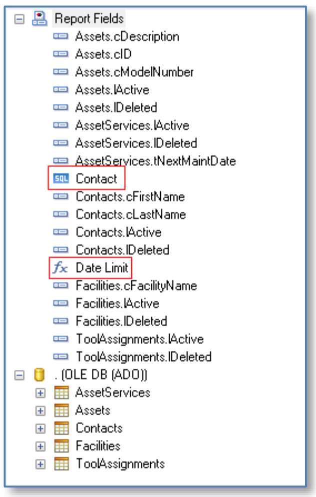
For Example:



Comments can be entered along with formulas. Enter a double forward slash before the commentary.

The Fields Box

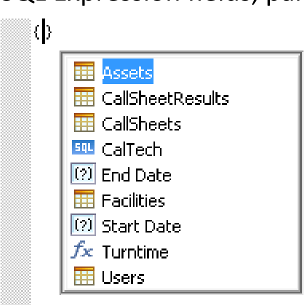
We can enter fields into formulas in two ways, by double-clicking an item in the list, or typing it in manually.



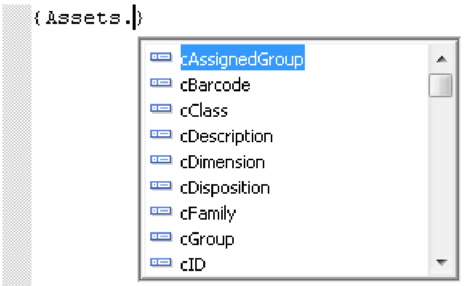
Under the Report Fields node, database fields, SQL Expression Fields and Formula Fields currently used in the report are listed in alphabetical order. SQL Expression Fields are symbolized by an "SQL" icon and Formula Fields by an "fx" icon.

Under the tree node named after the current report database connection, all tables currently on the report are listed. To add a field from one of the tables, expand the according table node and locate it.

When manually entering fields, start by typing an open curly brace which brings up a list of available tables as well as SQL Expression fields, parameters and formula fields. The closing curly brace will be inserted automatically as well.



Pressing the Enter key on one of the table items will automatically add a period to the end of the table name and produce a new pop-up, listing the fields in that table.



This guided process makes it easy to enter the desired field query correctly.

The syntax for entering different types of fields is as follows:

- {<table>.<field>}
- {?<parameter>}
- {%<SQL Expression field}
- {@<formula field>}

```
{Assets.lActive}
{?End Date}
{%CalTech}
{@Turntime}
```

Operators and Functions Box

Likewise, operators and functions can be entered by double-clicking an item in the according list box, or by typing it in manually. Crystal Reports inserts the selected item into our formula, complete with any parentheses, brackets, or commas required.

Using dates in formulas

Crystal Reports includes many useful functions for including dates and date ranges in formulas.

The Formula Checker

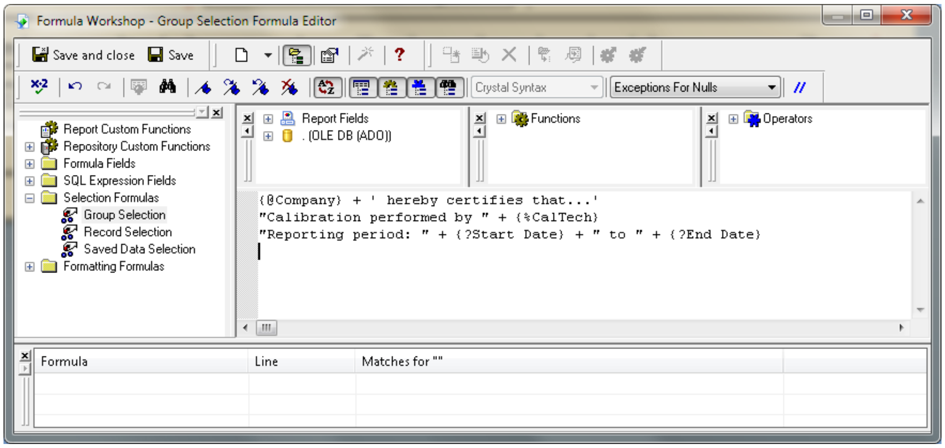
The Formula Editor also contains a formula checker which validates the syntax of the formula entered. To check the formula, click the X-2 button.

Inserting text and numbers into formulas

Text and numbers in formulas are entered manually.

- Text must be surrounded by ‘single’ or “double” quotation marks.
- Numbers must be entered without commas (1000000 not 1,000,000).

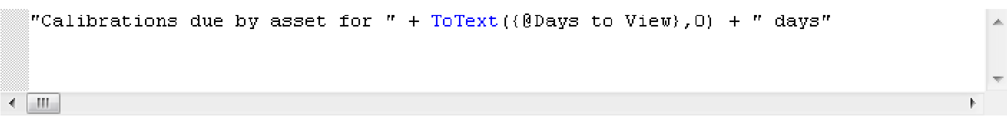
Examples:



Inserting functions and operators into formulas

Functions and operators can be inserted into formulas by double-clicking an item in the according list or by typing them in manually. Functions can be nested within other functions, i.e. the return value of the inner functions serves as the input to the outer function.

Example:



Stacking IF… ELSE… statements

The ELSE clause of an IF… ELSE… statement can contain yet another IF… ELSE… statement, allowing for elaborate decision trees. For example:

```
IF {CallSheets.tOpenDate} in Aged0T30Days
THEN "<30 Days" ELSE
IF {CallSheets.tOpenDate in Aged31To60Days
THEN "31 to 60 Days" ELSE
IF {CallSheets.tOpenDate in Aged61To90Days
THEN "61 to 90 Days"
```

Using Variables in formulas

You can assign a variable to a formula, by first defining the variable and then using it in a formula. For example, you may wish to assign a variable by the name of MonthEnd and assign it to the Calibration Due Date field. Note that the assignment <variable> := <value> must be terminated by a semi-colon.

```
DateVar MonthEnd:={AssetServices.tNextMaintDate};
IF MonthEnd < {@Upper Date Limit}
THEN "This Month"
ELSE ""
```

Variables may be used to keep a running total of summaries. For example:

```
WhilePrintingRecords;
NumberVar Cost := Cost + {Assets.nItemCost}
```

This will keep a running total of the cost information in the Asset item cost field. *WhilePrintingRecords* forces the report to evaluate the formula while printing the records.

Some MET/CAL Example Formulas

The following formulas are commonly used in record selection formulas.

Formula	Purpose
{Assets.lActive} <> 0	Only include active Assets
{AssetServices.tNextMaintDate} <= {@DateLimit}	Calibration due at or before limit defined in @DateLimit formula
IsNull({CallSheets.tMaintDate})	Test if cal date is null
{CallSheets.tMaintDate} = DATE(0,0,0)	Test if cal date is null
{Assets.cID} = {?Asset Number}	Filter Assets by Asset number entered via user prompt
LooksLike ({Assets.cModelNumber},'H?')	Include Assets whose model starts with H
{Assets.cDisposition} IN ['In Service', 'Out of Service', 'Lost', 'Scrapped'] OR ISNULL({Assets.cDisposition})	Filter Assets by disposition, based on an array of hard-coded values
{Assets.cModelNumber} in ['55?', '57?']	Filter Assets by model with wildcards
{AssetServices.tNextMaintDate} IN Next30Days	Will only print for due dates that fall within the next 30 days from today
Total Records Printed: +ToText (Count ({Assets.nAssetUID}),0)	Prints number of records
Print Date: +ToText (Today)+" at "+Now	Prints the date and time on the report

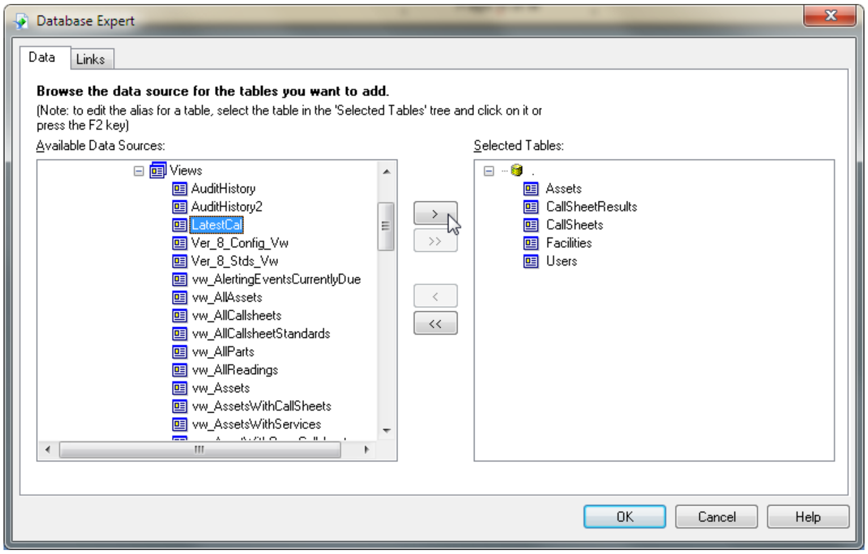
Using database views

Some data is easier selected or filtered in SQL than by using elaborate formulas from within Crystal Reports. For example, to obtain the most recent calibration record for an Asset, the following SQL query can be employed. To use it from a report, it is best wrapped in a database view or stored procedure.

```
CREATE VIEW [dbo].[LatestCal]
AS
SELECT
    *
FROM
    CallSheets
WHERE
    tMaintDate =
    (
        SELECT
            MAX(tMaintDate)
        FROM
            CallSheets c
        WHERE
            c.lActive <> 0
        AND
            c.lDeleted = 0
        AND
```

```
                c.lClosed <> 0
            AND
                c.nAssetUID = CallSheets.nAssetUID
            GROUP BY
                c.nAssetUID
        )
    GO
```

The view is then added to the report via the Database Expert, in the same fashion as adding tables to a report.



MET/TEAM ships with a number of canned database views, many of which will make report writing easier since the table JOINs are already embedded in them and fields like the customer or manufacturer for an Asset or its type information can be readily accessed as character fields.

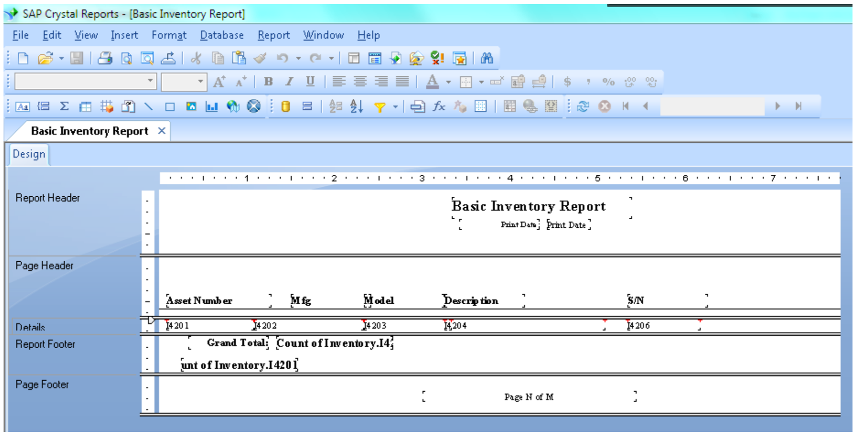
You are encouraged to explore the existing views as a starting point, in particular vw_CallSheets and vw_AssetsWithServices.

Converting a MET/BASE Report to MET/TEAM

Converting a MET/BASE report to MET/TEAM is accomplished by stepping through a series of steps as detailed below.

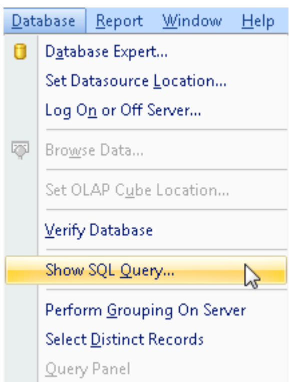
Open MET/BASE report

Begin by opening the report in SAP Crystal Reports.



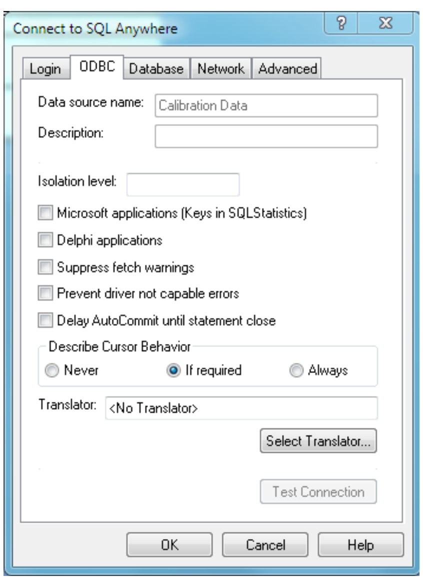
View Underlying SQL

The underlying SQL can be viewed from the Database menu.

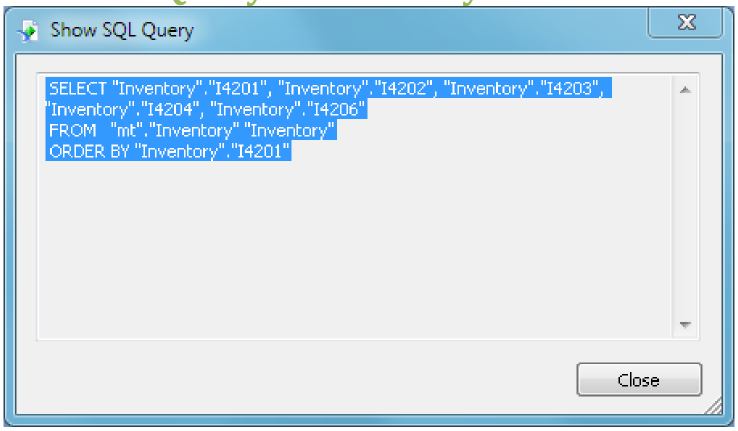


Connect to SQL Anywhere

Connect to SQL Anywhere using the ODBC tab.



View the Query and Identify the Needed Fields



List the Fields

"Inventory"."I4201"
"Inventory"."I4202"
"Inventory"."I4203"
"Inventory"."I4204"
"Inventory"."I4206"

Map the Fields to MET/TEAM

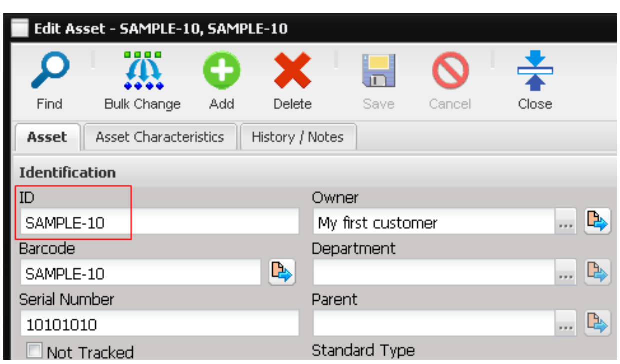
Get the titles of the metbase fields by running this query in iSQL:

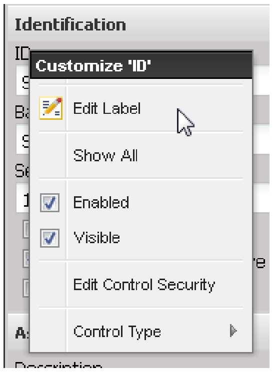
SELECT * FROM ME2_Customiz WHERE fldnum IN ('4201','4202','4203','4204','4206')

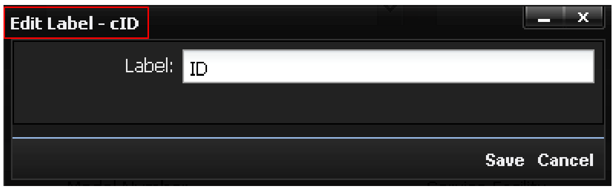
Fldnum	title
4201	Asset Number
4202	Manuf.
4203	Model
4204	Description
4206	Serial Number

4201 - Asset Number

Locate the field on the Asset screen and determine the database column name.

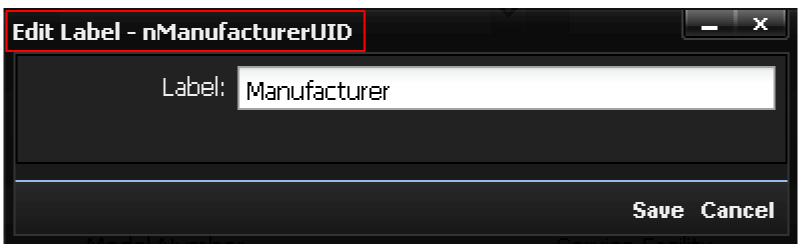






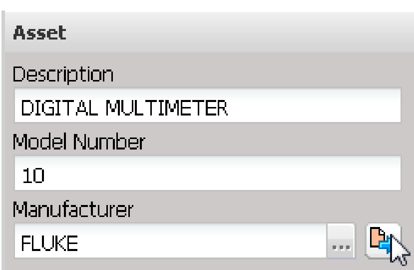
The field in MET/TEAM is **Assets.cID**.

4202 – Manuf.

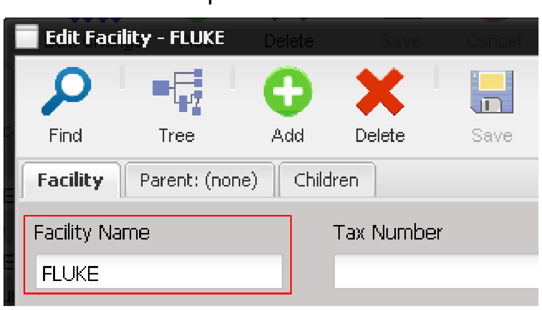


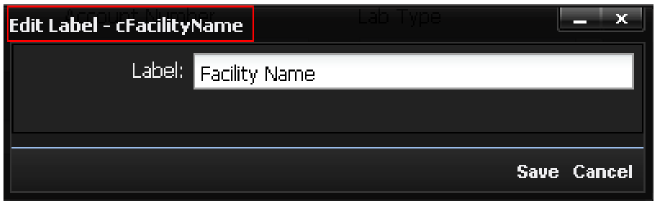
The field name for manufacturer is a reference to another database table, indicated by the name starting with n (numeric) and ending in UID (unique id).

Open the manufacturer screen using the Quick Link button.



It is a facility and what we really want to see on the report is the facility name of the manufacturer, not the *n…UID* reference that is part of the Asset table



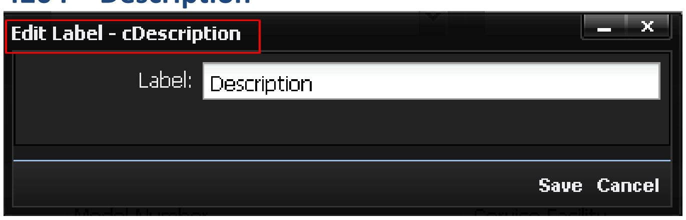


So, the field in MET/TEAM is **Facilities.cFacilityName** of the facility record referenced by nManufacturerUID on the Asset.

4203 – Model

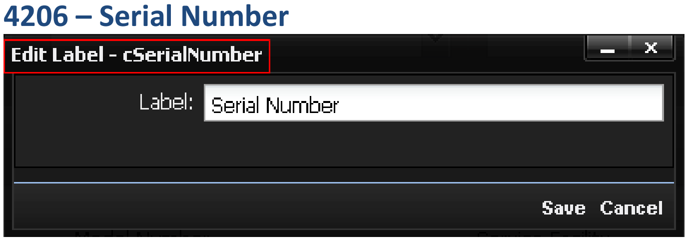
The field is called **Assets.cModelNumber**.

4204 – Description



The field is called **Assets.cDescription**.

4206 – Serial Number



The field is called **Assets.cSerialNumber**.

Armed with this information, we can now build the MET/TEAM query, to get the equivalent information as was used in MET/BASE:

```
SELECT Assets.cID, Facilities.cFacilityName, Assets.cModelNumber,
 Assets.cDescription, Assets.cSerialNumber
FROM dbo.Assets Assets
JOIN dbo.Facilities Facilities
ON Facilities.nFacilityUID = Assets.nManufacturerUID
ORDER BY Assets.cID
```

Run New Query and Verify Results

Run the new query in SQL Server® Management Studio and verify the results show the expected data.

```
SELECT Assets.cID, Facilities.cFacilityName, Assets.cModelNumber,
 Assets.cDescription, Assets.cSerialNumber
FROM dbo.Assets Assets
JOIN dbo.Facilities Facilities
ON Facilities.nFacilityUID = Assets.nManufacturerUID
ORDER BY Assets.cID
```

100 %

Results | Messages

	cID	cFacilityName	cModelNumber	cDescription	cSerialNumber
1	FLUKE CORPORATION	FLUKE	CALIBRATION	OUT SOURCED	NA
2	SAMPLE-10	FLUKE	10	DIGITAL MULTIMETER	10101010
3	SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	1100110001
4	SAMPLE-5500	FLUKE	5500A	CALIBRATOR	4820000
5	SAMPLE-5700	FLUKE	5700A	CALIBRATOR	57000001
6	SAMPLE-5725	FLUKE	5725A	BOOST AMPLIFIER	572500001
7	SAMPLE-732	FLUKE	732	DC REFERENCE STD	732000001
8	SAMPLE-742-1	FLUKE	742-1	1 OHM RESISTANCE STD	742010001
9	SAMPLE-742-2	FLUKE	742-10K	10,000 OHM RESISTANCE STD	742100001
10	SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	87001001
11	SAMPLE-8842	FLUKE	8842	DMM	884200987
12	sample-block	HOKE	MIL026901	MECHNICAL STANDARD	048323242
13	sample-c2	vk	c2	mechnical standard	r4e90uys
14	SAMPLE-OPFLAT	HOKE	36	MECHNICAL STANDARD	8096098098

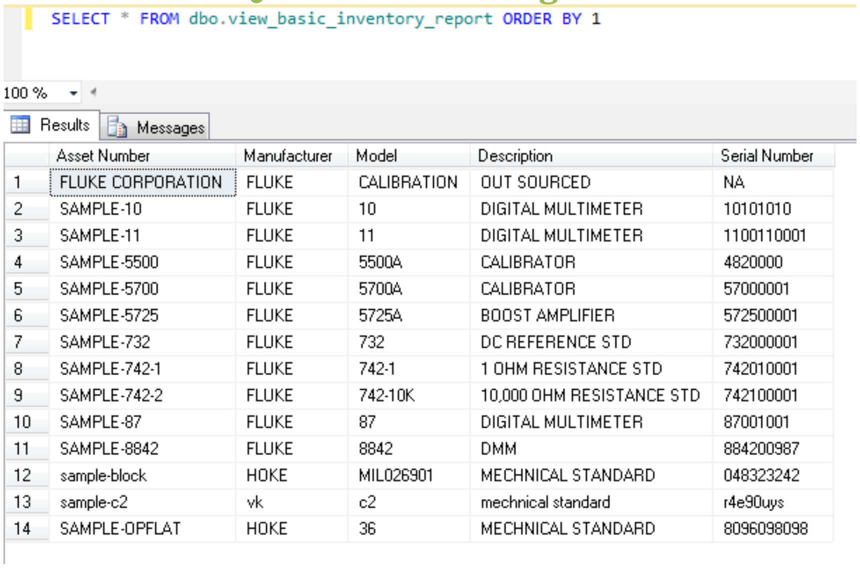
To make it easier to use in Crystal Reports, we can turn the query into a stored procedure, or a view. Furthermore, to make the information clearer, we can alias the column names to be more user friendly:

```
-- drop the view if it exists already
IF OBJECT_ID(N'[dbo].[view_basic_inventory_report]', 'V') IS NOT NULL
    DROP VIEW [dbo].[view_basic_inventory_report]
GO

-- create the view
CREATE VIEW
    [dbo].[view_basic_inventory_report]
AS
    SELECT
            Assets.cID AS [Asset Number],
            Facilities.cFacilityName AS [Manufacturer],
            Assets.cModelNumber AS [Model],
            Assets.cDescription AS [Description],
            Assets.cSerialNumber AS [Serial Number]
    FROM
            dbo.Assets Assets
    JOIN
            dbo.Facilities Facilities
    ON
            Facilities.nFacilityUID = Assets.nManufacturerUID
GO
```

Run the script in SQL Server® Management Studio.

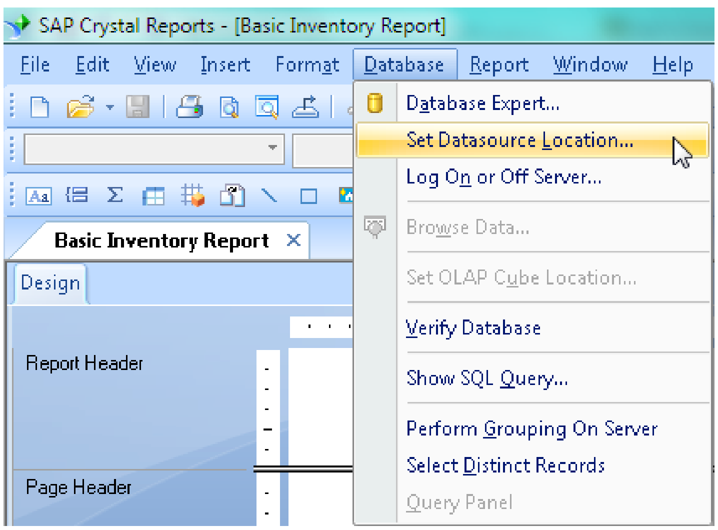
Test view in SQL Server® Management Studio



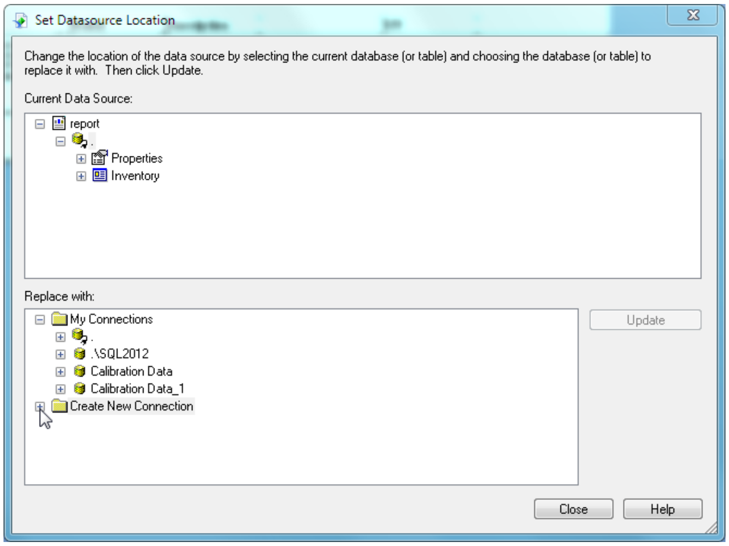
	Asset Number	Manufacturer	Model	Description	Serial Number
1	FLUKE CORPORATION	FLUKE	CALIBRATION	OUT SOURCED	NA
2	SAMPLE-10	FLUKE	10	DIGITAL MULTIMETER	10101010
3	SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	1100110001
4	SAMPLE-5500	FLUKE	5500A	CALIBRATOR	4820000
5	SAMPLE-5700	FLUKE	5700A	CALIBRATOR	57000001
6	SAMPLE-5725	FLUKE	5725A	BOOST AMPLIFIER	572500001
7	SAMPLE-732	FLUKE	732	DC REFERENCE STD	732000001
8	SAMPLE-742-1	FLUKE	742-1	1 OHM RESISTANCE STD	742010001
9	SAMPLE-742-2	FLUKE	742-10K	10,000 OHM RESISTANCE STD	742100001
10	SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	87001001
11	SAMPLE-8842	FLUKE	8842	DMM	884200987
12	sample-block	HOKE	MIL026901	MECHNICAL STANDARD	048323242
13	sample-c2	vk	c2	mechnical standard	r4e90uys
14	SAMPLE-OPFLAT	HOKE	36	MECHNICAL STANDARD	8096098098

As is easy to see, the results are the same as the query results, but the column headers now reflect the aliased names for the database columns.

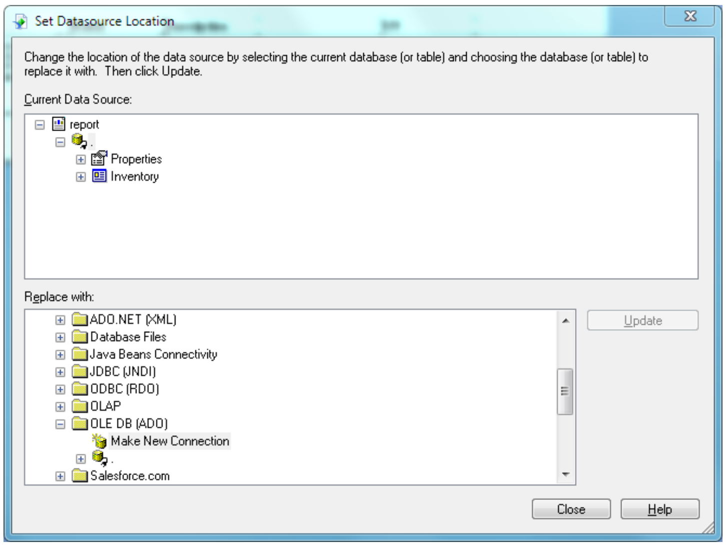
Set New Data Source Location



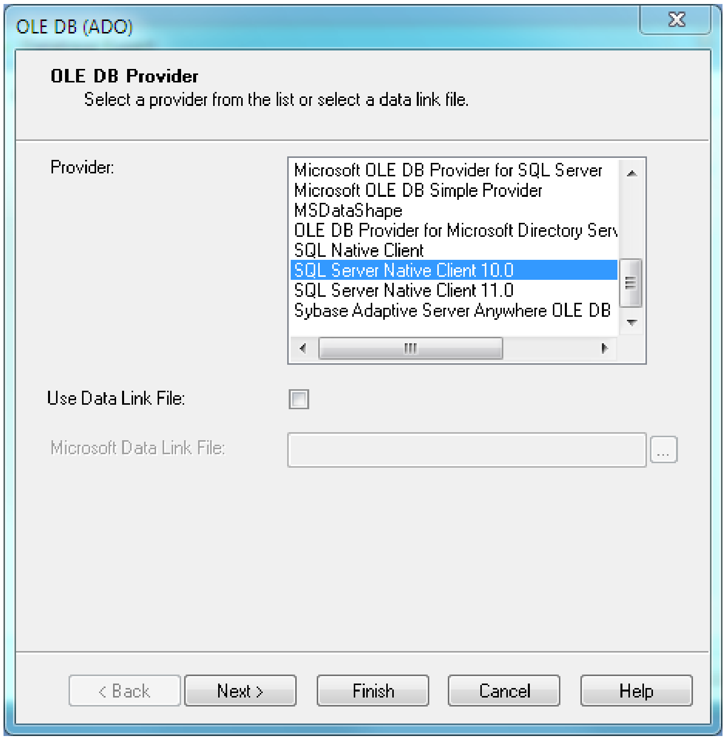
Expand the *Create New Connection* node



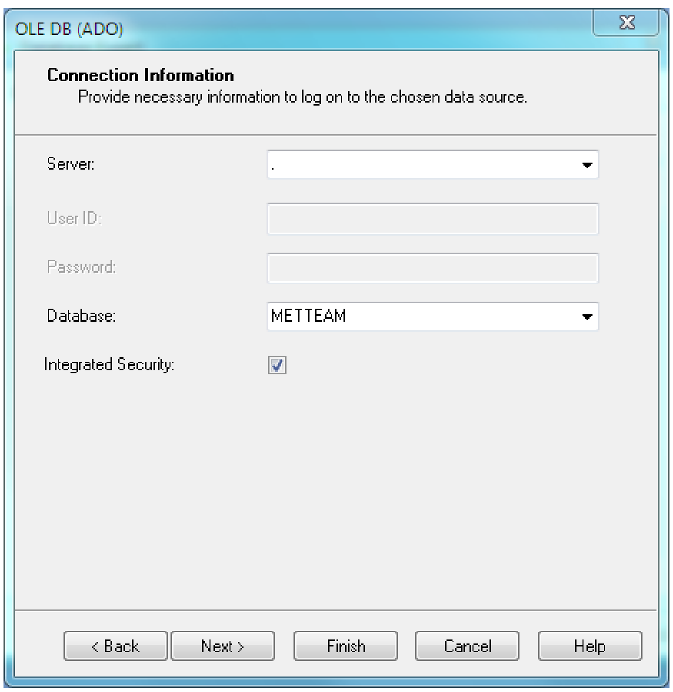
Locate OLE DB (ADO) and double-click *Make New Connection*.



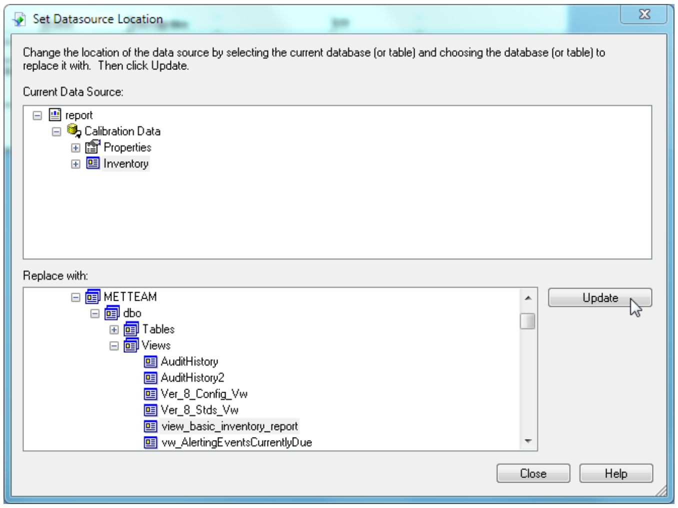
Select SQL Server Native Client 10.0 and click *Next*.



Select your server from the server dropdown (a dot can be used to indicate the local server), select METTEAM from the database dropdown and enter your credentials, then press Finish.



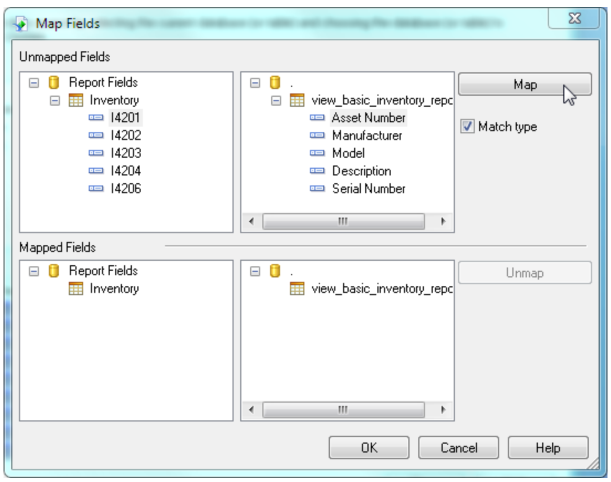
Now the newly added connection is available for use.

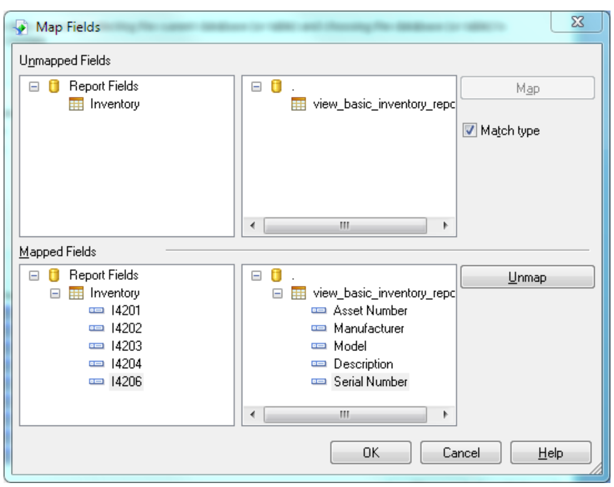


After pressing Update, the fields can be re-mapped.

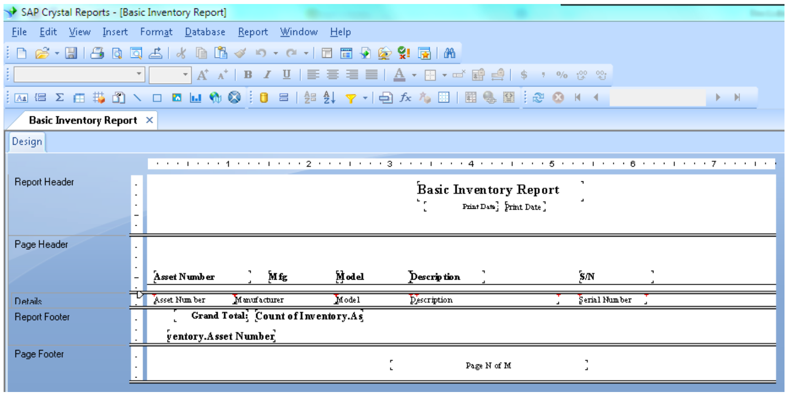
Map Fields

Map the fields one by one, until there are all fields are mapped.

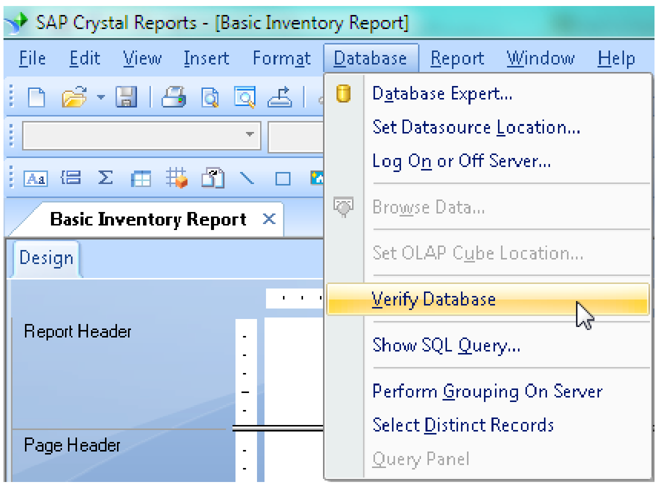


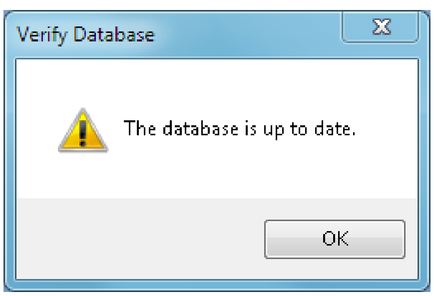


The field names on the report reflect the aliased fields of the MET/TEAM view.



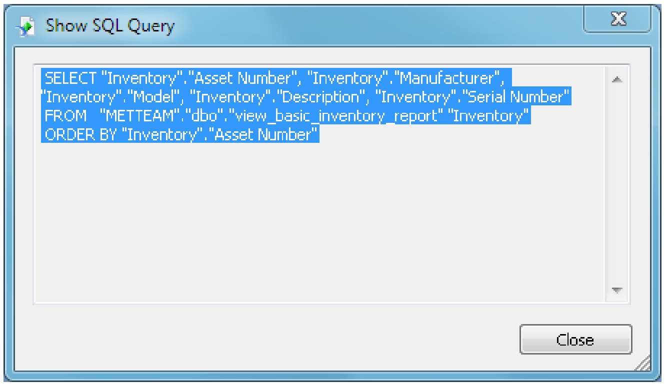
After switching data sources, we need to verify that the data can be queried successfully.





View New Query

Use the Show SQL Query option to view the new query.



Run New Report

When the new report is run, the basic inventory list in MET/TEAM is displayed.

Basic Inventory Report

Print Date: 4/19/2013

Asset Number	Mfg	Model	Description	S/N
FLUKE CORPORATION	FLUKE	CALIBRATION	OUT SOURCED	NA
SAMPLE-10	FLUKE	10	DIGITAL MULTIMETER	10101010
SAMPLE-11	FLUKE	11	DIGITAL MULTIMETER	1100110001
SAMPLE-5500	FLUKE	5500A	CALIBRATOR	4820000
SAMPLE-5700	FLUKE	5700A	CALIBRATOR	57000001
SAMPLE-5725	FLUKE	5725A	BOOST AMPLIFIER	572500001
SAMPLE-732	FLUKE	732	DC REFERENCE STD	732000001
SAMPLE-742-1	FLUKE	742-1	1 OHM RESISTANCE STD	742010001
SAMPLE-742-2	FLUKE	742-10K	10,000 OHM RESISTANCE STD	742100001
SAMPLE-87	FLUKE	87	DIGITAL MULTIMETER	87001001
SAMPLE-8842	FLUKE	8842	DMM	884200987
sample-block	HOKE	MIL026901	MECHNICAL STANDARD	048323242
sample-c2	uk	c2	mechnical standard	r4e90uys
SAMPLE-OPFLAT	HOKE	36	MECHNICAL STANDARD	8096098098
Grand Total:	**14**			
	14			

File Menu

The File menu contains the options for logging out of the MET/TEAM application and for checking out or in for the purpose of going off site.

Import

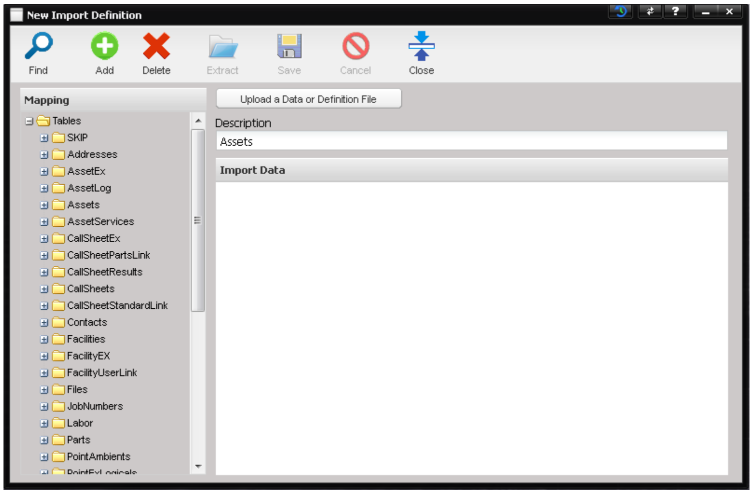
The Import menu allows for creating an import definition, creating an import setup, and processing the import. To begin the import process, create an import definition and then an import setup.

Note: *The Log file that tracks the processes and data imported is in English only.*

Import Definition

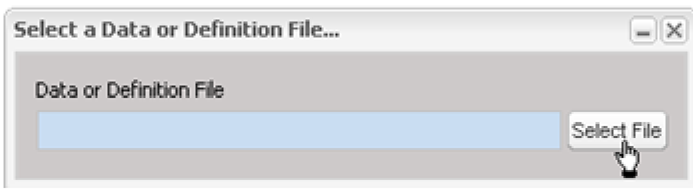
The Import Definition allows for uploading a data or definition file to assist in assigning columns. The purpose of the definition is to assign columns to MET/TEAM table fields.

Note: *MET/TRACK users can also upload a definition file used with imp2.exe or Data Importation. While the fields are recognized and translated, any import tied to assets requires manual augmentation since MET/TEAM requires the type's manufacturer, model, and description.*

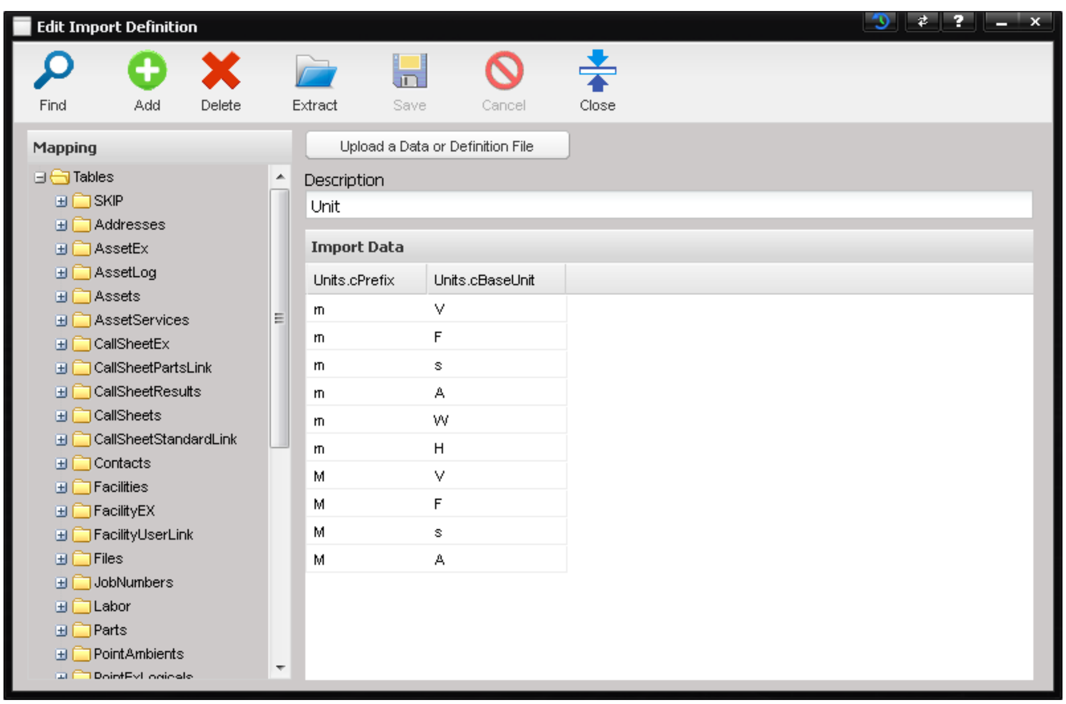


- **Mapping** – Lists the MET/TEAM tables that can be mapped to and the fields within the tables. Press the "+" to expand the list of tables and fields underneath each table.
- **Description** – The description for this import definition.
- **Import Data** – Displays the columns and assigned fields.

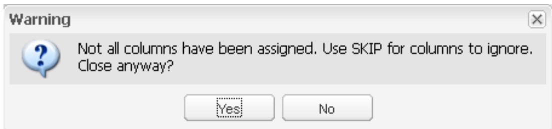
When the Upload a Data or Definition File button is selected, the Select a Data or Definition File… screen is displayed prompting the user to navigate to the file.

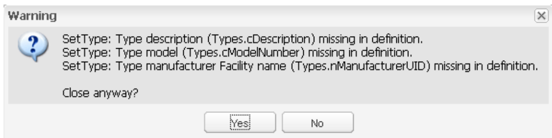


Assign fields to the columns by selecting the column in the grid and clicking a field in the tree.



Repeat the process until all columns are assigned. To ignore a column of data, select the SKIP item from the SKIP node in the tree (shown as SKIP.SKIP on the header). The definitions are validated upon exiting the form, with a warning if the definition isn't valid.



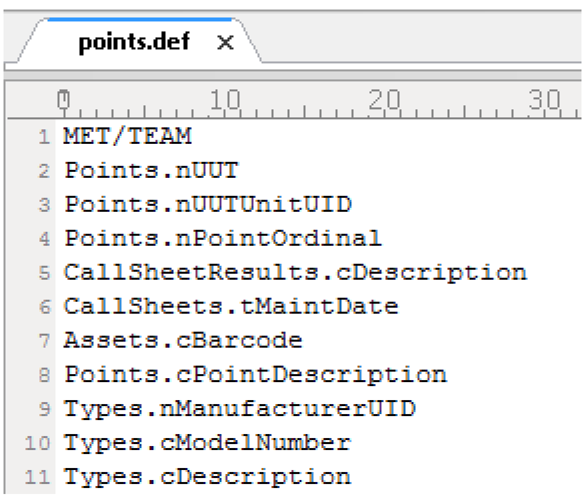


SKIP and fields in Addresses and CallSheetStandardLink tables can be selected more than once; other fields disappear from the selection tree once selected.

If the same data is needed for more than one MET/TEAM field, the data should be replicated (copy the column) so it can be assigned to additional fields. For example, an Asset's manufacturer, model, and Type description usually match that of its Type. While the Type fields are required, the Assets are not. To import the same information into both, copy the three data columns and assign one set to the Type fields and the other to the Asset fields.

Extracting an Import Definition

Extracting means saving the import definition to a file on the local hard drive. To extract the current definitions, press the blue Extract button on the toolbar. The file extracted can be uploaded into the same or another MET/TEAM system to make an import definition from it. The file format is similar to that of the definition files used in MET/TRACK.



***Note:** When upgrading to a new version of MET/TEAM, prior import definitions will have to be re-validated, as changes to the business logic may invalidate the prior definition.*

Referencing Items in Other Tables

Linking data between tables in MET/TEAM is often done via the UID of the other record. To establish a link between tables during the import, for example to specify the manufacturer for an Asset to be imported, the Assets.nManufacturerUID column should be added to the definition. The data for Assets.nManufacturerUID should be the actual facility name of the manufacturer, not the reference number normally stored in nManufacturerUID.

In order to establish the link, the referenced item has to be located or created. In order to do so, all fields that uniquely identify the referenced item have to be specified within that one column of data in the import data file. In case two fields are needed to uniquely identify the referenced record, the data elements are separated by a double-colon (::). This method is currently employed when referencing Units and Service Types. If the data column does not contain a double-colon, the second part of the data is defaulted. The unit prefix defaults to *no prefix*, the service mode (ServiceTypes.cServiceType) defaults to *Calibration*.

Specific Table Fields

Addresses.nFacilityUID	Facilities.cFacilityName
AssetServices.nServiceTypeUID	ServiceTypes.cServiceName::ServiceTypes.cServiceType
Assets.nAssignedFacUID	Facilities.cFacilityName
Assets.nAuthorizedFacUID	Facilities.cFacilityName
Assets.nCategoryUID	Category.cDescription
Assets.nDepartmentUID	Facilities.cFacilityName
Assets.nFacilityUID	Facilities.cFacilityName
Assets.nInventoryByUID	Users.cUsername
Assets.nMaintenanceFacUID	Facilities.cFacilityName
Assets.nManufacturerUID	Facilities.cFacilityName
Assets.nParentUID	Assets.cBarcode
Assets.nSubCategoryUID	SubCategory.cDescription
CallSheetStandardLink.nAssetUID	Assets.cBarcode
CallSheetPartsLink.nJobNumberUID	JobNumbers.cJobOrderNumber
CallSheetResults.nProcedureUID	Procedures.cProcedureName
CallSheetResults.nRunAtFacilityUID	Facilities.cFacilityName
CallSheetResults.nTechnicianUID	Users.cUsername
CallSheets.nAssignedTechUID	Users.cUsername
CallSheets.nCategoryUID	Category.cDescription
CallSheets.nDepartmentUID	Facilities.cFacilityName
CallSheets.nInvoiceUID	Invoices.cInvoiceNo
CallSheets.nJobNumberUID	JobNumbers.cJobOrderNumber
CallSheets.nProcedureUID	Procedures.cProcedureName
CallSheets.nQCApprovedByUID	Users.cUsername
CallSheets.nReturnedByUID	Users.cUsername
CallSheets.nSubCategoryUID	SubCategory.cDescription
CallSheets.nSubContractorUID	Facilities.cFacilityName
CallSheets.nTechnicianUID	Users.cUsername
CallSheets.nWorkingFacilityUID	Facilities.cFacilityName
Contacts.nManagerUID	Contacts.cEmail2
Contacts.nUserUID	Users.cUsername
Facilities.nCategoryUID	Category.cDescription
Facilities.nParentFacilityUID	Facilities.cFacilityName
Facilities.nSubCategoryUID	SubCategory.cDescription
JobNumbers.nFundingAuthorityUID	Facilities.cFacilityName
Labor.nCategoryUID	Category.cDescription
Labor.nJobNumberUID	JobNumbers.cJobOrderNumber

Labor.nSubCategoryUID	SubCategory.cDescription
Labor.nUserUID	Users.cUsername
Parts.nCategoryUID	Category.cDescription
Parts.nInventoryByUID	Users.cUsername
Parts.nManufacturerUID	Facilities.cFacilityName
PointAmbients.nAmbientHumidityUnitUID	Units.cBaseUnit::Units.cPrefix
PointAmbients.nAmbientPressureUnitUID	Units.cBaseUnit::Units.cPrefix
PointAmbients.nAmbientTemperatureUnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField001UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField002UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField003UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField004UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField005UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField006UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField007UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField008UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField009UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField010UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField011UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField012UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField013UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField014UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField015UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField016UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField017UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField018UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField019UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField020UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField021UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField022UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField023UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField024UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField025UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField026UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField027UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField028UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField029UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField030UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField031UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField032UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField033UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField034UnitUID	Units.cBaseUnit::Units.cPrefix

PointExNumerics.nField035UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField036UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField037UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField038UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField039UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField040UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField041UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField042UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField043UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField044UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField045UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField046UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField047UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField048UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField049UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField050UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField051UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField052UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField053UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField054UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField055UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField056UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField057UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField058UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField059UnitUID	Units.cBaseUnit::Units.cPrefix
PointExNumerics.nField060UnitUID	Units.cBaseUnit::Units.cPrefix
PointReadings.nAssetUID	Assets.cBarcode
PointReadings.nReadingUnitUID	Units.cBaseUnit::Units.cPrefix
Points.nCardinalPointUnitUID	Units.cBaseUnit::Units.cPrefix
Points.nCorrectionUnitUID	Units.cBaseUnit::Units.cPrefix
Points.nReferenceUnitUID	Units.cBaseUnit::Units.cPrefix
Points.nSystemAccuracyUnitUID	Units.cBaseUnit::Units.cPrefix
Points.nUUTRangeUnitUID	Units.cBaseUnit::Units.cPrefix
Points.nUUTUnitUID	Units.cBaseUnit::Units.cPrefix
PointStatistics.nMaximumReferenceUnitUID	Units.cBaseUnit::Units.cPrefix
PointStatistics.nMaximumUUTUnitUID	Units.cBaseUnit::Units.cPrefix
PointStatistics.nMinimumReferenceUnitUID	Units.cBaseUnit::Units.cPrefix
PointStatistics.nMinimumUUTUnitUID	Units.cBaseUnit::Units.cPrefix
PointStatistics.nReference2StandardDeviationUnitUID	Units.cBaseUnit::Units.cPrefix
PointStatistics.nReferenceRaw2StandardDeviationUnitUID	Units.cBaseUnit::Units.cPrefix
PointStatistics.nReferenceRawStandardDeviationUnitUID	Units.cBaseUnit::Units.cPrefix

PointStatistics.nReferenceStandardDeviationUnitUID	Units.cBaseUnit::Units.cPrefix
PointStatistics.nSampleRateUnitUID	Units.cBaseUnit::Units.cPrefix
PointStatistics.nUUTRawStandardDeviationUnitUID	Units.cBaseUnit::Units.cPrefix
PointStatistics.nUUTStandardDeviationUnitUID	Units.cBaseUnit::Units.cPrefix
PointTolerances.nErrorUnitUID	Units.cBaseUnit::Units.cPrefix
PointTolerances.nReferenceToleranceUnitUID	Units.cBaseUnit::Units.cPrefix
PointTolerances.nToleranceErrorUnitUID	Units.cBaseUnit::Units.cPrefix
PointTolerances.nToleranceNegativeUnitUID	Units.cBaseUnit::Units.cPrefix
PointTolerances.nTolerancePositiveUnitUID	Units.cBaseUnit::Units.cPrefix
PointTolerances.nToleranceUnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nGuardBandLowerUnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nGuardBandUpperUnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nLowerLimitUnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nModifier1UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nModifier2UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nS1UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nS2UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyDominantUnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyExpandedUnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyParameter10UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyParameter1UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyParameter2UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyParameter3UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyParameter4UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyParameter5UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyParameter6UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyParameter7UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyParameter8UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyParameter9UnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyStandardUnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUncertaintyUnitUID	Units.cBaseUnit::Units.cPrefix
PointUncertainties.nUpperLimitUnitUID	Units.cBaseUnit::Units.cPrefix
Procedures.nApprovedByUID	Users.cUsername
Procedures.nAttTemplateUID	Files.cFileName
Procedures.nCategoryUID	Category.cDescription
Procedures.nProcedureFileUID	Files.cFileName
ToolAssignments.nContactUID	Contacts.cEmail2
TypeProcedureDefaults.nAttTemplateUID	Files.cFileName
Types.nCategoryUID	Category.cDescription
Types.nManufacturerUID	Facilities.cFacilityName

Types.nSubCategoryUID	SubCategory.cDescription
Users.nManagerUID	Users.cUsername

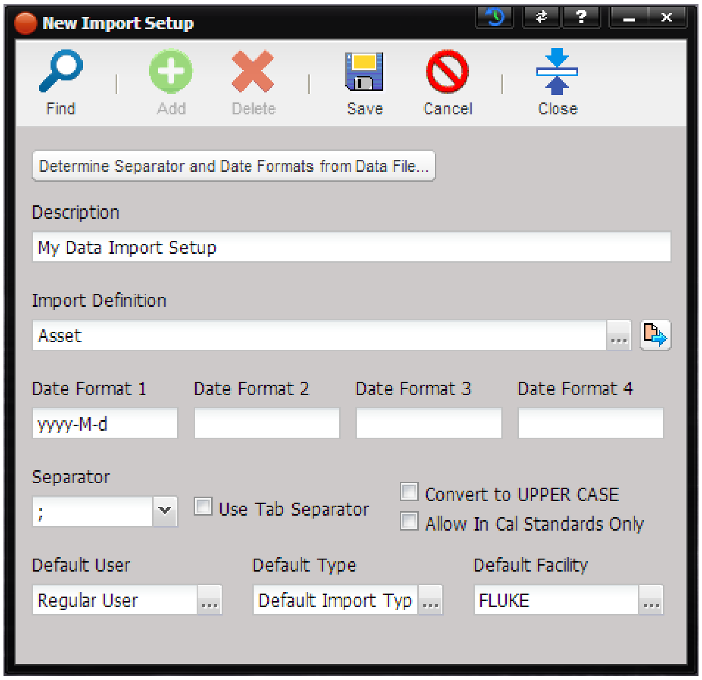
UIDs that Should not be Assigned

<any>.nAddFacilityUID
<any>.nAddUserUID
<any>.nUpdateFacilityUID
<any>.nUpdateUserUID
<any>.nImportUID
AssetEx.nAssetUID
AssetLog.nAssetUID
Assets.nTypeUID
AssetServices.nAssetUID
CallSheetEx.nCallSheetUID
CallSheetPartsLink.nCallSheetUID
CallSheetPartsLink.nPartUID
CallSheetResults.lRun
CallSheetResults.nCallSheetUID
CallSheets.nAssetUID
CallSheets.nCalendarUID
CallSheets.nCallSheetAttributeUID
CallSheets.nGroupUID
CallSheets.nRevision
CallSheets.nTypeUID
CallSheetStandardLink.nCallSheetUID
FacilityContactLink.nContactUID
FacilityContactLink.nFacilityContactLinkUID
FacilityContactLink.nFacilityUID
FacilityEx.nFacilityUID
FacilityUserLink.nFacilityUID
FacilityUserLink.nUserUID
Files.nManualTemplateUID
JobNumbers.nProjectUID
Labor.nCallSheetUID
PointAmbient.nPointUID
PointExLogicals.nPointUID
PointExNumerics.nPointUID
PointExStrings.nPointUID
PointReadings.nPointUID
Points.nCallSheetResultUID
Points.nTemplateItemUID
PointStatistics.nPointUID
PointTolerances.nPointUID
PointUncertainties.nPointUID
ServiceTypes.nServiceTypeUID
ToolAssignmentEx.nToolAssignmentUID
ToolAssignments.nAssetUID

TypeProcedureDefaults.nProcedureUID
TypeProcedureDefaults.nTypeUID
Types.nImageUID

Import Setup

The Import Setup allows for specifying date formats found in the data file and the data separator used, as well as options to reject calibrations performed with out-of-cal standards and enforcing all upper case character entries. Default user, type, and facility records must be selected as fallbacks for missing referential data in the data file. Determining the separator and date formats used in the data file can be automated by uploading the data file to be imported via the "Determine Separator and Date Formats from the Data File…" button. The New Import Setup screen is displayed.



- **Description** – The description for this import setup.
- **Import Definition** – The Import Definition to be used.
  - The Import Definition can be changed by selecting the "…" button.
  - The Import Definition can be viewed by selecting the Quick Link button.
- **Date Format 1, Date Format 2, Date Format 3, and Date Format 4** – Enter up to 4 different date formats.
  - Use M[M] for month, d[d] for day and yyyy for year.

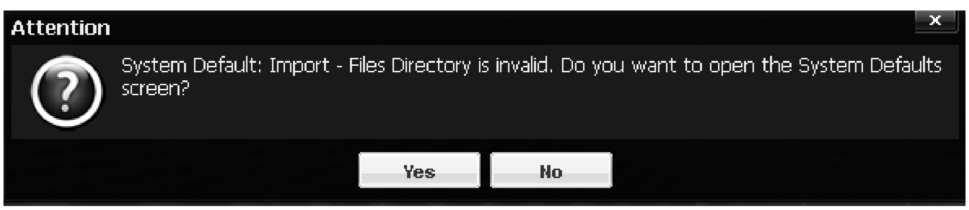
    For example, if the data file contains a date formatted as 2000-12-31, enter the following 4 formats:
    yyyy-MM-dd
    yyyy-MM-d
    yyyy-M-dd
    yyyy-M-d

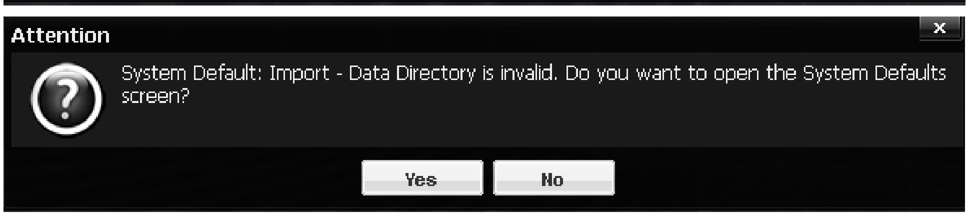
    which covers dates like the following:
    2000-12-31
    2000-12-1
    2000-1-31
    2000-1-1

  - If there are variations in the date formats other than month/day variations , for example a mixture of 2000-12-31 and 12/31/2000 in the same file, data cleanup should be performed before attempting to import the file.
- **Separator** – The data separator used in the file.
  - For a tab delimited file, check the Use Tab check box.
  - To automatically detect date formats and separator from the data file, press the "Determine Separator and Date Formats from Data File…" button. If successful, the four date format fields are populated as well as the separator dropdown. If it cannot determine the formats and/or separator from the data in the file, the according entry field will remain empty.
  - To not allow importing calibrations where the standard used was out of cal, check the Use In Cal Standards Only check box.
  - To convert all data to UPPER CASE, check the Convert to Caps check box. Note that this option is comprehensive and may lead to senseless and/or ambivalent unit prefixes (e.g. MV instead of mV).
- **Default User** – The user to be used for data elements requiring user information that is not explicitly provided in the data file.
  - The Default User can be changed by selecting the "…" button.
  - **Recommendation**: create a user specifically for this purpose and name it appropriately, so imported records can be easily identified, e.g. DefaultImportUser.
- **Default Type** – The type to be used for data elements requiring type information that is not explicitly provided in the data file.
  - The Default Type can be changed by selecting the "…" button.
  - **Recommendation**: create a type specifically for this purpose and name it appropriately, so imported records can be easily identified, e.g. DefaultImportType.
- **Default Facility** – The facility to be used for data elements requiring facility information that is not explicitly provided in the data file.
  - The Default Facility can be changed by selecting the "…" button.
  - **Recommendation**: create a facility specifically for this purpose and name it appropriately, so imported records can be easily identified, e.g. DefaultImportFacility.

Run Import

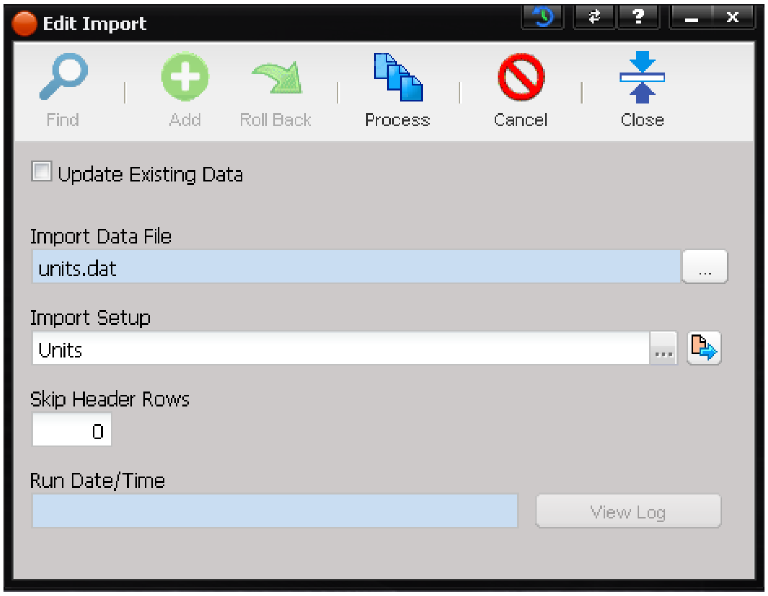
The Run Import screen allows for processing the data to be imported. Once the Run Import menu item is selected, the system verifies that the required system defaults needed by the Import are configured correctly. If not, messages are displayed.





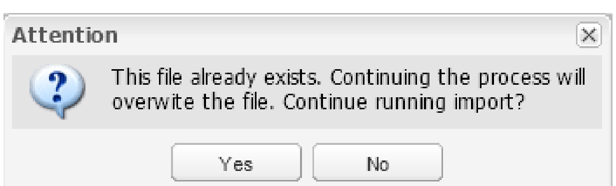
If Yes is selected, the System Defaults Edit screen is displayed, allowing for the settings to be changed. The directories are for temporary storage and refer to a local path on the server, e.g.: c:\import\data.

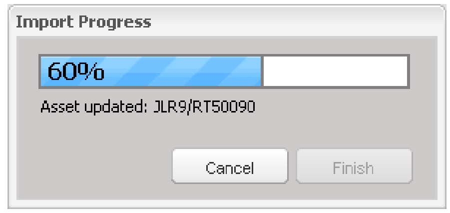
If the settings are set properly, the Find screen is displayed. Select the Cancel button create a new import. Before performing an import, open the data file in a text editor and note if there are column headings in the first row(s) of the file, to be skipped over when the data is processed.



- **Update Existing Data** – Determines whether this import will perform an update on or skip over existing records.
- **Import Data File** – The data file to import.
    - The Import Data File can be changed by selecting the "…" button.
- **Import Setup –** The import setup to be used.
    - The Import Setup can be changed by selecting the "…" button.
    - The Import Setup can be viewed by selecting the Quick Link button.
- **Skip Header Rows** – The number of header rows at the top of the Import Data File.
- **Run Date/Time** – The date the import was processed. This field is automatically populated.
- **View Log** – This button is enabled when opening a processed Import for review and allows for downloading the log information as a text file.

Select the Process button to initiate the import. If a file with the same name exists in the temporary location, a confirmation warning is displayed.

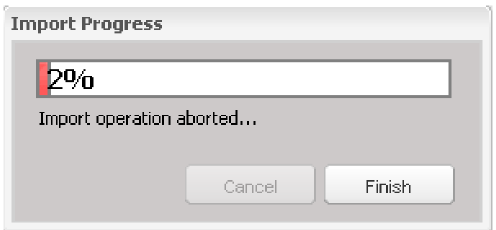




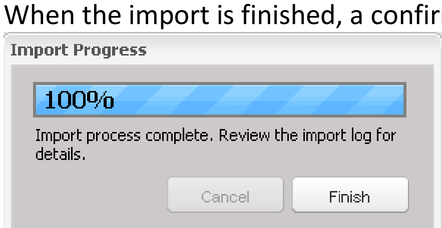
When the import is running, progress is displayed on the screen.

To abort the import, press the Cancel button on the Import Progress screen. A confirmation prompt is displayed.

The Import Progress displays the progress bar showing that the import operation was aborted.



When the import is finished, a confirmation message is displayed.



Upon selecting the Finish button, the Run Date/Time is filled in and the View Log button is enabled.

Rejected records are added to a redo file with the same name as the source, but an extension of ".redo000.txt". For example, a data file called "test.src" creates a redo file called "test.redo000.txt". Subsequent processing of the same Import Data File creates redo files with an increased number in the redo extension, up to 999 (i.e.; ".redo000.txt"," .redo001.txt" … ".redo999.txt").

Select the View Log button to display the log that was created for the import. This log shows any problems that occurred during the import.

Reviewing a Completed Import

To review completed Imports, select the Run Import menu option. The Find screen is displayed. Enter search criteria and select the OK button to open the desired import.

Select the View Log button to review the log.

```
Process:
20121116 04:02:49 : Starting import Customers...
20121116 04:02:49 : Validating import definitions...
20121116 04:02:49 : Import complete, 0:00:00:00 elapsed.


Data:
20121116 04:02:49 : New facility created: CSA International
20121116 04:02:49 : New address created: 2805 Barranca Parkway
20121116 04:02:49 : New asset created: E015
```

The log is downloaded as a text file or opened inside your browser, depending on the type of browser and settings.

The top section “Process” displays the steps performed during the import. The bottom section “Data” displays a list of new items created and/or existing items updated.

Rolling Back an Import

To roll back an Import, select the Run Import menu option. The Find screen is displayed. Enter search criteria and select the OK button to open the desired import.

On the Import screen, select the Delete button and confirm to roll back the Import.

The rollback deletes items that were created when the import was performed, as long as there aren’t any dependencies on that data, created after the Import was run. For example, after creating a new work order for an Asset that came in on Import #1, rolling back Import #1 cannot remove the Asset because a work order is dependent on it.

***Note**: Data updated during the course of running an import is not rolled back to their prior values. Rollbacks only apply to newly created records.*

Import Data Tables

The Import function allows for importing delimited files with data for the following tables.

Addresses	(addresses)
AssetEx	(extended Asset data)
AssetLog	(Asset change log)
AssetServices	(periodic and one time actions, like calibration or maintenance)
Assets	(inventory)
CallSheetEx	(extended work order data)
CallSheetPartsLink	(parts needed for a work order)
CallSheetResults	(grouping of data points belonging to a work order)
CallSheetStandardLink	(standards used via a work order)
CallSheets	(work orders)
Contacts	(contact information)
FacilityContactLink	(contact for a facility, established automatically if both are found)
Facilities	(lab, manufacturer, customer, vendor, work shop, department)
FacilityEX	(extended facility information)
FacilityUserLink	(facilities a user has access to)
Files	(files)
JobNumbers	(job order numbers)
Labor	(work performed information)
Parts	(parts)

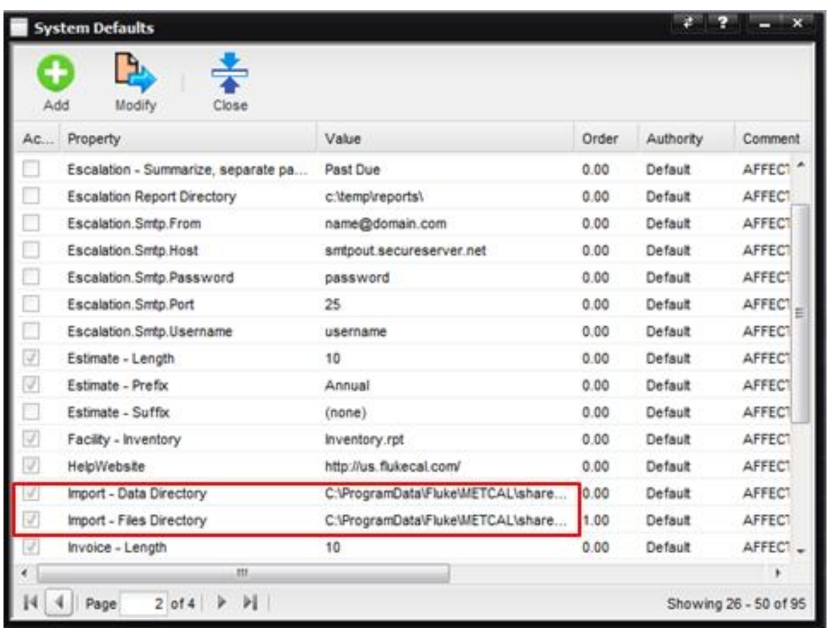
PointAmbients	(ambient data points)
PointExLogicals	(extended data point information, logical values)
PointExNumerics	(extended data point information, numerical values)
PointExStrings	(extended data point information, character values)
PointReadings	(Individual readings that were averaged to form a data point)
PointStatistics	(statistical values about a data point)
PointTolerances	(tolerance information for a data point)
PointUncertainties	(uncertainty data calculated for a data point)
Points	(data points)
Procedures	(procedures)
Service Types	(service types)
ToolAssignmentEx	(exended tool assignment information)
ToolAssignments	(tool assignments)
Types	(types)
Units	(units)
Users	(users)

Importing Units

To import units into the Units table, cBaseUnit is required. This field accommodates units without a prefix, like volts (V) or ampere (A). To import units that do have a prefix, like µA, the cPrefix field should be included in the Import Definition. To reference a unit when importing calibration data, prefix and base unit must be specified in one column, separated by a double-colon (::). For example, to import UUT measurements into the Points table, the number of the measurement goes into the nUUT column, the unit into nUUTUnitUID.

Example: Importing Files into MET/TEAM

In order to import files into MET/TEAM, the System Defaults for *Import – Data Directory* and *Import – Files Directory* needs to be set up. To get to the System Defaults, select the Configure menu (which is only available if you have Administrative or Configure rights), page down the alphabetized list until you see the two import defaults.



Import – Data Directory is used by MET/TEAM to store temporary data – **do not use for storing data**

Import – Files Directory is where the files are to be placed

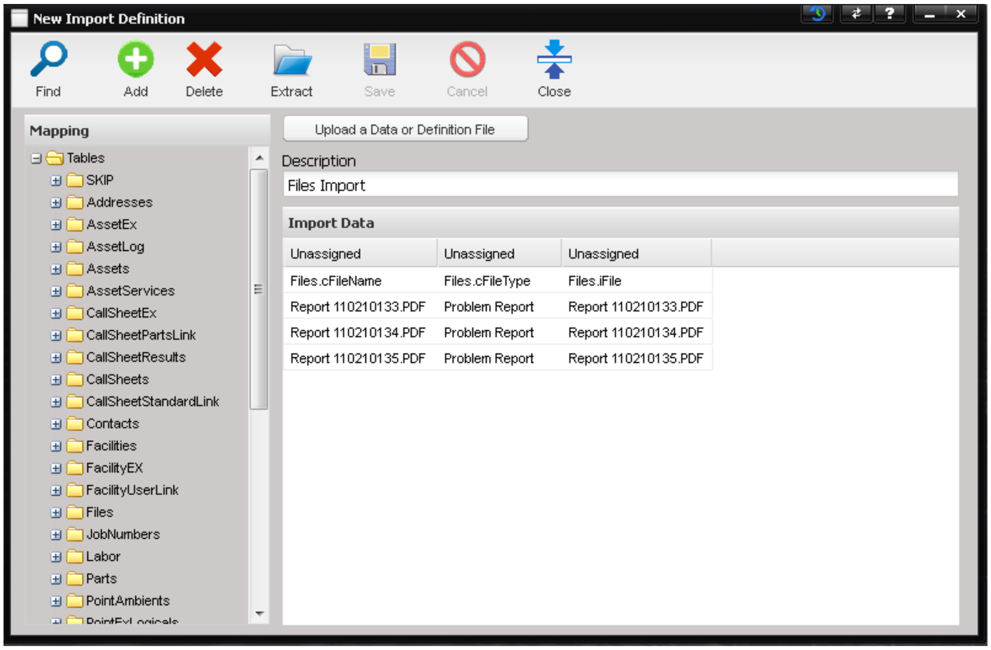
In the data file to be imported, the files are then referenced simply by their file name, for example: *Report 110210133.PDF* and the import will look for a file of that name in the location specified in the system default: *Import – Files Directory*.

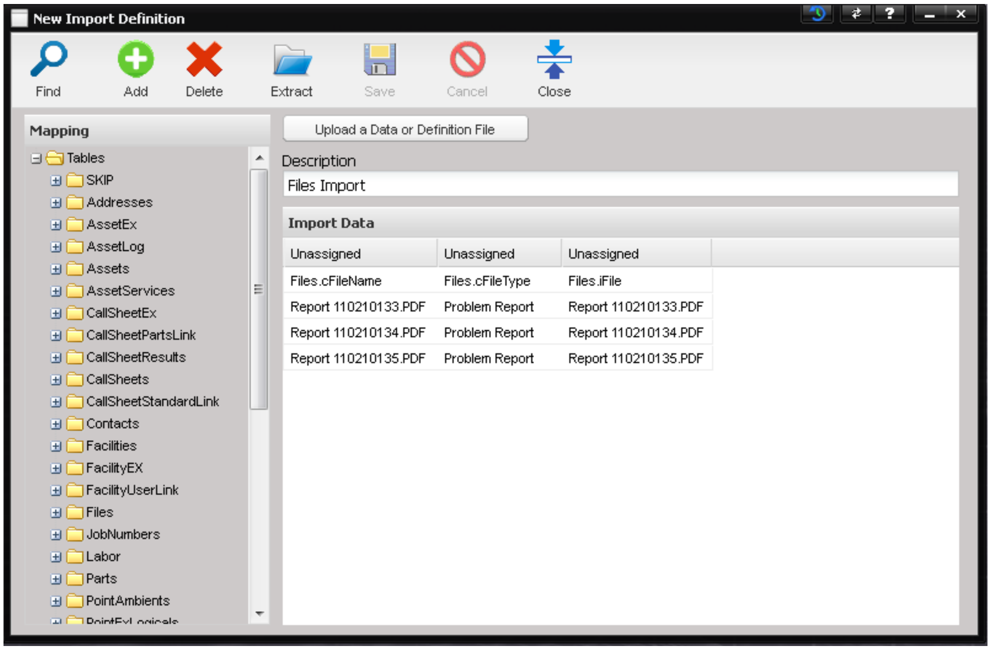
Example data file, using a pipe symbol as the separator:
Files.cFileName|Files.cFileType|Files.iFile
Report 110210133.PDF|Problem Report|Report 110210133.PDF
Report 110210134.PDF|Problem Report|Report 110210134.PDF
Report 110210135.PDF|Problem Report|Report 110210135.PDF

Files.cFileType can be one of the following:
Accreditation
Work Order
Checklist
Image
Problem Report
Procedure
Project
Tool Assignment
Type
Part
Facility

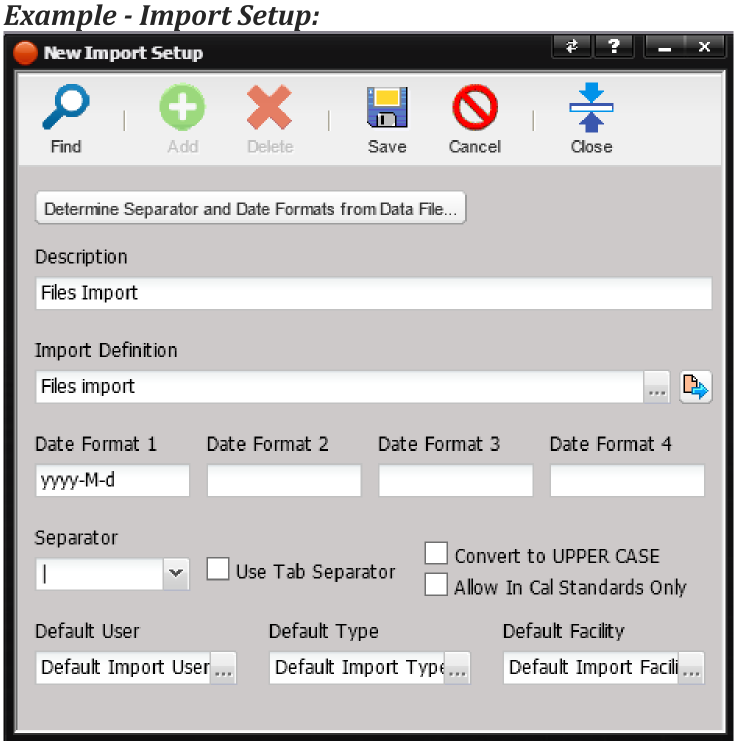
Import Definition

Load the data file into the *Import Definition* screen and assign the columns, to make the definition:



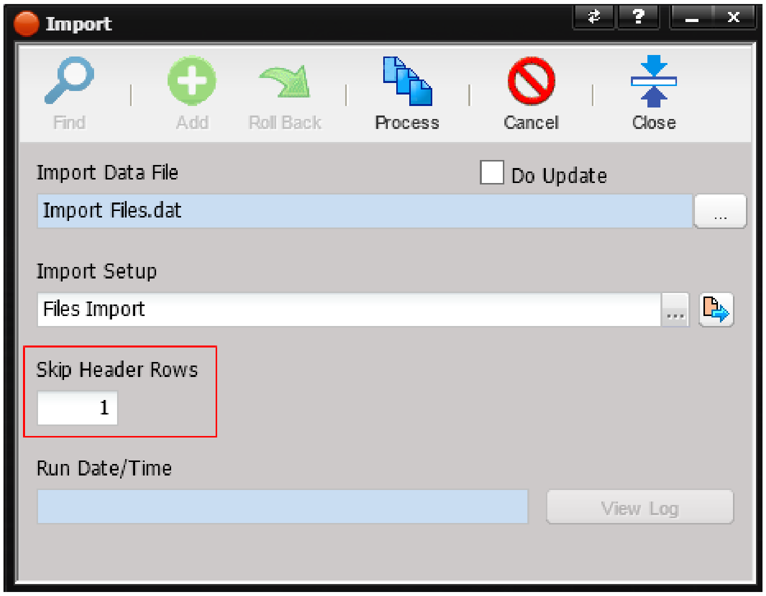


Example - Import Setup:

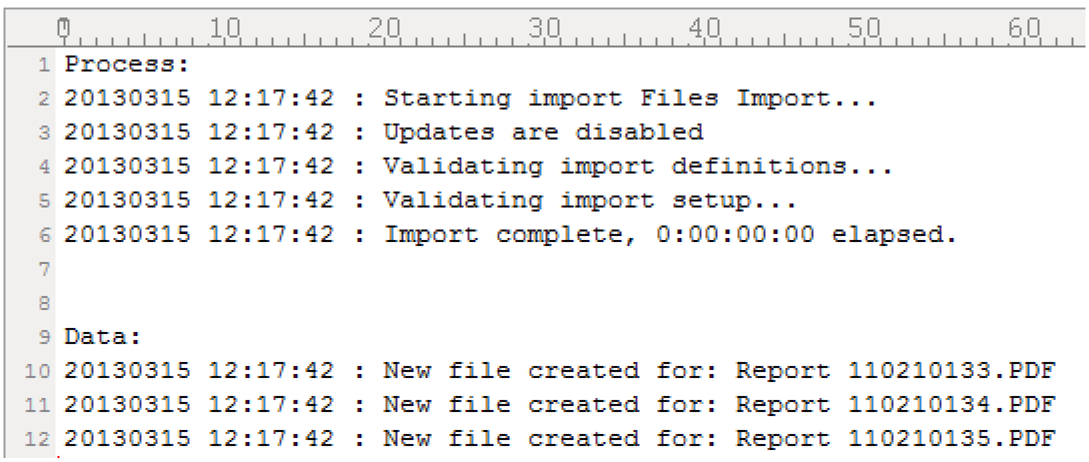


Run the import:

Since our data files contains headers as the first row, it is important to enter 1 into *Skip Header Rows*, so the import doesn't interpret the headers as data.



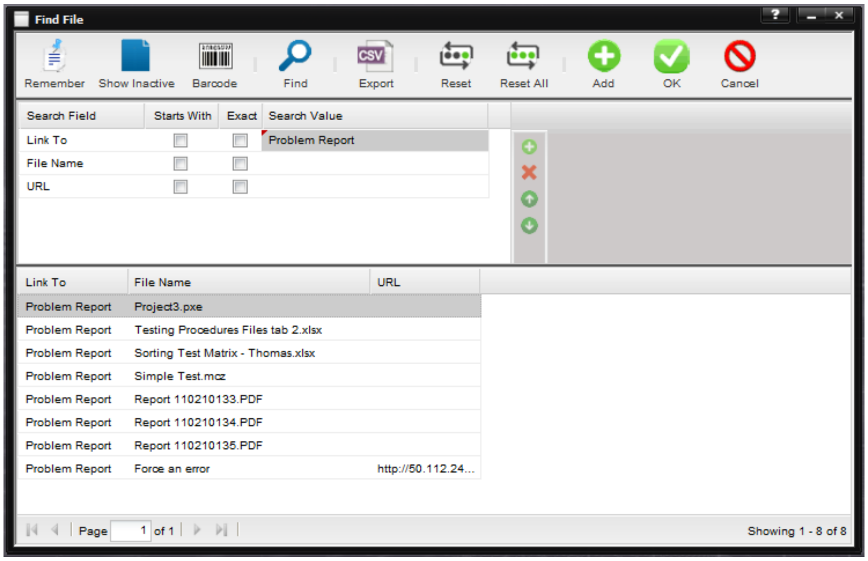
The log file should look similar to this:

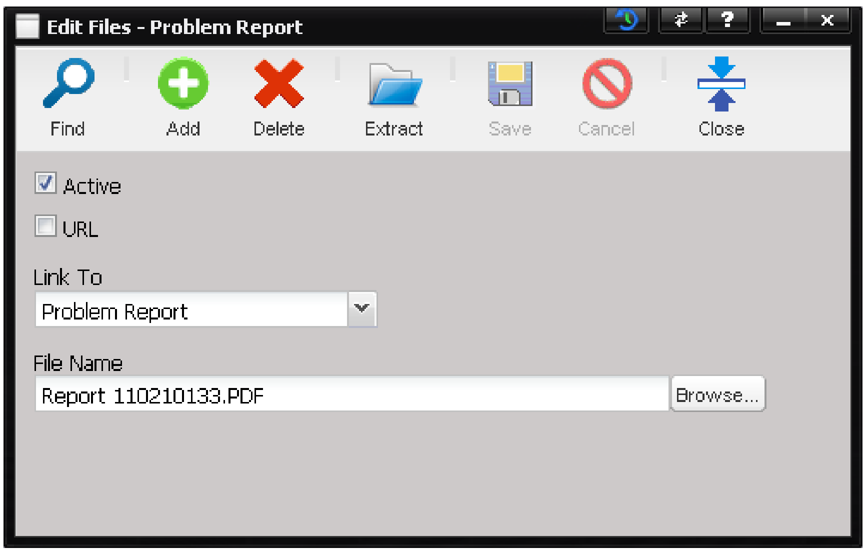


```
Process:
20130315 12:17:42 : Starting import Files Import...
20130315 12:17:42 : Updates are disabled
20130315 12:17:42 : Validating import definitions...
20130315 12:17:42 : Validating import setup...
20130315 12:17:42 : Import complete, 0:00:00:00 elapsed.


Data:
20130315 12:17:42 : New file created for: Report 110210133.PDF
20130315 12:17:42 : New file created for: Report 110210134.PDF
20130315 12:17:42 : New file created for: Report 110210135.PDF
```

To access the new files in MET/TEAM:





Note: *You cannot currently update the file contents from the Files screen by uploading a different file.*

Required Fields per Table

Table	Required Field(s)	Expected Value for UID
Addresses	Addresses.nFacilityUID	Facilities.cFacilityName
	Addresses.cType Addresses.cAddress1 Addresses.cCity Addresses.cCountry	**Note:** The four required fields comprise the unique key per address.
Assets	Assets.cBarcode	Note: auto-generated if not specified
AssetEx	N/A	
AssetLog	AssetLog.cBarcode	
AssetServices	AssetServices.nServiceTypeUID AssetServices.tMaintDate	Note: An Asset Scheduled Service is unique by nServiceTypeUID for each

		asset. The Maintenance date is required, but not part of the unique key.
CallSheets	CallSheets.tMaintDate	
CallSheetEx	N/A	
CallSheetPartsLink	N/A	
CallSheetResults	CallSheetResults.cDescription	
CallSheetStandardLink	CallSheetStandardLink.nAssetUID	Assets.cBarcode
Contacts	Contacts.cEmail2	
Facilities	Facilities.cFacilityName	
FacilityContactLink	Automatic, if both the facility and contact are specified in the record	
FacilityEx	N/A	
FacilityUserLink	N/A	
Files	Files.cFileName Files.cFileType	
JobNumbers	JobNumbers.cJobOrderNumber	
Labor	Labor.cLaborAccount	
Parts	Parts.cPartNumber	
Points	Points.cPointDescription	
PointAmbients	N/A	
PointExLogicals	N/A	
PointExNumerics	N/A	
PointExStrings	N/A	
PointReadings	PointReadings.nReadingOrdinal	
PointStatistics	N/A	
PointTolerances	N/A	
PointUncertainties	N/A	
Procedures	Procedures.cProcedureName	
Service Types	ServiceTypes.cServiceName (Service Type) ServiceTypes.cServiceType (Service Mode)	
ToolAssignments	ToolAssignments.tLoanDate	
ToolAssignmentEx	N/A	
Types	Types.cDescription	
	Types.cModelNumber	
	Types.nManufacturerUID	Facilities.cFacilityName
TypeProcedureDefaults	N/A	
Units	Units.cBaseUnit	
Users	Users.cUserName	

Dependent Tables to be Included per Table

Table	Dependent Table(s)
Assets	Types
AssetEx	Assets Types
AssetServices	Assets Types
CallSheetEx	Assets CallSheets Types
CallSheetPartsLink	Assets CallSheets Parts Types
CallSheetResults	Assets CallSheets Types
CallSheetStandardLink	Assets CallSheets Types
CallSheets	Assets Types
FacilityContactLink	Contacts Facilities
FacilityEx	Facilities
FacilityUserLink	Facilities Users
Labor	Assets CallSheets Types Users
Points	Assets CallSheetResults CallSheets Types
PointAmbients	Assets CallSheetResults CallSheets Points Types
PointExLogicals	Assets CallSheetResults CallSheets Points Types
PointExNumerics	Assets

	CallSheetResults CallSheets Points Types
PointExStrings	Assets CallSheetResults CallSheets Points Types
PointReadings	Assets CallSheetResults CallSheets Points Types
PointStatistics	Assets CallSheetResults CallSheets Points Types
PointTolerances	Assets CallSheetResults CallSheets Points Types
PointUncertainties	Assets CallSheetResults CallSheets Points Types
ToolAssignments	Assets Types
ToolAssignmentEx	Assets ToolAssignments Types
TypeProcedureDefaults	Procedures Types
Users	Facilities

UTC Date/Time Adjustment During an Import

When data is imported into MET/TEAM, the assumption is made that date/time values in the data are in local time of the workstation where the import is initiated. Therefore it is important not to ship import data across time zones without adjusting dates/times accordingly. The UTC offset applied to date/time values in the import data is noted in the import log, for future reference.

Sample Import Definitions

The following sample Import definitions can be saved to a file and imported into the Import Definition screen, or used as a starting point for making an Import Definition.

Assets

MET/TEAM

Types.cModelNumber

Types.nManufacturerUID

Types.cDescription

Assets.nFacilityUID

Assets.nManufacturerUID

Assets.nMaintenanceFacUID

Assets.nAssignedFacUID

Assets.nAuthorizedFacUID

Assets.cBarcode

Assets.cID

Assets.cSerialNumber

Assets.cModelNumber

Assets.cDisposition

Assets.cDescription

Assets.lStandard

Assets.lRecallMaintenanceType

Work Orders

MET/TEAM

Types.cModelNumber

Types.nManufacturerUID

Types.cDescription

Assets.cBarcode

AssetServices.nServiceTypeUID

CallSheets.nFacilityUID

CallSheets.nWorkingFacilityUID

CallSheets.nOwningLabUID

CallSheets.nProcedureUID

CallSheets.nTechnicianUID

CallSheets.nReturnedByUID

CallSheets.cInitialCondition

CallSheets.cServiceReason

CallSheets.cCallSheetType

CallSheets.cStickerType

CallSheets.cCallSheetStatus

CallSheets.cCallSheetNumber

CallSheets.cCertificationNumber

CallSheets.cInterval

CallSheets.cIntervalUOM

CallSheets.cLocation

CallSheets.cCertFormat

CallSheets.tOpenDate

CallSheets.tRequiredDate

CallSheets.tMaintDate

CallSheets.tMaintNextDate

CallSheets.tClosedDate

CallSheets.tReturnedDate

CallSheets.nPriority

CallSheets.lClosed

Work Orders w/Results
MET/TEAM

Types.cModelNumber

Types.nManufacturerUID

Types.cDescription

Assets.cBarcode

AssetServices.nServiceTypeUID

CallSheets.nFacilityUID

CallSheets.nWorkingFacilityUID

CallSheets.nOwningLabUID

CallSheets.nProcedureUID

CallSheets.nTechnicianUID

CallSheets.nReturnedByUID

CallSheets.cInitialCondition

CallSheets.cServiceReason

CallSheets.cCallSheetType

CallSheets.cStickerType

CallSheets.cCallSheetStatus

CallSheets.cCallSheetNumber

CallSheets.cCertificationNumber

CallSheets.cInterval

CallSheets.cIntervalUOM

CallSheets.cLocation

CallSheets.cCertFormat

CallSheets.cWorkOrderResults

CallSheets.tOpenDate

CallSheets.tRequiredDate

CallSheets.tMaintDate

CallSheets.tMaintNextDate

CallSheets.tClosedDate

CallSheets.tReturnedDate

CallSheets.nQuantity

CallSheets.nPriority

CallSheets.lClosed

CallSheetResults.nProcedureUID

CallSheetResults.nTechnicianUID

CallSheetResults.nRunAtFacilityUID

CallSheetResults.nCallSheetResultOrdinal

CallSheetResults.cDescription

CallSheetResults.cStatus

CallSheetResults.cCallSheetResultType

CallSheetResults.tStartTime

CallSheetResults.tEndTime

Work Orders w/Results and Points
MET/TEAM

Types.cModelNumber

Types.nManufacturerUID

Types.cDescription

Assets.cBarcode

AssetServices.nServiceTypeUID

CallSheets.nFacilityUID

CallSheets.nWorkingFacilityUID

CallSheets.nOwningLabUID

CallSheets.nProcedureUID

CallSheets.nTechnicianUID

CallSheets.nReturnedByUID

CallSheets.cInitialCondition

CallSheets.cServiceReason

CallSheets.cCallSheetType

CallSheets.cStickerType

CallSheets.cCallSheetStatus

CallSheets.cCallSheetNumber

CallSheets.cCertificationNumber

CallSheets.cInterval

CallSheets.cIntervalUOM

CallSheets.cLocation

CallSheets.cCertFormat

CallSheets.cWorkOrderResults

CallSheets.tOpenDate

CallSheets.tRequiredDate

CallSheets.tMaintDate

CallSheets.tMaintNextDate

CallSheets.tClosedDate

CallSheets.tReturnedDate

CallSheets.nQuantity

CallSheets.nPriority

CallSheets.lClosed

CallSheetResults.nProcedureUID

CallSheetResults.nTechnicianUID

CallSheetResults.nRunAtFacilityUID

CallSheetResults.nCallSheetResultOrdinal

CallSheetResults.cDescription

CallSheetResults.cStatus

CallSheetResults.cCallSheetResultType

CallSheetResults.tStartTime

CallSheetResults.tEndTime

Points.cPointDescription

Points.nUUT

Points.nUUTUnitUID

Facilities
MET/TEAM

Facilities.cFacilityName

Facilities.cFacilityType

Facilities.cFacilityNumber

Facilities.cDistrict

Facilities.lManufacturer

Facilities.lCustomer

Facilities.lSubContractor

Facilities.lLab

Facilities.lHandHeldUse

Facilities.lNoRecall

Facilities.lNoTax

Facilities.lInspectionRate

Tool Assignments
MET/TEAM

Types.cModelNumber

Types.nManufacturerUID

Types.cDescription

Assets.cBarcode

ToolAssignments.nContactUID

ToolAssignments.cAssignmentNumber

ToolAssignments.cAssignedLocation

ToolAssignments.tLoanDate

ToolAssignments.tExpectedReturnDate

ToolAssignments.tReturnDate

ToolAssignments.nUseCount

ToolAssignments.mNotes

Mobile

The Mobile add-on for MET/TEAM allows for a subset of data from the master database to be checked out (copied) to go off site and perform calibrations, and to check in data to the master database that was collected while off site upon returning.

MET/TEAM Mobile includes most but not all features of MET/TEAM.

Excluded menu options:

- File -> Import
- Workflow -> Tool Assignments
- Reports -> Alerting Schedules
- Setup -> Services
- Configure -> Send System Message
- Configure -> Menu Security
- Configure -> Groups
- Configure -> Extended Data

Excluded functionality:

- Cannot Unlock Work Orders or edit/copy/delete Results on Work Orders that were created prior to Mobile check-out.

Check-Out

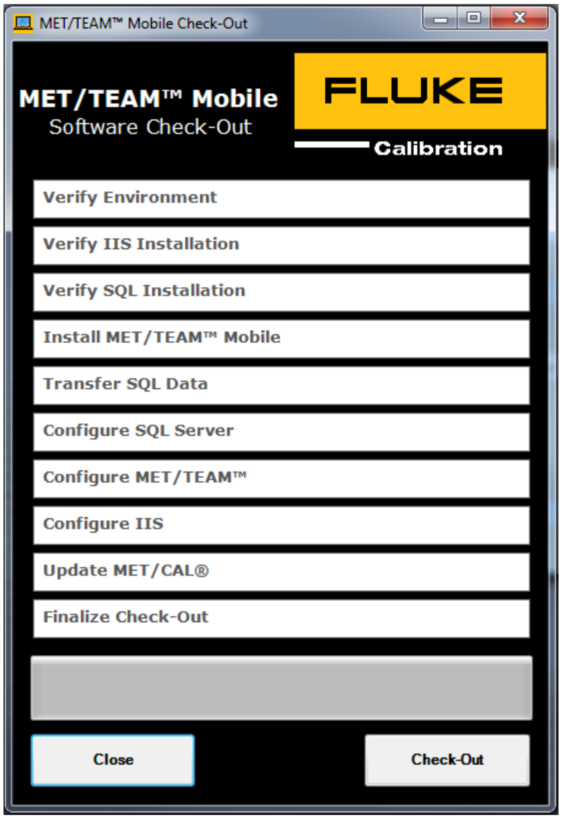
When the File menu Mobile submenu Check-Out option is selected, the Select Facilities screen is displayed. Select the Facilities that own the Assets that you plan to work with while you are off site using the Mobile feature. After the facilities have been selected, the Check- Out process creates the METMobile.exe application which is used to install and configure a snap shot of the MET/TEAM website onto the mobile PC, reserve licenses on the server, and make a copy of the MET/TEAM database with only the records associated with the selected Facilities.
The user is prompted to run, save, or cancel the METMobile.exe application download (the screenshot below assumes an Internet Explorer browser is being used – the dialogs may be different depending on the browser being used). Select Run to launch the MET/TEAM Mobile Software Check-Out application.

The user may need to respond to additional prompts, including a UAC prompt to run the application.

As this application is being downloaded, the user is logged off from the MET/TEAM server automatically. The browser window should be closed at this time.

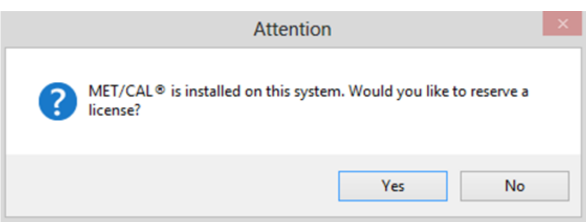
The MET/TEAM Mobile Software Check-Out screen is displayed. To start the Check-Out process, select the Check-Out button.

Each step displayed on this dialog changes color as it is being executed and once it has been successfully completed.



If the MET/TEAM database is fairly large in size, a message may be displayed indicating the estimated Check-Out time. This size is only an estimate and may vary greatly depending on your network speed and traffic as well as the hardware performance of the mobile PC. Also, if the database size is approaching or exceeds 10GB and MET/TEAM detects the mobile PC is using an Express edition of SQL Server®, a prompt is displayed warning the user. The maximum database size supported by Express editions of SQL Server® is 10GB.

If MET/CAL is installed on the mobile PC, a prompt is displayed asking if a MET/CAL license should be reserved for this mobile PC. If MET/CAL is used on the mobile PC, you must select Yes. This copies the MET/CAL shared files from the server to the mobile PC and configures MET/CAL to use the local copy of these files. If No is selected, MET/CAL is not allowed to be used on the mobile PC while checked out.



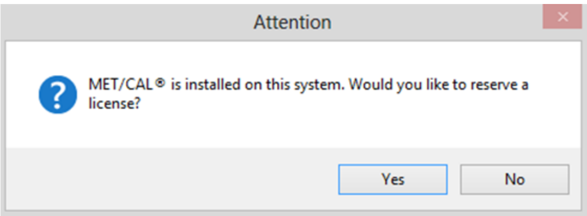
When the Check-Out process is complete, a shortcut is created on the desktop for launching the MET/TEAM Mobile website on the mobile PC.

Note*: You should avoid running MET/TEAM from the server on the mobile PC once MET/TEAM Mobile is configured to reduce potential confusion.*

Licenses

The MET/TEAM Mobile Check-Out process reserves one MET/TEAM Mobile license on the server for this PC and optionally reserves a MET/CAL license on the server.

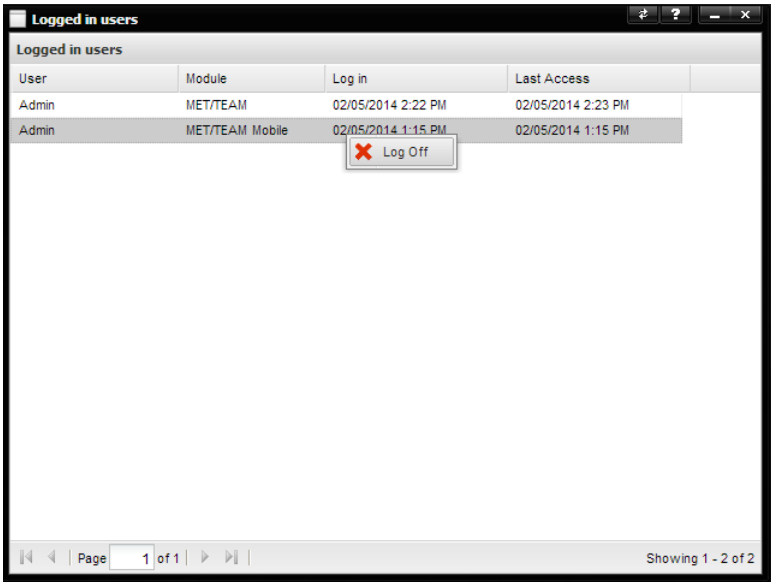
The mobile instance of MET/TEAM includes one MET/TEAM license and one MET/TEAM Mobile license. If the server has a MET/TEAM Commerce license, one MET/TEAM Commerce license is also included in the mobile instance. One MET/CAL license is also included if the user chose to reserve a MET/CAL license.



When the MET/TEAM Mobile website is launched, all licenses are given expiration dates of two months from the current date. The Check-In process must be performed within this period or the licenses will have expired.

In the case of an expired mobile workstation Check Out, reserved licenses can be released using the Help menu About submenu Logged In Users screen on the main MET/TEAM website. Right-click on a reserved MET/TEAM Mobile license and select Log Off from the popup menu.

***Note**: Releasing a MET/TEAM Mobile license prevents the mobile PC from being able to do a Mobile Check In! Never release a MET/TEAM Mobile license unless you are absolutely sure that the data on the mobile PC does not need to be checked in!*



Check-In

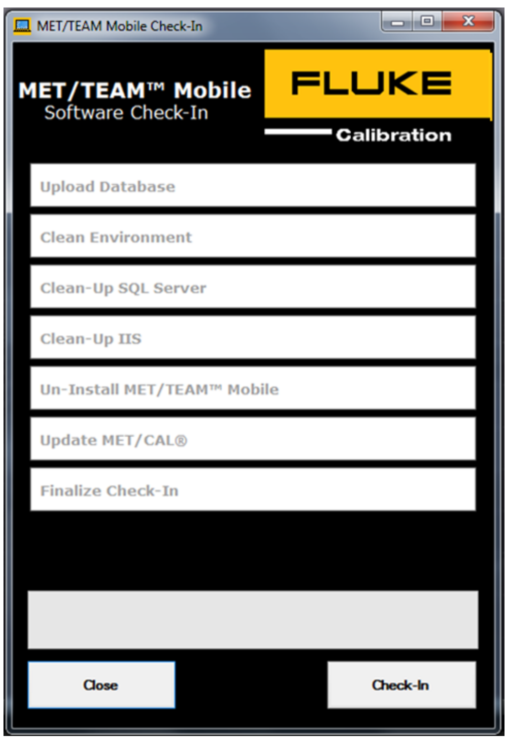
Once you have completed using the mobile PC, a mobile Check-In needs to be performed to update the MET/TEAM server database. The File menu Mobile submenu Check-In option is only available when running the MET/TEAM Mobile website on a mobile PC. The Check- In operation can only be performed when the mobile PC is connected to the network and has access to the MET/TEAM server. After the Check-In option is selected, a new METMobile.exe is generated which removes the local MET/TEAM Mobile web site and desktop shortcut, and updates the master database on the server with changes made while checked out.

The user is prompted to run, save, or cancel the METMobile.exe application. Select run to launch the MET/TEAM Mobile Check-In application download (the screenshot below assumes an Internet Explorer browser is being used – the dialogs you see may be different depending on the browser being used). Select Run to launch the MET/TEAM Mobile Software Check-In application.

The user may need to respond to additional prompts, including a UAC prompt to run the application.

As this application is being downloaded, the user is logged off from the MET/TEAM Mobile website automatically. The browser window should be closed at this time.

The MET/TEAM Mobile Software Check-In screen is displayed. To start the Check- In process, select the Check-In button. Each step displayed on this screen changes color once as it is being executed and once it has been successfully completed.



If the MET/TEAM Mobile database is fairly large in size, a message may be displayed indicating the estimated Check-In time. This is only an estimate and may vary greatly depending on your network speed and traffic as well as the hardware performance of the mobile PC.

When the Check-In process is complete, the MET/TEAM Mobile shortcut is removed from the desktop of the mobile PC and the reserved licenses on the server are released.

If a MET/CAL license was reserved on Check-Out, the MET/CAL configuration on the local PC is restored to point to the shared folder on the server.

***Note**: If any of the MET/CAL shared files in the temporary location on the mobile PC were altered, the user must manually copy the altered files back to the MET/CAL share on the server.*

Check-In Rules

The Mobile Check-In process attempts to update the MET/TEAM server's database with the changes that were made to existing records and any new records that were created in the database on the mobile PC. This brings up the question of what will happen when changes are made to the same records, whether it is an Asset, Type, Work Order, Procedure, etc., on the server and on one or more mobile PCs, and then the mobile PCs perform a Check-In. The simple answer is that the change that was made last (most recently) ends up in the master database following a Check-In, regardless if that change was done on the master database or on one of the mobile PCs. It is also important to note that these updates are performed on an entire record in the database, not on individual fields within the record.

For example, if an Asset's Warranty Date setting gets changed on the server, and then at a later time that same Asset's Not Tracked setting is changed on a mobile PC, when the mobile PC performs a Check-In, the Asset's Warranty Date will revert back to its original value and the Not Tracked setting will reflect the change made on the mobile PC (the mobile PC's updates "win" because they were done more recently). However, if the Not Tracked setting on the mobile PC was changed before the Warranty Date setting is changed on the server, the Warranty Date setting will remain intact and the Not Tracked setting will not get updated on the server after the mobile PC performs a Check-In (the server's updates "win" because they were done more recently).

Another thing to consider is that changes to the System Default settings on the mobile PC are never updated on the server after a Check-In.

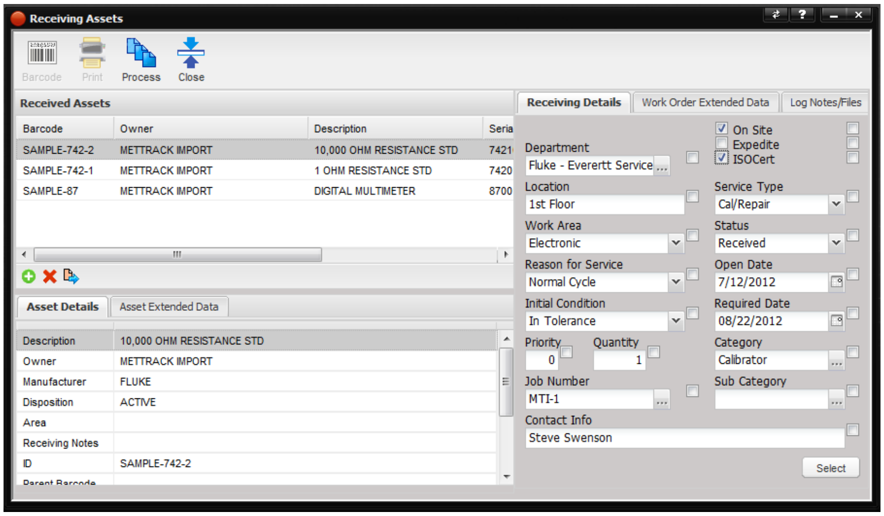
Workflow Menu

The Workflow Menu contains is arranged in a work process order and contains all the elements for initiating and completing a work assignment. The menu items are: Receiving, Work Orders, Returning, Shipping, Batch Change, Tool Assignments, and My Work.

Receiving

Receiving is the process of accepting equipment into a maintenance facility for work. Once the service facility receives and processes the equipment MET/TEAM creates open Work Orders for each piece of equipment received. *Equipment managed through MET/TEAM can be configured to have only one open Work Order at a time.*

***Note:** A Work Order is created for each Asset that is processed when the Process button is selected.*
If a Cert Format exists on the Type Procedure Default, the Work Order Cert Format field is filled in.
If a Cert Format does not exist on the Type Procedure Default, the Work Order Cert Format field defaults to Cert.rpt.

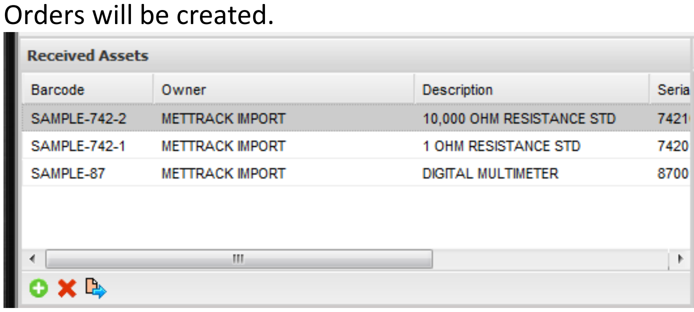


Equipment with an open Work Order do not show up in the Receiving Find dialog. If a receiving clerk has a piece of equipment to receive, and cannot find the Asset in the Receiving Find screen, but can find it as an Asset in MET/TEAM, this condition would indicate that an open Work Order exists in MET/TEAM.

If an Asset is received that has special receiving instructions, the receiving clerk is prompted at the time of receiving.

Received Assets

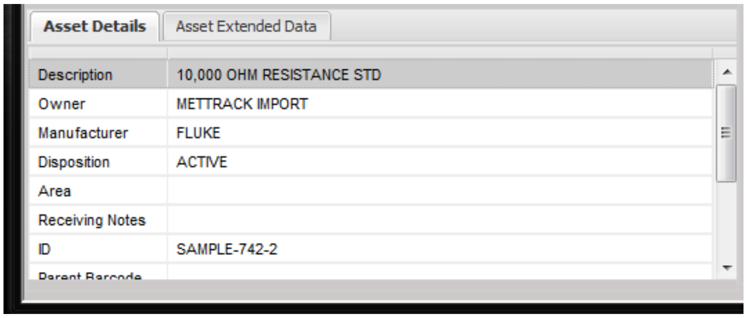
The Received Assets portion of the Receiving screen displays a list of Assets to be received and for which open Work Orders will be created.



The Asset highlighted in grey indicates the currently selected Asset. Information in the Asset Details grid and the Asset Extended Data grid reference the currently selected Asset.
To add an Asset, select the "+" button, select the Asset(s) from the Find dialog, then select OK button to add them to this group.
To remove an Asset, select the "X" delete button.
To modify/view the highlighted Asset, select the Quick Link button.

Receiving – Asset Details

The Asset Details window displays additional Asset characteristics.



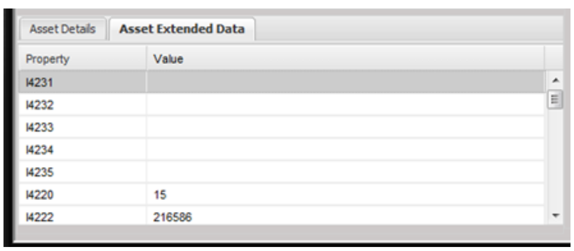
This information can be used to insure the correct Asset is being received. If there are additional instructions that need to be followed, such as receiving notes, they are displayed here. The displayed information is for the Asset highlighted in the Received Assets grid.

Many times there are more elements present for this Asset than can be displayed in the Asset Details window. To view the additional elements, scroll up and down using the scroll bar on the right side of the Asset Detail section. Asset Details can be sorted by ascending or descending order by clicking on the header of the column.

The information in this window is read only. If any of the displayed data needs to be modified, the user must do that on the Asset screen. To quickly get to this Asset, click the Modify button next to the Received Assets grid.

Receiving – Asset Extended Data

The Asset Extended Data window shows extended data elements for the Asset highlighted in the Received Assets grid.



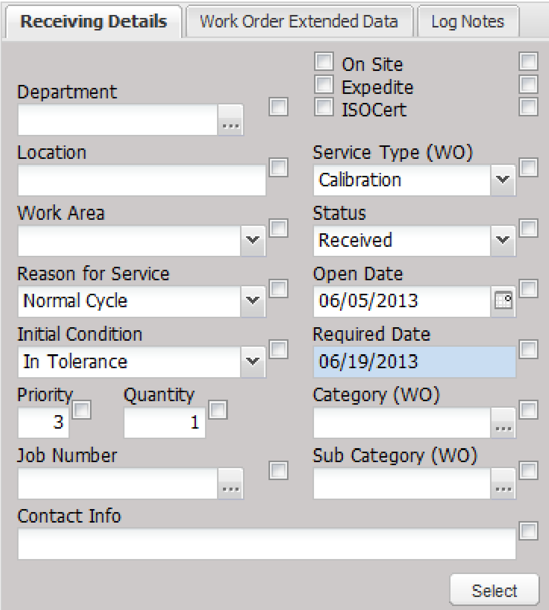
Many times there are more elements present for this Asset that can be displayed in the Asset Extended Data window. To view the additional elements the user can scroll up and down using the scroll bar on the right side of the window.
The information in this window is read only. If any of the displayed data needs to be modified, the user must do that on the Asset screen. To quickly get to this Asset, click the Modify button next to the Received Assets grid.

Receiving – Receiving Details

The Receiving Details tab is for entering information that will be used on the Work Order.

Note: *Information entered here applies to all of the Assets in the Received Assets Grid.*

Highlight different Assets in the Received Assets grid to change information pertaining to that Asset.



- **Department –** The department for the selected Asset.
- **Location** – The location where the Asset physically resides and is saved in the log notes once the Asset is received.
- **Work Area** – The area of the service facility into which these Assets are received.
- **Reason for Service**-The reasoning the item is in for service.
- **Initial Condition** – The condition of the Asset upon receipt.
- **Priority**- The priority of the item in service.
- **Quantity** – The quantity of Asset pieces, with only a few exceptions (gage blocks) this value is always 1.
- **Job Number** – The job number this service is being charged to.
    - The job number can be changed by selecting the "…" button.
- **Contact Info** – Additional information for the Work Order that may not be on the facility record or may be a one-time piece of information.
- **On Site** – Indicates service must be performed on site.
- **Expedite** – Indicates the customer needs these Assets expedited through the service process.
- **ISOCert** – Indicates an Accredited Cert needs to be provided for these Assets.
- **Service Type (WO)** – The type of service that is to be performed against these Assets.

  Note: *Service Type cannot be customized. The values in this dropdown are setup using the Setup menu Services submenu screen. The order of the Service Types in the dropdown is based on which Service Type was edited last using the Setup menu Services submenu.*

- **Status** – The status these Assets were received under. A log event is created with this status when the Work Order is created.
- **Open Date** – Date the Work Order is opened defaults to the date the receiving process occurred. This date carries forward to the Work Order.
- **Required Date** –The date the customer has requested to get the Assets back from service. By default this date is blank. There is a system default that causes this date to automatically populate with a pre-defined date.
- **Category (WO)** – The category of the Work Order. This data is not required but can be used to classify service type or level (silver, gold, platinum, etc.).
- **Sub Category (WO)** – The sub category of the Work Order. This data is not required but can be used to break down categories of Work Orders.

The checkbox to the right of each data field works as a LOCK button.

- If the checkbox is selected (locked), the entered data is attached to each Asset in the Received Assets grid.
- If the box is unchecked (unlocked), different data can be entered for each Asset in the grid.
- If the box is unchecked and left blank, data is not saved for that Asset.

Use the "Select" button to check all boxes.

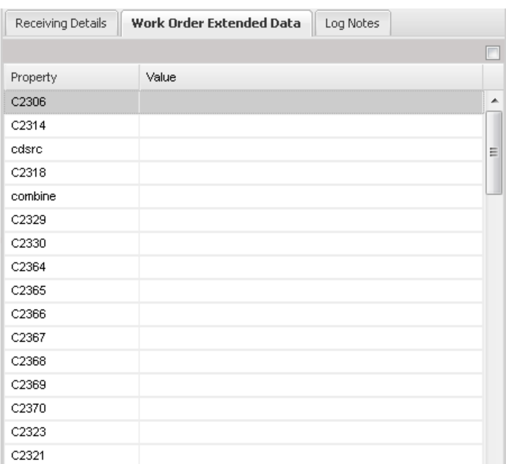
Once the information is entered for the Asset(s), the Process button can be pressed. MET/TEAM creates a Work Order for each Asset in the group.

Reporting from the print button is then available and the reports are driven by the information in the System Defaults table.

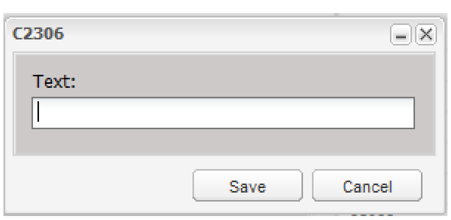
A barcode can be printed after the Assets have been "processed" by highlighting the Asset in the Received Assets grid and selecting the Barcode button.

Receiving – Work Order Extended Data

The Work Order Extended Data displays the extended data elements for the Work Orders. Check the check box in the upper right hand corner to apply the extended data entries to all Work Orders. This data can be modified by highlighting the element in the grid you wish to change and double clicking that element.

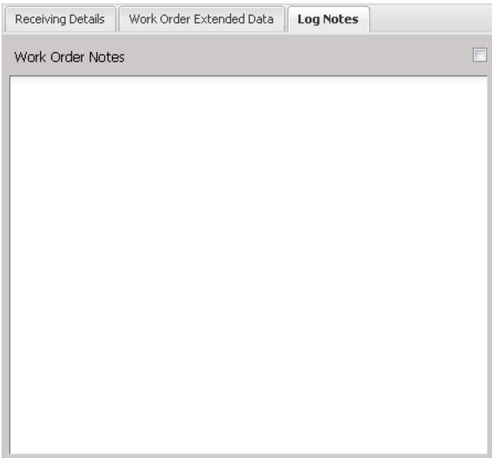


The user is then prompted with an input screen where the new value can be entered. Once the user has entered the new value, select the Save button to save the changes. *Information in this window is applied to ALL of the Assets in the Received Assets grid.*



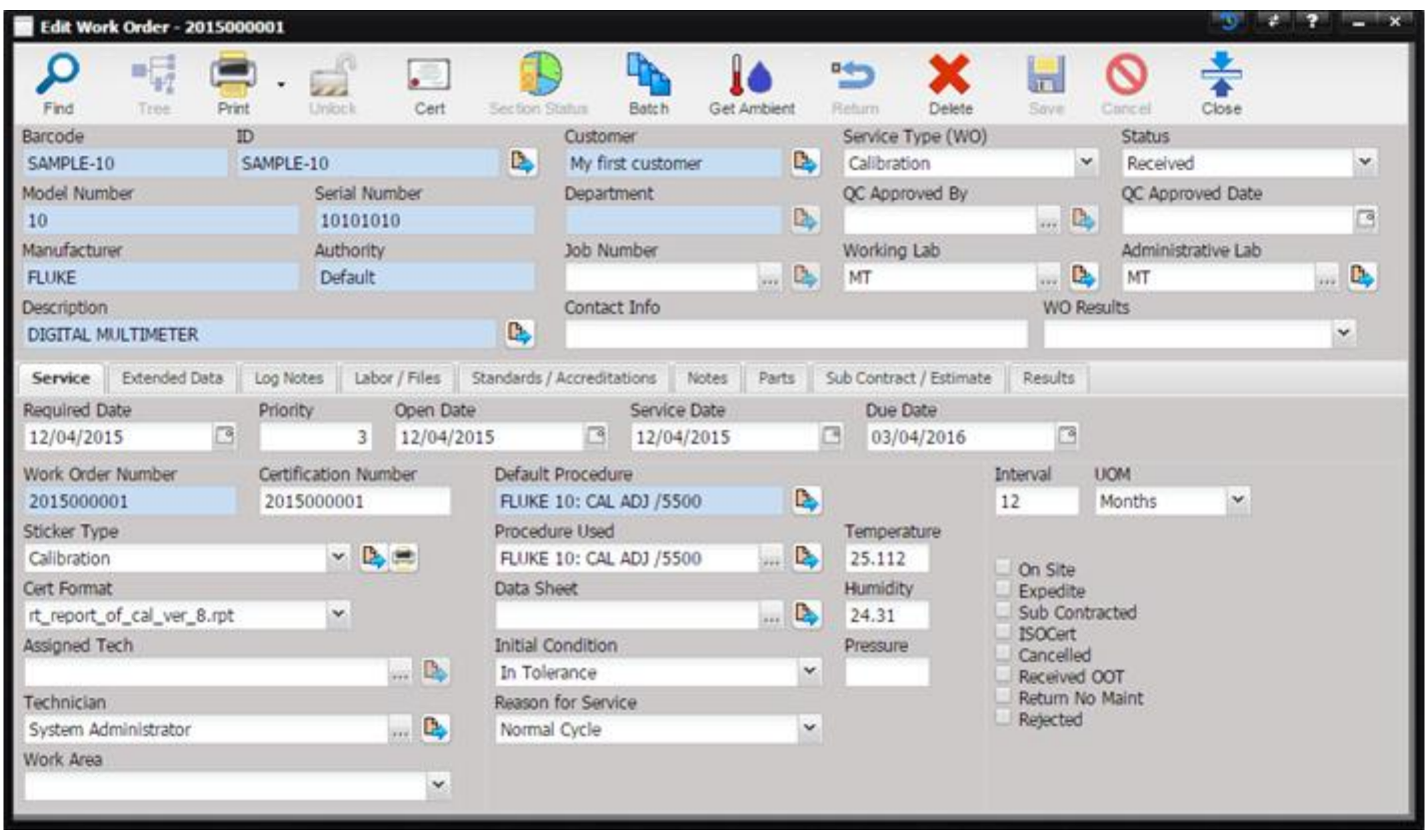
Receiving – Log Notes

The Log Notes is a notes block used by the receiving clerk to enter information about the Work Orders being created. This information is stored in the Work Order notes field. If the check box in the upper right hand corner is checked, the information in this window is applied to ALL of the Assets in the Received Assets grid.



Work Orders

The Work Order screen is where all of the maintenance data is collected and recorded. Based upon the maintenance type, different data elements are required in order for the Work Order to be closed.



Note: Closed (History) Work Orders can be viewed by clicking the Inactive button on the Find dialog and entering the search criteria.

At first glance, it appears there is a lot of data to be entered by the technician. However, much of the Work Order data is usually populated by the receiving process or the Asset type information. Some of the data is reference information that can be used by the technician for reference and verification purposes. The Labor/Files tab is where the technician is required to enter and record their work. This screen has been designed to provide quick data entry for the technician, while giving the technician all of the critical information needed to complete the maintenance process.

The functionality of the Unlock, Section Status, Batch, and Get Ambient toolbar buttons is described below.

Work Order Validations

Work Orders have minimum data requirements in order for MET/TEAM to record an event. Based upon the service type, different data elements are required. Additional validations may be added by a facility, by requesting a MET/TEAM Software Administrator to add custom validations. MET/TEAM is designed to prompt the user if data elements are missing before saving the data.

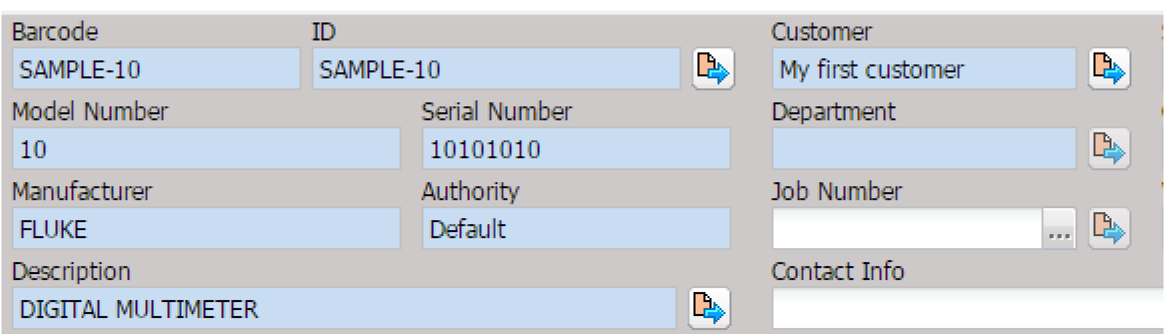
Completing a Work Order

In order for MET/TEAM to return the Asset to the customer the Work Order service date and status must be ***"Complete"***. Indicating to MET/TEAM that all work on the Asset for this service is complete and the can be returned to the customer. If the Asset is required to be returned prior to the service being completed, the Work Order status must still be marked ***"Complete"*** and the appropriate check boxes, Cancelled or Return No Maint, checked. The action of filling in the service date and tabbing out of the field causes the Due Date to be automatically calculated.

If the Work Order is assigned a *partial procedure,* all *required* components of the procedure must have been successfully executed prior to marking the Work Order as ***"Complete"***. If there is a part of the procedure that has not been executed, the Work Order will not allow the status to be changed to complete.

Work Order Asset Data

The Asset Data is all the information pertaining to the Asset itself.

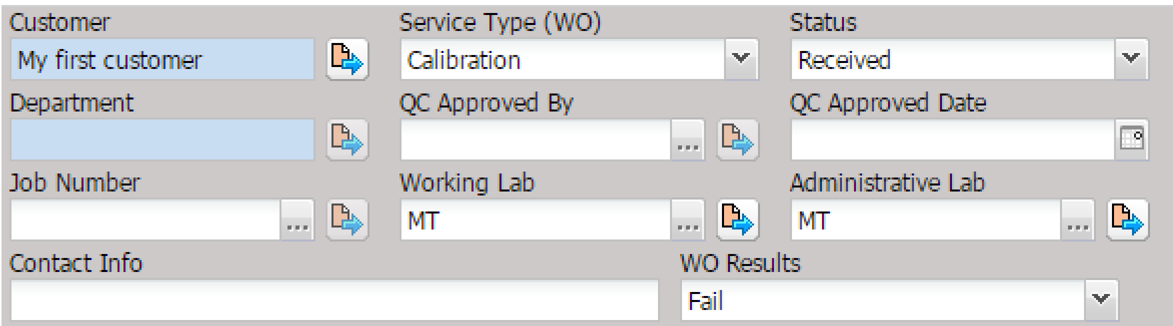


Non-editable Asset Fields

- **Barcode** – The *unique* identifier for this Asset. No two Assets can have the same barcode. If the user attempts to enter a barcode already in the system, a warning message appears and requires the user to enter a new barcode. The barcode length is determined by the System Default "Barcode – Length".
- **ID** – An identifier that can be used to find the Asset. This identifier is not required to be unique or the same as the barcode. We recommend that this number and the barcode be the same but it is not necessary.
  - The Asset can be viewed by selecting the Quick Link button.
- **Customer –** Indicates the owner of the Asset when the Work Order was processed.
  - The customer can be viewed by selecting the Quick Link button.
- **Model Number** – The manufacturer's model designation of the Asset's characteristics and capabilities.

- **Serial Number** – The manufacturer's serial number for this Asset.
- **Department** – Indicates the department of the Asset when Work Order was processed.
    - The department can be viewed by selecting the Quick Link button.
- **Manufacturer** – The Company that created the Asset.
- **Authority** – Describes the source (ownership) of this type allowing for more than one data authority to exist.
- **Description** – The description of the Asset.

Editable Asset Fields



- **Service Type (WO)** – Shows the service performed which affects which validations run when saving and closing a Work Order. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*

  Note: *Service Type cannot be customized. The values in this dropdown are setup using the Setup menu Services submenu screen. The order of the Service Types in the dropdown is based on which Service Type was edited last using the Setup menu Services submenu.*
- **Status –** Displays the current status of the Work Order. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
- **QC Approved By** – The QA person who reviewed this service event.
    - The QC Approver can be selected or changed by selecting the "…" button. If the logged in user does not have "QC Approval" authority, a prompt for a username and password is displayed.
    - The QC Approver can be viewed by selecting the Quick Link button.

  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **QC Approved Date** - The date the QA person reviewed this service event. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
- **Job Number** – Brought forward from the receiving process, this is the job number that all expenses are charged to.
    - The job number can be changed by selecting the "…" button.
    - The job number can be viewed by selecting the Quick Link button.
- **Working Lab** – The Lab that performed the work. This field is filled in at the time of Receiving when the Work Order is created. This field is the same as the Lab that the user who is performing the Receiving is logged into.
    - The working lab can be changed by selecting the "…" button.
    - The working lab can be viewed by selecting the Quick Link button.
- **Administrative Lab** – The lab administratively responsible for the Work Order.
    - The administrative lab can be changed by selecting the "…" button.
    - The administrative lab can be viewed by selecting the Quick Link button.
- **Contact Info -** Additional information for the Work Order that may not be on the facility record or may be a one-time piece of information.

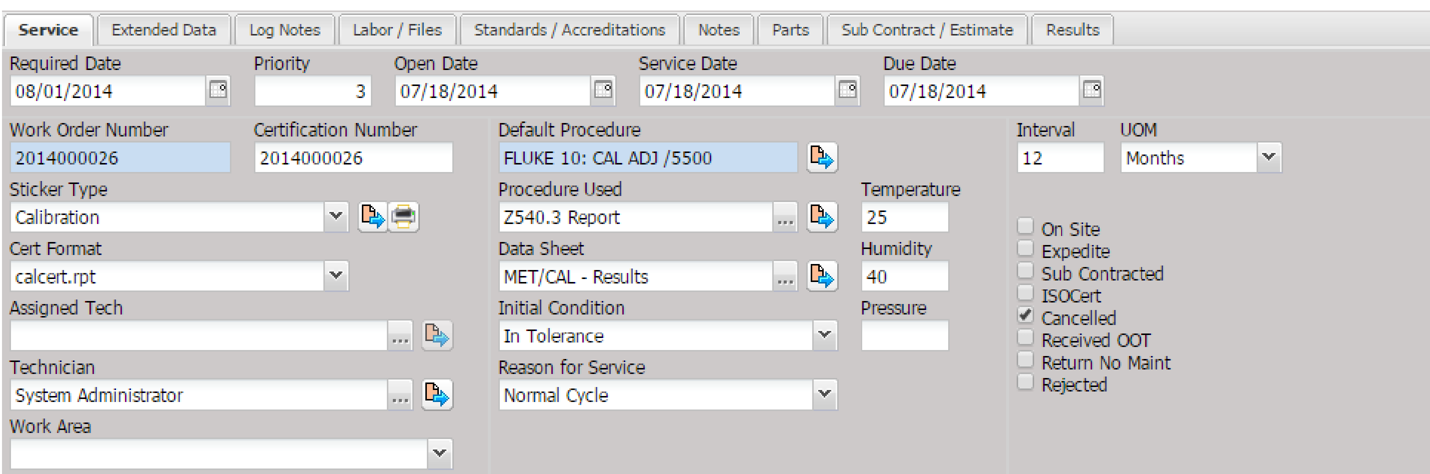
- **WO Results –** The overall status for the Work Order.
  - Determination of the overall work order result (pass/fail status)
    - If the Procedure Type (Proc) is not of type "Calibration" or "Cal/Repair", the pass/fail status on the work order is set to "Indeterminate".
    - If some or all of the work order results are "As Left" or "Found\Left" for the data condition, only these types of results are considered for the pass/fail determination.
    - If none of the results are "As Left" or "Found\Left", all work order results are evaluated to determine pass/fail.
    - If one or more work order results are "Fail", the work order is set to "Fail"
      - Else
    - If one or more work order results are "Fail Indeterminate", the work order is set to "Fail Indeterminate"
      - Else
    - If one or more work order results are "Indeterminate", the work order is set to "Indeterminate"
      - Else
    - If one or more work order results are "Pass Indeterminate", the work order is set to "Pass Indeterminate"
      - Else
    - If none of the previous conditions are met, the work order is set to "Pass".
  - The Results are not saved as Files.

Work Order Tabs

The Work Order contains several tabs for capturing data for the service event. These tabs are: Service, Extended Data, Log Notes, Labor / Files, Standards / Accreditations, Notes, Parts, Sub Contract / Estimate, Results.

Work Order – Service Tab

The Service tab displays all the information related to the service that was performed and the procedure used.

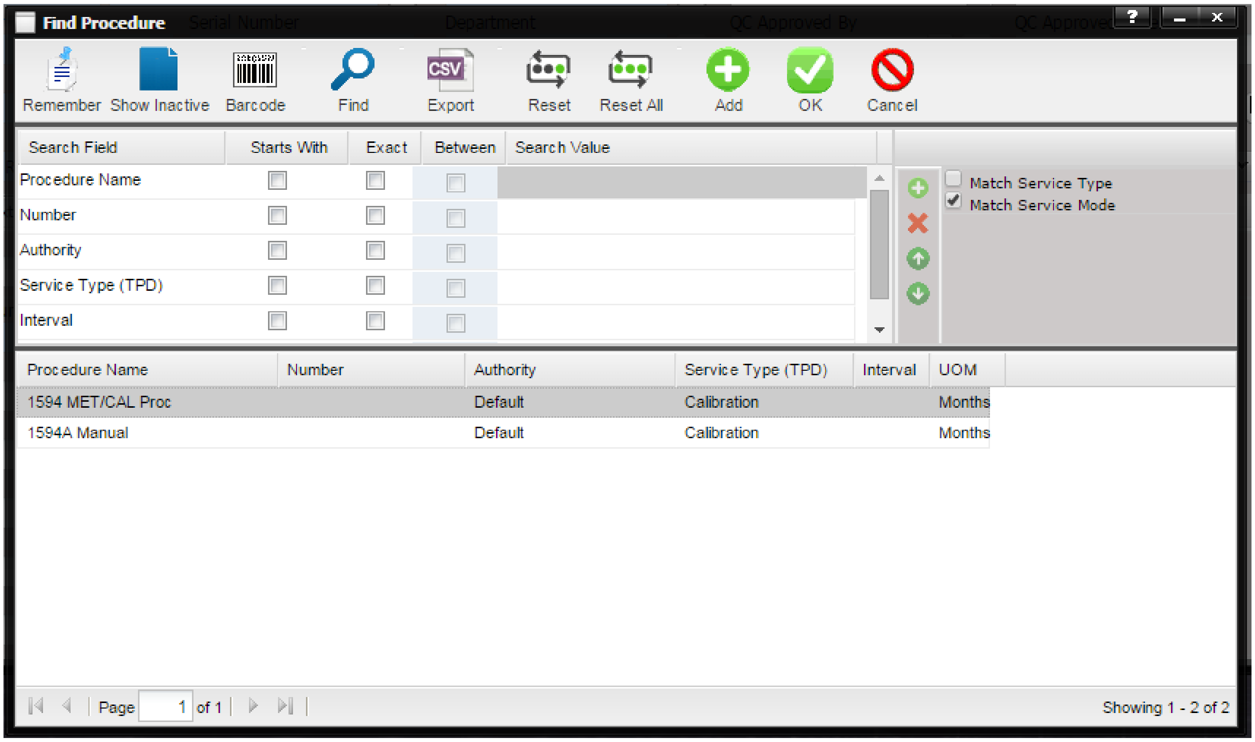


- **Required Date** – Date the customer requests the Asset to be returned by. This date is brought forward from the receiving process.
- **Priority** - The priority of the Asset in service.
- **Open Date** – Date the Work Order was opened in MET/TEAM. This date is controlled by the system and cannot be changed by the user.

- **Service Date** – Date the maintenance was completed. If empty, the current date is entered when the date control button is selected.
    - The Service Date is always required except if the Cancelled, Return No Maint, or Rejected checkboxes are checked.
- **Due Date** – Date the Asset is next due for this type of service.
    - If the Due Date is **empty**, this date is automatically filled in when tabbing out of the Service Date and into the Due Date **or** when a mouse click makes the cursor appear in the Due Date.
        - The Due Date is only required when the Service Type Recalled checkbox is selected. This checkbox is displayed on the Service Type screen which is accessed from the Setup menu Services submenu.
        - The Due Date is populated with today's date if the WO Results contains 'Fail'.
        - The Due Date is populated with a calculated Due Date (Service Date plus the interval) if the WO Results contains 'Pass'.
            - If the calculated Due Date falls on a Calendar Non Workday, the Due Date is adjusted backwards to the next workday. For example, if the calculated Due Date was 8/1/2014 and 8/1/2014 has been marked in the Calendar as a Non Workday, the Due Date is recalculated to 7/31/2014.
    - The Due Date can be blank if the Cancelled, Return No Maint, or Rejected checkboxes are checked.
- **Work Order Number** – The system generated number for this Work Order. This number is unique throughout the data and is used to track all information about this Work Order.
- **Certification Number** – The certificate number for the calibration. If left blank, the Work Order number is used. To print a certificate of calibration, use the Cert button on the toolbar.
- **Sticker Type** – The type of sticker placed on the Asset after the service is complete. To add notes for stickers such as "Special Cal" setup a Quick Note.
    - The sticker can be viewed by selecting the Quick Link button.
    - The sticker can be printed by selecting the Print button.

  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Cert Format** – Can contain the report file name for this calibration. This field must be set prior to closing the work order. Once the work order is closed this cannot be changed.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Assigned Tech** – The technician assigned to do the service.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Technician** –The technician of record for this service event.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Work Area** – The area of the lab where the service is being performed. Brought forward from the receiving process.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Default Procedure** – The name the procedure recommended for this type of service. The default procedure is pre-filled from the procedure associated with the Asset type.
    - The default procedure can be viewed by selecting the Quick Link button.
- **Procedure Used** - The name of the procedure the technician used for this Work Order. If the calibration was performed by MET/CAL® this is automatically populated.

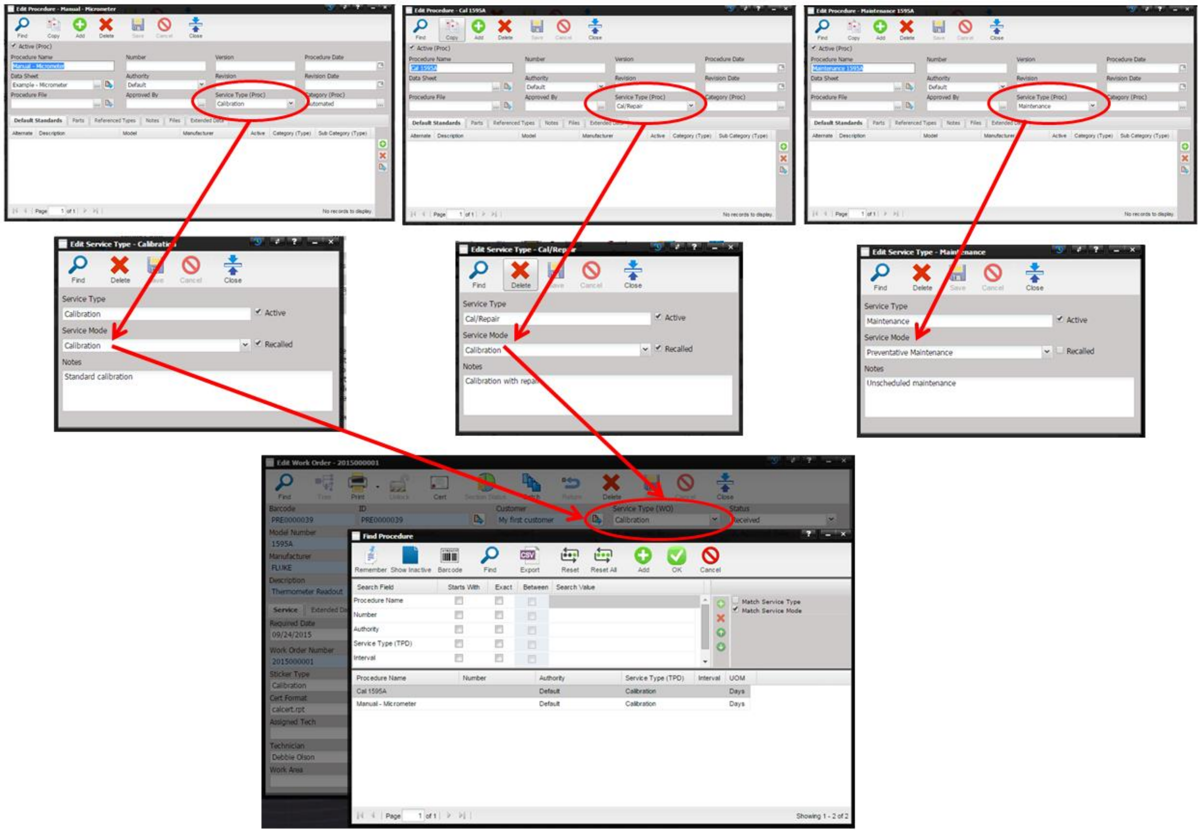
- The procedure can be changed by selecting the "…" button. The Find Procedure screen is displayed.



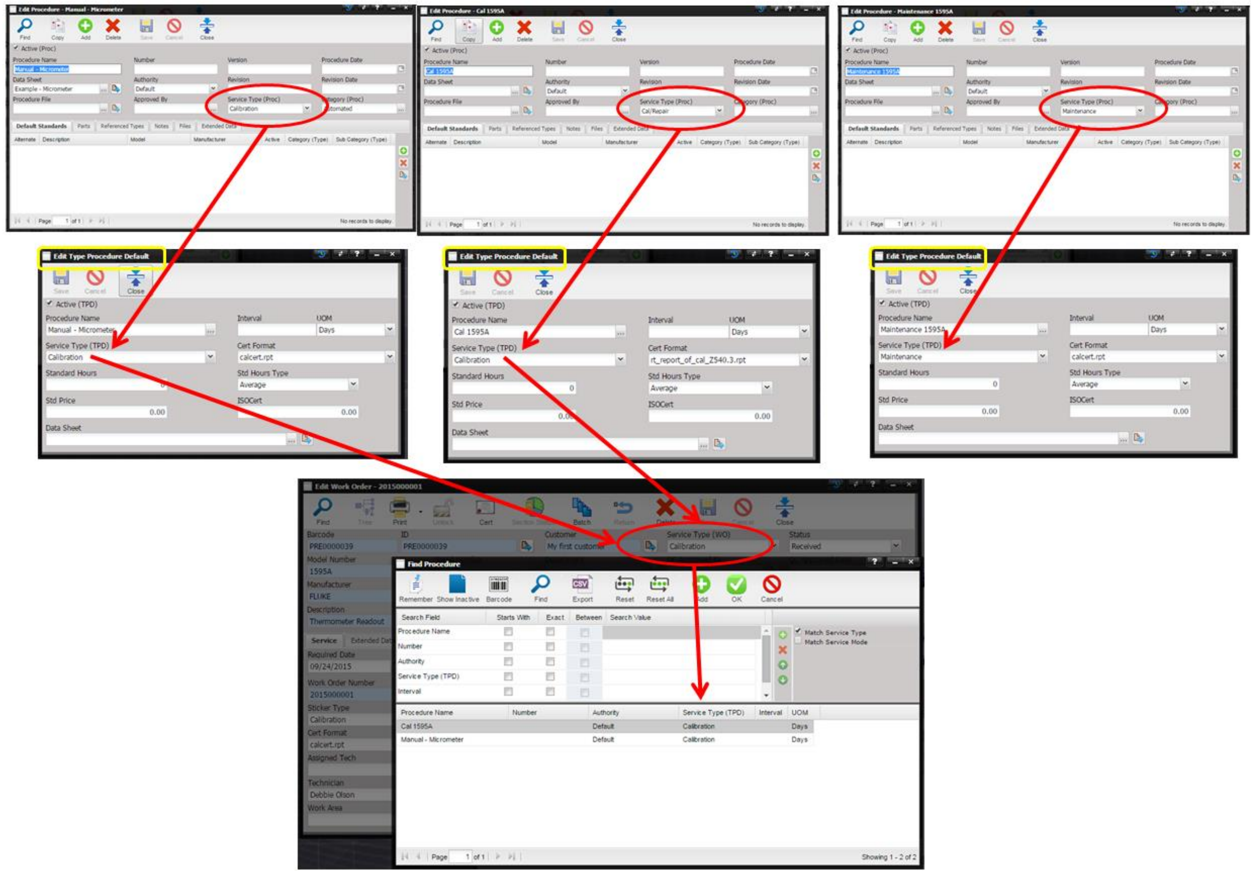
There are two check boxes on the right hand side of the search grid.

- **Match Service Mode** – (default) – When checked, the find procedure results are filtered so that only procedures that have a Service Type (Proc) value's Service Mode matching the Work Orders Service

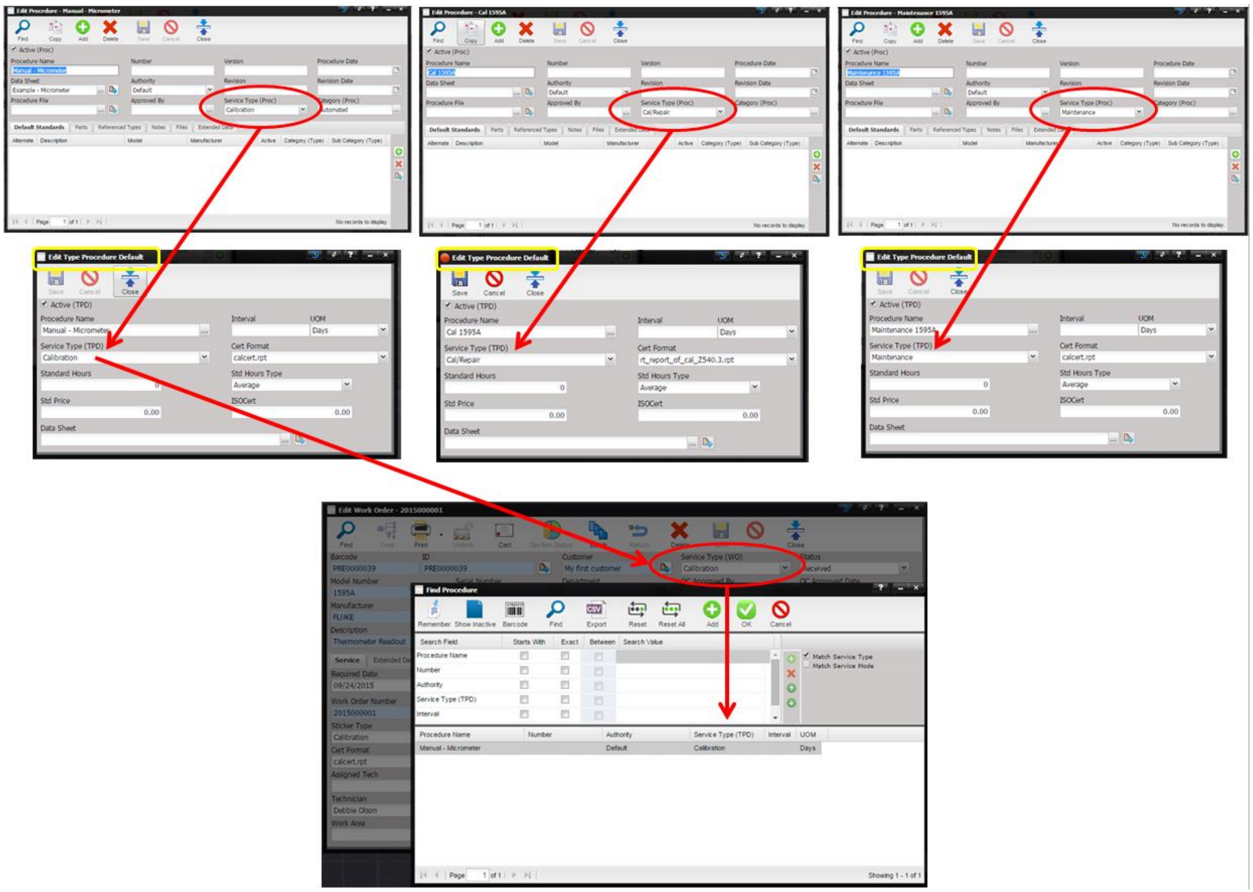
Type (WO) value's Service Mode.



- **Match Service Type** – (default) – When checked, the find procedure results are filtered so that only procedures that have a Service Type (Proc) value exactly match the Work Orders Service Type (WO) value. (Service Mode values are not evaluated.)

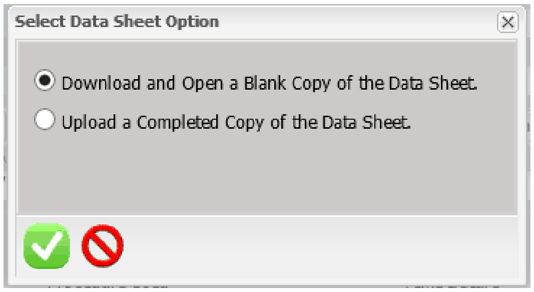


If the Service Type (TPD) on the Cal1595A procedure is changed to Cal/Repair, it now longer shows up in the find with *Match Service Type* checked on the Find screen.



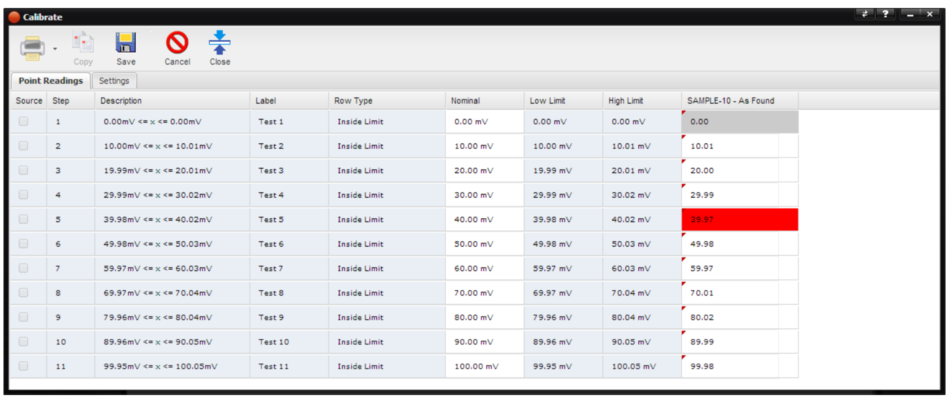
- The procedure can be viewed by selecting the Quick Link button.

- **Data Sheet** – Indicates the name of the file/record containing the data or test results for this service event.
  - To delete 'points' data, highlight the Data Sheet text field and press the Delete key on your keyboard. A prompt is displayed asking you to confirm your action. Pressing "Yes" causes the associated Points to be deleted.
  - All of the actions behind this field are based on the Data Sheet Type associated with the Procedure highlighted in the 'Procedure Used' field. The Data Sheet Type is derived by first looking at the Procedure.
    - If the *Procedure* has a Category of "MET/CAL", the system assumes this procedure is used to manage MET/CAL related data sheets.
    - If the *Type Procedure Default* has a Data Sheet associated, that file is used.
    - If the *Procedure* has a Data Sheet associated but the *Type Procedure Default* does not have a file associated, the *Procedure* file is used.
    - The types of files that can be associated with the data sheets are either:
      - MET/CAL Procedure
      - Manual Template
      - File (Excel, PDF, etc.)
  - If the Procedure Used is empty, the "…" button and the Quick Link button are disabled.
  - If the Data Sheet is empty and the procedure associated with this work order **is a File Procedure**, selecting the "…" button causes the Select Data Sheet Action dialog to be displayed.



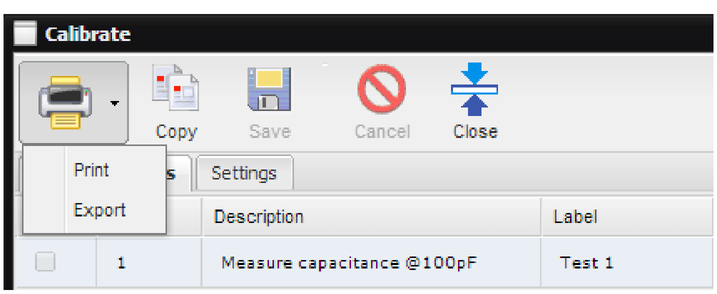
- **Download and Open a Blank Copy of the Data Sheet** – This refers to the 'Data Sheet' configured for the currently selected 'Procedure Used'. If this option is selected and the OK button is pressed, a copy of the 'Data Sheet' is downloaded to your computer.
- **Upload a Completed Copy of the Data Sheet** – This option is used when you have mad local changes to the 'Data Sheet' file and want to attach your completed document to the respective Work Order. Selecting this option display an upload box which allow you to select a file from your hard drive. Select the OK button to complete the upload.

- If the Data Sheet is empty and the Procedure associated with this Work Order **has the category of MET/CAL**, selecting the "…" button causes MET/CAL to launch and the user proceeds through the process of performing a MET/CAL calibration. When the MET/CAL calibration is completed, the Data Sheet text box contains the word "METCAL - Results".
- If the Data Sheet is empty and the 'Procedure Used' is a **Manual Template**, selecting the "…" button displays the Manual Template 'Calibrate' page user, for entering data.



Source	Step	Description	Label	Row Type	Nominal	Low Limit	High Limit	SAMPLE-10 - As Found
	1	0.00mV <= x <= 0.00mV	Test 1	Inside Limit	0.00 mV	0.00 mV	0.00 mV	0.00
	2	10.00mV <= x <= 10.01mV	Test 2	Inside Limit	10.00 mV	10.00 mV	10.01 mV	10.01
	3	19.99mV <= x <= 20.01mV	Test 3	Inside Limit	20.00 mV	19.99 mV	20.01 mV	20.00
	4	29.99mV <= x <= 30.02mV	Test 4	Inside Limit	30.00 mV	29.99 mV	30.02 mV	29.99
	5	39.98mV <= x <= 40.02mV	Test 5	Inside Limit	40.00 mV	39.98 mV	40.02 mV	39.97
	6	49.98mV <= x <= 50.03mV	Test 6	Inside Limit	50.00 mV	49.98 mV	50.03 mV	49.98
	7	59.97mV <= x <= 60.03mV	Test 7	Inside Limit	60.00 mV	59.97 mV	60.03 mV	59.97
	8	69.97mV <= x <= 70.04mV	Test 8	Inside Limit	70.00 mV	69.97 mV	70.04 mV	70.01
	9	79.96mV <= x <= 80.04mV	Test 9	Inside Limit	80.00 mV	79.96 mV	80.04 mV	80.02
	10	89.96mV <= x <= 90.05mV	Test 10	Inside Limit	90.00 mV	89.96 mV	90.05 mV	89.99
	11	99.95mV <= x <= 100.05mV	Test 11	Inside Limit	100.00 mV	99.95 mV	100.05 mV	99.98

By selecting the arrow on the Print/Export button, this button can be used to print a Crystal Report that is a replicate of the Manual Template or to create a .CSV file that is a replicate of the Manual Template.



- If the Data Sheet is not empty, selecting the Quick Link button displays Data Sheet results.

    - If the 'Procedure Used' is **MET/CAL**, the MET/CAL Results Viewer page is displayed. All the MET/CAL results associated with the Work Order are displayed.
    - If the ''Procedure Used' is a **Manual Template**, the 'Calibrate' screen is displayed and the collected data can be viewed and modified
    - If the 'Procedure Used' is a **File**, a prompt is displayed, asking to download the attached 'Data Sheet' file.

- **Initial Condition**-The condition the Asset was in when received.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Reason for Service**-The reason the Asset is in for service.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Temperature** – The atmospheric temperature at the time the service was performed. For MET/CAL users, this field can be auto-populated using the Get Ambient button. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
- **Humidity** – The atmospheric humidity at the time the service was performed. For MET/CAL users, this field can be auto-populated using the Get Ambient button.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Pressure** – The barometric pressure at the time the service was performed.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Interval** – Indicates the interval of when the next service should be performed. The interval is combined with the Asset owner's "Recall Rule" to calculate the due date.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **UOM** – The unit of measure for the interval.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **On Site** – Indicates the service was done or needs to be done on site.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Expedite** – Indicates the Asset needs to be expedited through the service process.
- **Sub Contracted** – Indicates this service should be subcontracted.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **ISOCert** – Indicates the Asset requires an ISO or Accredited certificate.
  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Cancelled** – The Service Facility cancelled this Work Order.
  - When checked, the Due Date can be left blank.
  - If MET/CAL successfully completes a procedure, the Cancelled box is unchecked.
  - If a MET/CAL procedure is terminated but the user **does not** terminate the Post Prompt dialog, the Cancelled box is checked.

- If a MET/CAL procedure is terminated and the user **does** terminates the Post Prompt dialog the WO is not updated and the Cancelled box is not modified.
- If there is no Post Prompt dialog there is no ability to cancel completely before the WO is updated. In this case, the Cancelled box is always checked when a procedure terminates.
- During Returning, if checked, the Asset's Scheduled Service information **will not** be modified.

Example: The Service Facility does not have the capability to perform the service; therefore is cancelling the Work Order and retuning the Asset to the Customer as is, without action.

This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.

- **Received OOT** – Indicates that an Out of Tolerance condition exists with this Asset. If MET/TEAM data points are utilized, MET/TEAM automatically determines if an Out of Tolerance Condition Exists. Any Out of Tolerance condition causes MET/TEAM to automatically record the reading into the Out of Tolerance memo field and the Received OOT checkbox is selected. If other processes are used, the user can manually check this box.

  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Return No Maint** – Indicates the Asset owner has requested the Service Facility to close the Work Order and have the Asset *returned with no maintenance* being performed.
  - When checked, the Due Date can be left blank.
  - During Returning, if checked, the Asset's Scheduled Service information **will not** modified.

  Example: The Owner has accidentally or unintentionally sent the asset in for service and wishes it returned as is, without maintenance action being performed.

  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.
- **Rejected** – Indicates that as a result of this Work Order, the Asset has been rejected.
  - When checked, the Due Date can be left blank.

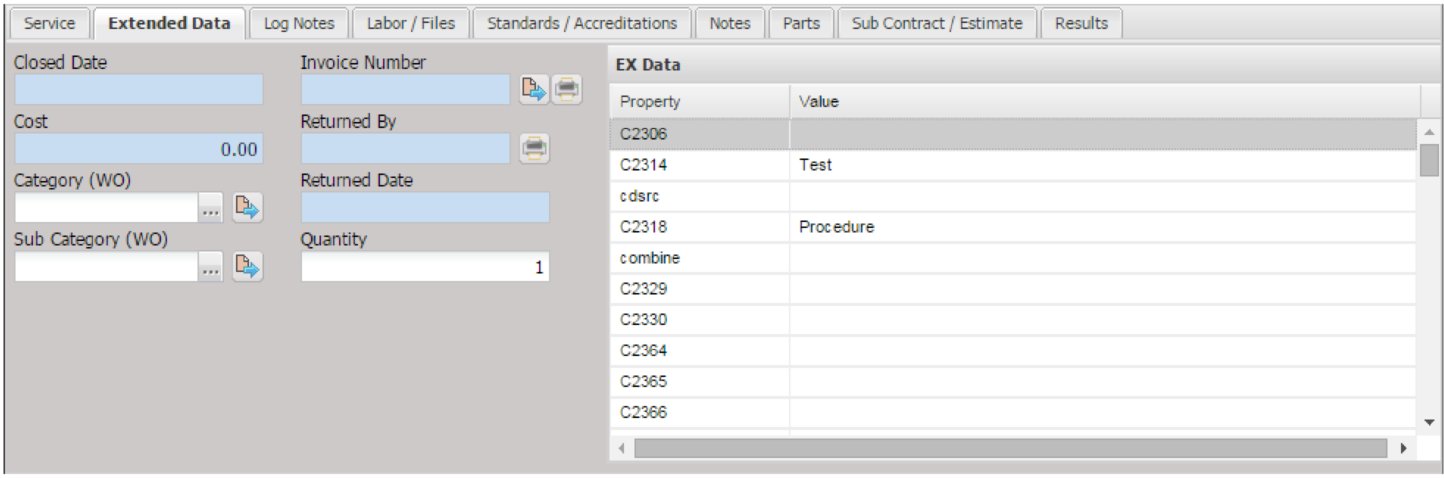
  Example: The Service Facility has performed or attempted to perform the service and has found the Asset is damaged and is beyond economical repair. The Service Facility marks the Rejected checkbox, indicating the Asset is being "Rejected" as a result of this Work Order.

  This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.

***Note:** If further data processing for the rejected Asset is desired, using a data check in the returning page is recommended. (Data Checks are not applicable for MET/TEAM Express.)*

Work Order – Extended Data Tab

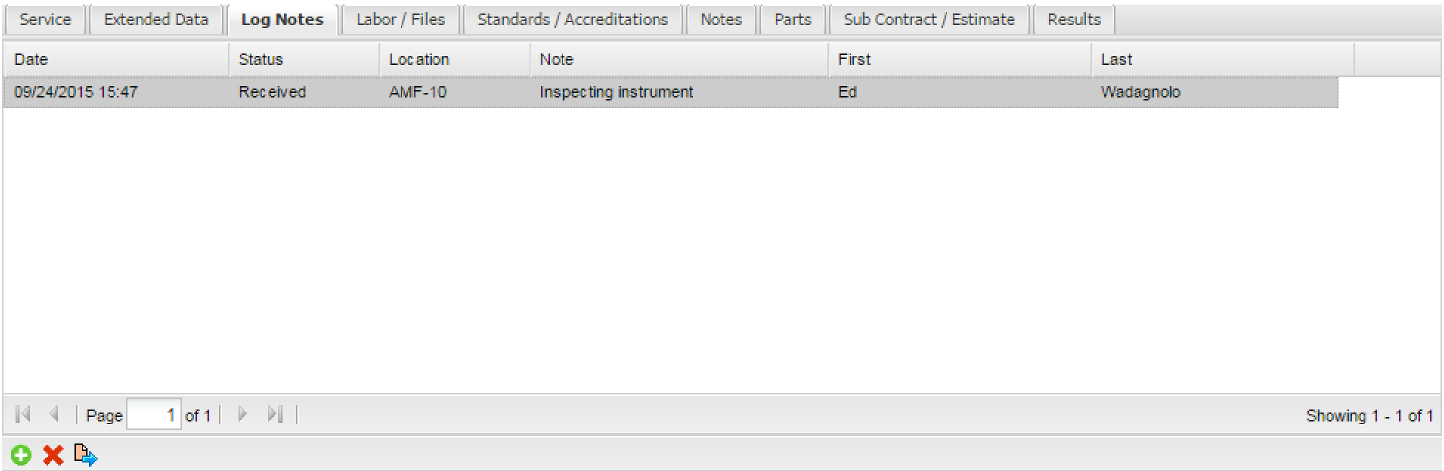
The Extended Data tab displays the extended data elements for Work Order. The data in the text fields on the right are brought forward from the receiving process.



- **Closed Date** – The date the Work Order was closed. This date is controlled by the Workflow Returning process and cannot be edited by the user.
- **Invoice Number** –Displays the Invoice number this Work Order was billed on.
  - The invoice can be viewed by selecting the Quick Link button.
  - The invoice can be printed by selecting the Print button.
- **Cost** – The cost of the service. This cost is calculated by the Workflow Returning process.
- **Returned By** – Displays the name of the person who performed the Workflow Returning process. This date is filled in automatically by the returning process. Selecting the printer icon re-prints the shipping manifest for this Asset.
- **Returned Date** - Displays the date the Asset was returned to the customer. This date is controlled by the Workflow Returning process and cannot be edited by the user.
- **Category (WO)** –The category of the labor (not required). *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
  - The category can be changed by selecting the "…" button.
  - The category can be viewed by selecting the Quick Link button.
- **Sub Category (WO)** – The subcategory of the labor (not required). *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
  - The sub category can be changed by selecting the "…" button.
  - The sub category can be viewed by selecting the Quick Link button.
- **Quantity** – The quantity of items being serviced in the Work Order. Defaults to 1. If you are servicing sets, this quantity could be greater than 1. This quantity is used as the multiplier for the cost if there are no labor hours on the Labor/Files tab. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
- **EX Data** - The data in the grid can be modified by highlighting the element to be changed and double clicking that element. Once the new value has entered, select the Save button to save the changes.

Work Order – Log Notes Tab

The Log Notes tab displays all the activity logged against an Asset.

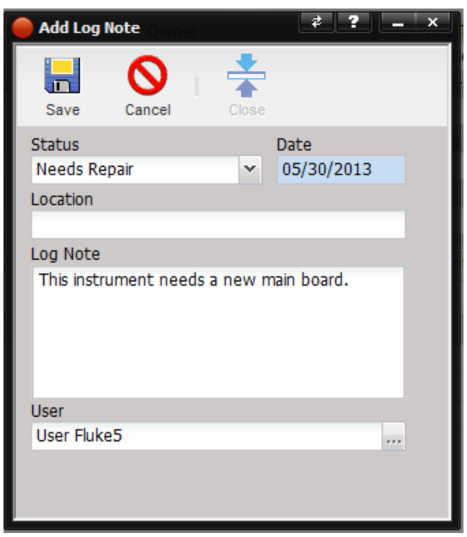


The log is read from top to bottom with the newest event being at the top. Most of the log events are entered in by the user. However, some events, such as "Out of Tolerance" are automatically entered in the log as well.

The Log Notes are updated on each Work Order when the Batch button is used. See the section Batch (Work Orders) for more information.

Adding / Deleting / Modifying a Log Note

To add a log note, select the "+" button at the bottom of the screen, select the status, complete the log event screen, then select the Save button.



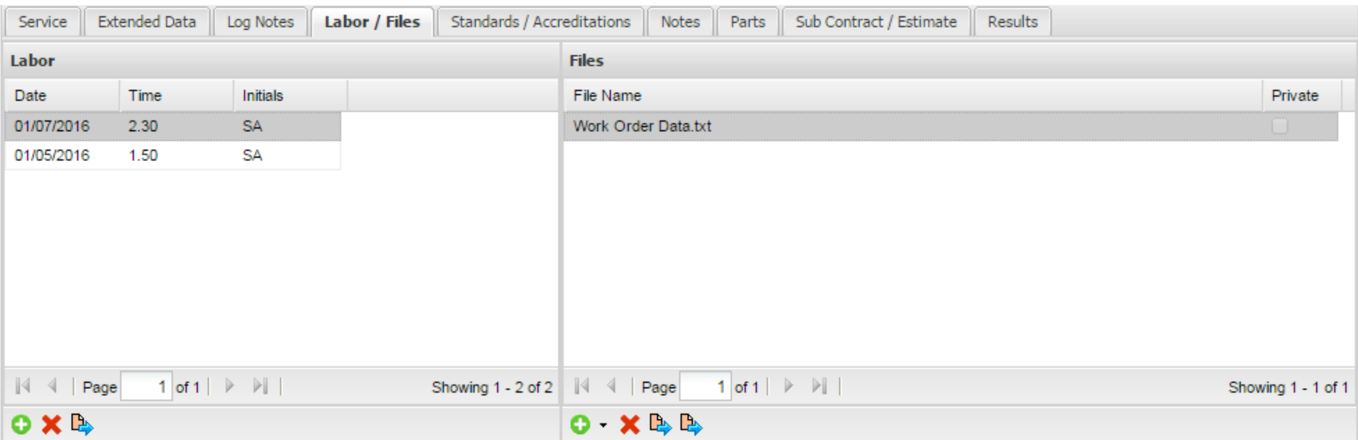
- **Status** – The status of the Work Order.
- **Date** – Date the log event was created. This date is controlled by MET/TEAM and cannot be edited.
- **Location** – The physical location of Asset.
- **Log Note** – General notes for this log event.
- **User** – Name of the technician creating the log event. The system defaults it to the currently logged on user.
    - The user can be changed by selecting the "…" button.

To remove a log note, highlight the record to delete and select the "X" button at the bottom of the Log Notes tab.

To modify or view a log note, highlight or double click the log note and select the Quick Link button at the bottom of the Log Notes tab.

Work Order – Labor/Files Tab

The Labor / Files tab is for recording labor expended on the Work Order (left side of the tab) and for attaching files related to the Work Order.



Labor and Files are entered by the user.

The Labor is updated on each Work Order when the Batch button is used. See the section Batch (Work Orders) for more information.

Adding / Deleting / Modifying a Labor Record

To add a labor record, select the "+" button at the bottom of the screen, complete the information on the Labor screen and select the Close button.

To remove a labor record, highlight the record to delete and select the "X" delete button at the bottom of the Labor/Files tab.

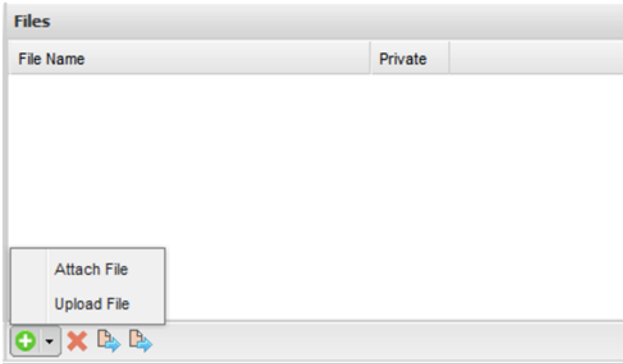
To modify or view a labor record, highlight or double click the labor record and select the Quick Link button at the bottom of the Labor/Files tab.

Labor records are also created by MET/CAL when a calibration is performed. Labor records created by MET/CAL use the calibration start date as the labor record start date, and the duration is the amount of time it took for the MET/CAL procedure to run. If the running time is greater than 24 hours, multiple labor records are created to reflect this. Labor records created by MET/CAL do not have the "No Charge" checkbox selected.

Adding a File

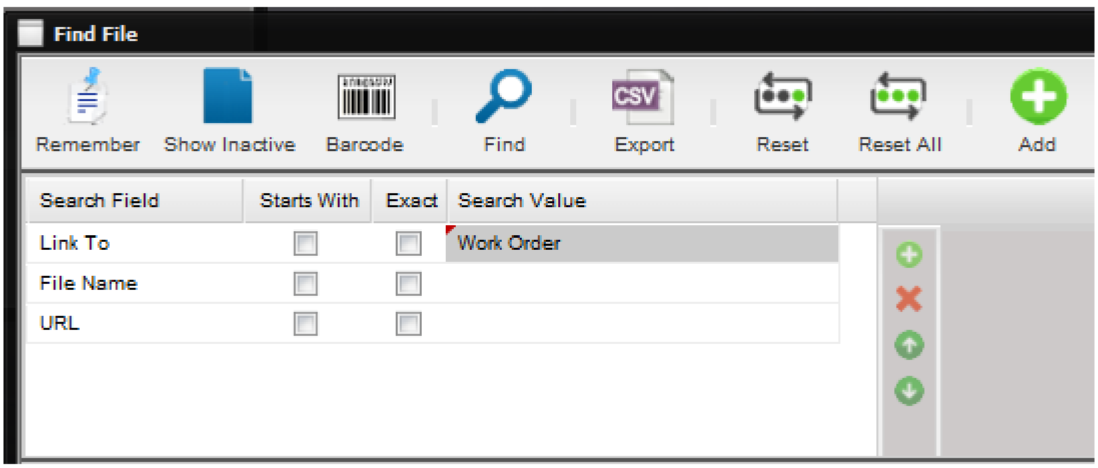
The Files half of the Labor / Files tab displays files related the Work Order. Files may be related either by Attach File (attaches an existing file) or by Upload File (uploading a new file). The buttons to the right of the grid can be used to add, delete, or view files.

Note: *MET/TEAM can only upload files that are 50mb or smaller.*



When the "+"button is selected, the user is presented with two options: Attach File or Upload File.

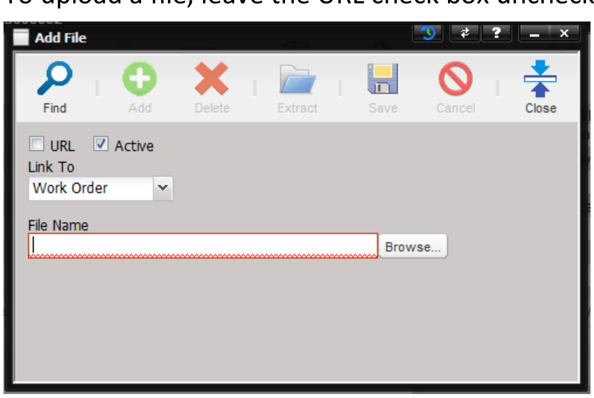
To attach an existing file to a Work Order, select the Attach File option. The Find screen is displayed for finding the File to add. Notice the 'Link To' search field contains the search value of "Work Order". Press the Find button. The Files displayed are those files that were previously added using the Maintenance menu Files submenu and were categorized with a 'Link To' entry of "Work Order". Select the file to attach from the results grid and press OK.



To attach a new file or URL to a Work Order, select the Upload File option. This option adds the File (as if the user had used the Maintenance menu Files submenu) and at the same time attaches the new File to the current Work Order.

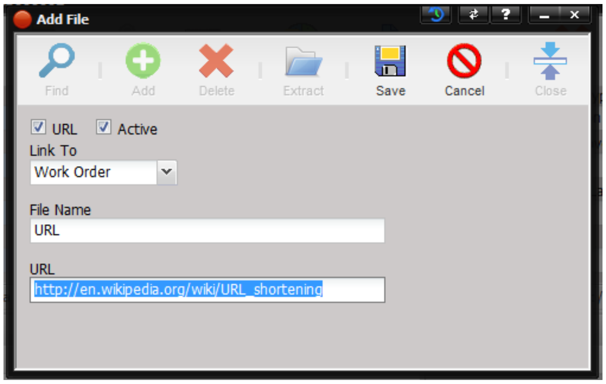
The Add File screen is displayed. Notice the 'Link To' field contains the value of "Work Order".

- To upload a file, leave the URL check box unchecked, check the Active check box, and press the "Browse…" button.

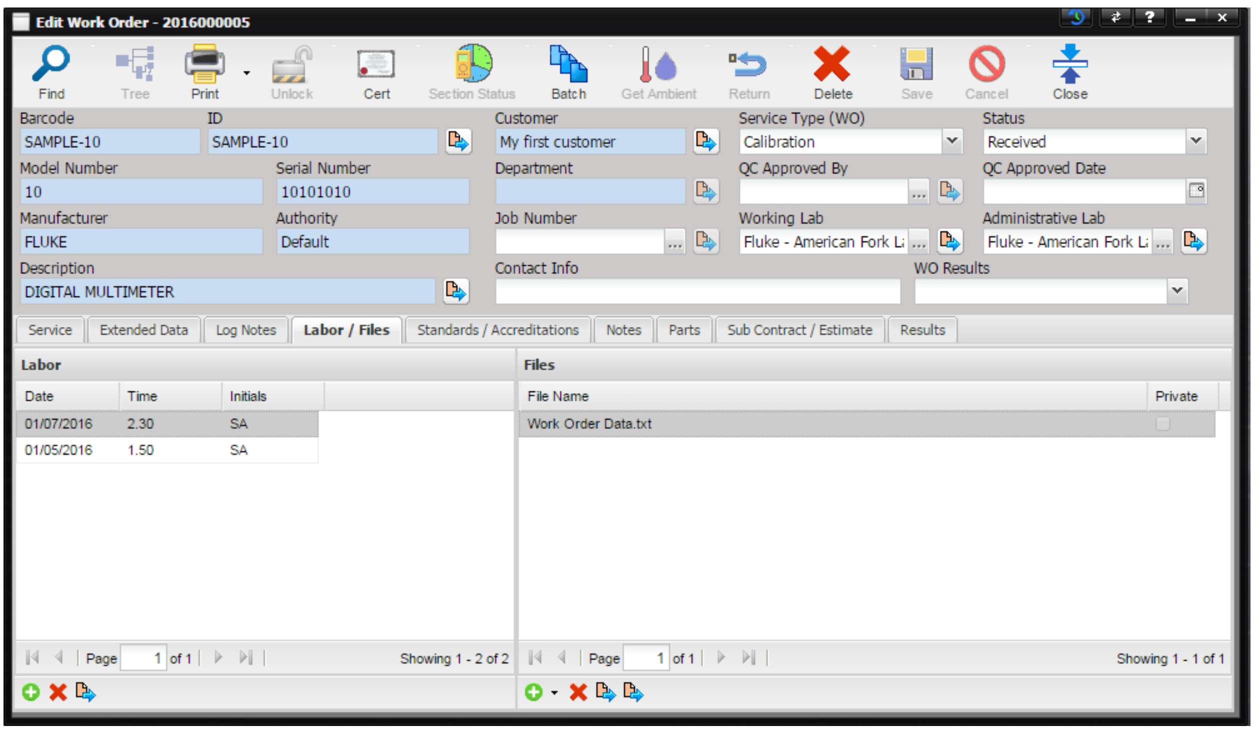


The Windows Choose File to Upload screen is displayed. Navigate to the file that is needed and select this file by double clicking. The File Name text box now contains the name of the file just selected. Select the Save button and the Add File screen closes. The file just uploaded is now displayed on the Work Orders Files tab.

- To enter a URL, check the URL checkbox check the Active check box, enter a filename in the File Name text box, and enter a URL in the URL text box.



Select the Save button and the Add File screen closes. The URL File Name is now displayed on the Procedure Files tab.



Deleting a File

To remove a File, highlight the record in the grid on the Files tab and select "X" button on the right of the Labor / Files tab.

Viewing a File

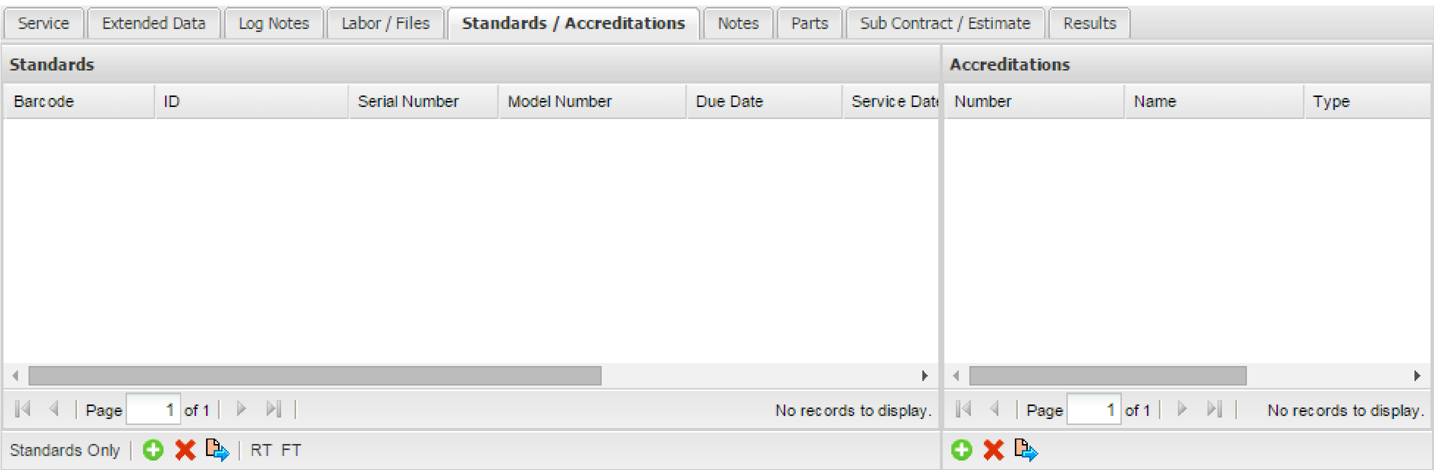
To view the selected File, highlight the record in the grid on the Files tab and select the Quick Link button (the 3rd button) on the right side of the Files tab.

Changing Private Status of a File

The Private column in the Files grid indicates whether a file is private (cannot be seen or accessed in Customer Portal) or public (can be seen and accessed in Customer Portal). To change the Private status of a file, right-click the file and choose Make Private or Make Public from the popup menu accordingly. Also, double-clicking an item toggles the Private status following a confirmation prompt.

Work Order – Standards / Accreditations Tab

The Standards/ Accreditations tab is for recording standards and accreditations associated with the Work Order. *This Standards and Accreditations are updated on each Work Order when the Batch button is used. See the section Batch (Work Orders) for more information.*



Adding / Deleting / Modifying Standards and Accreditations

To add a standard or accreditation, select the "+" button at the bottom of the Standards / Accreditations tab. The Find File dialog is displayed for selecting the standard or accreditation.

- The standards displayed are only those that have been predefined for the selected procedure for this type of service.
- If a standard is selected that is not currently in calibration, the user is warned that the selected standard is out of calibration. However, it does not stop the technician from selecting the standard.
- When adding a standard, MET/TEAM examines all associated Work Orders which have a service of Service Mode "Calibration". Once the most recent Work Order is found, the maintenance and due date from that record are recorded in the Standards grid. If, however, no suitable match is found, MET/TEAM examines the Asset Services associated with the selected Asset and uses the underlying maintenance and due date from there.

To remove a standard or accreditation, highlight the record and select the "X" button at the bottom of the Standards/Accreditations tab.

To modify or view a standard or accreditation, highlight or double click the standard or accreditation and select the Quick Link button at the bottom of the Standards /Accreditations tab.

Reverse Traceability / Forward Traceability

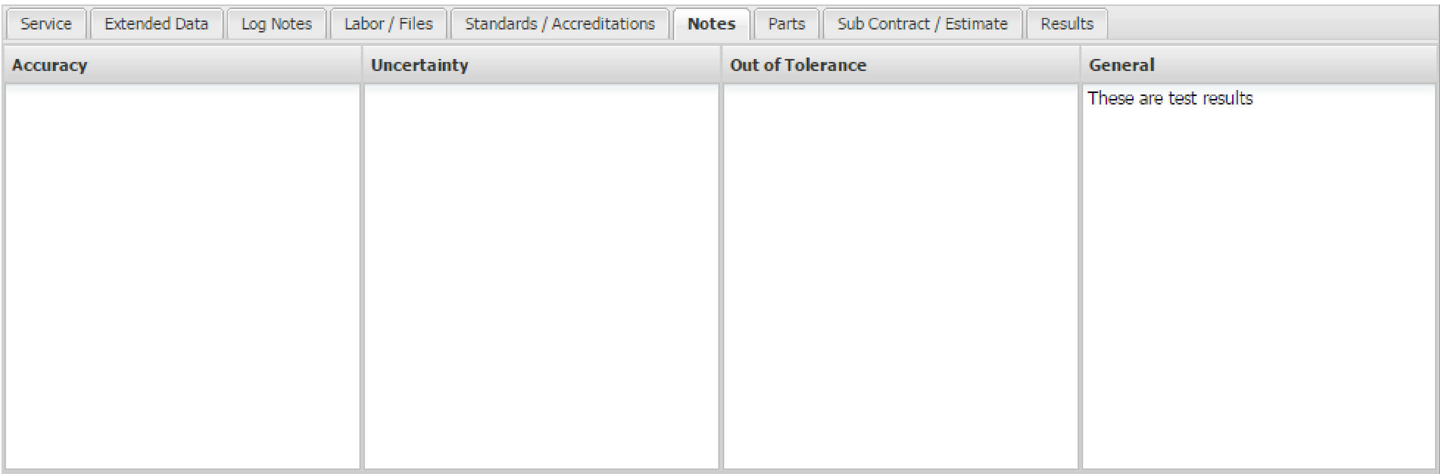
The "RT" button at the bottom of the screen displays a reverse traceability report for the current Work Order. All Assets calibrated using this standard is displayed in a Crystal Report.

The "FT" button at the bottom of the screen displays a forward traceability report for the current Work Order. All Assets used to calibrate this Asset are displayed in a Crystal Report.

Note: Assets requiring no calibration must have a record in the Asset 'Scheduled Services' grid with an Service Type and Service Mode of 'Calibration', interval of '0' and an Interval UOM of 'None', for that Asset to show up on the Traceability reports.

Work Order – Notes Tab

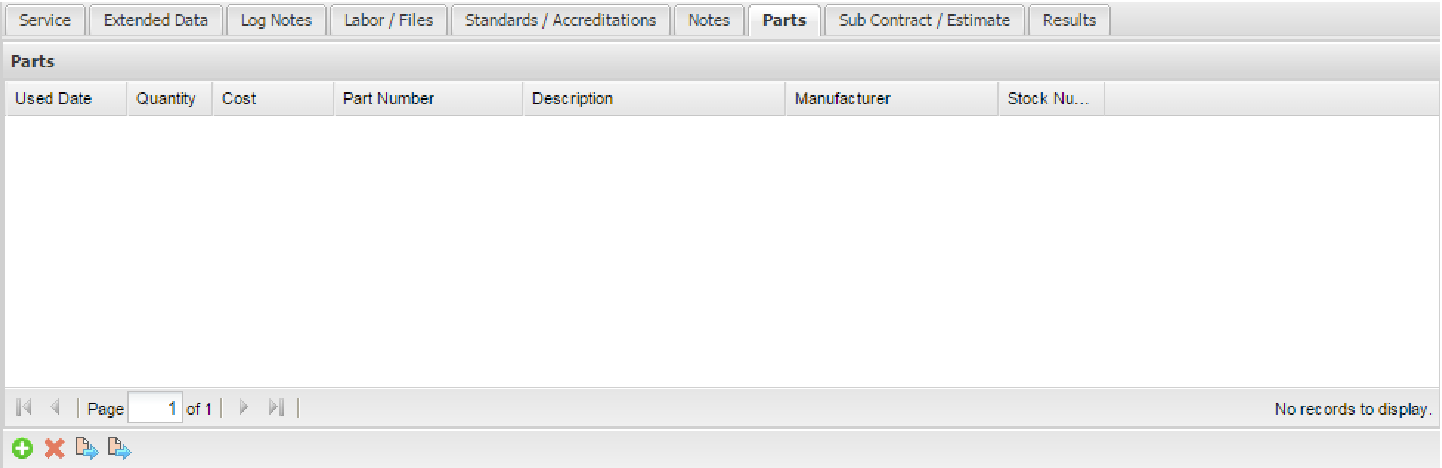
The Notes tab allows selecting predefined blocks of text to be inserted for Accuracy, Uncertainty, Out of Tolerance, and General Notes. To enter information, double click in the area or press ALT+Q. For additional details on entering notes, refer to the Quick Notes section.



Accuracy Notes – Provides the technician with the ability to record the accuracy statement for this service event. By default, this information is displayed on the certificate of calibration. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
Uncertainty Notes – A place to enter uncertainty notes for the particular Work Order. If uncertainty notes were entered on the Asset screen, they are brought forward to here, but can be overwritten if necessary. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
Out of Tolerance Notes – Provides the technician with the ability to record out of tolerance conditions that may have existed during this service event. If a Data Sheet is used, MET/TEAM automatically records the out of tolerance information and stores the text of the event in this area. This information is used to produce an out of tolerance report to the customer. If an out of tolerance condition exists, this data must exist before an out of tolerance report prints. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
General Notes – Provides the technician with an area to record notes for this service event. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*

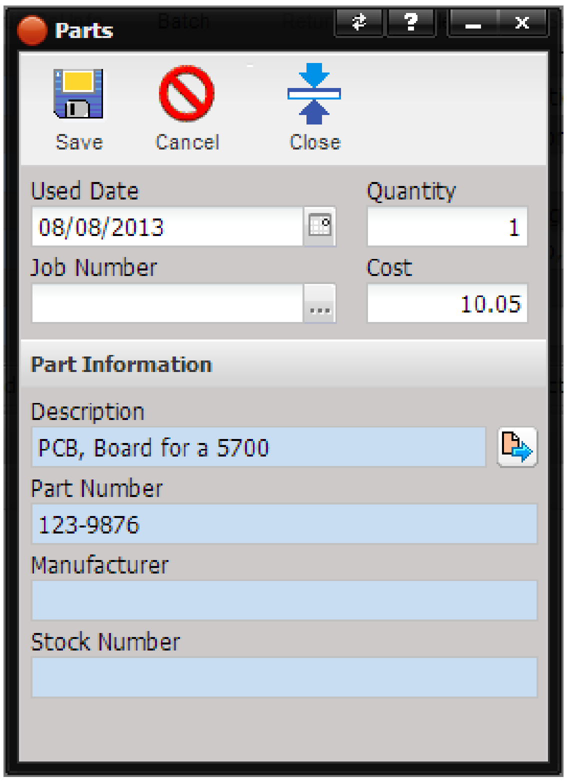
Work Order – Parts Tab

The Parts tab is for tracking parts used during the service performed on this Work Order.



Adding /Deleting / Modifying a Part

To add a part, select the "+" button at the bottom of the screen, complete the parts screen, and select Save button.



- **Used Date** – Date the part was used on this Asset.
- **Quantity** – Quantity of parts used.
- **Job Number** – The job number this labor is charged to (pre-filled with the Work Order job number)
  - The job number can be changed by selecting the "…" button.
- **Cost** – Cost of each part.
- **Part Information**
  - **Part Number** – Manufacturer's part number.
  - **Description** – Manufacturer's description of the part.

- ○ **Manufacturer** – Company who manufactured the part.
- ○ **Stock Number** – Supply system ordering number.

To remove a Part and delete the Part Link, highlight the record to be deleted and select the “X” button at the bottom of the Parts tab.

The Part Link is the record that links the Part to the Work Order. To modify or view the selected Part Link, highlight or double click the part and select the 1st Quick Link button at the bottom of the Parts tab.

To modify or view the information pertaining to the Part itself, highlight or double click the part and select the 2nd Quick Link button at the bottom of the Parts tab.

Work Order – Sub Contract / Estimate Tab

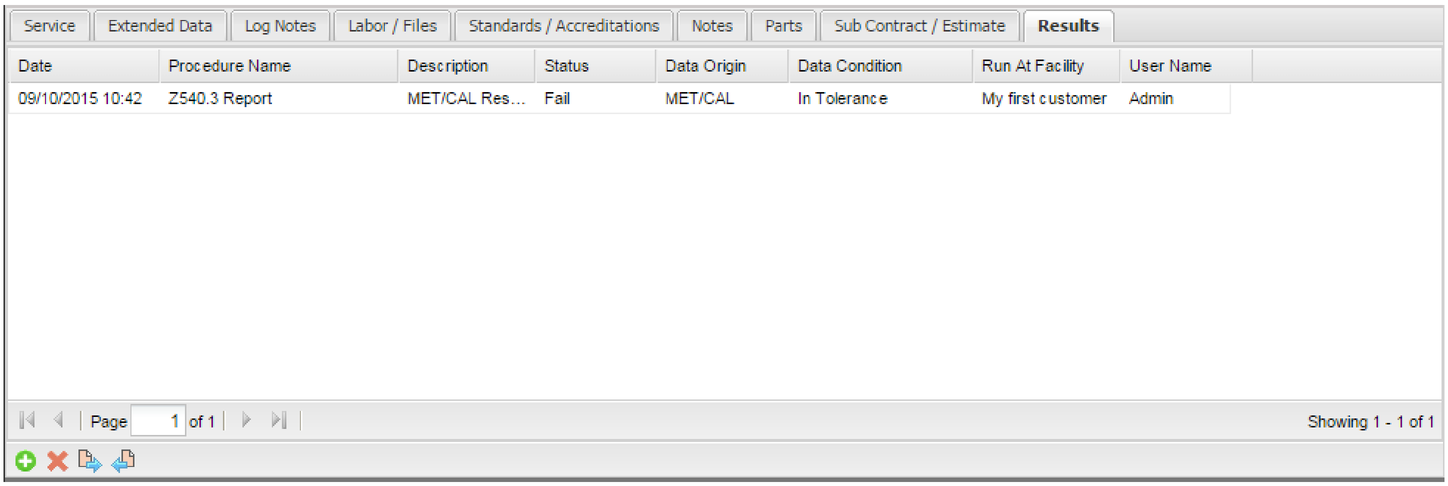
The Sub Contract / Estimate tab is for recording information related to sub contracting this Work Order. In the event a maintenance facility does not have the equipment, skill, or personnel to perform the needed service, the Work Order can be subcontracted to an authorized subcontracting facility.

- **Sub Contractor** – The Facility assigned to perform the sub contracted service, only authorized Sub Contractors are displayed to the technician. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
  - ○ The sub contractor can be changed by selecting the “…” button.
  - ○ The sub contractor can be viewed by selecting the Quick Link button.
- **Sub Cont Cost** – The cost the lab passes on to the customer. Included in the cost of the Work Order, when applied to the invoice. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
- **Sub Cont Lab Cost** – The cost to the lab. For example, the lab may have sent an item to sub contractor and paid $50 for the service, however they bill the customer $100 for processing etc. In this example $50 in “Sub Cont Lab Cost”, $100 in “Sub Cont Cost”. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
- **Sub Cont Hours** – The number of hours the sub contractor took to perform the service. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*
- **Delay Date** – The date the item shipped to the sub contractor.
- **Sub Contractor Notes** – Notes sent to the sub contractor concerning the service. *This field can be changed on multiple Work Orders when the Batch button is used. See the section Batch (Work Orders) for more information.*

It is a best business practice to always open a Work Order even if you know ahead of time the Asset will be sent to a subcontractor. This way, you will have a historical record of the event.

Work Order – Results Tab

The Results tab is used to display calibration data associated with the given Work Order. This data is saved in the database as results/points. This data is not saved as individual files. When a file (such as an Excel or .PDF file) is used as the Procedure, the results grid on the Results tab will be empty.



The fields in the grid show information regarding a calibration event:

- **Date** – This is the date the calibration was first created.
- **Procedure Name** – Name of the MET/TEAM Procedure that was executed.
    - When a sectioned procedure is executed, each section of the same procedure is displayed in their own row of the Results grid.
- **Description** – Description of the data collected. The field varies with the procedure used to collect the data.
    - MET/CAL Procedure
    - Manual Template
    - When using a MET/CAL Sectioned Procedure, the Description field is the name of the procedure section.
- **Status –** The overall pass/fail status of the calibration event.
- **Data Origin** – The origin of the data.
    - MET/TEAM
    - MET/CAL
    - Other file types are not listed in the Results grid. These files are attached as the Data Sheet on the Service tab or as an independent file on the Files tab.
- **Data Condition** – The As Found, As Left, or Found Left data condition for a given calibration event.
- **Run At Facility** – The Facility where the data was collected.
- **User Name** – The user who collected the data.

Add or Delete Work Order Results, View Results, Edit Manual Calibration, and COMPASS Data File Import Buttons
To Add, Delete, View, or Edit Results or to do a COMPASS Data File Import use the buttons at the bottom left corner of the Results tab.

Add Work Order Results

The "+" button either performs a calibration there are no results in the Results tab or opens the Find Procedure screen for selecting a Procedure associated with the Type of this Asset and then performs a calibration.

Note: *The functionality of this "+" button is driven by the System Default – "Work Order – Use Multiple Procedures".*

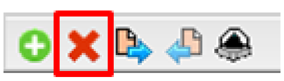
The Find Procedure screen is displayed. The checkboxes Match Service Mode and Match Service Type on the Find Procedure screen behave as described in the Work Order Service tab.

The "+"button functions based on the following logic.

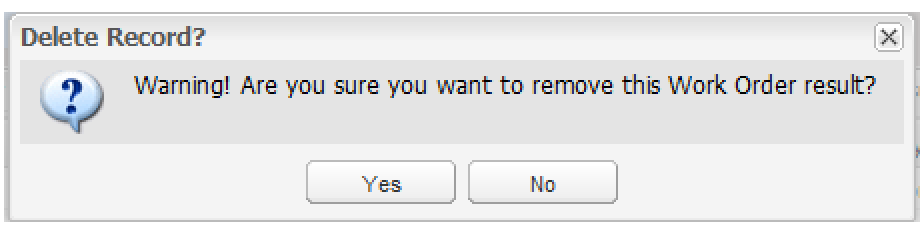
- Looks at the Type Procedure Default associated with the Asset Type.
- Checks if there is an associated Data Sheet.
- If there is no Data Sheet, looks at the actual Procedure associated with the Asset Type.
- Check if there is an associated Data sheet.
- If a Data sheet is found, MET/TEAM looks at the method of calibration.
    - If the Data sheet is a Manual Template, the Manual Template Calibration screen is opened.
    - If the Data sheet is a MET/CAL Procedure, MET/CAL is launched and proceeds through the actual MET/CAL procedure.
    - If the Data sheet is a regular file, a warning message is displayed informing the user of a different workflow for managing that type of Data Sheet.

Delete Work Order Results

To remove a selected row of calibration data, highlight the row and select the "X" button.



A prompt is displayed.



If Yes is selected, MET/TEAM removes the calibration data from the Work Order.

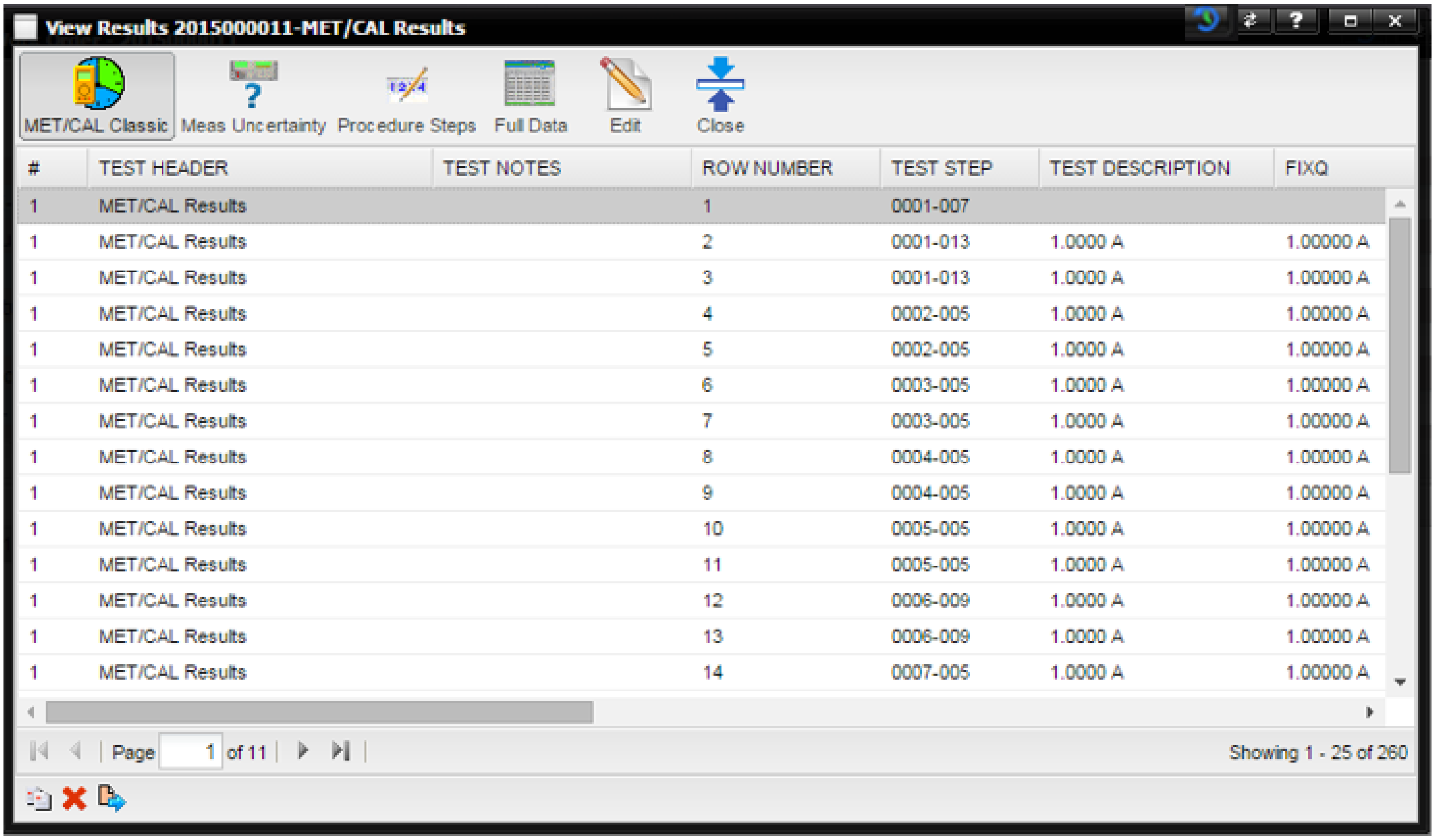
To delete a point from the Work Order results, double click the work order result on the Results tab. On the data viewer screen that is presented, highlight the point to delete and press the Delete button the toolbar.

Note*: The pass/fail determination for the work order result the point belonged to is not re-run at the time of deleting a point.*

View Results

Data points collected during a calibration event (manual or MET/CAL) can be viewed by highlighting the row and selecting the Quick Link button with the blue arrow pointing to the right. If the highlighted row references a File, the user must use the Data Sheet field Quick Link button on the Service tab to view the collected data.

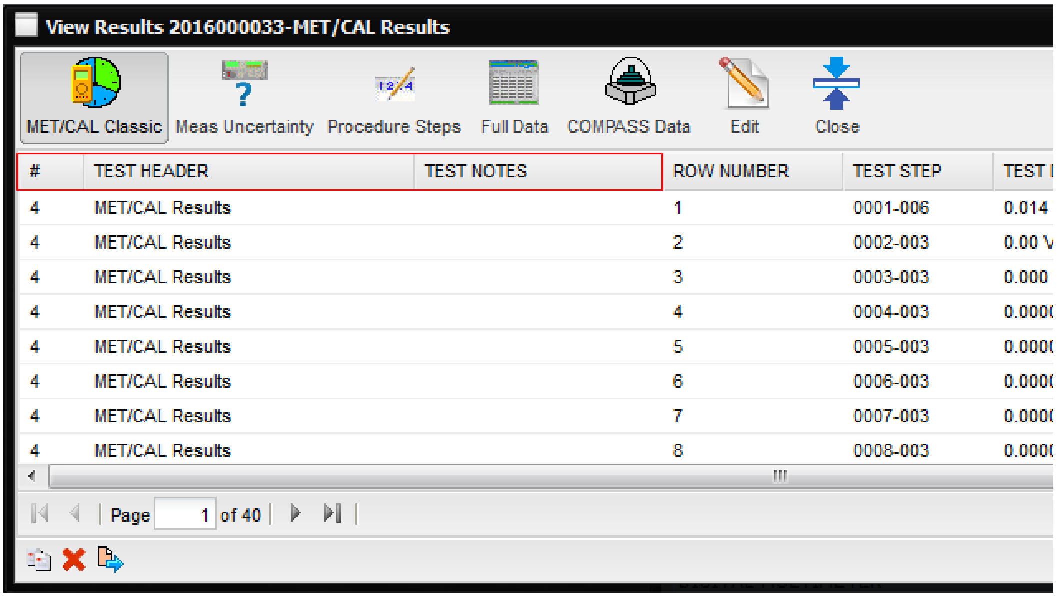
The View Results screen is displayed.



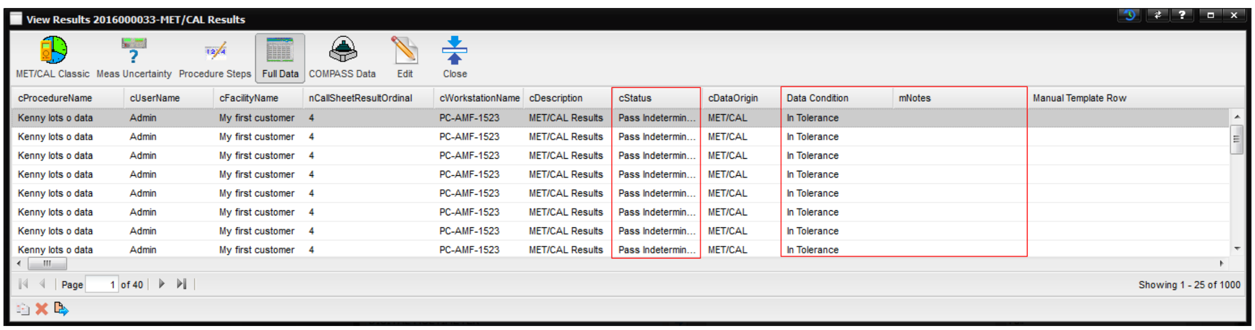
#	TEST HEADER	TEST NOTES	ROW NUMBER	TEST STEP	TEST DESCRIPTION	FIXQ
1	MET/CAL Results		1	0001-007		
1	MET/CAL Results		2	0001-013	1.0000 A	1.00000 A
1	MET/CAL Results		3	0001-013	1.0000 A	1.00000 A
1	MET/CAL Results		4	0002-005	1.0000 A	1.00000 A
1	MET/CAL Results		5	0002-005	1.0000 A	1.00000 A
1	MET/CAL Results		6	0003-005	1.0000 A	1.00000 A
1	MET/CAL Results		7	0003-005	1.0000 A	1.00000 A
1	MET/CAL Results		8	0004-005	1.0000 A	1.00000 A
1	MET/CAL Results		9	0004-005	1.0000 A	1.00000 A
1	MET/CAL Results		10	0005-005	1.0000 A	1.00000 A
1	MET/CAL Results		11	0005-005	1.0000 A	1.00000 A
1	MET/CAL Results		12	0006-009	1.0000 A	1.00000 A
1	MET/CAL Results		13	0006-009	1.0000 A	1.00000 A
1	MET/CAL Results		14	0007-005	1.0000 A	1.00000 A

The data can be viewed in different ways by using the MET/CAL Classic, Meas Uncertainty, Procedure Steps, and Full Data buttons in the tool bar. You can Edit, Copy, or Delete individual points.

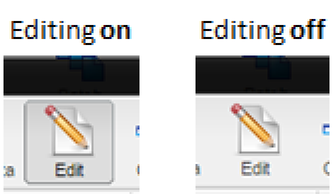
When viewing using the MET/CAL Classic, the Meas Uncertainty, or the and Procedure Steps button, the **#**, **TEST HEADER**, and **TEST NOTES** belong to the parent record (Work Order Result). Editing any one of these, changes the value for the entire column (i.e. Work Order Results record).



When viewing using the Full Data button, the **cProcedureName**, **cUserName**, **cFacilityName**, **nCallSheetResultsOrdinal**, **cWorkstationName**, **cDescription**, **cStatus**, **cDataOrigin**, and **Data Condition** belong to the parent record (Work Order Result). Only **cStatus** and **Data Condition** are editable. Editing either of these fields, changes that value for the entire column (i.e. Work Order Results record).



Select the Edit button from the toolbar to edit a point. This button is a toggle button and appears pressed when editing is on and not pressed when editing is off.



To edit individual readings for points shown in the View Results grid, double click the row. The View Point Readings screen is displayed.

***Note**: When viewing Manual Template data, the Enter Text data is presented in the Test Status column which allows this data to be presented on a report.*

***Note**: The Edit button is only displayed if the System Default – “Work Order – Edit Calibration Points” is active and the Work Order is not locked.*

When using MET/TEAM Mobile, the Edit button is disabled if the Work Order was created prior to Mobile Check-out.

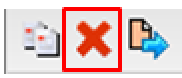
When editing is on, you can click into a cell on the grid and update a value. Pressing enter updates the data in the database for that one field that was edited.

The buttons in the lower left corner of the View Results screen provide for copying, deleting and viewing point readings related to the results.

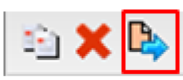
***Note:** When using MET/TEAM Mobile, Work Orders that were created prior to Mobile Check-out cannot be deleted and Results cannot be copied, edited, or deleted.*

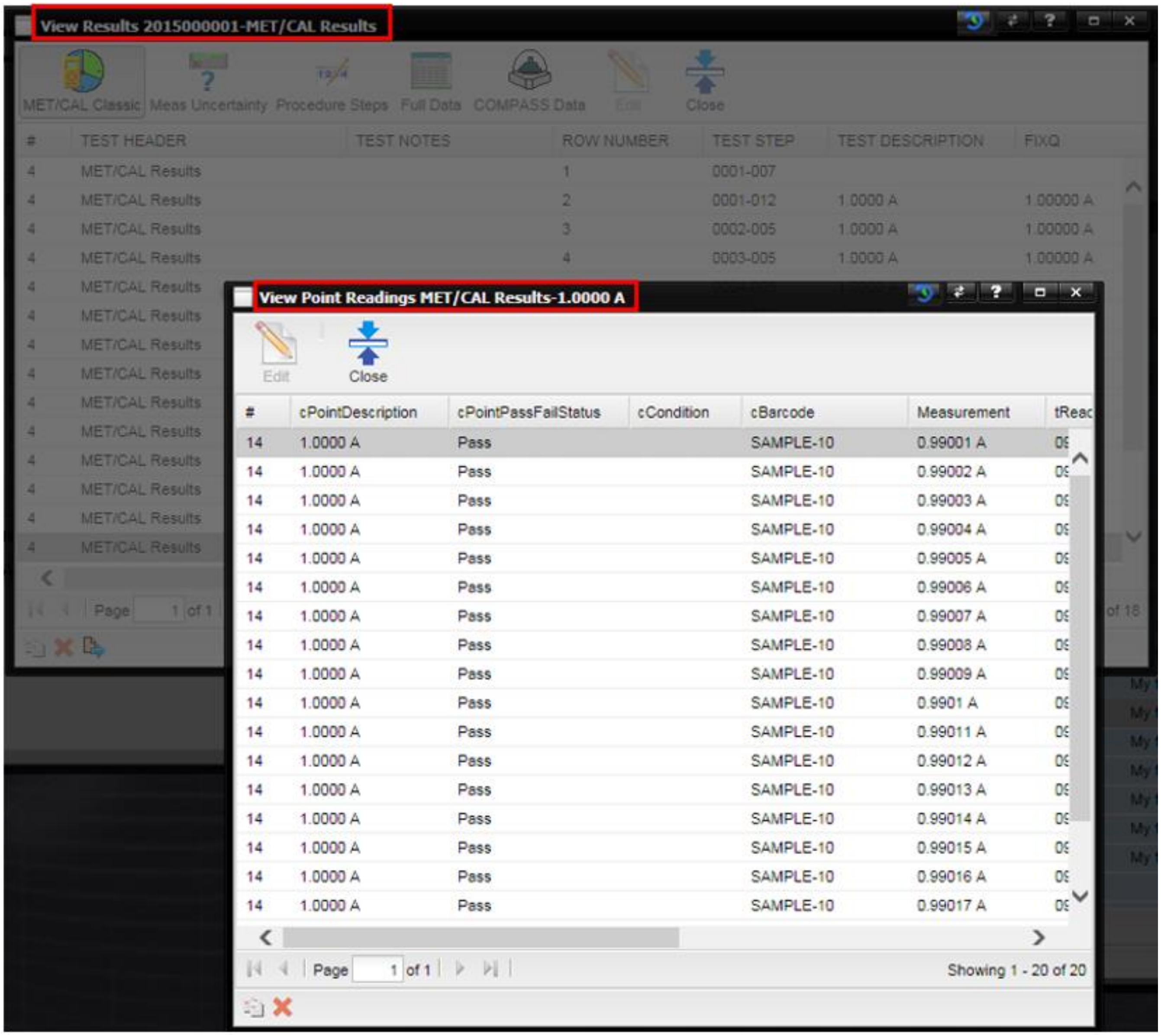
- **Copy button** - Selecting the Copy button at the bottom of the grid creates a duplicate of the selected row and inserts this duplicate right underneath the selected row.

- **Delete button** - Selecting the Delete button at the bottom of the grid deletes the selected row, after a confirmation prompt is affirmed.



- **View Point Readings button** - Selecting the View Point Readings button at the bottom of the grid or clicking any row on the View Results screen opens the View Point Readings screen.





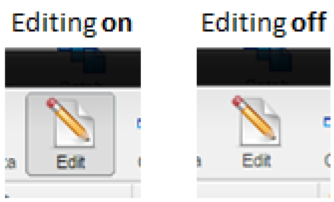
This View Point Readings screen is displays the individual readings associated with the point highlighted on the View Results screen. You can Edit, Copy, or Delete individual readings. The **Measurement** and **cReadingUnit** are editable. All other fields are not editable. The first three columns, **cPointDescription**, **cPointPassFailStatus**, and **cCondition**, belong to the parent record (Point, highlighted record from the View Results screen). These columns are displayed for ease of reference. The View Results screen is not accessible to prevent selection of another result while the View Points Readings screen is displayed.

To edit individual readings shown in the View Point Readings screen, select the Edit button in the toolbar.

***Note**: The Edit button is only displayed if the System Default – "Work Order – Edit Calibration Points" is active and the Work Order is not locked.*

When using MET/TEAM Mobile, the Edit button is disabled if the Work Order was created prior to Mobile Check-out.

This button is a toggle button and appears pressed when editing is on and not pressed when editing is off.



When editing is on, you can click into a cell on the grid and update a value. Pressing enter updates the data in the database for that one field that was edited.

The buttons in the lower left corner of the View Point Readings screen provide for copying and deleting individual point readings related to the results.

Note: *When using MET/TEAM Mobile, Work Orders that were created prior to Mobile Check-out cannot be deleted and Results cannot be copied, edited, or deleted.*

- **Copy button** - Selecting the Copy button at the bottom of the grid creates a duplicate of the selected row and inserts this duplicate right underneath the selected row.

- **Delete button** - Selecting the Delete button at the bottom of the grid deletes the selected row, after a confirmation prompt is affirmed.

Edit Manual Calibration

Data points collected during a manual calibration can be edited by highlighting the row and then selecting the Quick Link button with the blue arrow pointing to the left. This button is only if a Manual Template was used to collect the data.

Note: *This button is not enable if the data is from a MET/CAL procedure.*

COMPASS Data File Import

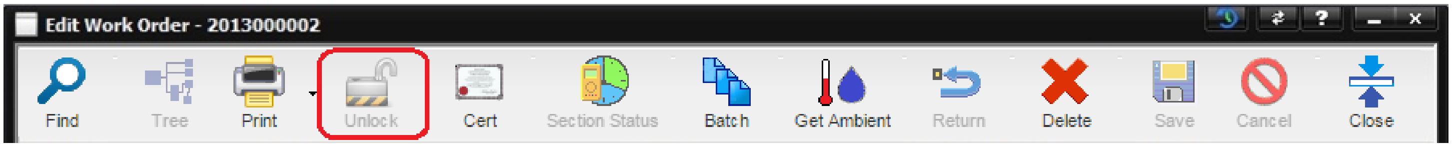
Data from COMPASS can be imported via the this button. For complete details see the section COMPASS Data File Import.

Note: *The button is only visible when the System Default – "Work Order – Enable COMPASS Data File Import" is active.*

Work Order Unlock

The *Unlock* button at the top of the Work Order screen is used to unlock and edit Work Orders with a Status of "Closed".

Note: *When using MET/TEAM Mobile, Work Orders that were created prior to Mobile check-out cannot be unlocked.*



This button is enabled only when the status of Work Order is "Closed" and the User is assigned to a Group that has access.

The System Default "Work Order – Revision Suffix" supplies the revision suffix that is appended to the Work Order Certificate Number and the .pdf file that is created when a closed Work Order is unlocked and then saved. The default suffix is "-Rev{0}" where the "{0}" represents the revision number that is incremented with each unlock. To maintain the uniqueness of the Work Order Certificate Number and .pdf file created, you must include "{0}" in the suffix.

Automatic Revision Tracking can be controlled by the System Default "Work Order - Revision Tracking".

***Note**: This System Default applies, when a Work Order is unlocked and the Service Type is of Service Mode "Calibration".*

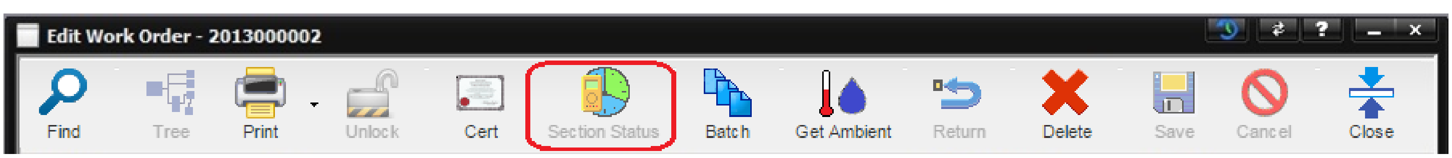
This System Default is used to control automatic revision tracking as follows:

- If inactive, automatic revision tracking is disabled.
- If active and the value is **0**, no .pdf file of the previous revision of the certificate is created.
- If active and the value is **0a**, the user is asked whether or not to append the Work Order - Revision Suffix to the certificate number. No .pdf file of the previous revision of the certificate is created.
- If active and the value is **1**, a .pdf file of the previous revision of the certificate is created and added to the Files section on the Labor/Files tab of the Work Order, and marked as Private.
- If active and the Value is **1a**, the user is asked whether or not to append the Work Order - Revision Suffix to the certificate number. If Yes is selected on the message, a .pdf file of the previous revision of the certificate is created and added to the Files section on the Labor/Files tab of the Work Order, and marked as Private. If No is selected on the message, no .pdf file of the previous revision of the certificate is created.
- If active and the value is **2**, a .pdf file of the previous revision of the certificate is created and added to the Files section on the Labor/Files tab of the Work Order, but is not marked as Private.
- If active and the Value is **2a**, the user is asked whether or not to append the Work Order - Revision Suffix to the certificate number. If Yes is selected on the message, a .pdf file of the previous revision of the certificate is created and added to the Files section on the Labor/Files tab of the Work Order, but is not marked as Private. If No is selected on the message, no .pdf file of the previous revision of the certificate is created.

***Note:** When a Work Order is unlocked, if the Certification Number is blank and the Service Type is of Service Mode "Calibration", the Certification Number is filled with the Work Order Number. This action is done to provide unique filenames for the .PDF created.*

Work Order Section Status

The *Section Status* button at the top of the Work Order screen is only used in conjunction with MET/CAL related procedures. More specifically the feature is linked to a MET/TEAM procedure defined with the category of "MET/CAL", that includes a Data Sheet that is a MET/CAL Procedure Executable generated using tagged sections. If the Work Order includes results collected with such a procedure, the menu option is enabled.

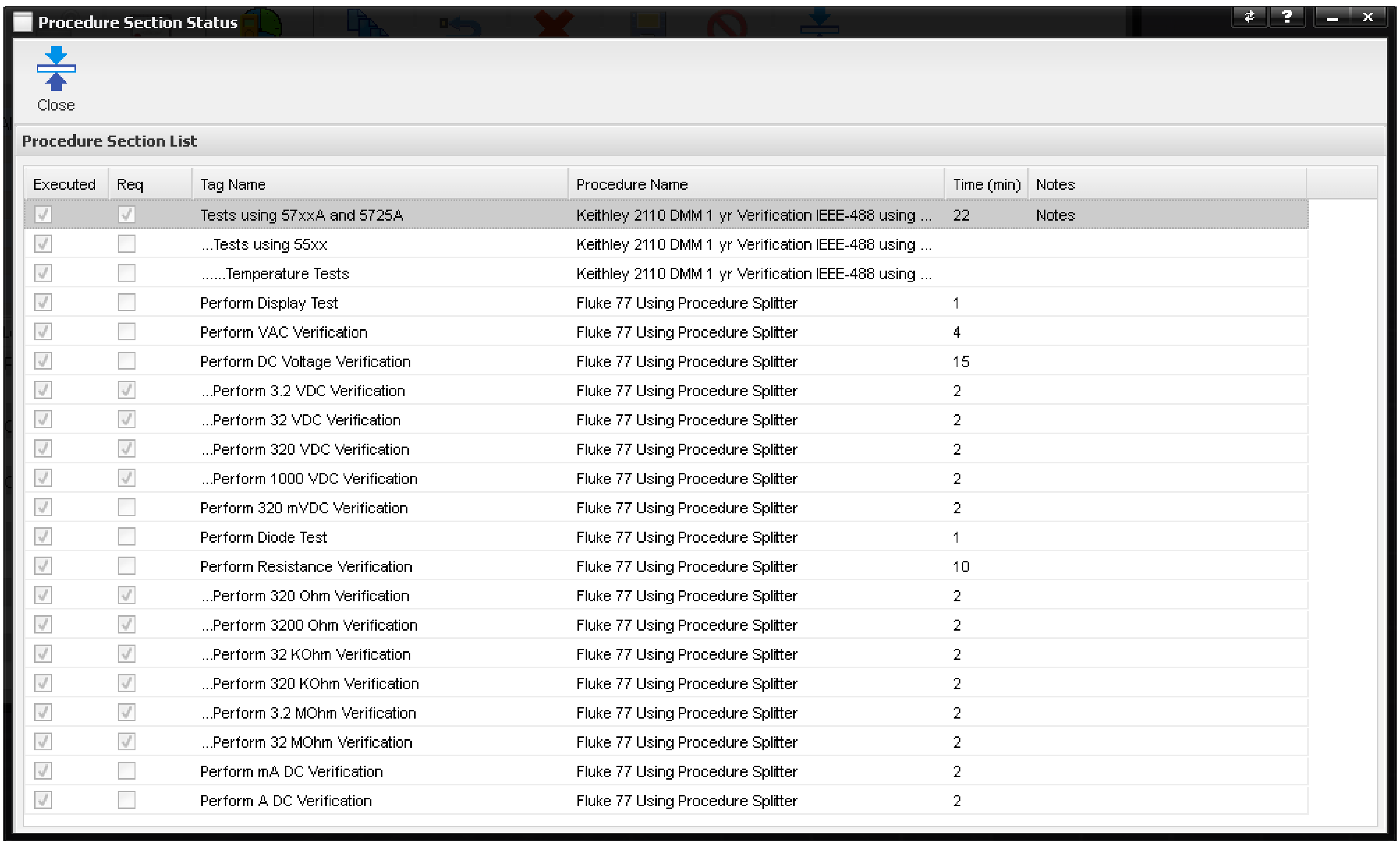


Procedure sections are defined by special comments embedded in the MET/CAL procedure. The comments describe sections of the procedure that can be individually executed or skipped when launched by the MET/CAL Runtime. This feature allows users to run a calibration at different times or in different physical locations and automatically link all of the results to a single Work Order. Review the MET/CAL Editor Help for more information on how to use Procedure Sections.

When the button is selected, the Procedure Section Status screen is displayed with columns of section information extracted from the procedure. Section details for all unique procedures are listed in this table. If the same procedure is executed multiple times there is only one instance of the section details for that procedure. The Execution flag for a section will be active if the section was run 1 or more times for any of the procedures.

The fields cannot be edited on this screen. The original MET/CAL procedure must be modified and executed again to generate a table with modified information.

***Note**: The Work Order cannot change to "**Complete**" unless all sections marked as Required have been executed at least 1 time.*



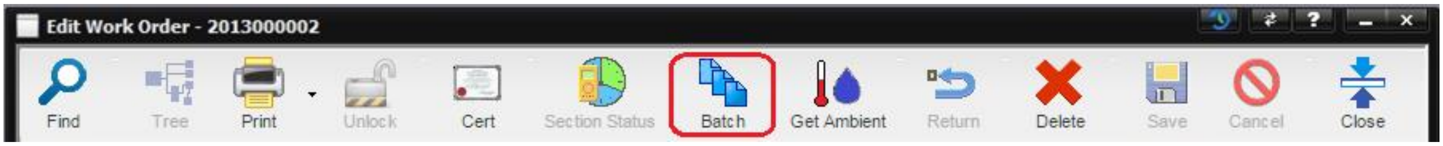
Executed	Req	Tag Name	Procedure Name	Time (min)	Notes
✓	✓	Tests using 57xxA and 5725A	Keithley 2110 DMM 1 yr Verification IEEE-488 using ...	22	Notes
✓		...Tests using 55xx	Keithley 2110 DMM 1 yr Verification IEEE-488 using ...		
✓		......Temperature Tests	Keithley 2110 DMM 1 yr Verification IEEE-488 using ...		
✓		Perform Display Test	Fluke 77 Using Procedure Splitter	1	
✓		Perform VAC Verification	Fluke 77 Using Procedure Splitter	4	
✓		Perform DC Voltage Verification	Fluke 77 Using Procedure Splitter	15	
✓	✓	...Perform 3.2 VDC Verification	Fluke 77 Using Procedure Splitter	2	
✓	✓	...Perform 32 VDC Verification	Fluke 77 Using Procedure Splitter	2	
✓	✓	...Perform 320 VDC Verification	Fluke 77 Using Procedure Splitter	2	
✓	✓	...Perform 1000 VDC Verification	Fluke 77 Using Procedure Splitter	2	
✓		Perform 320 mVDC Verification	Fluke 77 Using Procedure Splitter	2	
✓		Perform Diode Test	Fluke 77 Using Procedure Splitter	1	
✓		Perform Resistance Verification	Fluke 77 Using Procedure Splitter	10	
✓	✓	...Perform 320 Ohm Verification	Fluke 77 Using Procedure Splitter	2	
✓	✓	...Perform 3200 Ohm Verification	Fluke 77 Using Procedure Splitter	2	
✓	✓	...Perform 32 KOhm Verification	Fluke 77 Using Procedure Splitter	2	
✓	✓	...Perform 320 KOhm Verification	Fluke 77 Using Procedure Splitter	2	
✓	✓	...Perform 3.2 MOhm Verification	Fluke 77 Using Procedure Splitter	2	
✓	✓	...Perform 32 MOhm Verification	Fluke 77 Using Procedure Splitter	2	
✓		Perform mA DC Verification	Fluke 77 Using Procedure Splitter	2	
✓		Perform A DC Verification	Fluke 77 Using Procedure Splitter	2	

Procedure Section Grid Field Definitions

- **Executed** - True/False if the section was run one or more times. Review the Results tab on the Work Order to determine the total number of times that a section was run.
- **Req** - True/False if the specific section is tagged as being required. The tag of the section is defined in the original MET/CAL procedure. This section has to be run eventually.
- **Tag Name** – The name associated with the specific procedure section.
- **Procedure Name** - The name of the MET/TEAM procedure used for the specific section.
- **Time (min)** – The execution time in minutes estimated by the procedure writer (not actual run times).
- **Notes** - Notes associated with the specific MET/CAL Procedure Section.

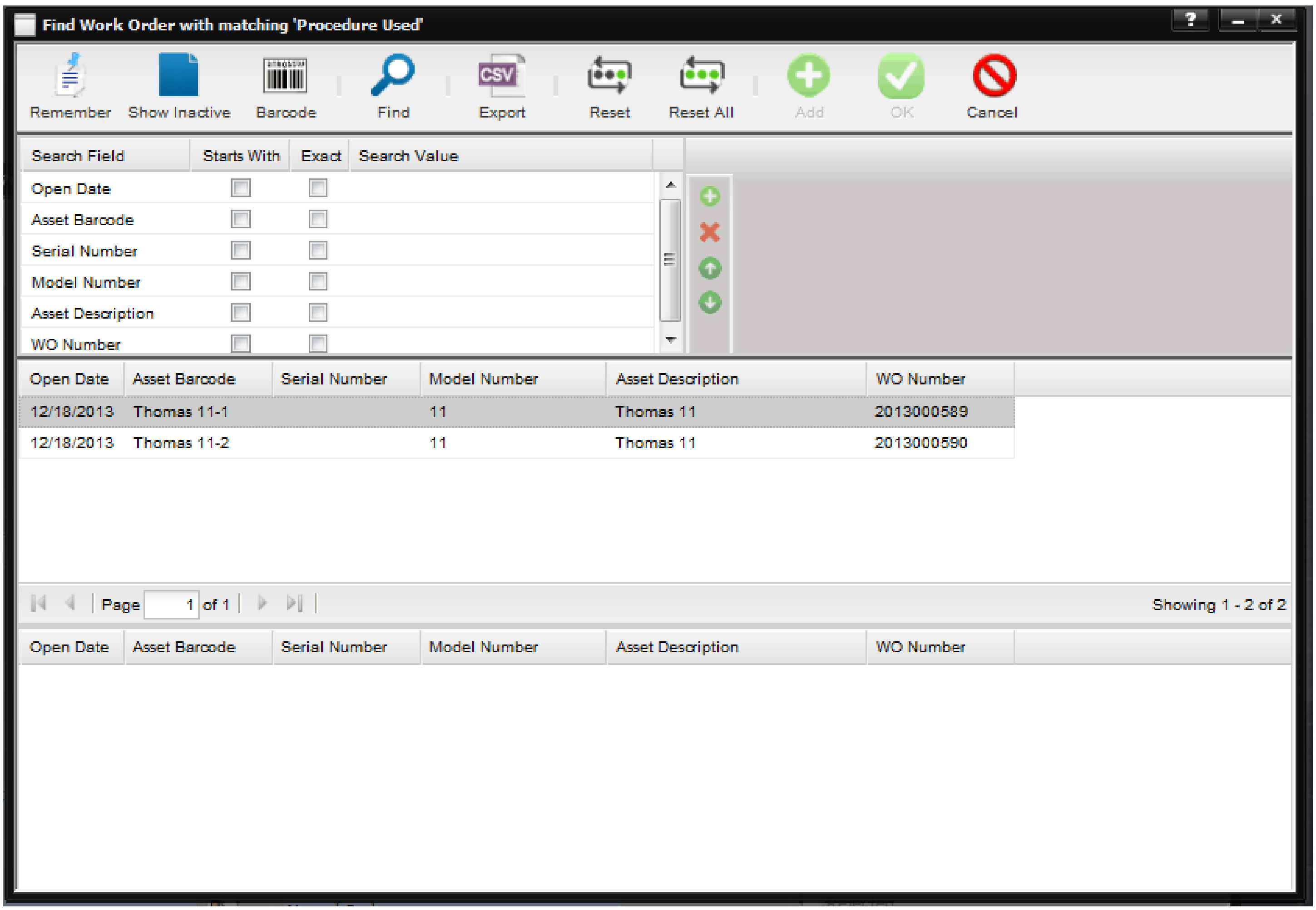
Work Order Batch

The *Batch* button at the top of the Work Order screen is for changing information on multiple Work Orders at one time. The Work Order that is being displayed is the "master" Work Order. The information on this Work Order will be used to update other Work Orders.



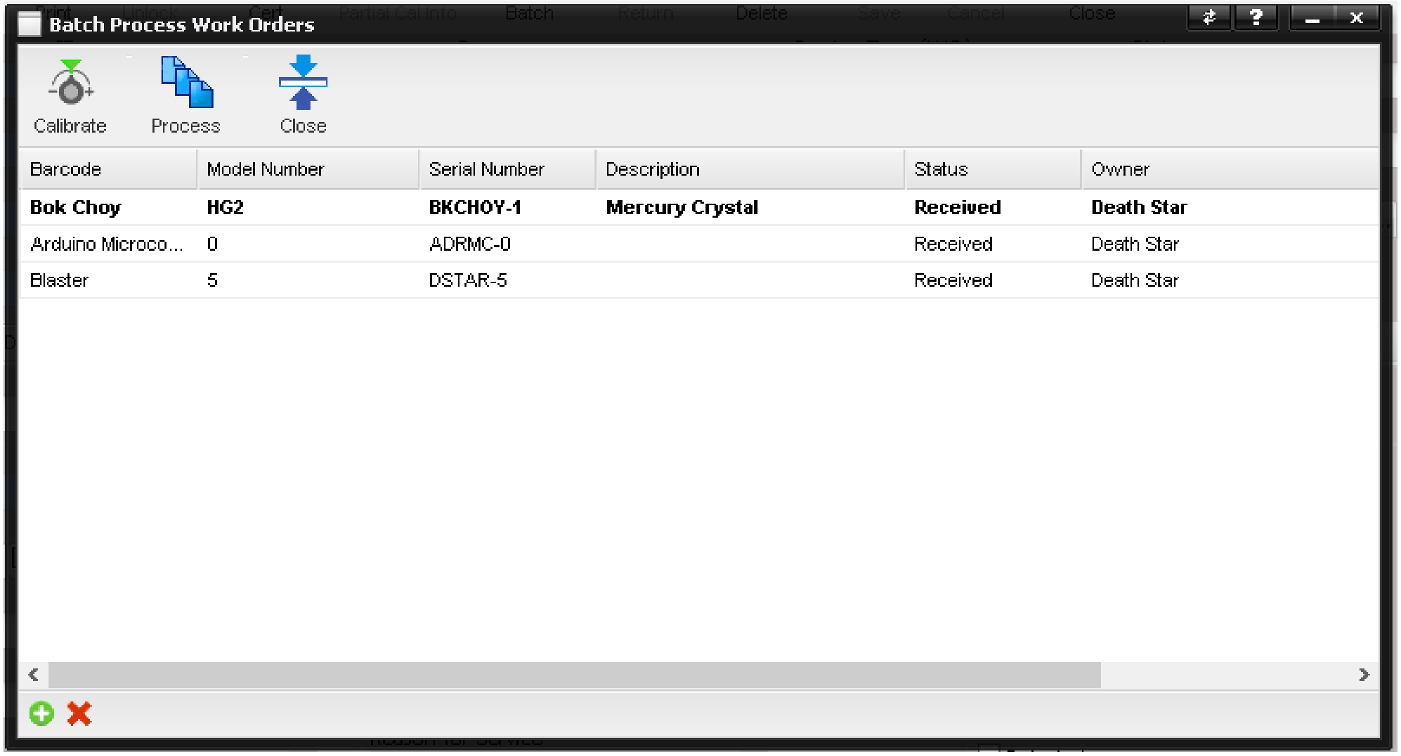
***Note:** Only Work Orders with the matching "Procedure Used" and a Working Lab that matches the currently logged in Facility can be updated using the Batch button.*

When the Batch button is selected, the Find screen is displayed.



When the Find button is selected on the Find screen, only the Work Orders with matching "Procedure Used" and the "Working Lab" are displayed. Double click the Work Orders that are to be changed and select the OK button.

The Batch Process Work Orders screen is displayed listing the Work Orders chosen to be updated to match the "master" Work Order.



To add Work Orders, select the “+” button to add other Work Orders.

To delete Work Orders, highlight the Work Order by clicking the desired Work Order in the grid and selecting the “X” button.

Fields and Information Copied from the Master Work Order

Fields

nCategoryUID
nSubCategoryUID
nAssignedTechUID
nTechnicianUID
nQCApprovedByUID
nReturnedByUID
nSubContractorUID
nCalendarUID
nSubContHours
nSubContCost
nSubContLabCost
nCost
tDelayDate
cInitialCondition
cServiceReason
cCallSheetType
cStickerType
cCallSheetStatus
cInterval

cIntervalUOM
cTemperature
cHumidity
cPressure
cLocation
cArea
cCertFormat
tMaintDate
tMaintNextDate
tQCApprovedDate
tClosedDate
tReturnedDate
nQuantity
nPriority
nTechnicianPriority
lISOCert
lOnSite
lReturnNoMaint
lSubContracted
lOOT
lDelayed
lCancelled
mCallSheetNotes
mAccuracyNotes
mUncertaintyNotes
mSubContractorNotes
mOOTNotes
mStickerNotes

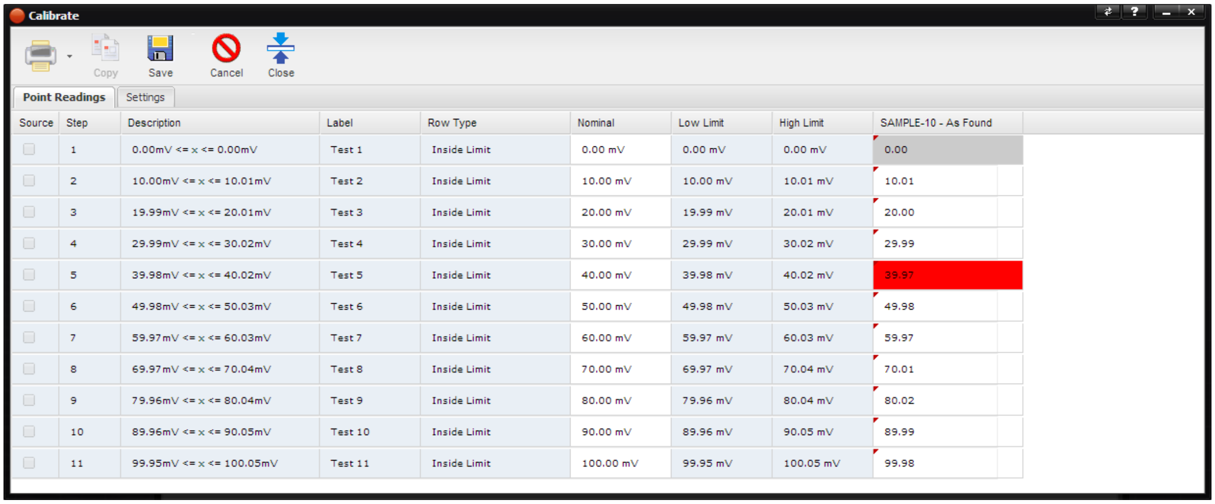
Information

- The Work Order Log Notes are copied from the master to each of the dependents.
- A Work Order Log Notes is added recording the Batch Process itself to the dependents.
- Each Labor entry is copied from the master to the dependents.
- Each Standard and Accreditation entry is copied from the master to the dependents.
- The Extended Data is copied from the master to the dependents.
- A Log Notes is added to the master record recording the Batch Process.

Work Order Batch Process Calibrate Button

The Calibrate button is enabled if the procedure you have selected is configured to use a Manual Template Data Sheet. When selected, you can perform a batch of calibrations for all of the Assets that were selected from the Find screen.

To begin, select the Calibrate button. The Calibrate screen is displayed.



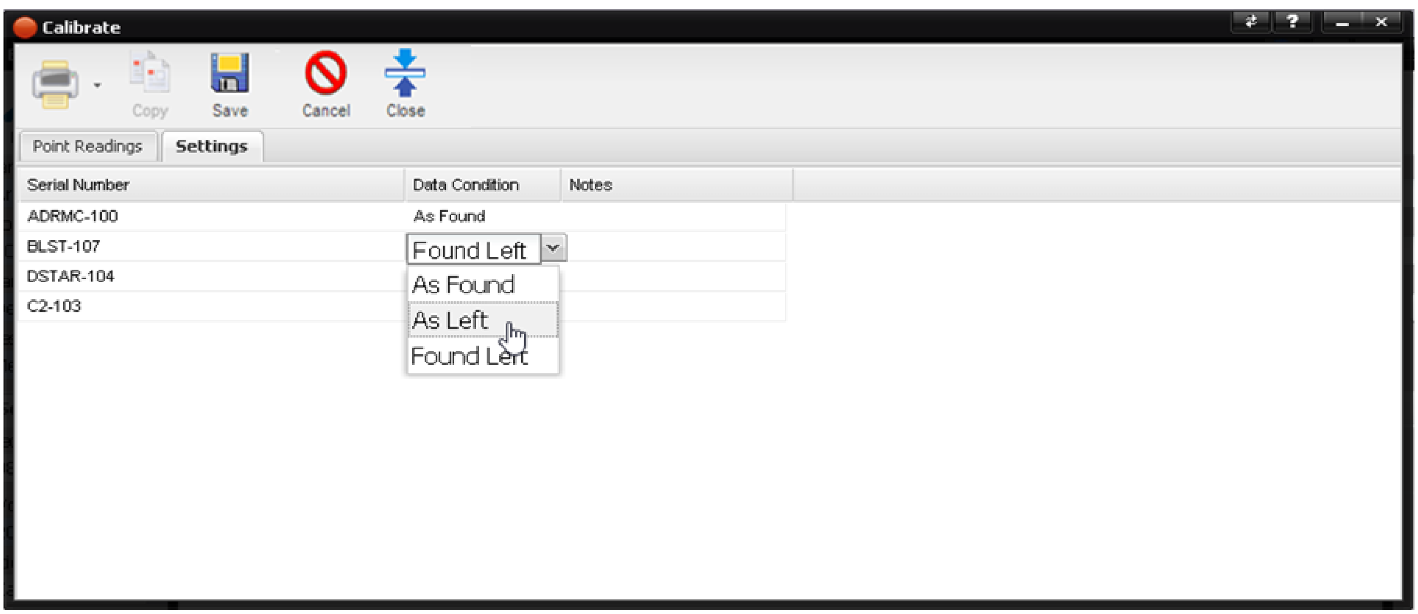
Source	Step	Description	Label	Row Type	Nominal	Low Limit	High Limit	SAMPLE-10 - As Found
	1	0.00mV <= x <= 0.00mV	Test 1	Inside Limit	0.00 mV	0.00 mV	0.00 mV	0.00
	2	10.00mV <= x <= 10.01mV	Test 2	Inside Limit	10.00 mV	10.00 mV	10.01 mV	10.01
	3	19.99mV <= x <= 20.01mV	Test 3	Inside Limit	20.00 mV	19.99 mV	20.01 mV	20.00
	4	29.99mV <= x <= 30.02mV	Test 4	Inside Limit	30.00 mV	29.99 mV	30.02 mV	29.99
	5	39.98mV <= x <= 40.02mV	Test 5	Inside Limit	40.00 mV	39.98 mV	40.02 mV	39.97
	6	49.98mV <= x <= 50.03mV	Test 6	Inside Limit	50.00 mV	49.98 mV	50.03 mV	49.98
	7	59.97mV <= x <= 60.03mV	Test 7	Inside Limit	60.00 mV	59.97 mV	60.03 mV	59.97
	8	69.97mV <= x <= 70.04mV	Test 8	Inside Limit	70.00 mV	69.97 mV	70.04 mV	70.01
	9	79.96mV <= x <= 80.04mV	Test 9	Inside Limit	80.00 mV	79.96 mV	80.04 mV	80.02
	10	89.96mV <= x <= 90.05mV	Test 10	Inside Limit	90.00 mV	89.96 mV	90.05 mV	89.99
	11	99.95mV <= x <= 100.05mV	Test 11	Inside Limit	100.00 mV	99.95 mV	100.05 mV	99.98

The screen is based off of the Manual Template associated with the selected Procedure. The columns on the right are the Barcodes of the Assets. Enter a UUT Reading for each of the rows for each of the selected Assets.

Note: *Be sure to save as you enter data.*

When the Save button is selected, this screen automatically associates the manually entered data with the Assets Work Order and creates a results point record on the Results tab of the Work Order.

Additionally, the Settings tab can be used to enter the Data Condition for the Asset results and to enter a Note. This information is saved with the Calibration data and is unique for each of the Assets.



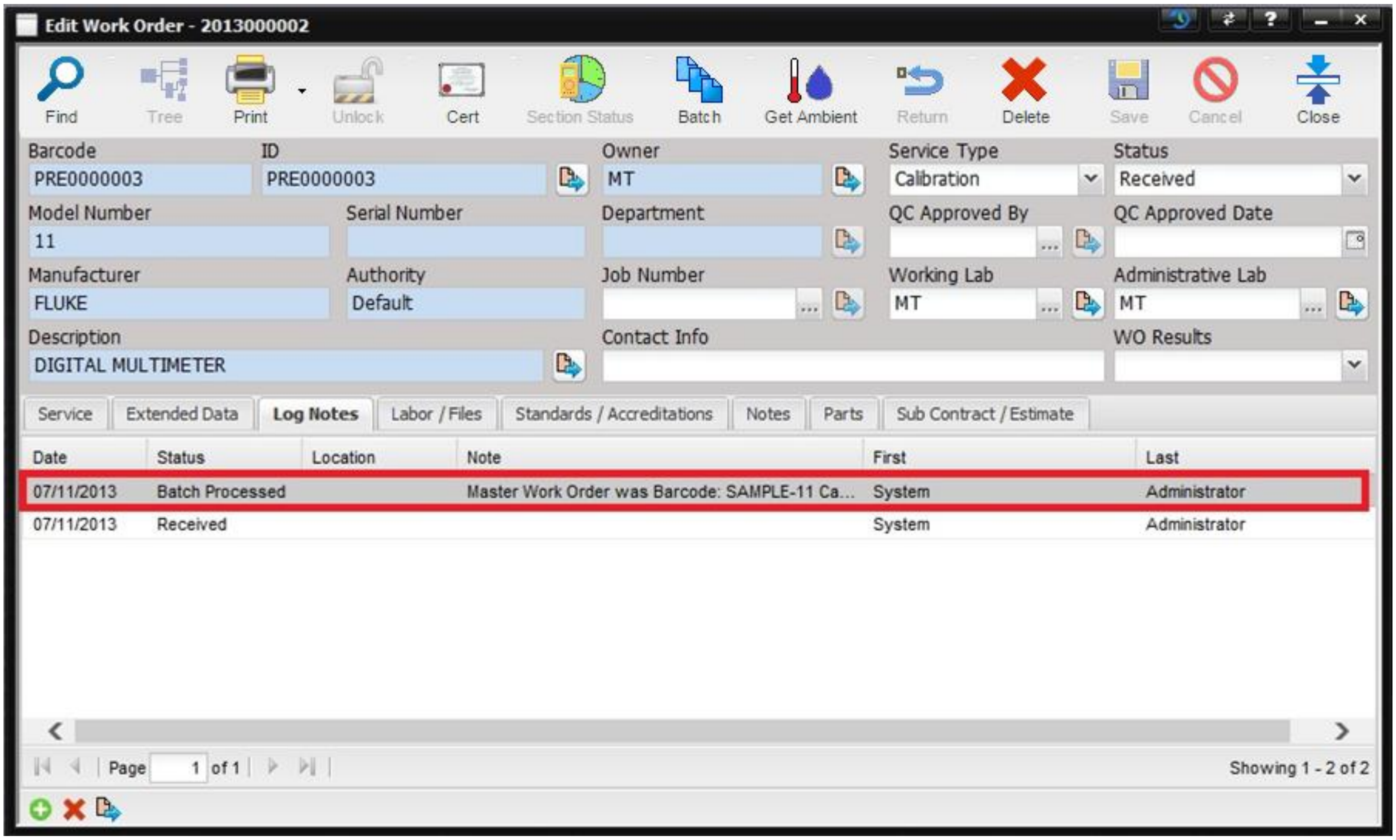
Note: *The Print button is always disabled during batch calibrations*

Work Order Batch Process Process Button

The Process button performs the batch change process and displays a message box once it completes the operation. The following fields are modified. These are arranged by Work Order sections.

- **Editable Asset Data fields** – *Service Type(WO) , Status, QC Approved By, QC Approved Date.*

- **Service Tab fields** – *QC Approved By, QC Approved Date, Interval, UOM, Sticker Type, Cert Format, Assigned Tech, Technician, Work Area, Initial Condition, Reason for Service, Temperature, Humidity, Pressure, On Site, Sub Contracted, ISOCert, Cancelled, Received OOT, Return No Maint, Rejected.*
- **Extended Data Tab fields** – *Category (WO), Sub Category (WO), Quantity.*
- **Log Notes Tab fields** – *A Log Note is added stating this Work Order was the "master" or which Work Order was used as the master to update this Work Order.*



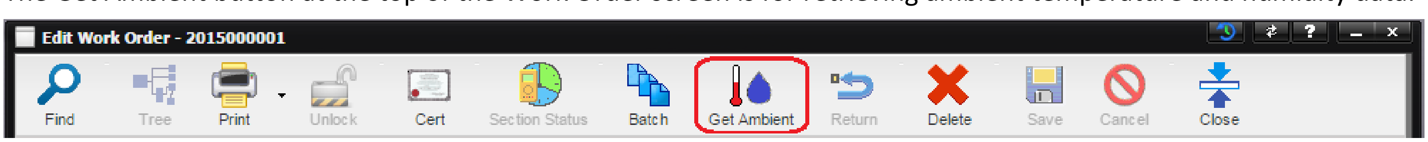
- **Labor/Files Tab fields** – *The labor is updated. The Files* ***are not*** *updated.*
- Standards/Accreditations Tab – *Both the Standards and Accreditations information are updated.*
- **Notes Tab fields** – *Accuracy, Uncertainty, Out of Tolerance, General.*
- **Parts Tab fields** – *The Parts* ***are not*** *updated.*
- **Sub Contract / Estimate Tab fields** – *Sub Contractor, Sub Cont Cost, Sub Cont Lab Cost, Sub Cont Hours, Sub Contractor Notes.*

Work Order Batch Process Close Button

The Close button closes the Batch Process Work Orders screen.

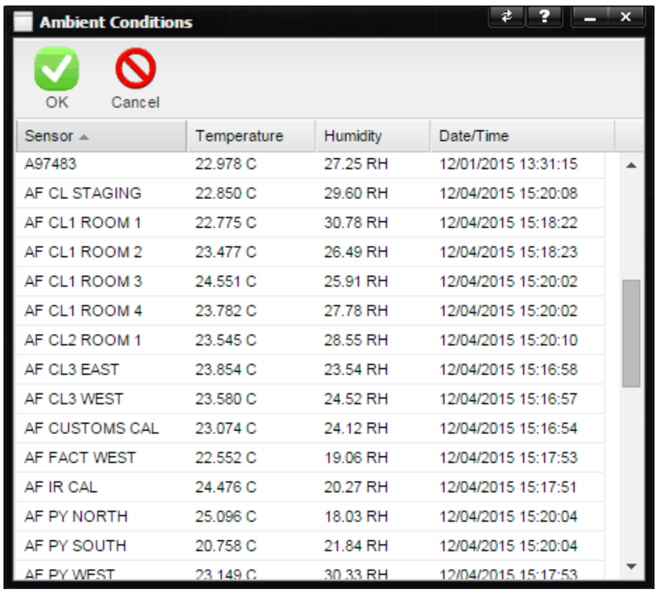
Work Order Get Ambient

The Get Ambient button at the top of the Work Order screen is for retrieving ambient temperature and humidity data.



For MET/CAL users, the Get Ambient button can be configured to retrieve ambient condition data from your system's RHT.INI file and populate the Temperature and Humidity fields on Work Orders that have not yet been closed. The Get Ambient button is disabled if the Work Order has been previously closed or if the System Default setting "Work Order – Temperature and Humidity Data" is not active. When the Get Ambient button is clicked, the RHT.INI file specified in the Value field of the System Default setting is accessed.

- If there is data for only one sensor in this file, the temperature and/or humidity readings are read in and used to populate the Temperature and Humidity fields on the Work Order.
- If there is data for more than one sensor in this file, the Ambient Conditions screen is displayed. The Ambient Conditions screen lists all of the sensors with their current Temperature and Humidity readings (including units if any) and the date/time that the readings were taken (in local time). Locate and select the row for the sensor to use to populate the Temperature and/or Humidity fields on the Work Order and click the OK button. Clicking the Cancel button simply closes the Ambient Conditions screen.

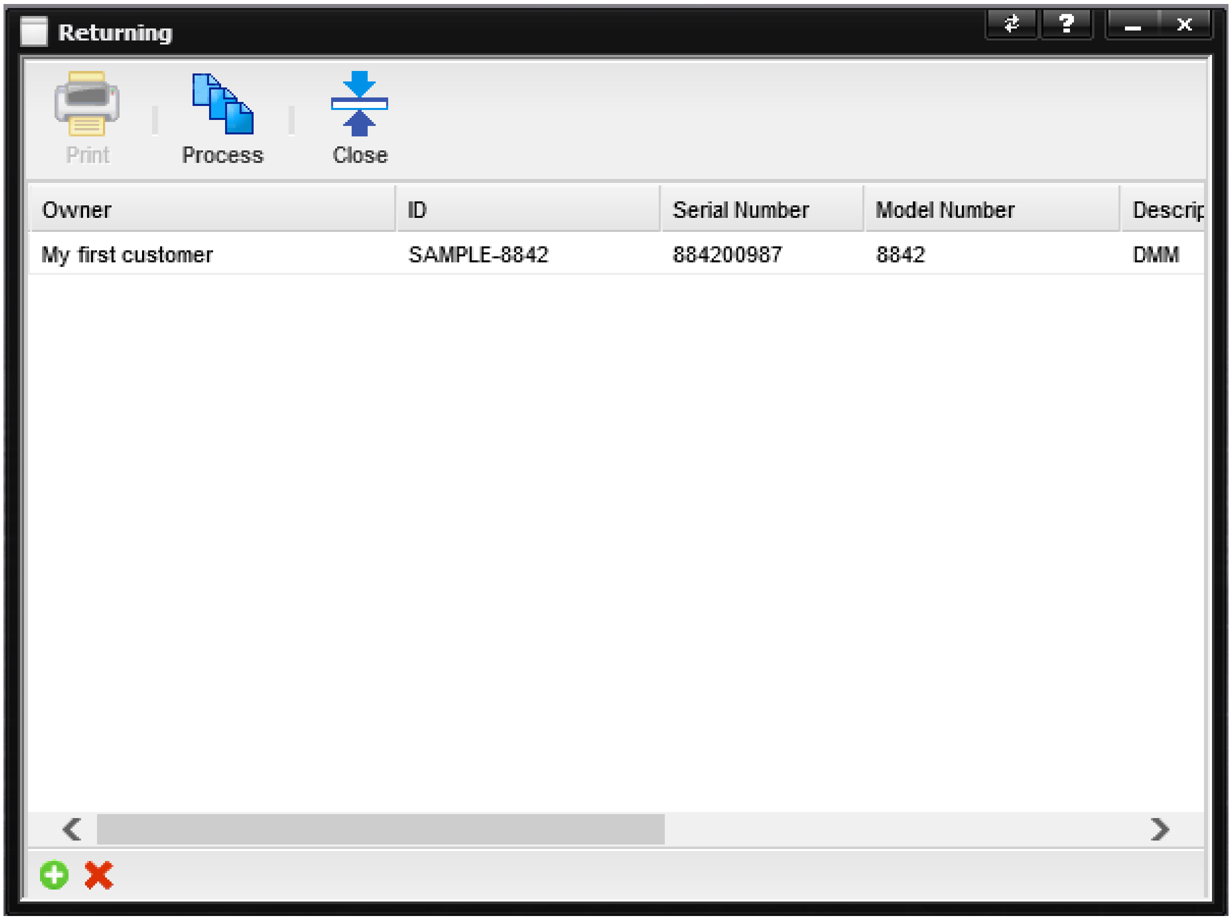


The Temperature and/or Humidity fields on the Work Order are populated with only the numeric value for the readings. Any units are removed.

When selecting a sensor, make sure the date/time stamp is recent. If the date/time stamp is not recent, the readings in the RHT.INI file may not be getting updated as expected.

Returning

The Returning process tells MET/TEAM that the service facility has completed work and is ready to return the Asset to the owner. At this time, Work Orders become history records and can no longer be modified by the service facility.



Returning Process

The Returning process returns Work Orders. In the Find Closed Work Orders screen (displayed when the Returning menu option is selected), enter your search criteria and press Find. Select the Work Orders to return by double clicking in the list of work orders to add them to the bottom panel, or use CTRL+A to select all Work Orders from the search, then select the OK button in the tool bar.

After reviewing the Work Orders in the Returning Assets grid, select the Process button. Any data checks associated with the Returning process are executed and processed.

To add additional Work Orders to be returned, select the "+" button at the bottom of the screen and repeat the process using Find Closed Work Order screen.

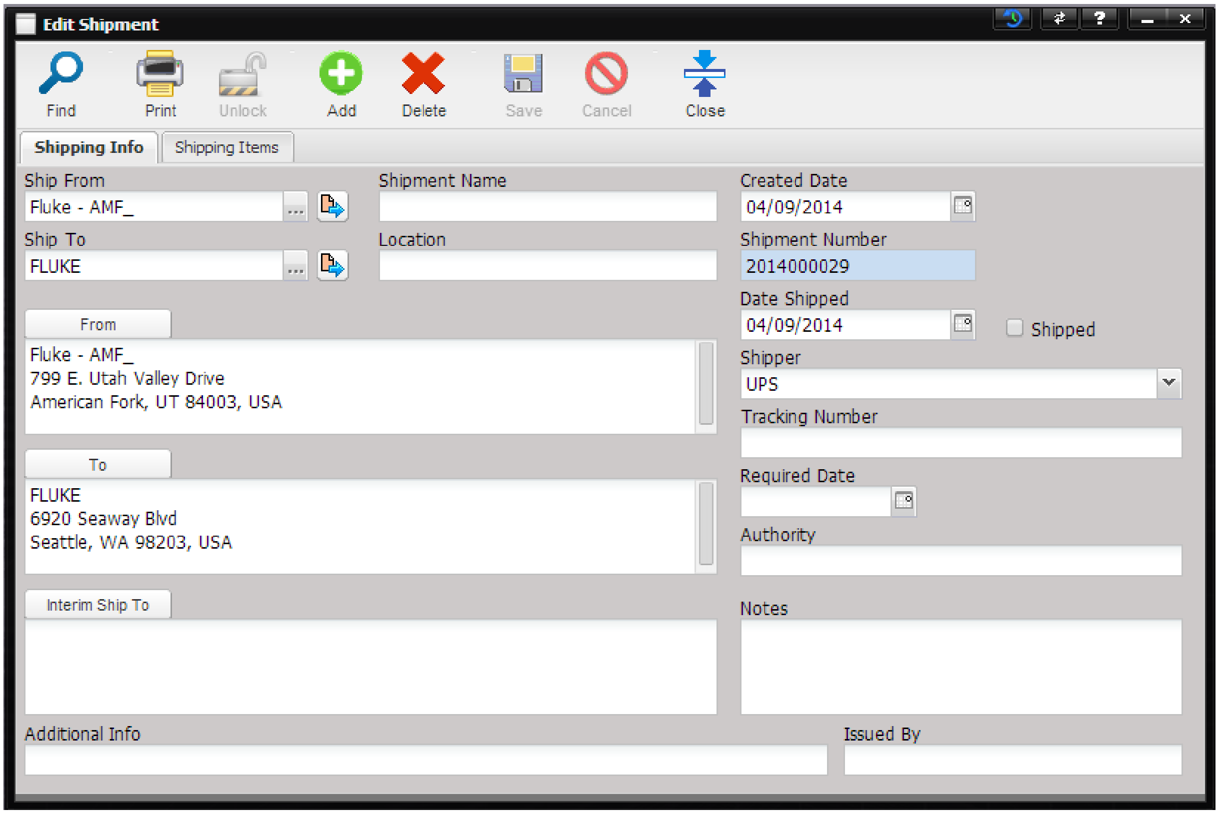
To remove a Work Orders, select the record to delete, and then select the "X" button at the bottom of the screen.

Once the items have been processed, any reports configured by the "Returning" system defaults can be printed by selecting the Print button.

> ***Note:*** *During this process the dollars are calculated and the funding engine updates the appropriate job numbers.*

Shipping

The Shipping process allows shipments to be created or viewed and modified.

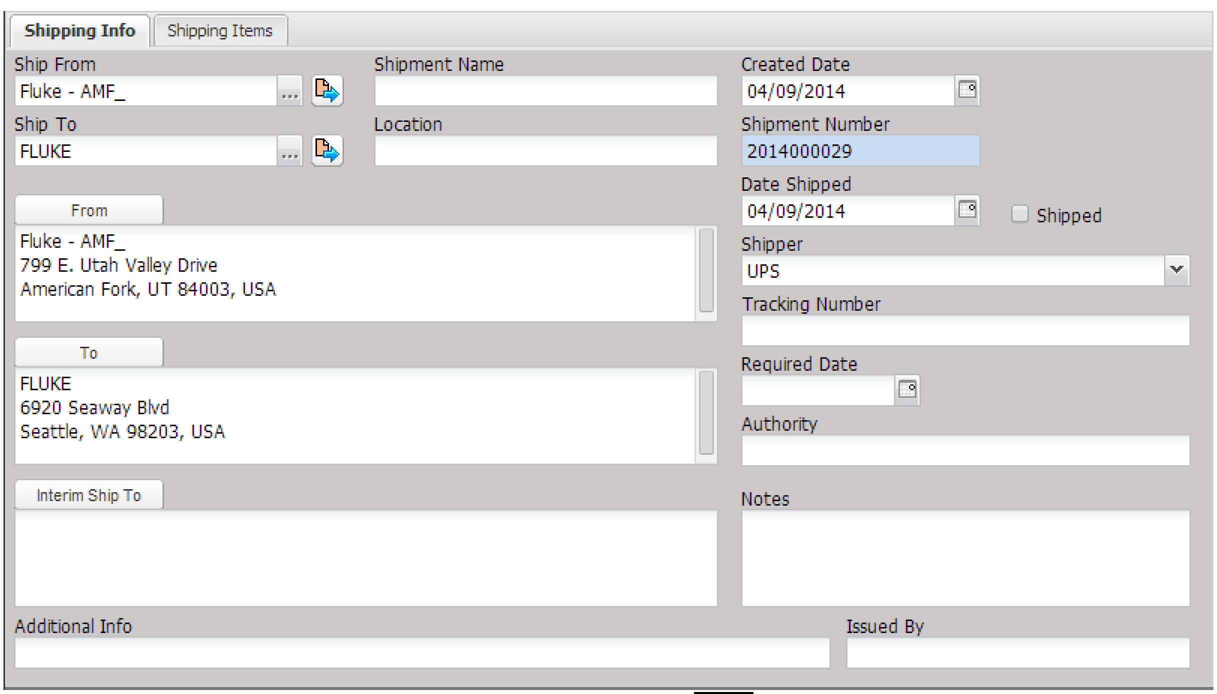


Shipping Tabs

Two tabs are used to enter shipping information and items.

Shipping Info

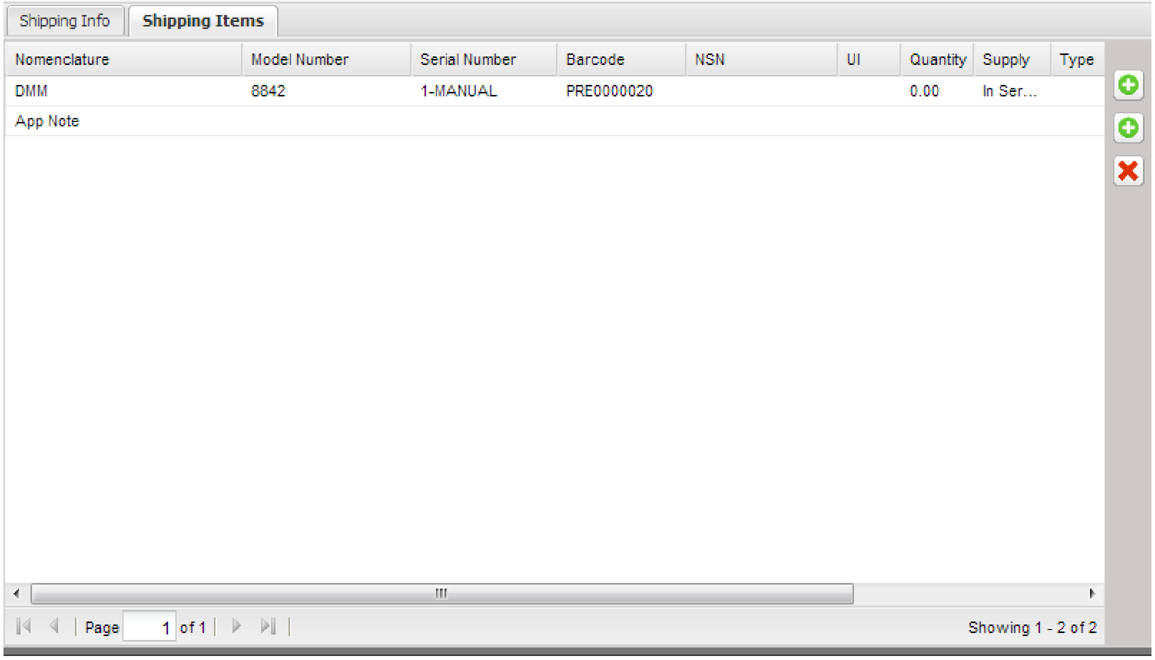
The Shipping Info tab displays general shipping information.



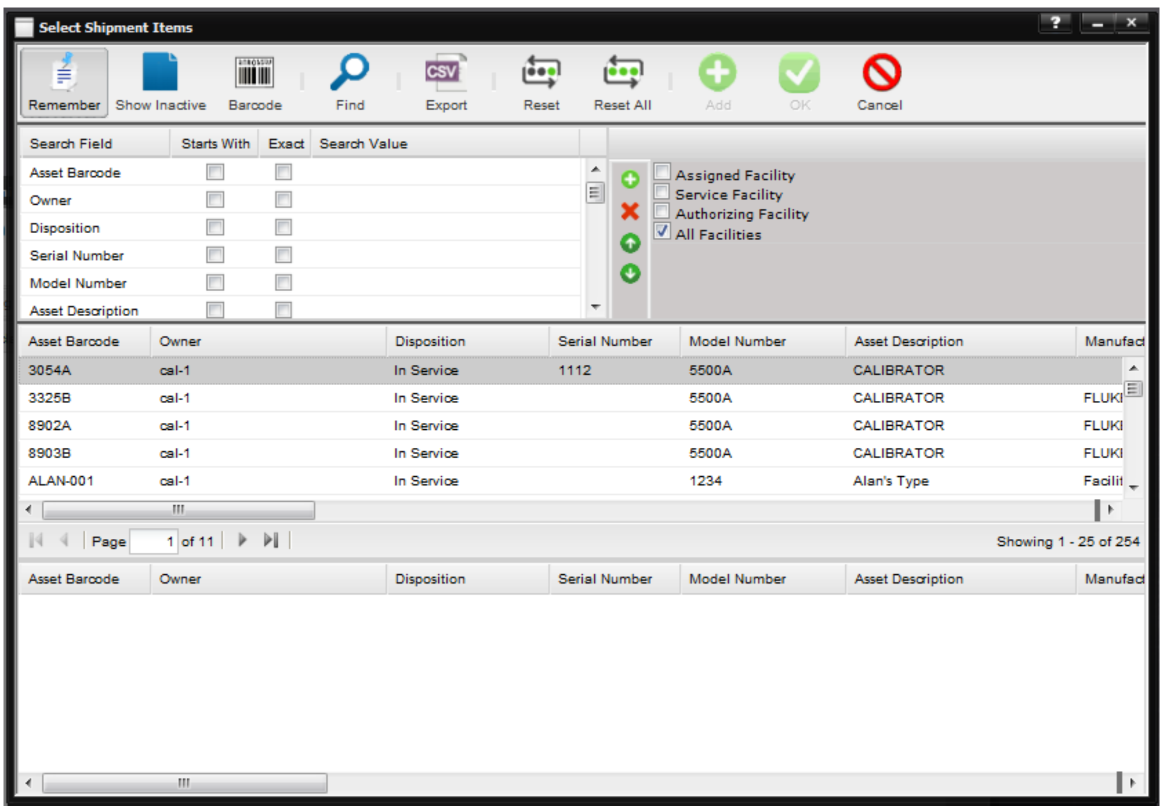
- **Ship From** – The Facility that the shipment is shipping from. This location is preloaded with data from the "Default" mailing address on the Facility Address tab.
    - The ship from location can be changed by selecting the "…" button.
- **Shipment Name** – The name of this particular shipment.
- **Ship To** – The Facility that the shipment is shipping to.
    - The ship to location can be changed by selecting the "…" button.
- **Location** – The location of the shipment in the facility that the shipment is shipping from.
- **From** – The company name and address of the Ship From Location
    - This Address is preloaded with data from the "Default" mailing address on the Facility Address tab.
    - The Address can be manually edited or changed by selecting the "From" button and selecting a mailing location.
- **To** – The company name and address of the Ship To Location who ultimate receive it
    - This Address is preloaded with data from the "Shipping" mailing address on the Facility Address tab.
    - The Address can be manually edited or changed by "To" button and selecting a mailing location.
- **Interim Ship To** – Address routed to between from and the to
    - The address can be manually edited or changed by "Interim Ship To" button and selecting a mailing location.
- **Created Date** – Defaults to today's date (the day the shipment information was creating).
- **Shipment Number** – Number of particular shipment
- **Date Shipped** – The date the shipment left the Ship From Location.
- **Shipped** – Automatically checked once the shipment is shipped. This checkbox cannot be customized because the functionality is associated with the Date Shipped field on this screen.
- **Shipper** – The mode of transportation used to transport the shipment to the Ship To Location. Defaults to the top item in the dropdown list.
- **Tracking Number** – Tracking number for this particular shipment
- **Required Date** – The requested date.
- **Authority** – The source of the data. For example: manufacturer, NAVAIR, etc.
- **Notes** – Notes to the shipper concerning this shipment.
- **Issued By** – The person completing the shipment information.

Shipping Items

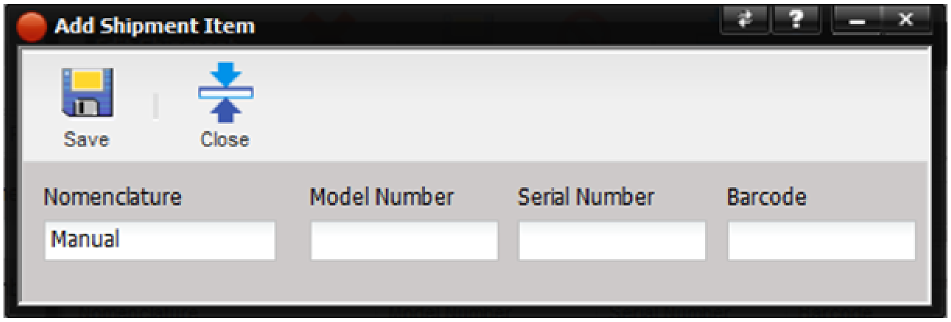
The Shipping Items tab displays the list of Assets being shipped in this shipment. Assets and non-Assets can be added or removed from the shipment.



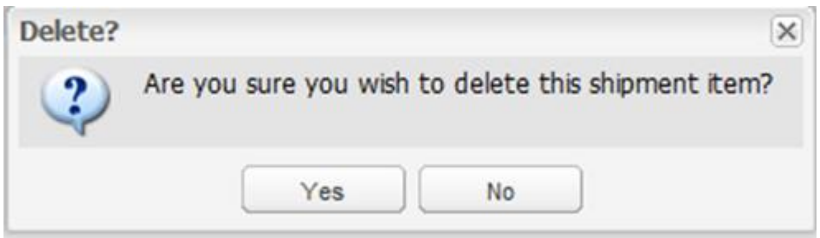
- Select the top "+" button on the right side to **Add Asset** – The Find Select Shipment Items screen is displayed. Highlight each item to be added to the Shipment and double click. The item will be moved to the bottom part of the screen. Select OK when done.



- Select the 2nd "+" button on the right side to **Add Non-Asset** – The Add Shipment Item screen for adding an item that is not part of the MET/TEAM data. Fill in the information and the item will be added to the shipment item list.



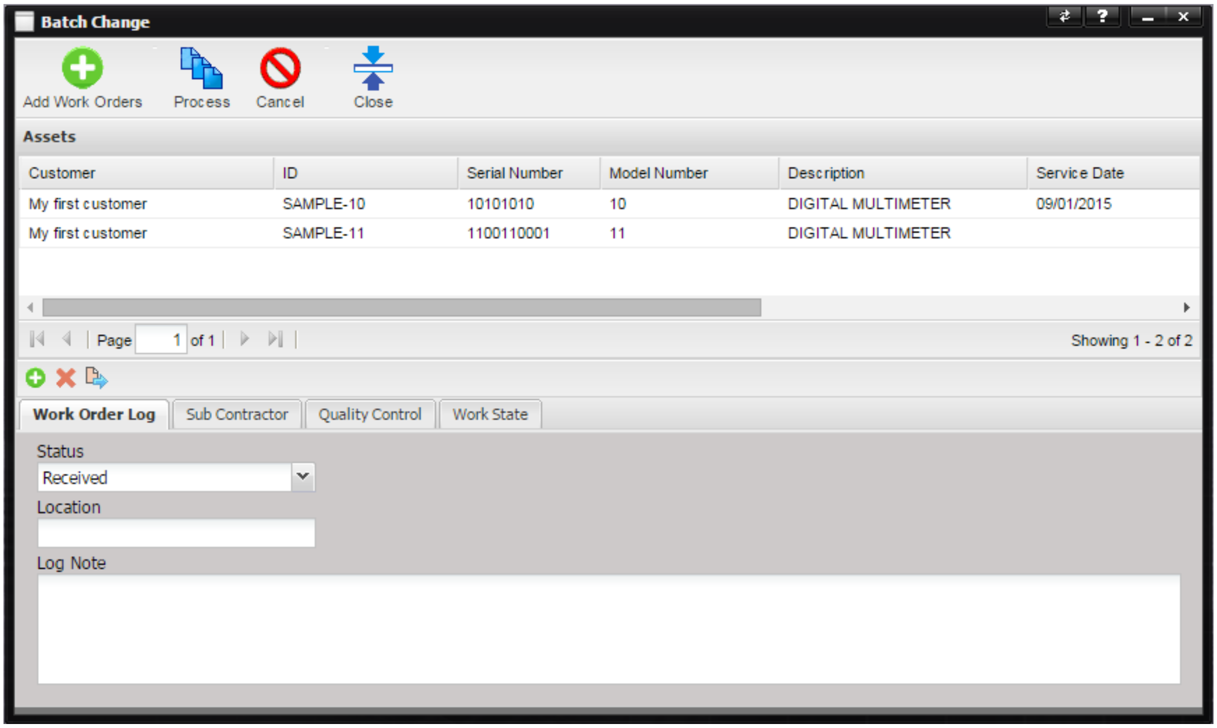
- **Delete** – Prompts the use for confirmation to delete the highlighted shipment item and then deletes the shipment item from the list.



The shipment information can be previewed and printed by selecting the Print button.

Batch Change

Batch Change is used to change multiple Work Orders at one time. Log notes and Location can be added, Status can be changed, Work Orders can be subcontracted, Delay Date can be changed, QA approvals can be performed and Work State can be changed.



***Note**: Each tab must be processed independently.*

Examples:

If the need existed to sub contract a repair, the following steps would be required.

1. Enter the Sub Contractor information using the Sub Contractor tab.
2. Select the Process button.

If the need existed to add a Log Notes, the following steps would be required.

1. Enter a Log Note using the Work Order Log Notes tab.
2. Select the Process button.

Batch Change Assets Grid

This grid displays the list of the Work Orders that will be changed when the Process button is selected. Work Orders with a status of "Closed" cannot be selected.

Grid records can be:

- Sorted by ascending or descending order by clicking on the header of the column.
- Grouped by dragging and dropping the desired column header.
- Grid columns can be resized.

To add a Work Order select the "+" button at the bottom of the grid or the Add Work Orders button in the button bar at the top, select the Work Orders from the Find dialog, then select OK.

To remove a Work Order, highlight the Work Order in the grid and select the "X" delete button at the bottom of the grid.

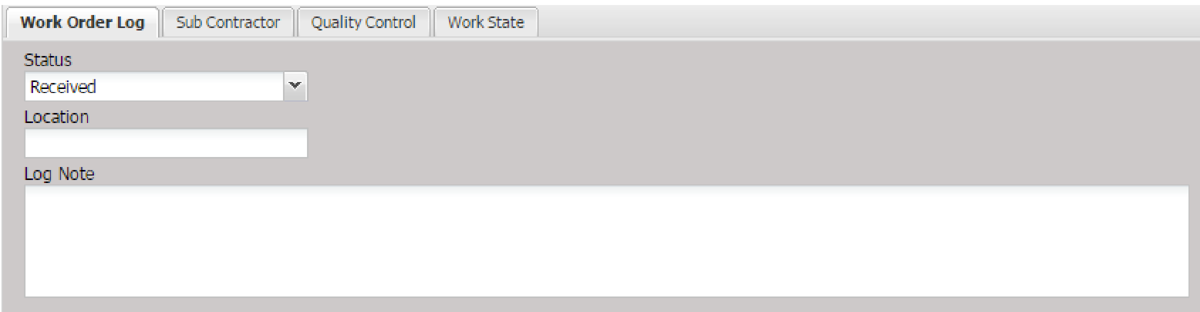
The Work Order can be viewed or edited by selecting the Quick Link button at the bottom of the grid.

The Work Order can be viewed or edited by double-clicking on the selected grid item.

Grid paging is enabled when the Work Orders in the grid is more than 25.

Batch Change – Work Order Log Tab

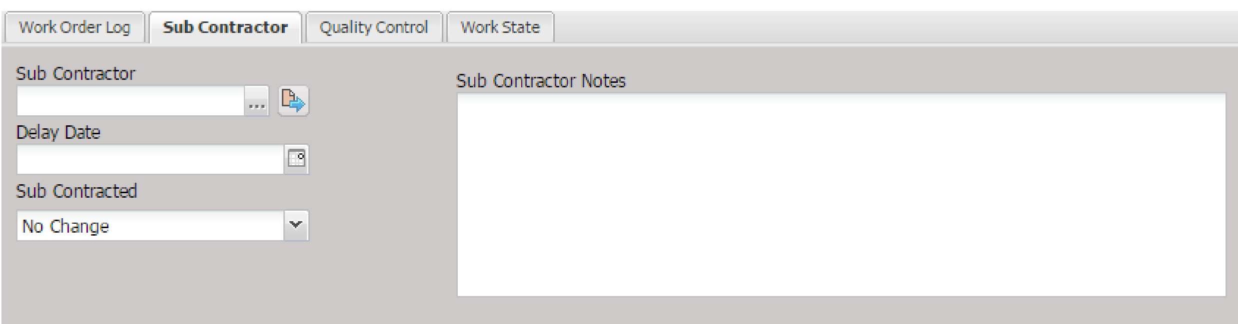
The Work Order Log tab is for specifying information that will be logged with the Work Order. The changes will be reflected on the Work Order Log Notes tab once the Process button is selected. This tab must be the active tab when the Process button is selected.



- **Status** – The status the Work Orders will be changed to and viewable on the Log Notes tab of the Work Order as a log entry.
- **Location** –The physical location for the Work Order log entry.
- **Log Note** – The notes which will be added to the Work Order log entry.

Batch Change – Sub Contractor Tab

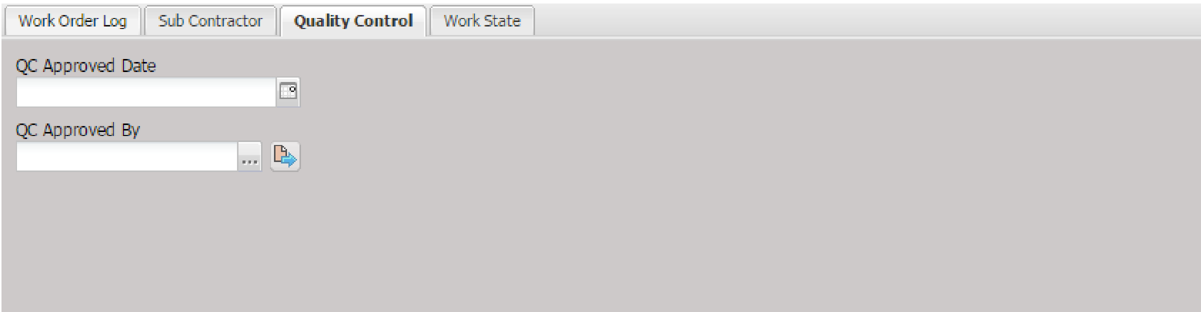
The Sub Contractor tab is for capturing information about the sub contractor and any notes concerning the sub contractor. The changes will be reflected on the Work Order Sub Contractor tab once the Process button is selected. This tab must be the active tab when the Process button is selected.



- **Sub Contractor** – The facility that the Work Orders will be subcontracted to.
  - The Sub Contractor can be changed by selecting the "…" button.
  - The Sub Contractor can be viewed or edited by selecting the Quick Link button.
- **Delay Date** – The estimated return date for the Work Orders**.**
- **Sub Contracted** – If the Work Order Sub Contracted checkbox has changed, select a value from this dropdown.
  - No Change – The Work Order Sub Contracted check box remains in its current state. No change is made due to the Batch Change process.
  - Yes - The Work Order Sub Contracted check box is checked for all Work Orders being changed through this Batch Change process.
  - No - The Work Order Sub Contracted check box is not checked for all Work Orders being changed through this Batch Change process.
- **Sub Contractor Notes** – The notes for any Sub Contractor.

Batch Change – Quality Control Tab

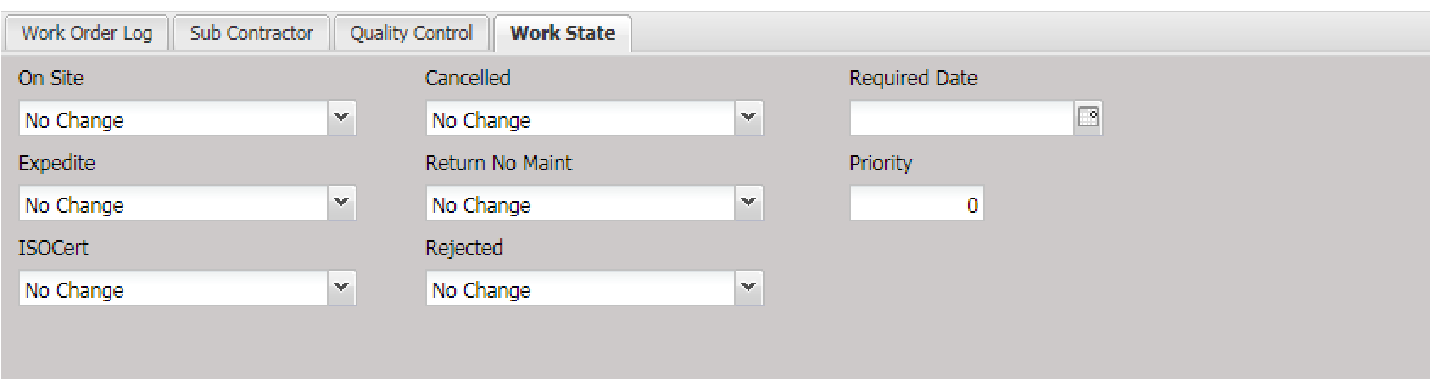
The Quality Control tab is for entering when and who performed the quality check. The changes will be reflected on the Work Order once the Process button is selected. This tab must be the active tab when the Process button is selected.



- **QC Approved Date** - This date field allows batch changing of the QC Approved Date on the Work Order indicating the date the QA person reviewed this service event. This date will be applied to the selected Work Orders.
- **QC Approved By** – This field allows batch changing of the QC Approved By on the Work Order indicating the person who reviewed this service event. Only those Users with "QC Approval" rights can be selected.
    - The QC approver can be selected or changed by selecting the "…" button. If the logged in user does not have "QC Approval" authority, a prompt for a username and password is displayed.
    - The QC approver can be viewed or changed by selecting the Quick Link button.

Batch Change – Work State Tab

The Work State tab is for batch changing the Cancelled, Return No Maint, and Rejected checkboxes on Work Orders. The changes will be reflected on the Work Order once the Process button is selected. This tab must be the active tab when the Process button is selected.



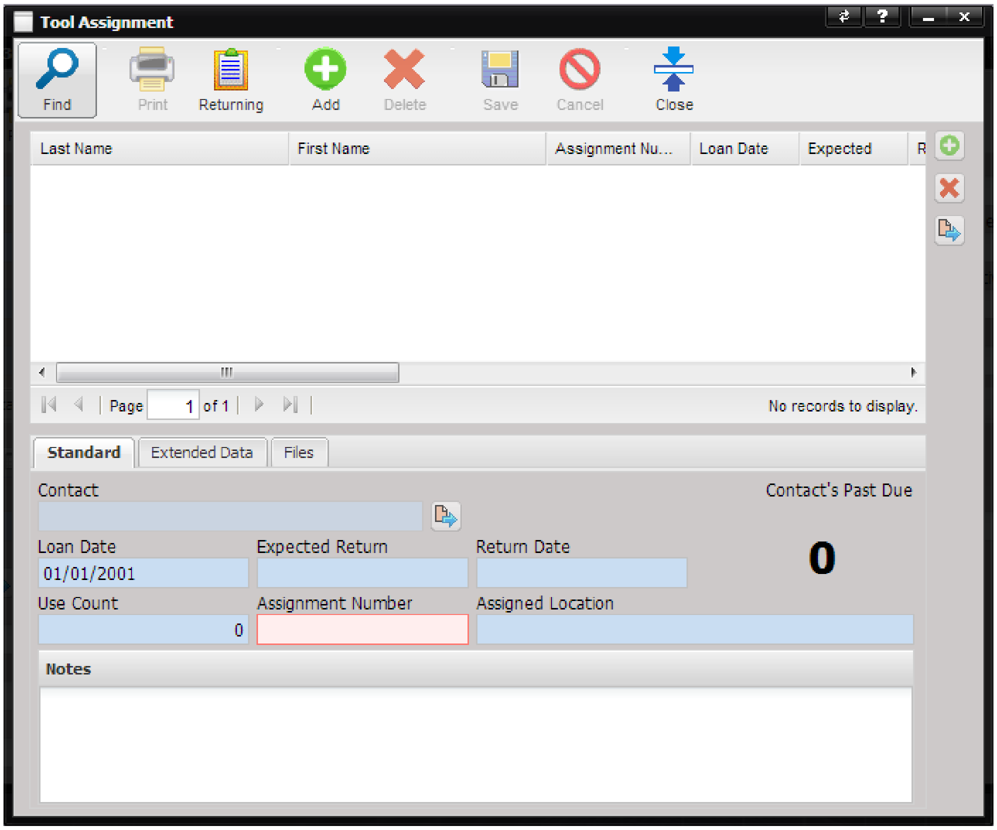
- **On Site** – This dropdown allows batch changing the On Site checkbox on the Work Order indicating the service was done or needs to be done on site.
    - **No Change** – The Work Order *On Site* check box remains in its current state. No change is made due to the Batch Change process.
    - **Yes** - The Work Order *On Site* check box is checked for all Work Orders being changed through this Batch Change process.
    - **No** - The Work Order *On Site* check box is not checked for all Work Orders being changed through this Batch Change process.

- **Expedite** – This dropdown allows batch changing the Expedite checkbox on the Work Order indicating the Asset needs to be expedited through the service process.
    - **No Change** – The Work Order *Expedite* check box remains in its current state. No change is made due to the Batch Change process.
    - **Yes** - The Work Order *Expedite* check box is checked for all Work Orders being changed through this Batch Change process.
    - **No** - The Work Order *Expedite* check box is not checked for all Work Orders being changed through this Batch Change process.
- **ISOCert** – This dropdown allows batch changing the ISOCert check box on the Work Order indicating the Asset requires an ISO or Accredited certificate.
    - **No Change** – The Work Order *ISOCert* check box remains in its current state. No change is made due to the Batch Change process.
    - **Yes** - The Work Order *ISOCert* check box is checked for all Work Orders being changed through this Batch Change process.
    - **No** - The Work Order *ISOCert* check box is not checked for all Work Orders being changed through this Batch Change process.
- **Cancelled** – This dropdown allows batch changing the Cancelled checkbox on the Work Order indicating that the Service Facility cancelled the Work Order.
    - **No Change** – The Work Order *Cancelled* check box remains in its current state. No change is made due to the Batch Change process.
    - **Yes** - The Work Order *Cancelled* check box is checked for all Work Orders being changed through this Batch Change process.
    - **No** - The Work Order *Cancelled* check box is not checked for all Work Orders being changed through this Batch Change process.
- **Return No Maint** – This dropdown allows batch changing of the Return No Maint checkbox on the Work Order indicating the Asset owner has requested the Service facility to close the Work Order and have the Asset *returned with no maintenance* being performed.
    - **No Change** – The Work Order *Return No Maint* check box remains in its current state. No change is made due to the Batch Change process.
    - **Yes** - The Work Order *Return No Maint* check box is checked for all Work Orders being changed through this Batch Change process.
    - **No** - The Work Order *Return No Maint* check box is not checked for all Work Orders being changed through this Batch Change process.
- **Rejected** – This dropdown allows batch changing of the Rejected checkbox on the Work Order indicating that as a result of the Work Order, the Asset has been rejected.
    - **No Change** – The Work Order *Rejected* check box remains in its current state. No change is made due to the Batch Change process.
    - **Yes** - The Work Order *Rejected* check box is checked for all Work Orders being changed through this Batch Change process.
    - **No** - The Work Order *Rejected* check box is not checked for all Work Orders being changed through this Batch Change process.
- **Required Date –** This date field allows batch changing of the Required Date on the Work Order indicating the date the customer requests the Asset to be returned by.
- **Priority -** This date field allows batch changing of the Priority on the Work Order indicating the service priority of the Asset.

All changes can be discarded by pressing the Cancel button at the top of the screen before the Process button is pressed.

Tool Assignments

Tool Assignments is used to track the process of loaning Assets to contacts and provides a complete history for both Assets and contacts.



Menu Items

Find – Used to find existing assignment records.
Print – Used to print a report.
Returning – Used to return assignments without return dates.
Add – Used to create new assignments.
Delete – Used to delete a selected assignment.
Save – Used to save recent changes.
Cancel – Used to cancel recent changes.
Close – Used to close assignment screen.

When ***assigning*** Assets, the grid displays a list of Assets that are assigned when save is selected.
To add an Asset select the "+" button, select the Assets from the find dialog, then click OK.

To remove an Asset, highlight the Asset and select the "X" delete button.

To view or edit information for an Asset, highlight the Asset and select the Quick Link button.

When ***viewing*** current assignments the grid contains existing assignment records.

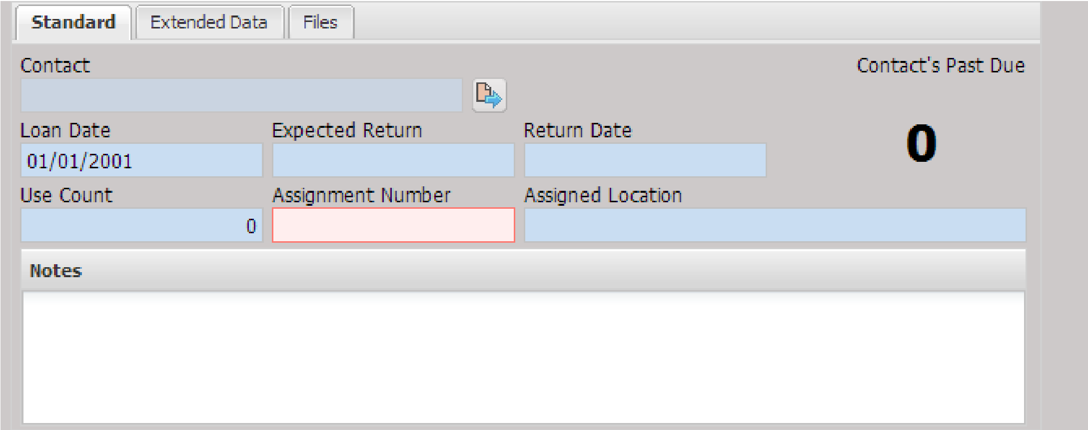
To add an assignment select the "+" button, select the currently assigned Assets from the find dialog, then click OK.

To remove an assignment, highlight the Asset and select the "X" delete button.

To view or edit information for an assigned Asset, highlight the Asset and select the Quick Link button.

Tool Assignments – Standard Tab

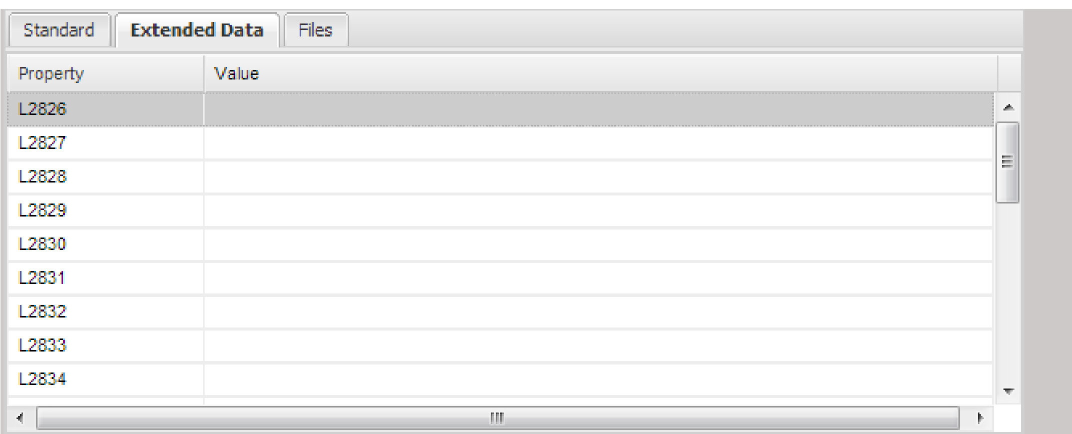
The Standard tab contains information pertaining to whom and for how long the Asset is loaned.



- **Contact** – The contact the tool is being assigned to.
- **Loan Date** – The date the Asset was loaned.
- **Expected Return** – The date the Assets are expected back.
- **Return Date** – The date the Assets were actually returned.
- **Contact's Past Due** – Indicates the number of overdue Assets for the selected contact. Tool assignments that have an expected return date that is past.
- **Use Count** – The number of times the instrument can be used as a standard.
- **Assignment Number** – The reference number created by MET/TEAM when tools are assigned.
- **Assigned Location** – The location the tool is being assigned to.
- **Notes** – Any notes concerning the loan.

Tool Assignments – Extended Data Tab

The Extended Data tab displays the extended data elements for an Asset. The data can be scrolled using the scroll bar on the right. The data can be edited by highlighting and double clicking the data element and filling in the value on the dialog that is displayed.



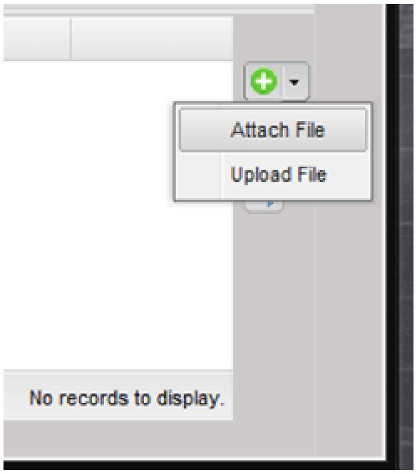
Tool Assignments – Files Tab

The Files tab displays files related the Tool Assignments. Files may be related either by Attach File (attaches an existing file) or by Upload File (uploading a new file). The buttons to the right of the grid can be used to add, delete, or view files.

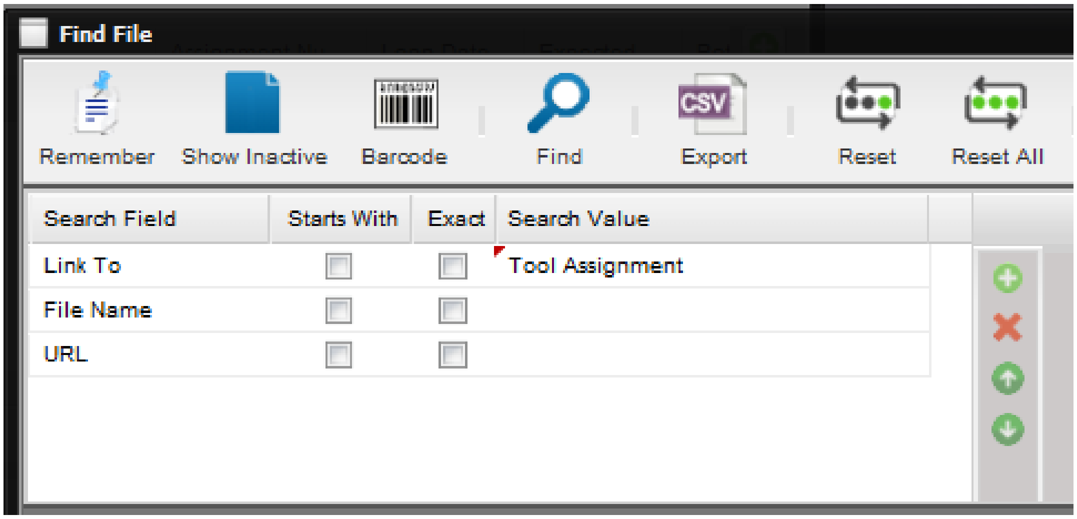
Adding a File (Attach or Upload)

When the "+"button on the right is selected, the user is presented with two options: Attach File or Upload File.

***Note:** MET/TEAM can only upload files that are 50mb or smaller.*



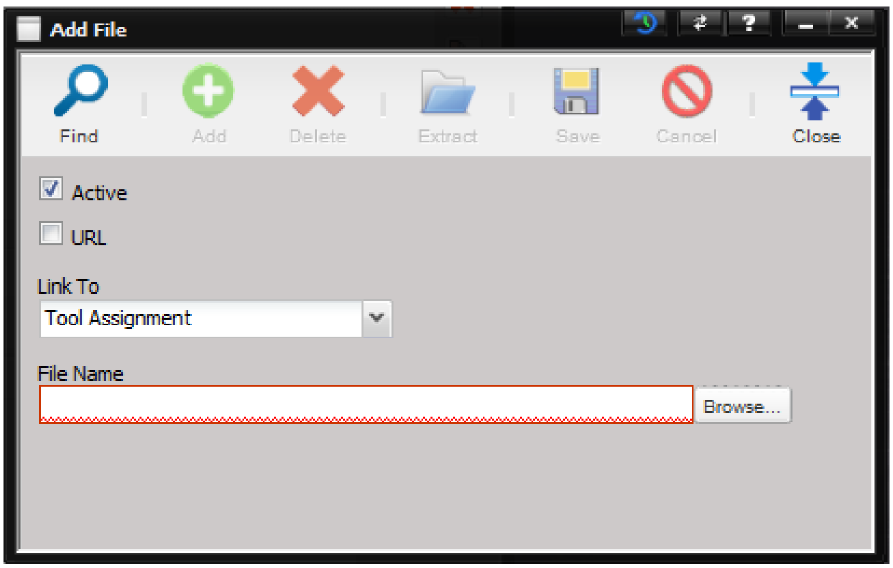
To attach an existing file to a Tool Assignments, select the Attach File option. The Find screen is displayed for finding the File to add. Notice the 'Link To' search field contains the search value of "Tool Assignment". Press the Find button. The Files displayed are those files that were previously added using the Maintenance menu Files submenu and were categorized with a 'Link To' entry of "Tool Assignment". Select the file to attach from the results grid and press OK.



To attach a new file or URL to a Tool Assignments, select the Upload File option. This option adds the File (as if the user had used the Maintenance menu Files submenu) and at the same time attaches the new File to the current Tool Assignments.

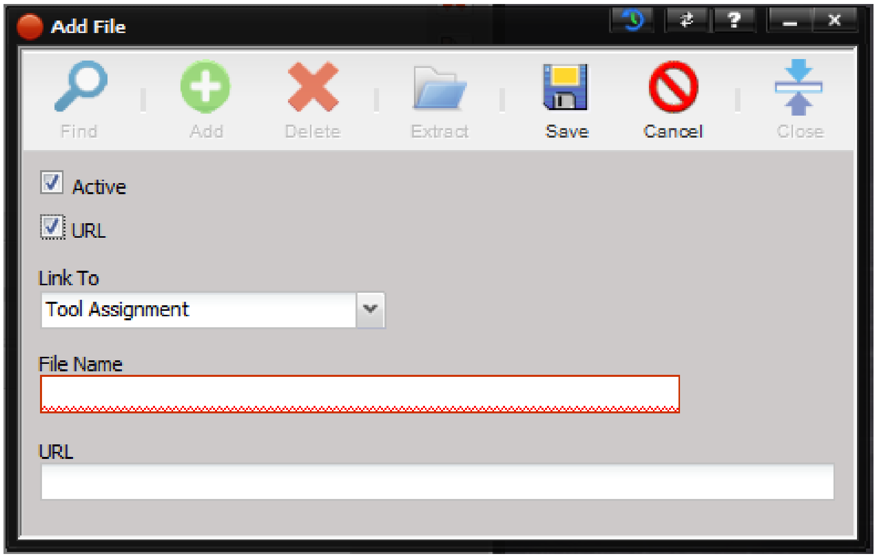
The Add File screen is displayed. Notice the 'Link To' field contains the value of "Tool Assignments".

- To upload a file, leave the URL check box unchecked, check the Active check box, and press the "Browse…" button.



The Windows Choose File to Upload screen is displayed. Navigate to the file that is needed and select this file by double clicking. The File Name text box now contains the name of the file just selected. Select the Save button and the Add File screen closes. The file just uploaded is now displayed on the Tool Assignments Files tab.

- To enter a URL, check the URL checkbox check the Active check box, enter a filename in the File Name text box, and enter a URL in the URL text box.



Select the Save button and the Add File screen closes. The URL File Name is now displayed on the Tool Assignments Files tab.

Deleting a File

To remove a File, highlight the record in the grid on the Files tab and select “X” button on the right of the Files tab.

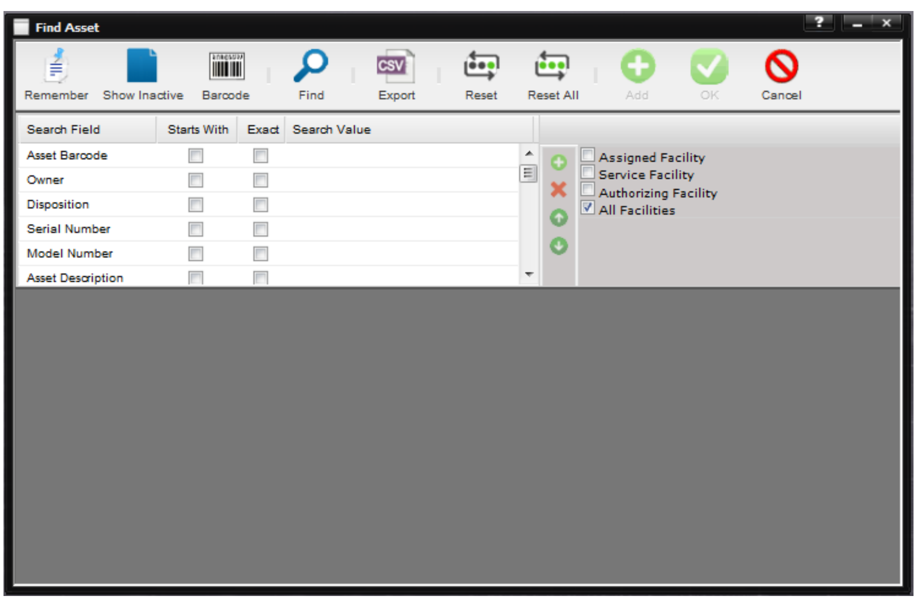
Viewing a File

To view the selected File, highlight the record in the grid on the Files tab and select the Quick Link button (the 3rd button) on the right side of the Files tab.

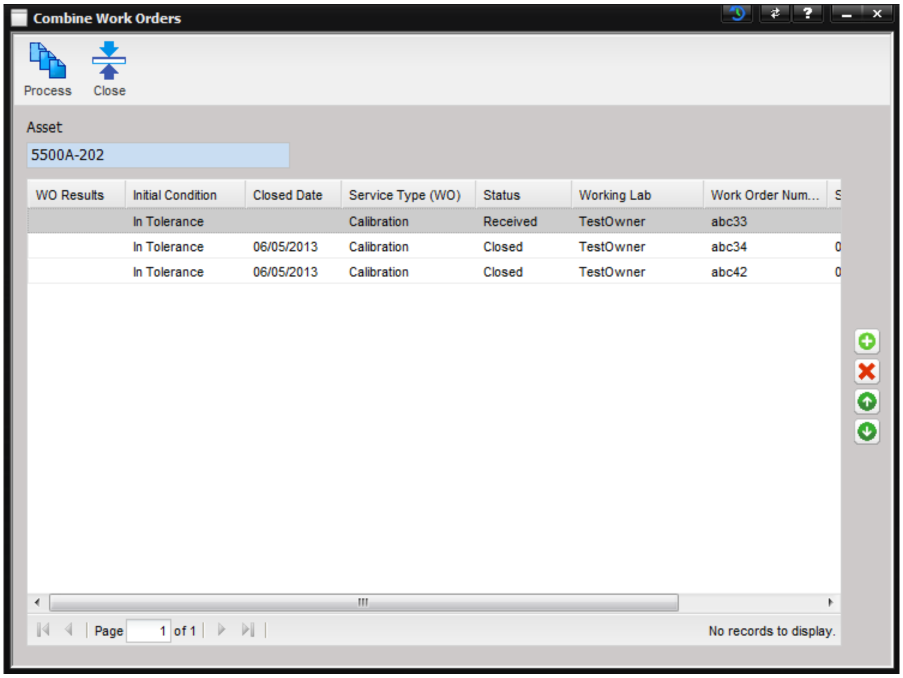
Combine Work Orders

The Combined Calibration option is used to combine Work Orders for one particular Asset. Although this capability can be used for any Work Order, it was include for MET/CAL users compatibility.

When the menu option is selected, the Find Asset screen is displayed for selecting the Asset whose calibrations will be combined.



The Combined Work Orders dialog is used to select and order the Work Orders that are to be combined.

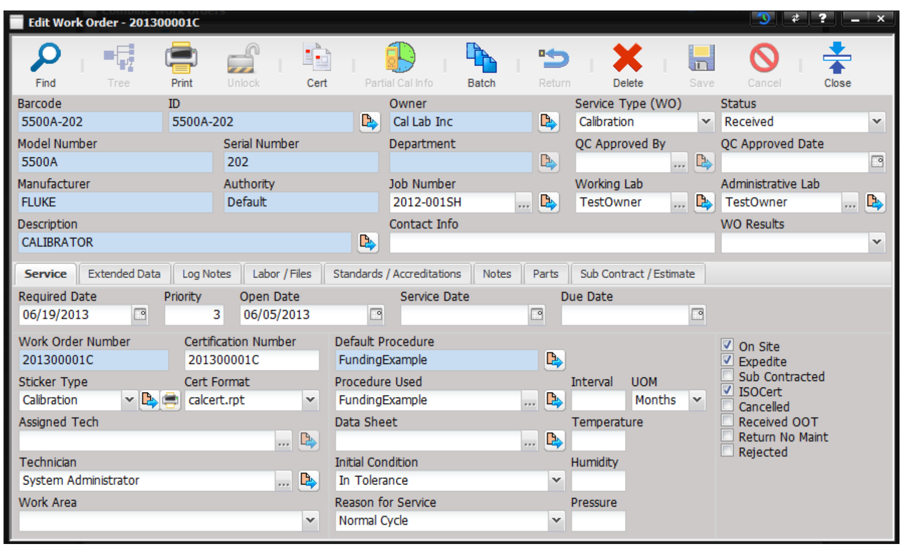


- **Asset** – The Asset for which the Work Orders will be combined.
- **Asset Grid** – Contains the Work Orders that will be combined.

  Note: *The top Work Order is considered the MASTER Work Order.*

  - Use the "+"button to add this Asset's Work Orders to the grid.
  - Use the "X" button to delete this Asset's Work Orders from the grid.
  - Use the "↑" and "↑" buttons to move the Work Orders up and down in the grid.
  - Work Orders of any status can be added to the grid.

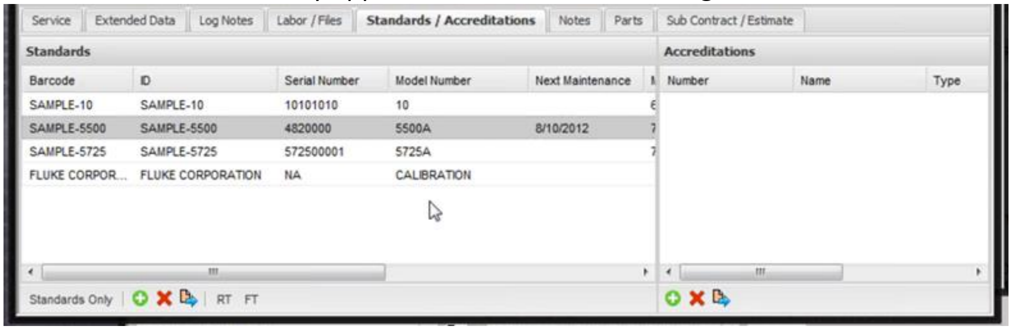
The **Process** toolbar button creates the combined Work Order and opens that Work Order in edit mode.



- **Work Order Number** – The Work Order number of this newly generated Work Order. The number is appended with a "C" to designate this as a Combined Calibration.
- **Certification Number** – This number is the same as the Work Order number.

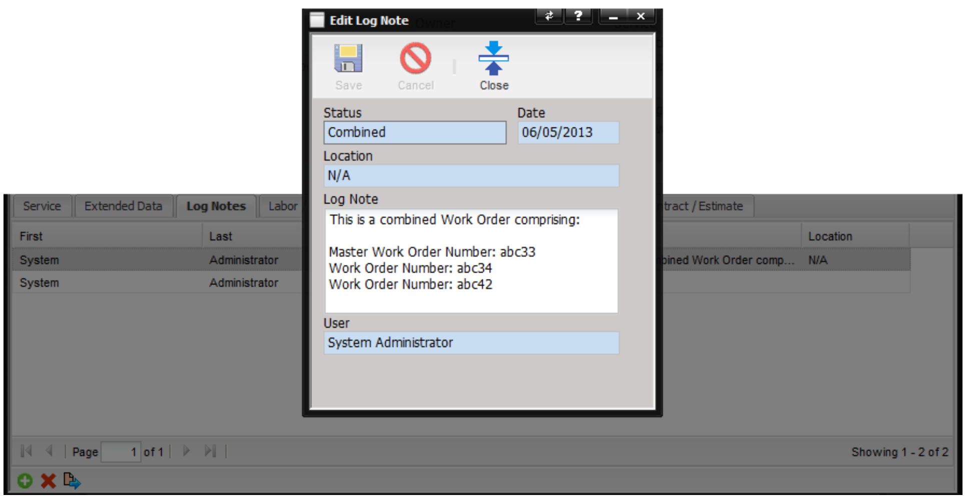
All data ***except*** for the standards, data points, and extended data are copied from the *MASTER* Work Order.

The standards are a unique list based on all work orders that were combined. If standards were used on multiple Work Orders, each standard only appears once in the Standards grid on the Work Order Standards / Accreditations tab.



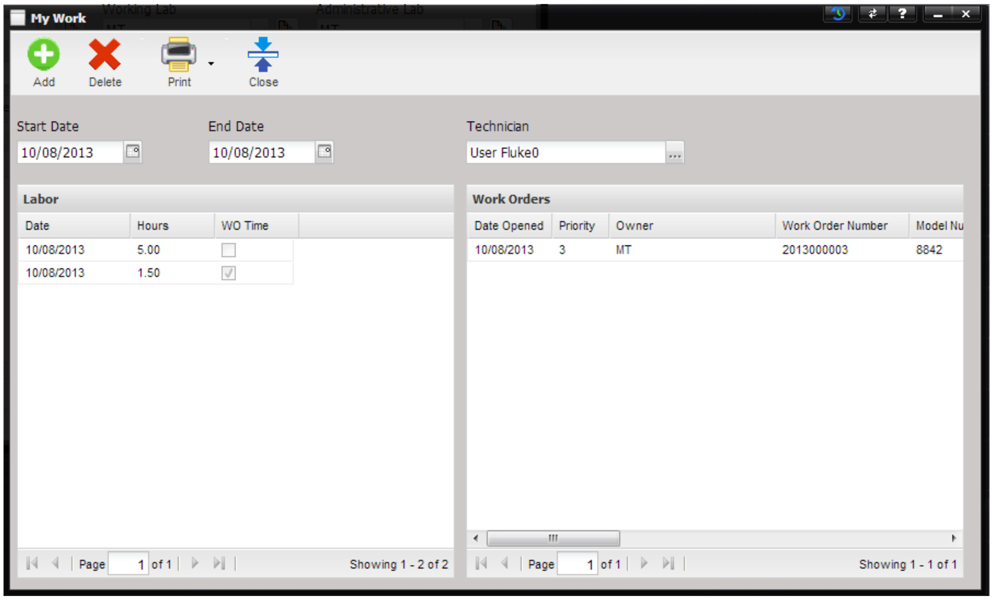
The data points and extended data are concatenated together from all the Work Orders.

A Log Note is appended to the Log Note from the *MASTER* Work Order. The new Log Note states the Master Work Order and all other Work Orders that were combined.



My Work

My Work gives the technician a single place to go to manage non-maintenance labor time and assigned workload. My Work combines most of the common activities done by technicians, allowing them to review and get to work quickly.



Labor

Labor time entries are viewable on the left grid. The toolbar is used to add or delete non-maintenance labor time for the technician.

My Work – Add Labor

To add Labor, select the Add button on the toolbar and complete the information on the Labor screen.

My Work – Modify Labor

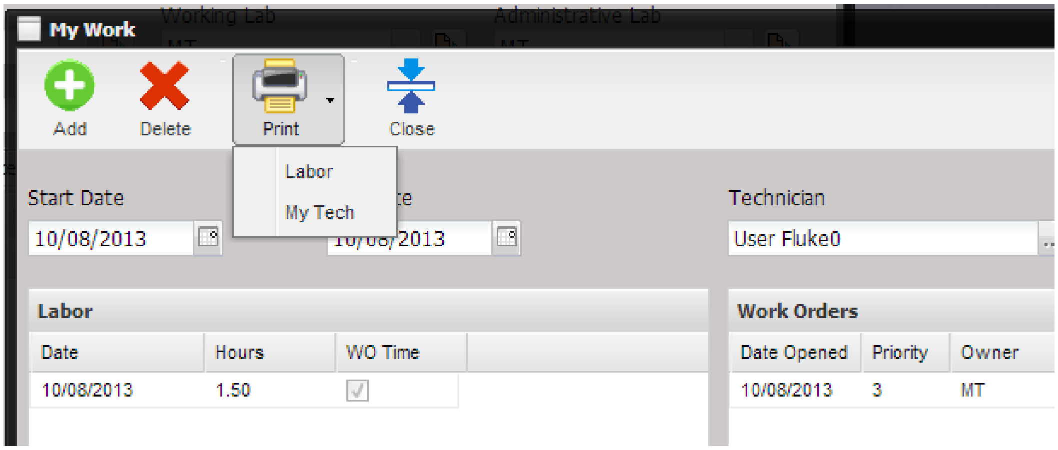
To modify a time record, highlight the desired record in the grid and double click.

- **Start Date and End Date** – To view time records, the technician enters a starting and ending date. Once the dates have been selected, the appropriate time records are retrieved and ALL time records, maintenance and non-maintenance are displayed.
- **Technician** – MET/TEAM defaults to the currently logged in technician.
  - To view another technician's work, select the "…" button.

    Note: *In the event the manager does not want this functionality to be available this option can be secured.*
- **My Time Grid (left grid)** – This grid shows all the time records for the selected technician based upon the dates selected.
  - If the time is from a Work Order, the "WO Time" box is checked. In order for time to be altered on a "WO Time" record, the technician must go to that Work Order.
  - To modify any of the time records, the technician double clicks the time record and the appropriate time record or Work Order is displayed.
  - If the Work Order has been closed, the technician cannot change the time record.
  - Grid records can be sorted by ascending or descending order by clicking on the header of the column.
- **My Work Orders Grid (right grid** – Displays all of the Work Orders that have been assigned to the selected technician. To go to the Work Order, the technician double clicks the desired Work Order in the grid. Grid records can be sorted by ascending or descending order by clicking on the header of the column.

Printing My Work

Two types of reports can be printed from the My Work screen. A Labor report can be printed and a Work Order report can be printed.



To print information from the Labor grid, select Labor after selecting the arrow by the Print button.

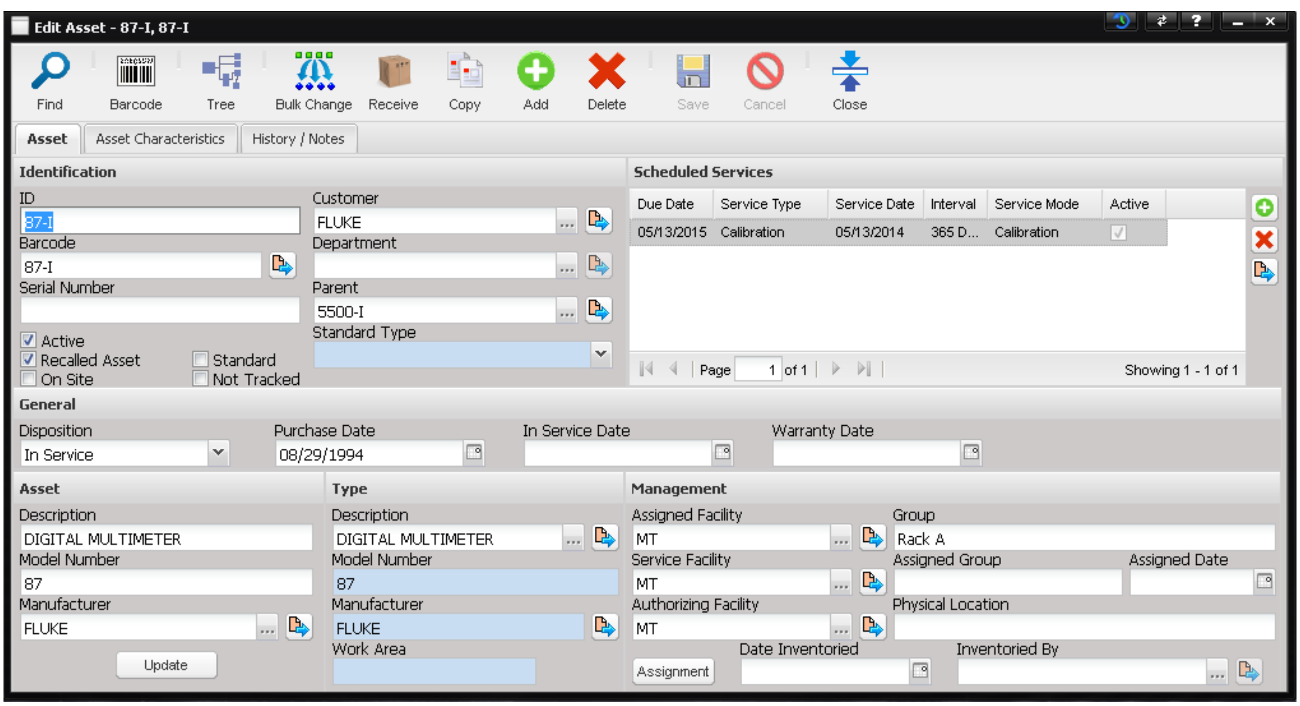
To print the information from the Work Orders grid, select My Tech after selecting the arrow by the Print button.

Maintenance Menu

The Maintenance Menu contains options for creating and maintaining data elements. The menu items are: Assets, Types, Procedures, Facilities, Job Numbers, Parts, Data Sheet Templates, Files, and Accreditations.

Assets

Assets are individual serialized instruments associated with a Type. The Asset may or may not be subject to service while being tracked in MET/TEAM.



The Barcode button allows for printing the Asset barcode for the selected Asset.

The Tree button opens a view into the asset hierarchy, showing parent and child assets and can be used to navigate up or down the hierarchy and load the selected asset.

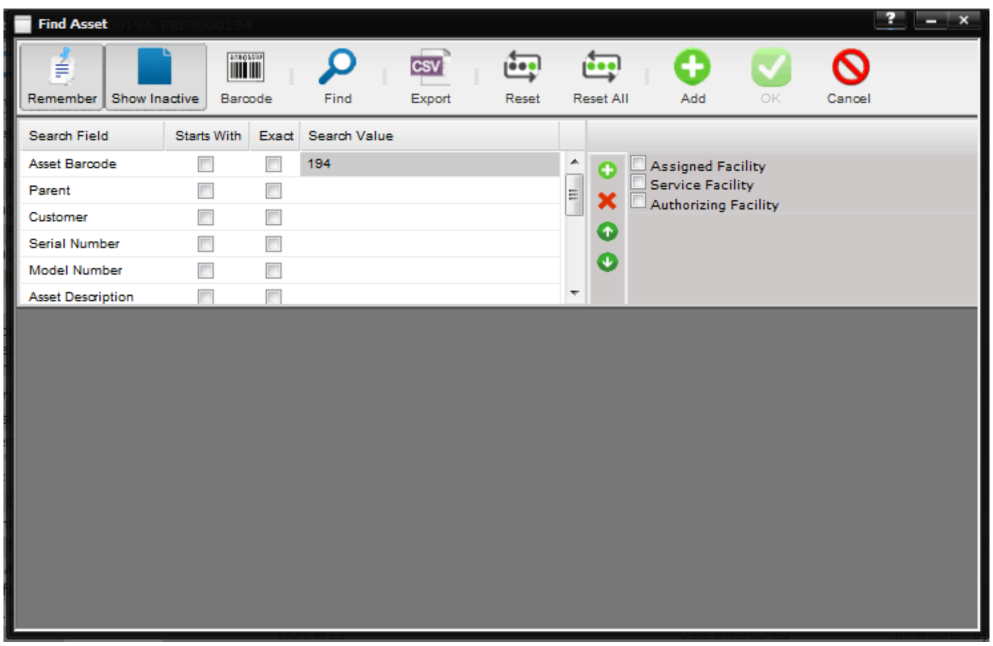
The Bulk Change button allows for updating of multiple Assets at one time.

The Receive button performs the receiving functionality for the Asset including creating a Work Order. The newly created Work Order is displayed. The button is enabled, only if the asset has no open Work Order. Or, if the System Default “Receiving – Allow Multiple Work Orders” is enabled.

The Copy button allows for copying the current Asset. When this button is selected, the Add Asset* screen is opened. The border of the Add Asset* screen is yellow indicating that this screen is the copy. The border stays yellow until the screen is closed. The ID and Barcode are prefilled based on the System Default. The Serial Number, History and Tool Assignments **are not** copied. All other Asset information is copied. The Scheduled Services is viewable once the Save button is pressed.

Find Asset Dialog

When the Maintenance menu Assets submenu is selected, the Find Asset dialog is displayed. The functionality of the toolbar buttons is explained in the section Dialog Menu Action Buttons.

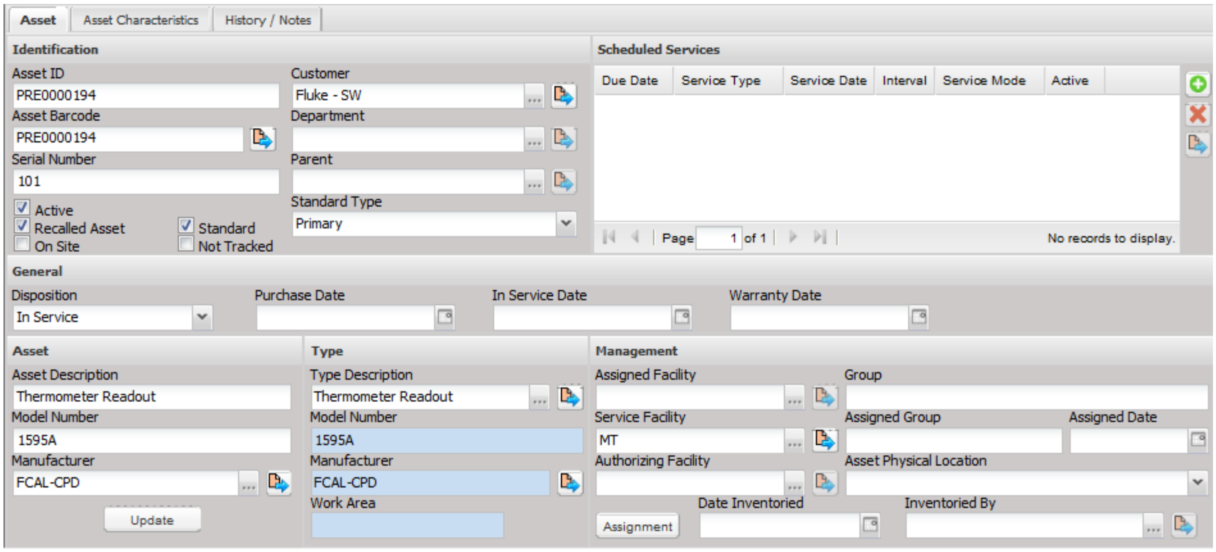


- If the Assigned Facility, Service Facility, and Authorizing Facility check boxes are unchecked, the Find screen grid is populated with all Assets. (Inactive Assets will be shown in the grid if the “Show Inactive” button is toggled on.)
- If the Assigned Facility check box is checked, only Assets with an Assigned Facility matching the Facility you are logged into are displayed in the Find screen grid.
- If the Service Facility check box is checked, only Assets with a Service Facility matching the Facility you are logged into are displayed in the Find screen grid.
- If the Authorizing Facility check box is checked, only Assets with an Authorizing Facility matching the Facility you are logged into are displayed in the Find screen grid.

- If the Assigned Facility, Service Facility, and Authorizing Facility check boxes are checked, Assets with an Assigned, Service, or Authorizing Facility matching the Facility you are logged into are displayed in the Find screen grid.

Assets – Asset Tab

The Asset tab displays Asset information and the next services that are scheduled to be performed.



Identification Section

- **Asset ID** – The Customer's identifier for the Asset. This identifier is not required to be unique or the same as the Barcode, however this is recommended whenever possible. This field is typically used on reports provided to customers.
- **Asset Barcode** – The Lab's unique identifier for the Asset. No two Assets can have the same barcode. If the user attempts to enter an existing barcode, a warning message appears and requires the user to enter a new barcode. This field is typically used in reports for use inside the Lab.
    - The Barcode can be changed by selecting the Quick Link button.
    - The Barcode is created using a counter that is incremented each time a new barcode is generated. The Prefix (if Active) and the Suffix (if Active) is appended to the number to form the complete barcode. If the Barcode total length exceeds the System Defaults "Barcode - Length", the barcode is truncated from the left side of the barcode. To ensure that the barcode isn't truncated, set the System Defaults "Barcode - Length" to a number large enough to account for the barcode counter growing. The Prefix and Suffix settings are also controlled by System Defaults: *Barcode – Prefix* and *Barcode - Suffix*.
- **Serial Number** – The manufacturer's serial number.

  Customer – The company or entity that owns the Asset. The default Customer is initialized to the default facility of the user logged in.
    - The company can be changed by selecting the "…" button.
    - The company can be viewed by selecting the Quick Link button.
- **Department** – Based upon a system default this information represents one of two elements.
    - If the system default "DepartmentBypass" is inactive, the department must be a child facility of the Customer.
    - If the system default is active, the Department does not have to be a child facility of the Customer. The inactive state most commonly used to assign Assets to facilities that belong to an Asset pool or tool crib. The department would then indicate the facility that currently has possession of the Asset so the recall notice would go to the correct facility.

  - The department can be changed by selecting the "…" button.
  - The department can be viewed by selecting the Quick Link button.
- **Parent** – If not empty would indicate this Asset is part of a system or a child of another Asset.
  - The parent can be changed by selecting the "…"button.
  - The parent can be viewed by selecting the Quick Link button.
- **Standard Type** – Classifies the standard. Can only be selected if the Asset is marked as a Standard.
- **Active** – If checked, the Asset is in an Active state and will be included when performing a typical search or Find. Normally, an Asset is only set as NOT active once it has been retired or disposed of. Assets that are NOT active are not included on the standard MET/TEAM Recall reports.
- **Recalled Asset** – If checked the Asset is included on the Recall reports.

  Note: *The standard Recall reports will exclude any assets that have open Work Order records, regardless of the Recalled Asset state. There is no need to change this or the Disposition when a Work Order is created.*
- **On Site** – if checked, the Asset needs to have maintenance performed on site. Used for any item that cannot be sent in to the servicing facility.
- **Standard** – If checked the Asset is a maintenance standard and can be classified by the Standard Type.
- **Not Tracked** – If checked, the Asset is not tracked as a part of MET/TEAM. This Asset would not show up on recall or inventory reports. The Asset would exist in the system but not be accounted for. This kind of Asset usually pertains to expendable items such as screws, nuts/bolts, rubber gloves or un-serialized Assets such as desks, chairs, file cabinets, etc.

Asset and Type Sections

The **Asset** area is the local or customer Description, Model Number, and Manufacturer.

The **Type** area is the system or fact data Description, Model Number, Manufacturer, Authority, and Area. This data usually comes from an Authority on the data such as the manufacturer.

The different references allow the Service facility to have a general process for an Asset type. The Service facility may not care who the manufacturer or model is, they just calibrate all of the same "type" the same way. However, the customer needs to know the specific model. By allowing MET/TEAM to track both data aspects, the Service facility does not have to create a different type of record for each kind of model reducing data maintenance, labor, and errors within the Service facility. Additional data elements with the same functionality exist on the Asset Characteristics tab.

- **Description** – The description of the Asset.
- **Model Number** – The manufacturer's model designation of the Asset's characteristics and capabilities.
- **Manufacturer** – The company that created the Asset.
- **Work Area** – The Area of the Service facility that would normally do the work on the Asset. Area may be an area such as "Electronic" or an area may be defined as a room or location. This information is used as a default to assist the MET/TEAM user in doing work load planning.
- **Update button** – Used to update the Asset data with the current Type data.

General Section

- **Disposition** – The current state of the Asset. This value is intended to be static and not frequently changed based on smaller events such as coming into the Lab for service. Therefore, the **standard** Dispositions are rather broad, *In Service, Out of Service, Lost,* and *Scrapped*. While in the Lab, the Work Order has its own status such as *In Work, Needs Repair, Awaiting parts, Awaiting Approval*, etc.

  Note: *The standard Recall reports will exclude any assets that have open Work Order records, regardless of the Disposition state. Therefore, there is no need to change the Disposition when a Work Order is created.*
- **Purchase Date** – The date the Asset was purchased.
- **In Service Date** – The date the Asset was made Active and placed into service.

- **Warranty Date** – The date the warranty for this Asset expires.

Management Section

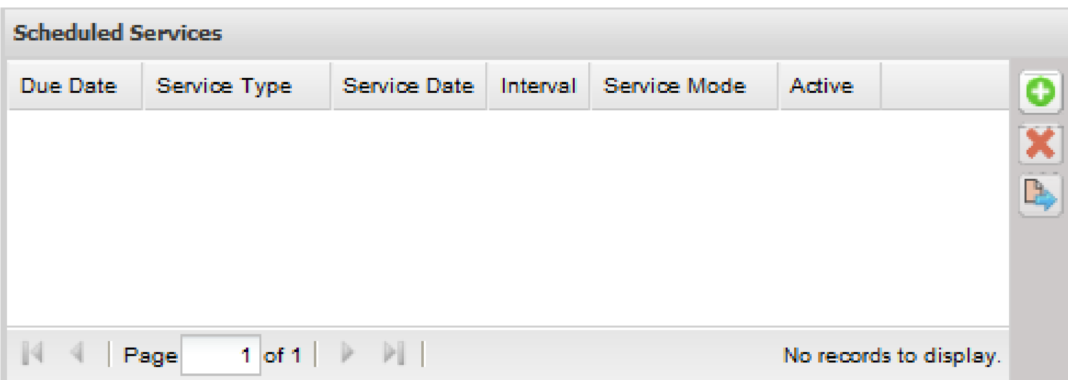
- **Assigned Facility** – The Facility that assigns the Assets work. This Facility schedules this Asset as a part of the work load for itself or another Facility.
- **Service Facility** – The Facility that performs the service.
- **Authorized Facility** – The Facility that authorized the funding for the work to be done on this Asset.

  ***Note**: Facilities that are not listed in one of these three categories do not have the ability to do work on this Asset.*
- **Group** – Used for reporting purposes and allows this Asset to be grouped with other Assets.
- **Assigned Group** – The name of the group this Asset is assigned to.
- **Assigned Date** – The date the Asset was assigned to the group.
- **Physical Location** –The last known physical location of the Asset.
- **Date Inventoried** – The date the Asset was last inventoried.
- **Inventoried By** – The person who last inventoried this Asset.

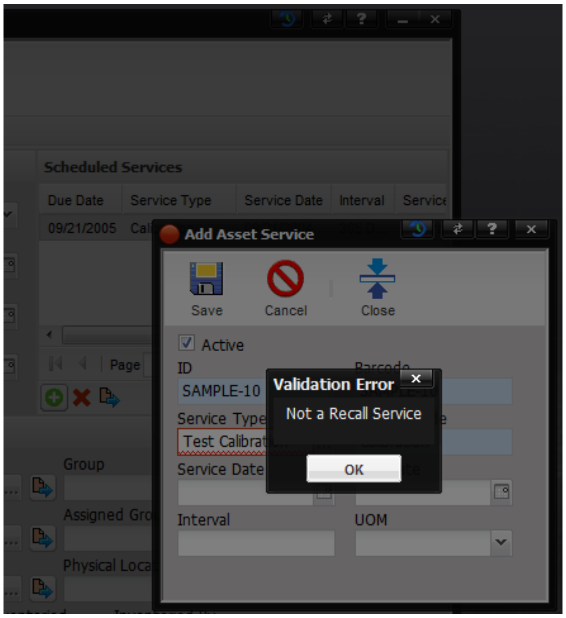
The “Assignment” button is used to view the Tool Assignment for this Asset. See Tool Assignment for a description of this functionality.

Scheduled Services

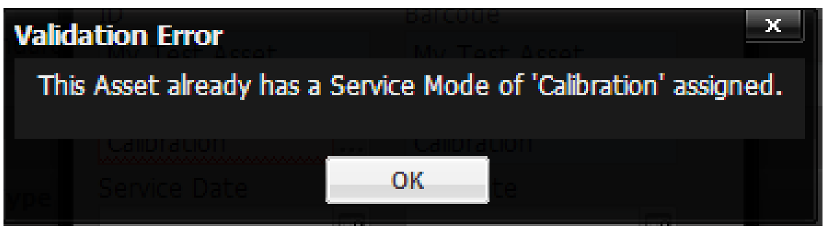
The Scheduled Services grid contains service information about the Asset. Use the horizontal scroll bar to view the other service information. For more information on Service Modes and Service Types, see the Setup menu Services submenu.).



When adding a Scheduled Service of Service Mode ‘Calibration’, only Service Modes designated as ‘Recalled’ can be used. If a ‘Calibration’ Service Mode that is not designated as ‘Recalled’ is used, an error message is displayed.



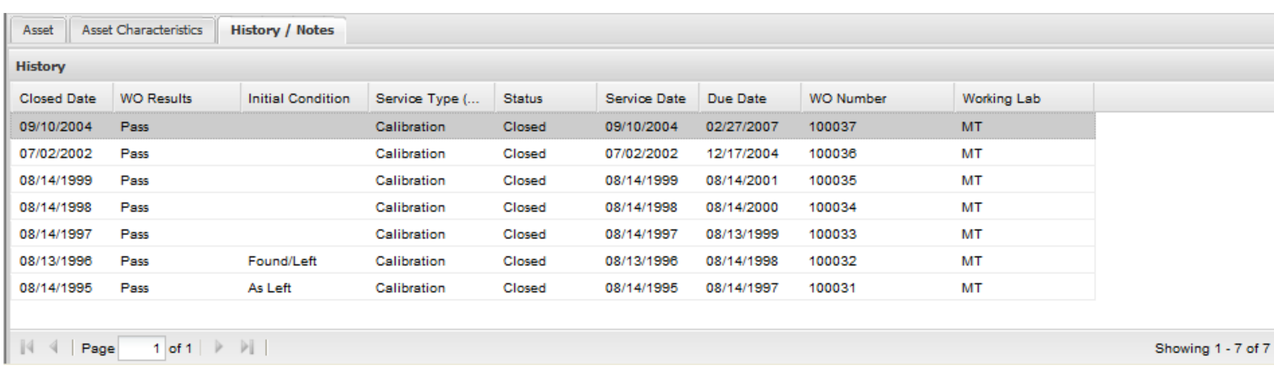
Only one record of Service Mode 'Calibration' can be displayed in this grid at a time. (A service of Service Mode 'Calibration' can be Service Type 'Calibration', 'Cal/Repair', or as setup by your System Administrator. If an attempt is made to add more than one record of Service Mode 'Calibration', a validation error is displayed.)



This validation error informs the user that only one record of Service Mode calibration can be in the Scheduled Services grid.

The service information about a calibration is displayed from the most recent service performed of Service Mode 'Calibration'.

For example, the Scheduled Service in the screen shot above is from the highlighted row on the History tab for this Asset as shown in the screen shot below. This service is displayed in the Scheduled Services grid as it is the most recently completed calibration for this Asset.


Asset | Asset Characteristics | History / Notes

History

Closed Date	WO Results	Initial Condition	Service Type (...	Status	Service Date	Due Date	WO Number	Working Lab
09/10/2004	Pass		Calibration	Closed	09/10/2004	02/27/2007	100037	MT
07/02/2002	Pass		Calibration	Closed	07/02/2002	12/17/2004	100036	MT
08/14/1999	Pass		Calibration	Closed	08/14/1999	08/14/2001	100035	MT
08/14/1998	Pass		Calibration	Closed	08/14/1998	08/14/2000	100034	MT
08/14/1997	Pass		Calibration	Closed	08/14/1997	08/13/1999	100033	MT
08/13/1996	Pass	Found/Left	Calibration	Closed	08/13/1996	08/14/1998	100032	MT
08/14/1995	Pass	As Left	Calibration	Closed	08/14/1995	08/14/1997	100031	MT

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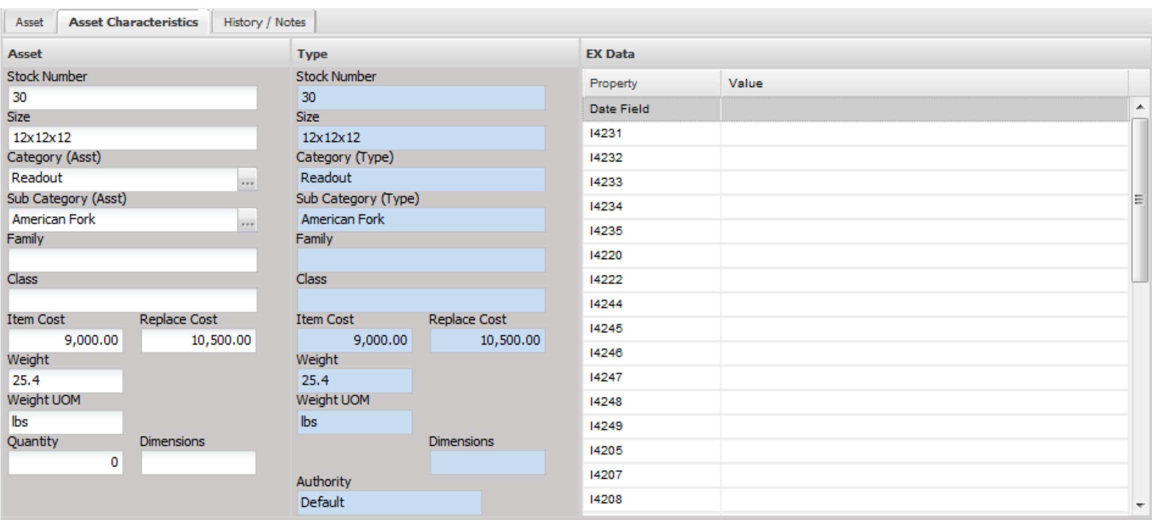
***Note:** Only one service of Service Mode 'Calibration' can exist at one time. This service information is added to the Scheduled Services grid when the Work Order is completed and returned (closing the Work Order) for the Asset.*

Service Mode of 'Calibration' cannot be added. Service Mode of 'Calibration' cannot be deleted from the Scheduled Services grid.

- **Due Date** – The date the Asset is due for maintenance.
  - If the calculated Due Date falls on a Calendar Non Workday, the Due Date is adjusted backwards to the next workday. For example, if the calculated Due Date was 8/1/2014 and 8/1/2014 has been marked in the Calendar as a Non Workday, the Due Date is recalculated to 7/31/2014.
  - When using MET/CAL, the date shown here is used to determine if the Asset used as a standard is in calibration.
- **Service Type** – The service type that was performed.
- **Service Date** – The next date the Asset is due for this type of service.
- **Interval** – Indicates the service interval.
- **Service Mode** – The mode of service performed.
- **Active –** Indicates if the Asset is active.

Assets – Asset Characteristics Tab

The Asset Characteristics tab displays additional information that can be collected for the Asset.



Asset and Type

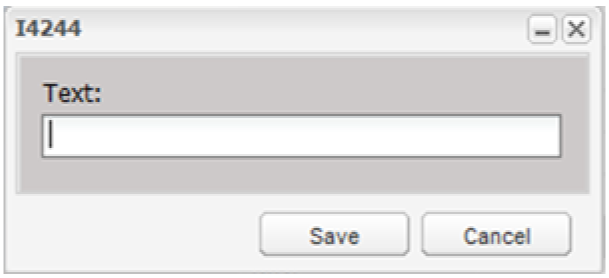
These are extended characteristics of the Asset. They model the same behavior as described above for the Asset tab.

- **Stock Number** - The stock number of the Asset.
- **Size** - The size of the Asset.
- **Category (Asst)** – The general category of the Asset. Could contain such data as Electronic, Dimensional, Mass, Laser, Flow, etc.
- **Sub Category (Asst)** – The sub category of the category for this Asset. Could contain such data as Power Meters, Handheld Meters, Scopes, etc.
- **Family** – Allows the user another field to specify like data for one or more Assets.
- **Class** - Allows the user another field to specify like data for one or more Assets.
- **Item Cost** – The purchase price of the Asset at the time of purchase.
- **Replace Cost** – The cost required to replace the Asset.

- **Weight** – The physical weight of the Asset, mainly used for shipping or determining how many people are needed to move the Asset.
- **Weight UOM** – Unit of measurement for the weight.
- **Quantity** – The quantity of items contained in this Asset. Allows for grouping Assets in a set. When billed by a standard price, the quantity is multiplied by the standard price.
- **Dimension** – The physical dimension of the Asset.
- **Authority** – The source of the data. Example would be Manufacturer, NAVAIR, NAVSEA, SYSCAL, etc.

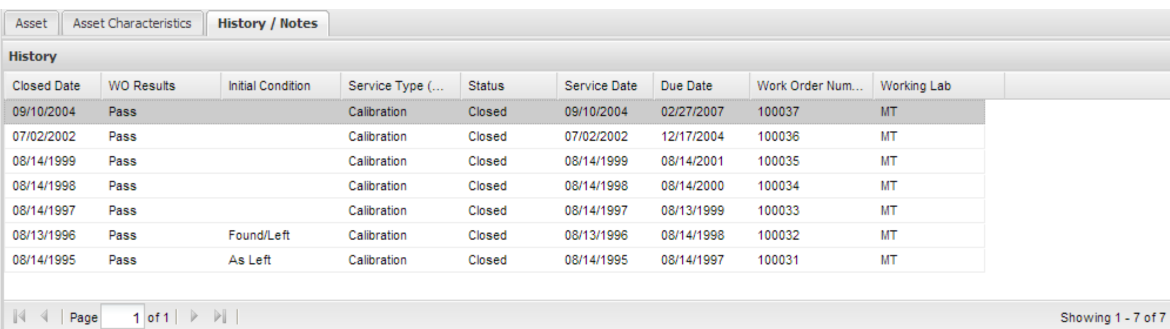
EX Data

The EX Data grid tracks user defined Asset characteristics. In the event that MET/TEAM does not have a native data element required by the user, MET/TEAM has the capability to add and track additional Asset characteristics. These values can be modified by double clicking on the element in the grid. The user is then prompted to enter or edit the data. Value validations can be created for almost any data type.



Assets – History / Notes Tab

The History / Notes tab displays the service history and notes associated with the Asset.



Closed Date	WO Results	Initial Condition	Service Type (...	Status	Service Date	Due Date	Work Order Num...	Working Lab
09/10/2004	Pass		Calibration	Closed	09/10/2004	02/27/2007	100037	MT
07/02/2002	Pass		Calibration	Closed	07/02/2002	12/17/2004	100036	MT
08/14/1999	Pass		Calibration	Closed	08/14/1999	08/14/2001	100035	MT
08/14/1998	Pass		Calibration	Closed	08/14/1998	08/14/2000	100034	MT
08/14/1997	Pass		Calibration	Closed	08/14/1997	08/13/1999	100033	MT
08/13/1996	Pass	Found/Left	Calibration	Closed	08/13/1996	08/14/1998	100032	MT
08/14/1995	Pass	As Left	Calibration	Closed	08/14/1995	08/14/1997	100031	MT

History

This grid shows all service events (Work Orders) recorded against this Asset. To view the event, double click the selected history event and MET/TEAM displays the Work Order. All history events are read only and cannot be changed by the user.

Notes

To add or modify any of the information in the Notes section, use the key combination ALT+Q. The quick note Select Note dialog is displayed. For a complete description of the quick note functionality refer to the section Quick Notes.

- **Accuracy Notes** – Brought forward from the Asset Type file. The notes can be modified for this specific Asset if required here.
- **Uncertainty Notes** – Enter uncertainty notes. They will be brought forward from Types, but can be changed for individual Assets if needed.
- **Warranty Notes** – Specific notes about the warranty for this Asset can be entered here.

- **Notes** – These are general notes for this Asset.

These notes fields may be auto-filled with text that has been entered on Work Order. If changes are made on the Work Order, there are options to either update the Asset data, or leave as is. Refer to the System Default "Work Order – Update Notes" for more details.

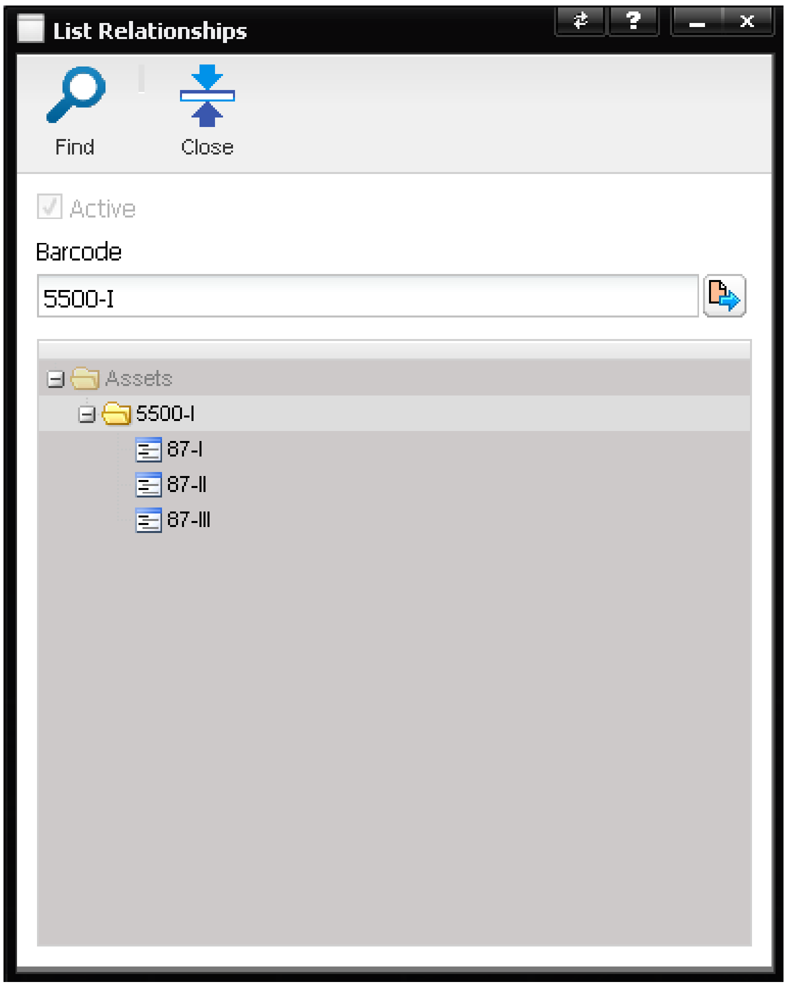
Asset Tree

The Asset Tree button displays the List Relationship screen which is a tree view of the relationship between a Parent and Child asset. The Active checkbox is checked if the highlighted Asset is active.

The **Barcode** field displays the Barcode of the highlighted Asset and whose relationships are being displayed (both Parent and Child). Clicking on any Asset in the tree updates the tree. Select the Quick Link button next to the Barcode field to display the Asset screen with that Asset data visible.

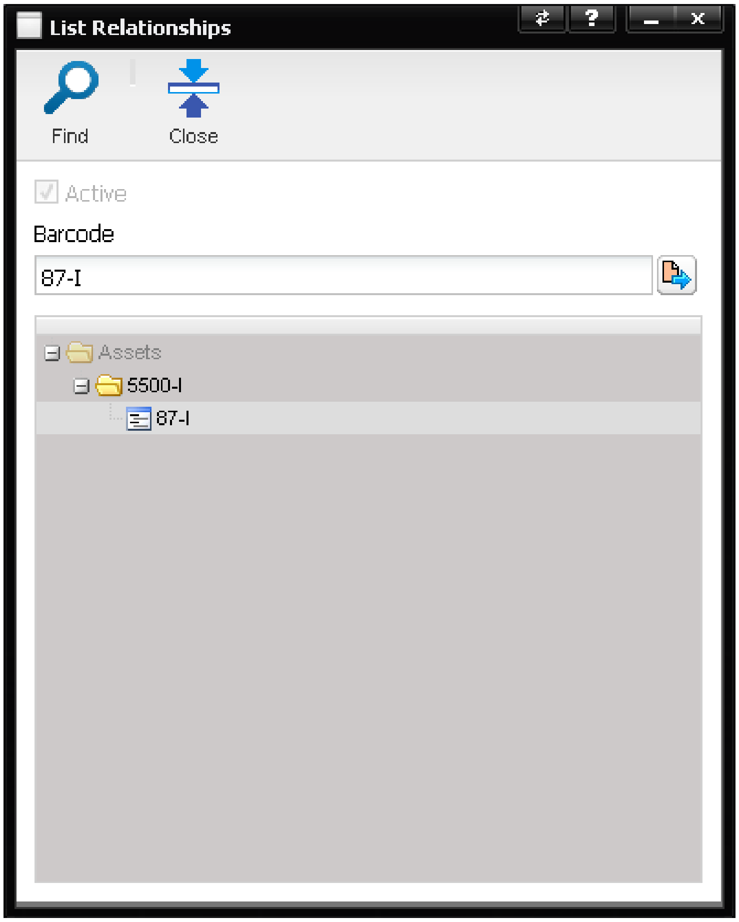
Example 1

In the Example 1 below, the 5500 calibrator is the Asset being displayed on the Asset screen when the Tree button was selected. The 5500 calibrator is the Parent for three 87 multimeters instruments.



Example 2

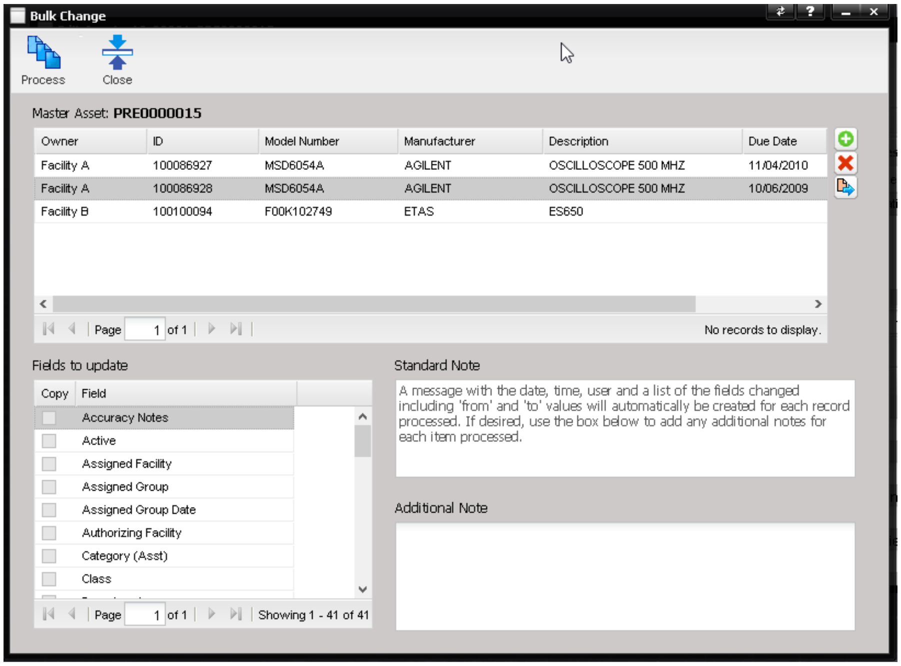
In the Example 2 below, one of the child calibrators (to the 5500 parent calibrator) is the Asset being displayed on the Asset screen when the Tree button was selected. The 87-I calibrator is one of the three child Assets associated with the 5500 calibrator.



Bulk Change

The Bulk Change button on the Asset screen allows updating multiple Assets at one time.

1. Find the Asset that will be the Master Asset using the Asset screen Find button. This is an Asset that has the desired data configured to update other Assets.
2. Select the Bulk Change button on the Asset screen
3. The Find screen is opened in "multi-select" mode. Select all Assets that you want to change to match the Master.
4. Select the Ok button.
5. The Bulk Change screen is displayed with the Assets from the Find screen listed in the grid. The Master Asset is identified above the grid of Assets.



a. Use the "+" button on the right side to add additional Assets to the list.
b. Use the "X" button on the right side to remove Assets from the list.
c. The Quick Link button on the right side can be used to view additional information for a highlighted Asset.

6. In the Fields to Update grid, on the bottom left of the screen, select the label of the fields you want updated. The Copy checkbox will be checked.
7. Repeat step 6 for all fields you want to copy from the Master Asset to the other Assets.
8. The Standard Note explains that a note is automatically added to the Assets that are being changed with the date, time, user, and a list of the fields changed including the "from" and "to" values when the Bulk Change is processed.
9. Add any additional information in the Additional Note field. This information is also added to the Notes field of the Asset. The Asset Notes can be viewed on the Asset History/Notes tab.
10. Select the Process button.

All items in the grid will be updated as designated on this screen.

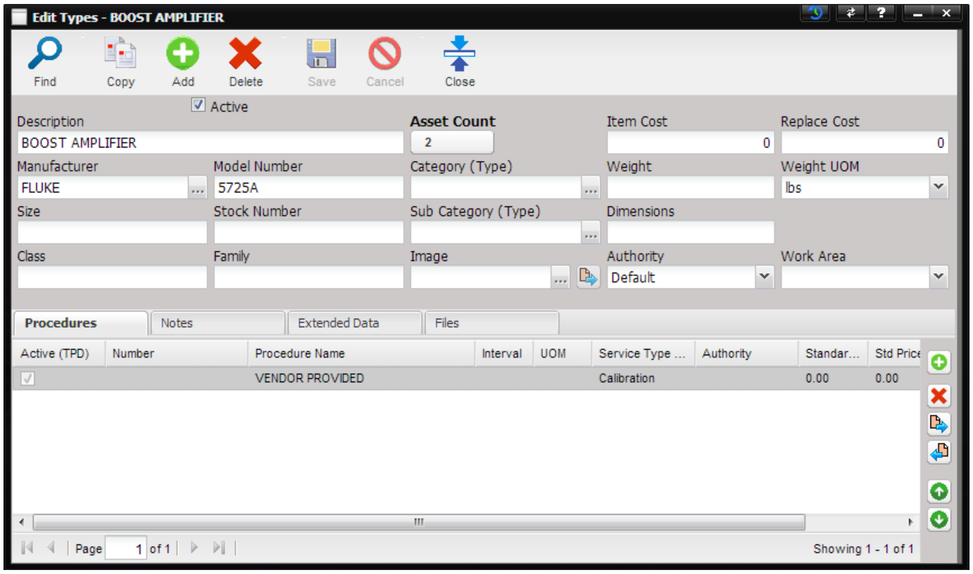
Types

Types are defined as a collection of basic characteristics for an item. These are most commonly referred to by a manufacturer's model number. This model number references basic functionality, specifications, and features of an Asset. The Types screen contains various Data Fields and Tabs which are detailed below.

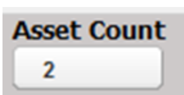
The Copy button allows for copying the current Type. When this button is selected, the Add Type* screen is opened. The border of the Add Type* screen is yellow indicating that this screen is the copy. The border stays yellow until the screen is closed. The Description is prefixed with the words "Copy of – ". All information related to the Type is copied ***except*** the associated Asset Count. The Procedures and Files are copied once the Save button is selected.

Data Fields

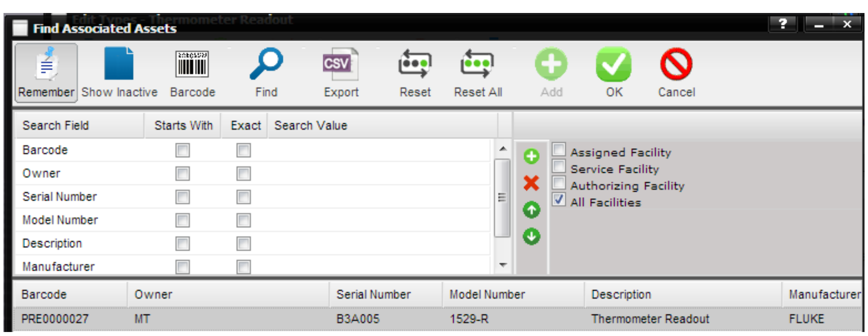
The Type screen contains Data Fields for entering information related to the Type.



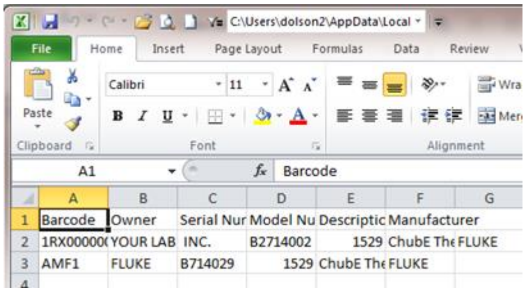
- **Active** – Indicates whether or not this Type shows up on pick lists.
- **Description** – The text describing the Type.
- **Manufacturer** – the company that manufactured this instrument. Manufacturers cannot be added from this screen. They must be added using the Maintenance -> Facilities menu option.
  - The manufacturer can be changed by selecting the "…" button.
- **Model Number** – The number given to the Type by the manufacturer that references capabilities and specifications.
- **Size** – The physical size of the Type.
- **Stock Number** – The stock number of the Type.
- **Class** - Allows the user another field to specify like data for one or more Assets.
- **Family** – Allows the user another field to specify like data for one or more Assets.
- **Asset Count** – Indicates the number of Assets that are referenced to this Type.
  - To view the Assets, click the Asset Count button.

    - The Find dialog is displayed.

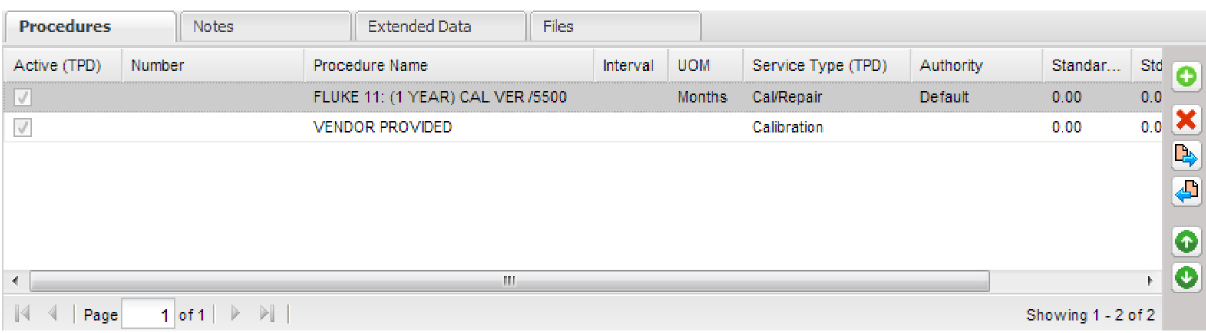
    - Select the Find button and the Assets are displayed in the grid portion of the Find dialog.
    - Select the Export button and a .CSV file is created which can be opened in Excel. The fields in the .CSV file match the search and grid fields



- **Category (Type)** – Indicates the general category of the Type. Could contain such data as Electronic, Dimensional, Mass, Laser, Flow, etc.
- **Sub Category (Type)** – Indicates the sub category of the selected category for this Type. Could contain such data as Power Meters, Handheld Meters, Scopes, etc. (To manage categories and sub categories, see the section entitled Categories and Sub Categories)
- **Image** –Links to an image file for this Type.
    - The image can be changed by selecting the "…" button.
    - The image can be viewed by selecting the Quick Link button.
- **Item Cost** – Indicates the cost of the Type at the time of purchase.
- **Replace Cost** – Indicates the cost required to replace this Type.
- **Weight** – Indicates the physical weight of the Type, mainly used for shipping or determining how many people are needed to move the Type.
- **Weight UOM** – The unit of measure for the weight.
- **Dimensions** – Indicates the physical dimensions of the Type.
- **Authority** – Describes the source of this data. Example would be Manufacturer, NAVAIR, NAVSEA, SYSCAL, etc.
- **Work Area** – The Area of the Service facility that would normally to do the work on the Type. Area may be an area such as "Electronic" or an area may be defined as a room or location. This information is used as a default to assist the MET/TEAM user in doing workload planning.

Types – Procedures Tab

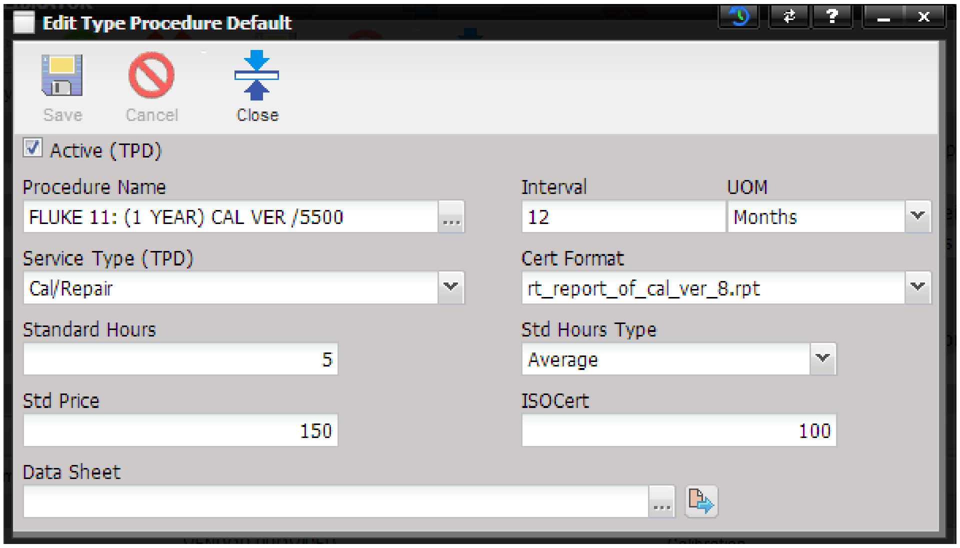
The Procedures tab shows the service procedures that have been defined for this Type.



The buttons to the right of the grid can be used to add, delete, modify, view, or reorder the procedure information. Use the "↑" and "↓" arrows to reorder the procedures by priority. The top-most procedure in the list is considered the **default** procedure (if the top-most procedure is active) when a Work Order is created by receiving an asset. However, if the top-most procedure is not active, the top-most active procedure in the list is used. Inactive procedures should be moved to the bottom of the list using the "↑" and "↓" arrows, but this is up to the discretion of the user.

Adding a Procedure

To add a procedure, select the "+" button on the right side.



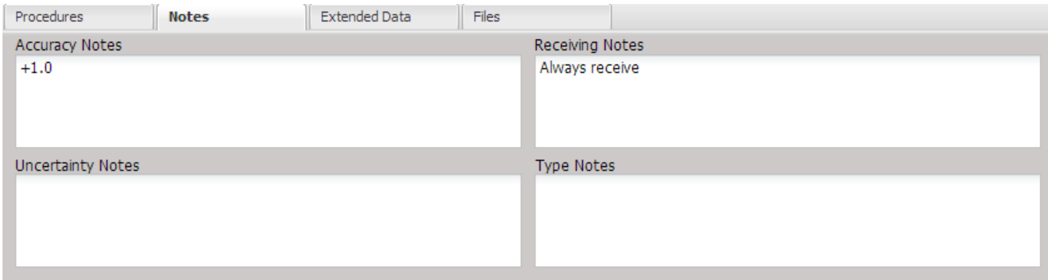
- **Active (TPD)** – Marks this Procedure as active allowing users to select it during maintenance. (TPD) represents that the Active checkbox is from the Type Procedure Default screen.
- **Procedure Name** – The name of the Procedure. Procedures cannot be added from this screen. They must be added from the Maintenance -> Procedure menu option.
    - The Procedure can be selected or changed by selecting the "…"button.
- **Interval** – The duration used to calculate the date when the next service should be performed.
- **UOM** – The unit of measure for the interval.
- **Service Type (TPD)** – Defines the name of the service for this Procedure. (TPD) represents that the Service Type is from the Type Procedure Default screen.

Note: *Service Type cannot be customized. The values in this dropdown are setup using the Setup menu Services submenu screen. The order of the Service Types in the dropdown is based on which Service Type was edited last using the Setup menu Services submenu.*

- **Cert Format** – Contains the report file name for this Procedure.
- **Standard Hours** – The number of hours needed to perform this service.
- **Std Hours Type** – The type of standard hours: Average, Calculated, Manufacturer, and Default.
- **Std. Price** – The cost of performing the service.
- **ISOCert** – The cost for an ISO related service. This cost is added if the ISOCert check box is selected on the Work Order.
- **Data Sheet** – The name of the file used to record measurement points called out in the Procedure. The actual readings are stored on the Work Order for that maintenance event, not in the template.
    - The file can be changed by selecting the "…"button.
    - The file can be viewed by selecting the Quick Link button.

Types – Notes Tab

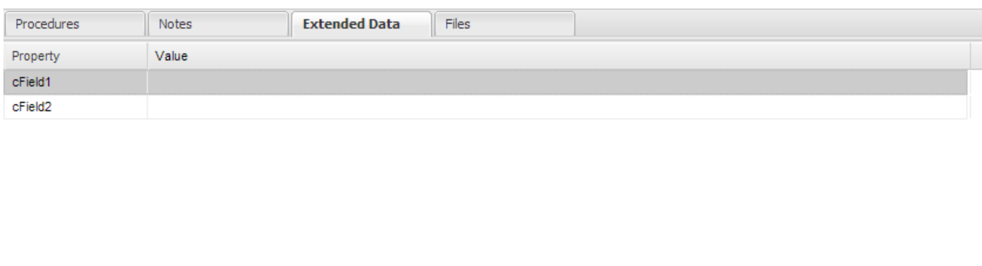
The Notes tab displays notes associated with the Type.



- **Accuracy Notes** – The accuracy statement for this Type. It is carried forward to the Asset and can used when opening new Work Orders.
- **Receiving Notes** – Special receiving instructions used to prompt the user when this type of Asset is received. Normally they would indicate special conditions such a specific leads, parts, or manuals needed in order to perform service on this Type.
- **Uncertainty Notes** – Uncertainty notes which are carried forward to the Asset and used when opening new Work Orders.
- **Type Notes** – General notes about the Type. These are primarily used as reference for the technician.

Types – Extended Data Tab

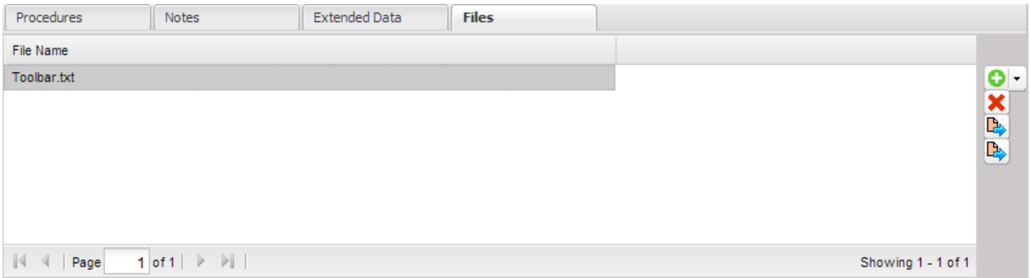
The Extended Data grid tracks user defined Type characteristics.



If MET/TEAM does not have a native data element required by the user, one can be added and tracked. (To manage Extended Data properties, see the section entitled Extended Data.) Extended Data property values can be modified by double clicking on the element in the grid. The user is prompted to enter or edit the value. Validations can be created for almost any data type.

Types – Files Tab

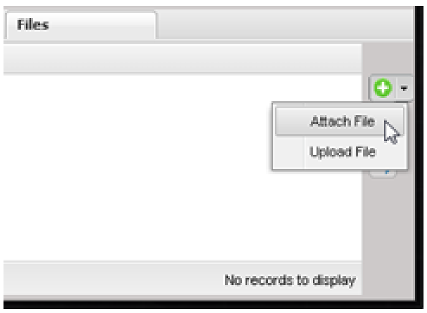
The Files tab displays files related the Type. Files may be related either by Attach File (attaches an existing file) or by Upload File (uploading a new file). The buttons to the right of the grid can be used to add, delete, or view files.



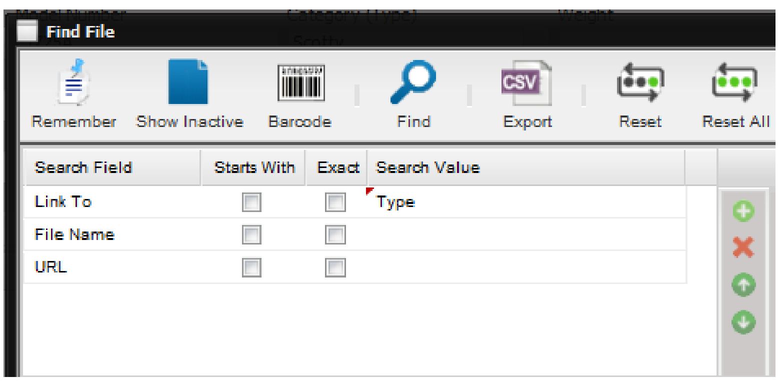
Adding a File (Attach or Upload)

When the “+”button on the right is selected, the user is presented with two options: Attach File or Upload File.

***Note:** MET/TEAM can only upload files that are 50mb or smaller.*



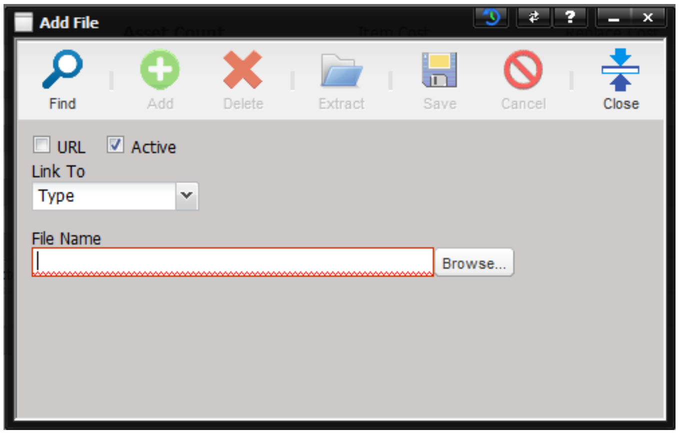
To attach an existing file to a Type, select the Attach File option. The Find screen is displayed for finding the File to add. Notice the ‘Link To’ search field contains the search value of “Type”. Press the Find button. The Files displayed are those files that were previously added using the Maintenance menu Files submenu and were categorized with a ‘Link To’ entry of “Type”. Select the file to attach from the results grid and press OK.



To attach a new file or URL to a Type, select the Upload File option. This option adds the File (as if the user had used the Maintenance menu Files submenu) and at the same time attaches the new File to the current Type.

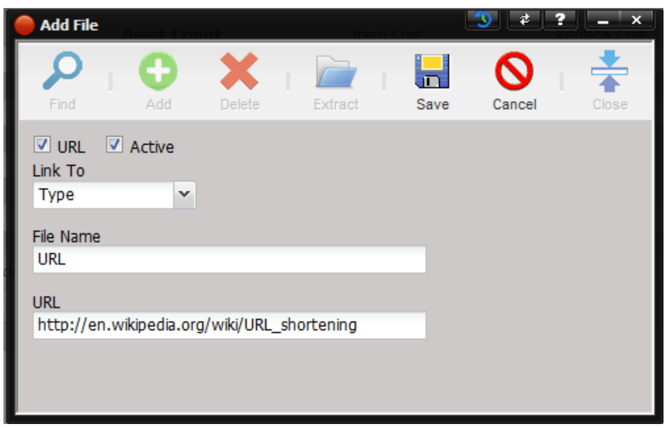
The Add File screen is displayed. Notice the ‘Link To’ field contains the value of “Type”.

- To upload a file, leave the URL check box unchecked, check the Active check box, and press the “Browse…” button.

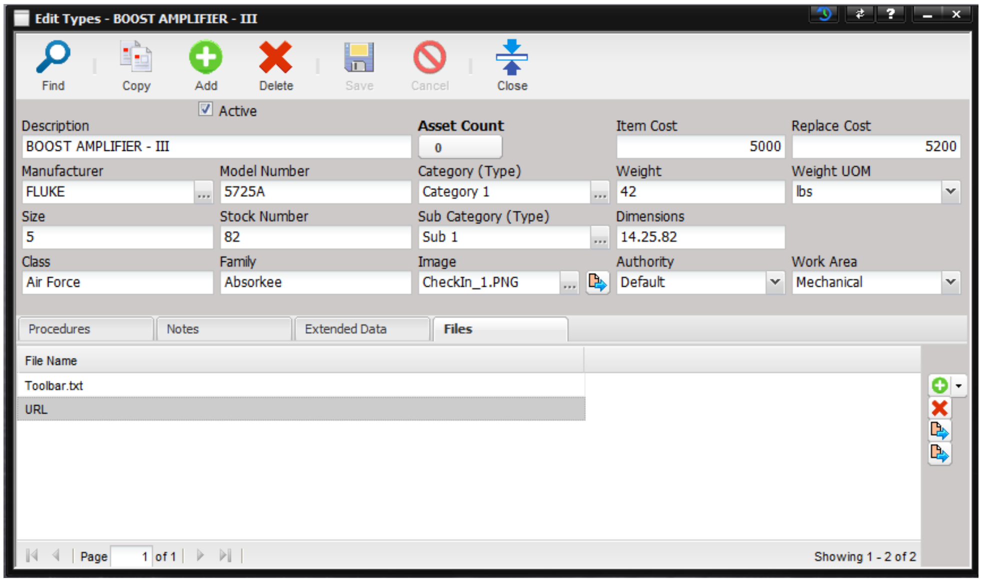


The Windows Choose File to Upload screen is displayed. Navigate to the file that is needed and select this file by double clicking. The File Name text box now contains the name of the file just selected. Select the Save button and the Add File screen closes. The file just uploaded is now displayed on the Types Files tab.

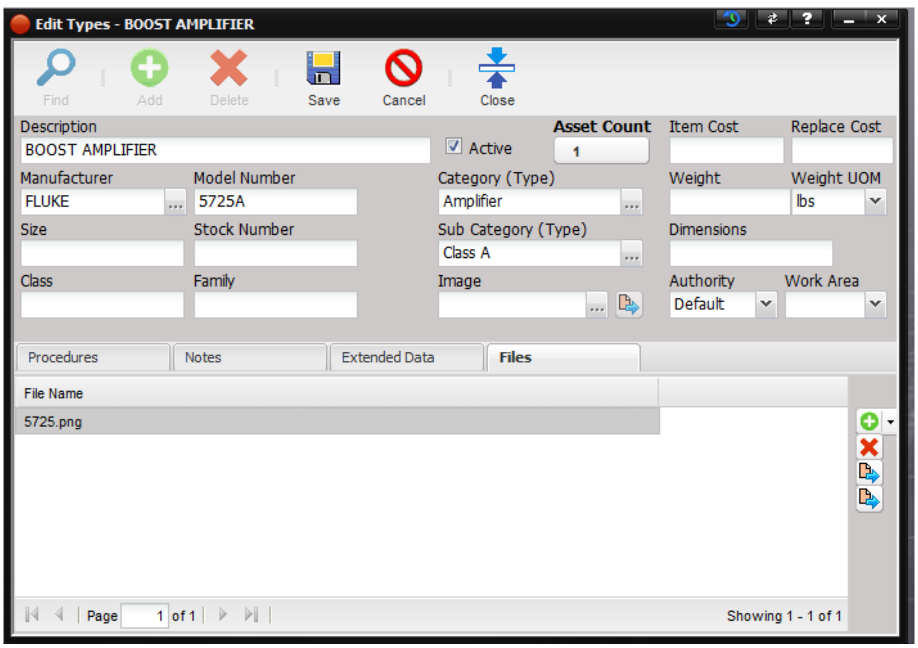
- To enter a URL, check the URL checkbox check the Active check box, enter a filename in the File Name text box, and enter a URL in the URL text box.



Select the Save button and the Add File screen closes. The URL File Name is now displayed on the Procedure Files tab.



When the Save button is selected, the new file is saved as a File, the Files screen is closed, the new file is attached to the current Type and the Files grid refreshes on the Type screen.



Deleting a File

To remove a File, highlight the record in the grid on the Files tab and select "X" button on the right of the Files tab.

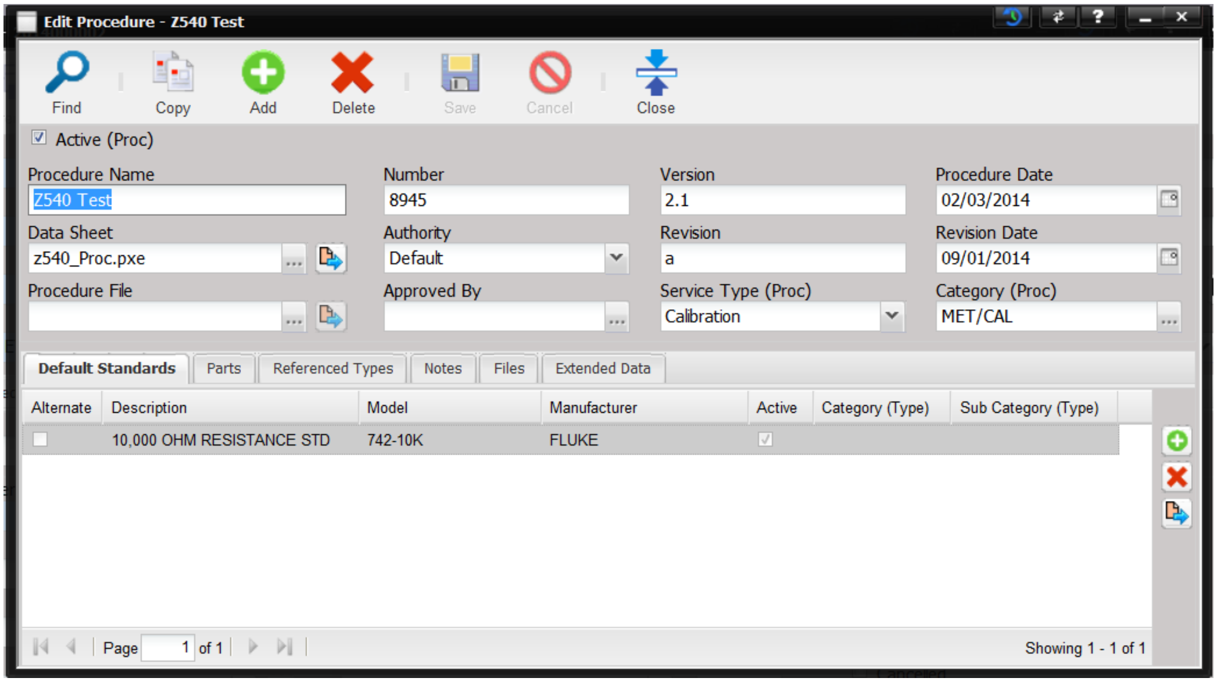
Viewing a File

To view the selected File, highlight the record in the grid on the Files tab and select the Quick Link button (the 3rd button) on the right side of the Files tab.

Procedures

The Procedures menu allows for adding or modifying instructions used to perform and record specific service actions against Assets within MET/TEAM.

Note: To view Manual Templates, select the Maintenance menu Manual Template option.



- **Active (Proc)** – Check if this is an active Procedure. If unchecked, this Procedure is considered inactive and is not displayed in pick lists.
- **Procedure Name** – Name of the Procedure as referenced by the technician.
    - If Procedure Sectioning is being used with a MET/CAL procedure, the Procedure Name must reference the instrument line of the procedure.
    - If Procedure Sections is not being with a MET/CAL procedure, the Procedure Name should reference the instrument line of the procedure.
- **Number** – Number assigned to the Procedure by the creator of the procedure.
- **Version** – The version of the Procedure
- **Procedure Date** – The date the Procedure was created.
- **Data Sheet** – The file that contains the data point collection mechanism.
    - The data sheet can be changed by selecting the "…" button.
    - The data sheet file can be viewed by selecting the Quick Link button.
    - If the procedure is not a MET/CAL procedure, this text box contains the Manual Template name, Excel spreadsheet file name, or any other file name that is the file generating the results.
    - If the procedure is a MET/CAL .PXE procedure, the .PXE file must be imported into the database as a File and then linked to the Data Sheet field using the "…" button.
    - If the Procedure Name is the name of the compiled MET/CAL procedure, the data sheet text box should be left blank.
- **Authority** – The entity that authorized the use of this Procedure.
- **Revision** – The revision of the Procedure.
- **Revision Date** – The date of the revision.
- **Procedure File*** – The name of the external file containing the actual verbiage (instructions) of the Procedure. Most commonly this data is kept in PDF or DOC formats.
    - The procedure file can be changed by selecting the "…"button.

  - The procedure file can be viewed by selecting the Quick Link button.
- **Approved by** – The person authorizing the use of this Procedure.
- **Service Type (Proc)** – The type of service the Procedure is used for.

  Note: *Service Type cannot be customized. The values in this dropdown are setup using the Setup menu Services submenu screen. The order of Service Types in the dropdown is based on which Service Type was edited last using the Setup menu Services submenu.*

- **Category (Proc)** – The category of the Procedure.
  - The category can be changed by selecting the "…"button.
  - When the procedure is a MET/CAL procedure, the Category must be "MET/CAL".
    - When using a compiled MET/CAL procedure, the Data Sheet and the Procedure File fields must be left blank. The Instrument Line of the compiled procedure must be entered into the Procedure Name field.
    - For compiled procedures, there are no other required selections. All other fields are user defined.
    - When using compiled procedures, each work station must be setup to point to the proper procedure directory by editing the procdir parameter of the metcal.ini file. If the work station cannot locate the desired procedure an error message is generated when the procedure is launched from MET/TEAM.

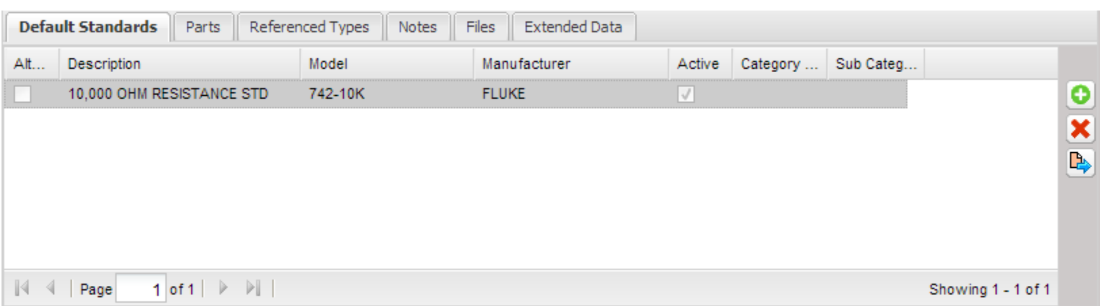
**All procedure templates and reference files are stored in the database. This allows the local administrator complete security and version control of the documents.*

Copying a Procedure

The Copy button allows for copying the current Procedure. When this button is selected, the Add Procedure* screen is opened. The border of the Add Procedure* screen is yellow indicating that this screen is the copy. The border stays yellow until the screen is closed. When a procedure is copied, all field values from the Procedure screen are applied to the new procedure, with the exception of the Data Sheet and Procedure File fields. Once the Save button is pressed, the data grids on the various tabs of the copied Procedure are populated as well, with the exception of the items on the Files tab, which are not copied. We recommend that you adjust the procedure name prior to saving, to reflect the purpose of the new procedure.

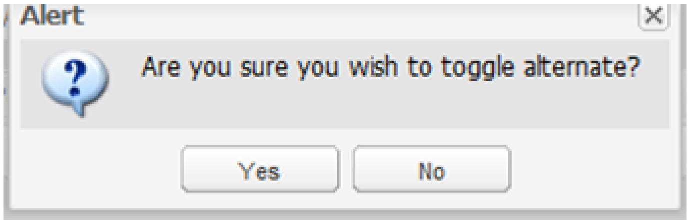
Procedures – Default Standards Tab

The Default Standards tab is for standard types used in the process of performing service on an Asset. These are not specific serialized Assets, just types.



This allows for a broad definition that can be used in any service facility without knowing what specific Assets are available to perform the Procedure. This drastically reduces the maintenance of equipment selection for this Procedure and helps the technician by reducing the amount of data entry. This process also ensures the same data is referenced through the lab and enterprise.

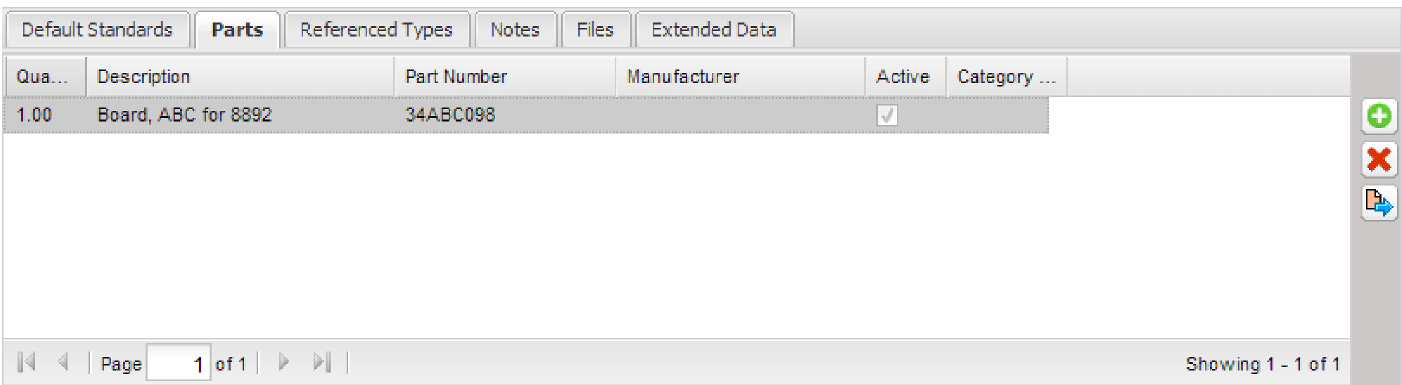
Standards can be set as an “Alternate” standard type by double clicking a standard type in the grid and answering “Yes” to the prompt. You can deselect the “Alternate” setting in the same manner.



The buttons to the right of the grid can be used to add, delete, or modify the default standard type.

Procedures – Parts Tab

The Parts tab displays a list of parts that may be used during the course of service and is intended to be used for forward planning.

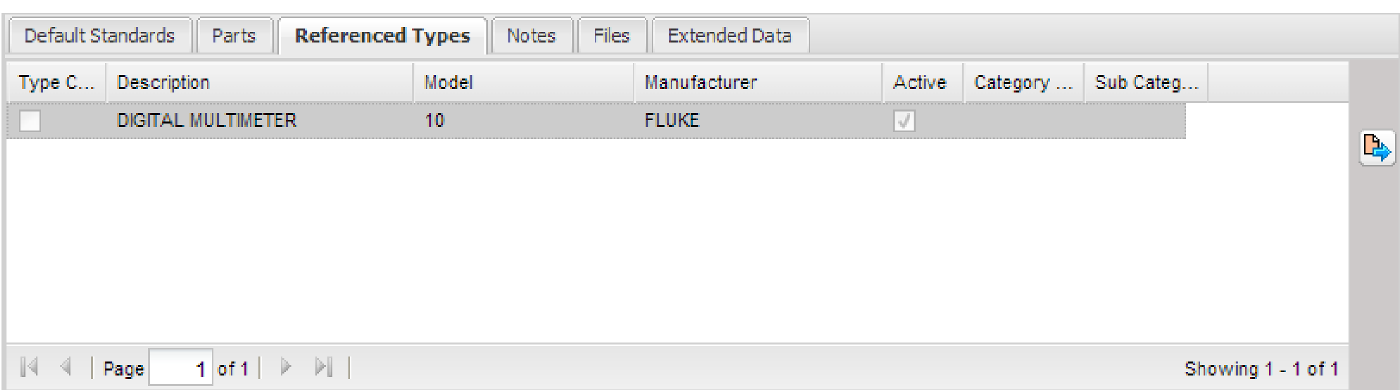


If there are “X” number of Assets coming in for service and these parts are needed, inventory can be checked and ordered accordingly helping to reduce turnaround time and reduce operational delays.

The buttons to the right of the grid can be used to add, delete, or modify parts.

Procedures – Referenced Types Tab

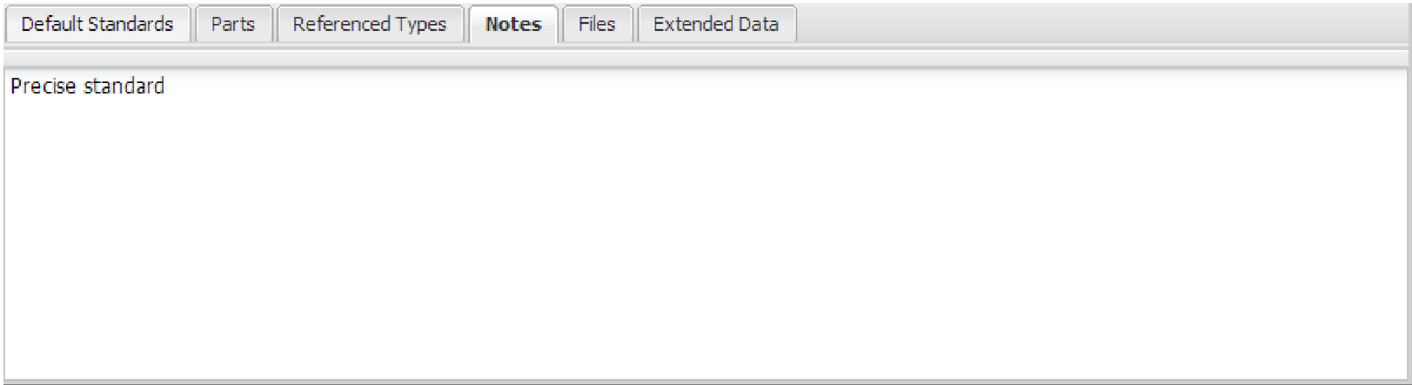
The Referenced Types tab provides a convenient way to view all the Types configured to use a specific procedure. A list of the Types that currently reference this Procedure is displayed. Using this tab is a quick way to see what Asset Types are affected by changes to this Procedure.



The button to the right of the grid can be used to view or modify the Type.

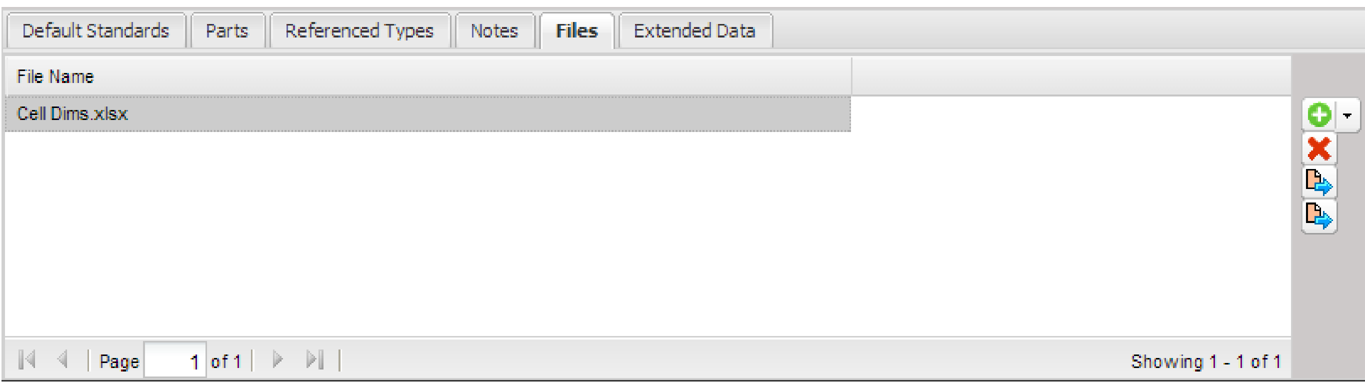
Procedures – Notes Tab

The Notes tab is used for general notes about the Procedure or for actual procedure text



Procedures – Files Tab

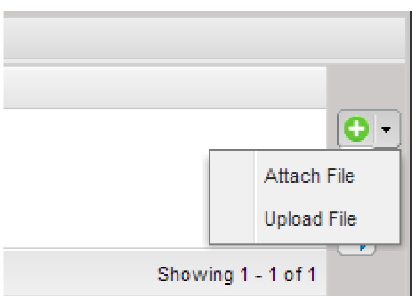
The Files tab displays files related the Procedure. Files may be related either by Attach File (attaches an existing file) or by Upload File (uploading a new file). The buttons to the right of the grid can be used to add, delete, or view files.



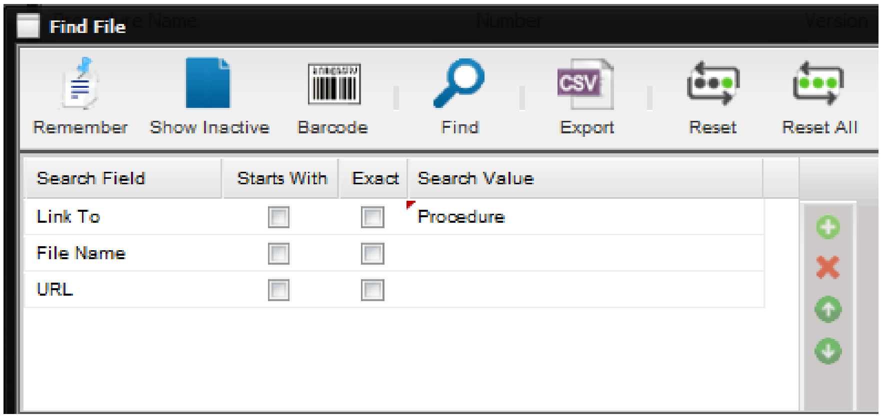
Adding a File (Attach or Upload)

When the "+"button on the right is selected, the user is presented with two options: Attach File or Upload File.

Note: *MET/TEAM can only upload files that are 50mb or smaller.*



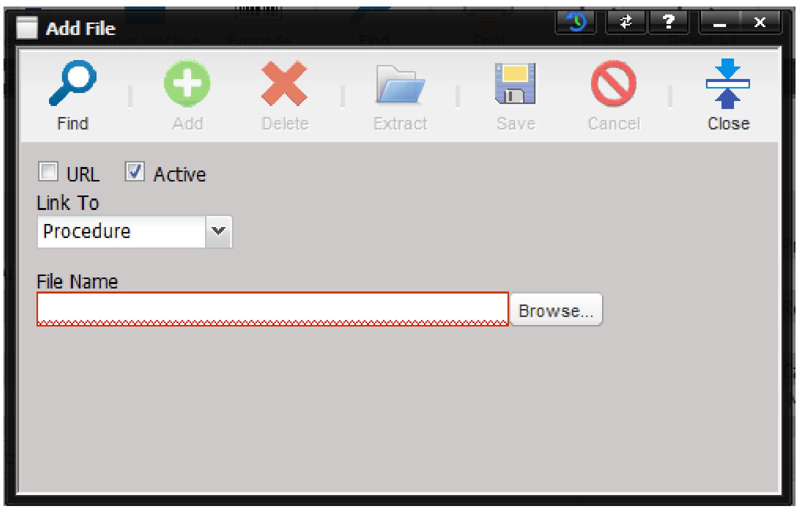
To attach an existing file to a Procedure, select the Attach File option. The Find screen is displayed for finding the File to add. Notice the 'Link To' search field contains the search value of "Procedure". Press the Find button. The Files displayed are those files that were previously added using the Maintenance menu Files submenu and were categorized with a 'Link To' entry of "Procedure". Select the file to attach from the results grid and press OK.



To attach a new file or URL to a Procedure, select the Upload File option. This option adds the File (as if the user had used the Maintenance menu Files submenu) and at the same time attaches the new File to the current Procedure.

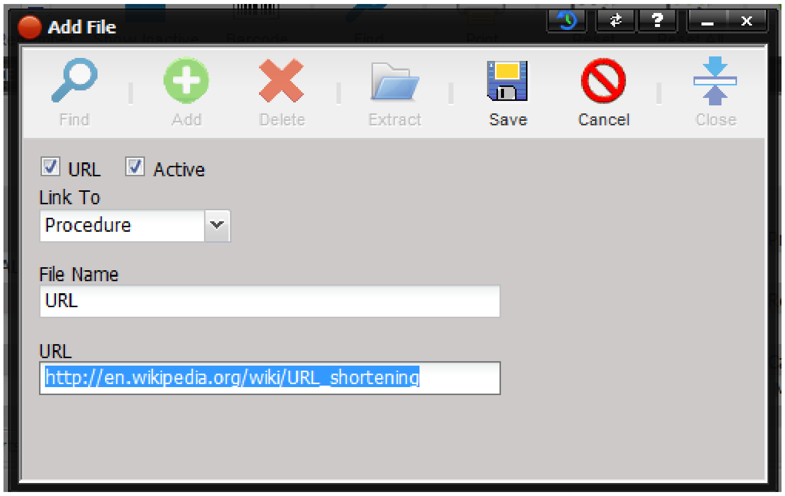
The Add File screen is displayed. Notice the 'Link To' field contains the value of "Procedure".

- To upload a file, leave the URL check box unchecked, check the Active check box, and press the "Browse…" button.

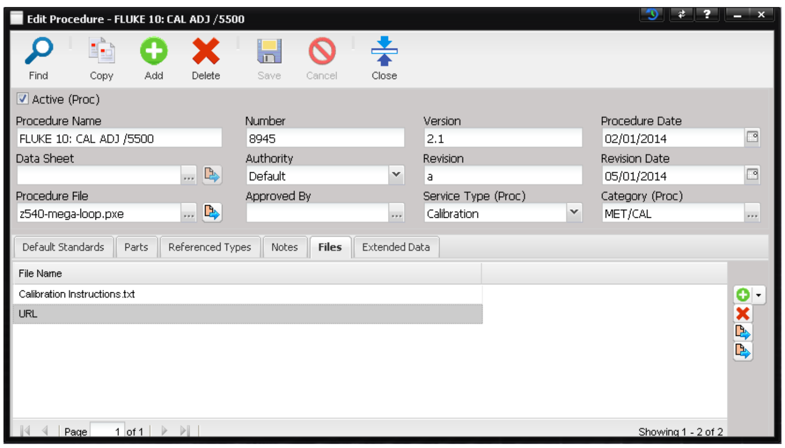


The Windows Choose File to Upload screen is displayed. Navigate to the file that is needed and select this file by double clicking. The File Name text box now contains the name of the file just selected. Select the Save button and the Add File screen closes. The file just uploaded is now displayed on the Procedure Files tab. See screen shot below with the three files in the Files grid.

- To enter a URL, check the URL checkbox check the Active check box, enter a filename in the File Name text box, and enter a URL in the URL text box.



Select the Save button and the Add File screen closes. The URL File Name is now displayed on the Procedure Files tab.



Deleting a File

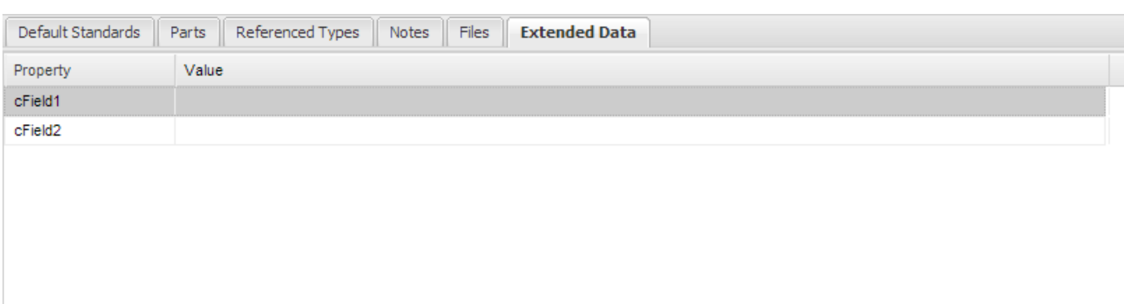
To remove a File, highlight the record in the grid on the Files tab and select “X” button on the right of the Files tab.

Viewing a File

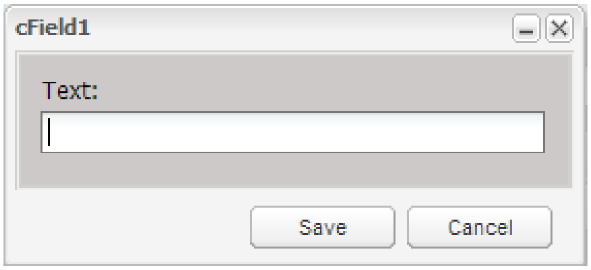
To view the selected File, highlight the record in the grid on the Files tab and select the Quick Link button (the 3rd button) on the right side of the Files tab.

Procedures – Extended Data Tab

The Extended Data grid tracks user defined Procedure characteristics.

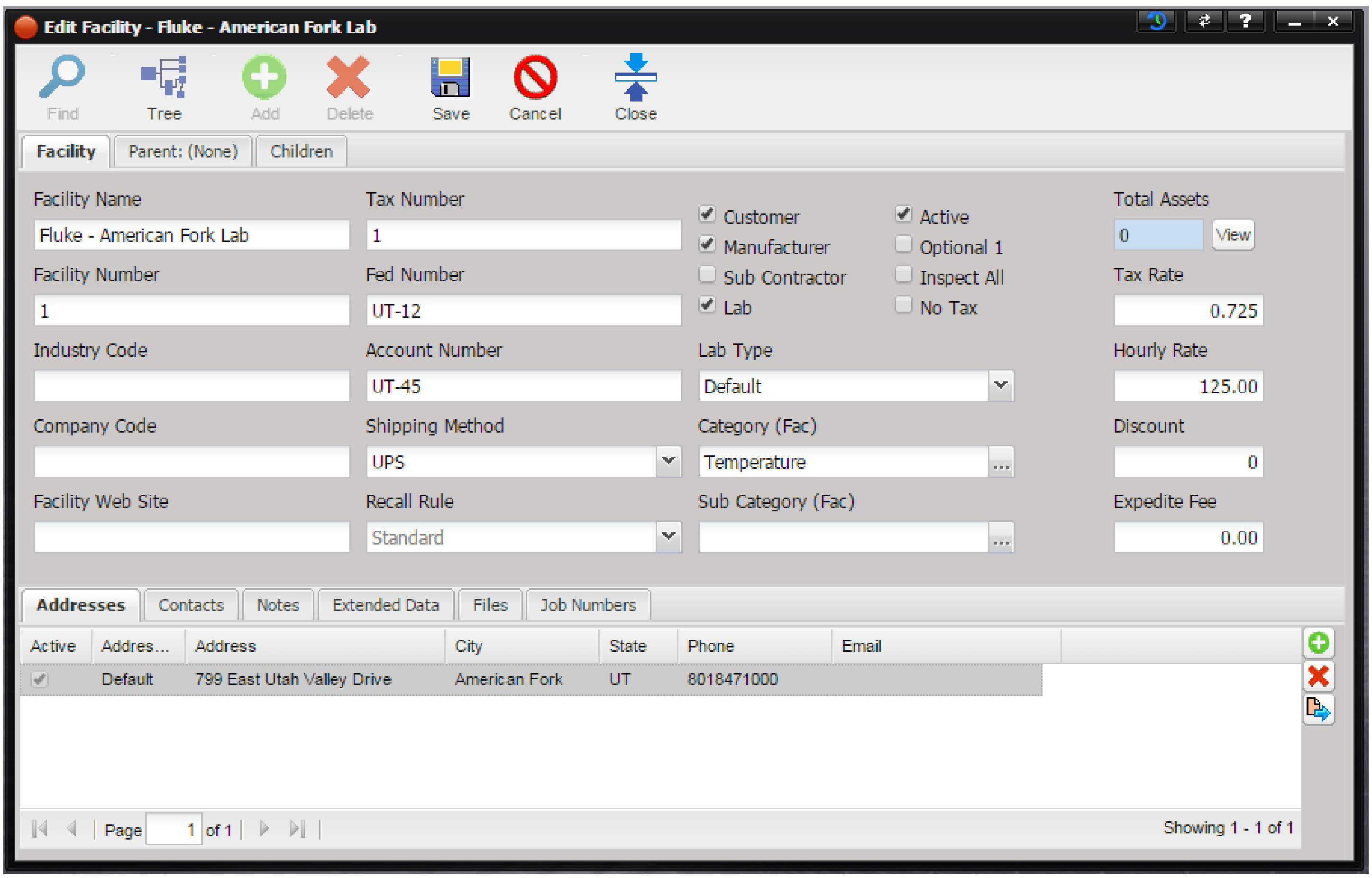


If MET/TEAM does not have a native data element required by the user, one can be added and tracked. (To manage Extended Data properties, see the section entitled Extended Data.) Extended Data property values can be modified by double clicking on the element in the grid. The user is prompted to enter or edit the value. Validations can be created for almost any data type.



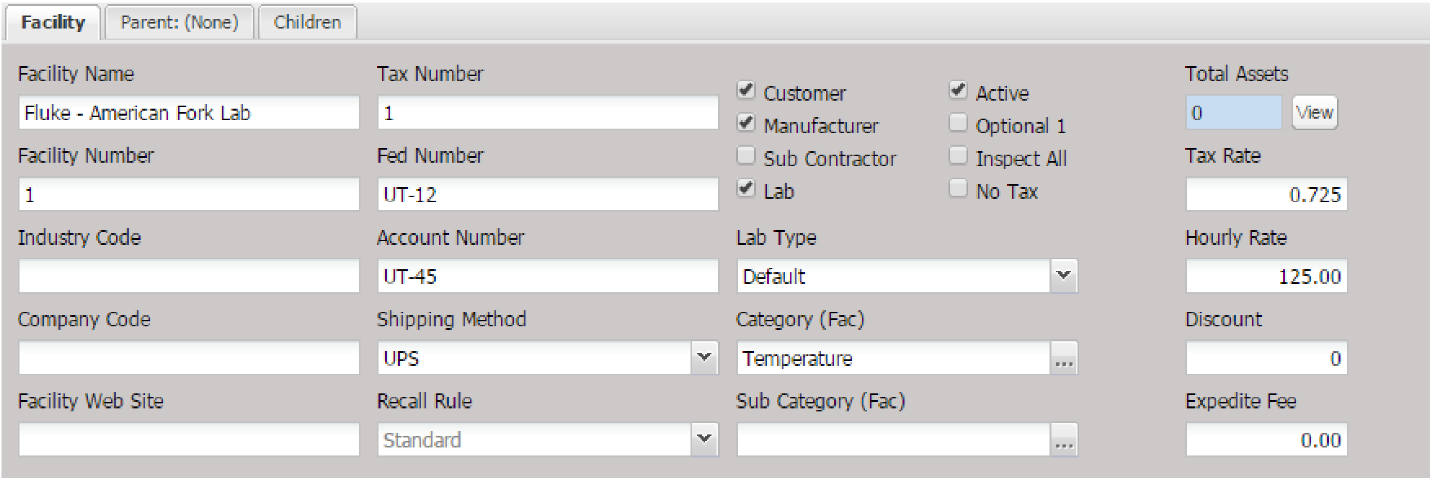
Facilities

Facilities are locations that exist, either physically or mythically. Facilities must be classified into one of the following categories: Customer, Manufacturer, Sub Contractor, or Lab. This screen contains both top and bottom tabs.



Facilities – Facility Tab

The Facility tab contains general information about the Facility that is being added, viewed, or modified.



- **Facility Name (required) –** The name of the Facility. We recommend the name be unique.
- **Tax Number** – The Facility's state or local tax number.
- **Facility Number** – The number issued to the Facility. This number could be a lab code, customer number, or other identifier.
- **Fed Number** – The Facility's federal tax id number.
- **Industry Code** – The code identifying this location within an industry, such as CAGE code.
- **Account Number** – The account number that can be linked to a bookkeeping system.
- **Company Code** – The code used to identify this Facility within a company.
- **Shipping Method** – The desired mode of shipment (user definable).
- **Facility Web Site** – The Facilities URL address on the internet.
- **Recall Rule –** The default recall rule used for this customer, standard choices include; Standard, End of Month, Beginning of Month, Previous Sunday. The recall rule will set the due date as described by the standard choices.
  - **Standard** – uses the interval only.
    Example: If the Service Date is 10/11/2012 and the interval is 12 months, the Due Date should be 10/11/2013.
  - **Standard/No Print** – uses the interval only. Does not print the Due Date on the certificate report.
  - **End of Month** – extends the calibration due date to the end of the month.
    Example: If the Service Date is 10/11/2012 and the interval is 12 months, the Due Date should be 10/31/2013.
  - **Beginning of month** – reduces the calibration cycle to the beginning of the month.
    Example: if the Service Date is 10/11/2012 and the interval is 12 months, the Due Date should be 10/1/2013.
  - **Previous Sunday** – reduces the calibration cycle to the previous Sunday.
    Example: if the Service Date is 10/11/2012 and the interval is 12 months, the Due Date should be 10/6/2013.
- **Customer** – Check if this Facility is a customer of the service facility. Enables the Tax Rate field. This checkbox cannot be customized because the functionality is associated with the Tax Rate field on this screen.
- **Manufacturer** – Check if this Facility is a manufacturer of equipment.
- **Sub Contractor** – Check if this Facility is a valid sub contractor.
- **Lab** – Check if this Facility is another calibration lab. This checkbox cannot be customized because the functionality is associated with the Inspect All field on this screen.

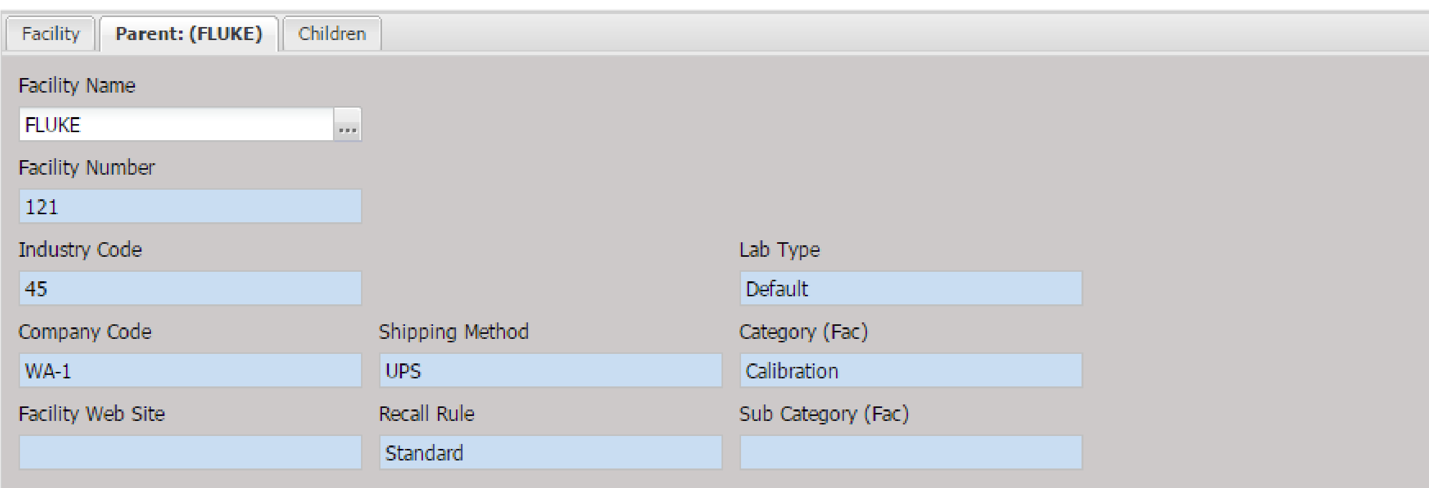
Note: A minimum of one Facility Type (Customer, Manufacturer, Sub Contractor, or Lab) must be selected prior to saving the Facility.

- **Active** – Check if this is an active Facility. If unchecked, this Facility is considered inactive and is not displayed in pick lists.
- **Optional 1** – Optional check box to be used for tracking Facility data.
- **Inspect All** – Check if this Facility requires inspection of all Assets.
- **No Tax** – Check if this Facility is exempt from tax application. This checkbox cannot be customized because the functionality is associated with the Tax Rate on this screen.
- **Lab Type** – System defined list of laboratory types (only used if the Facility is a lab).
- **Category (Fac)** – The general category of the Facility.
- **Sub Category (Fac)** – The sub category of the Facility.
- **Total Assets** – Displays the total number of Assets currently being tracked by MET/TEAM assigned to this Facility. This number includes active and inactive Assets. S
    - Selecting the View button displays a Crystal Report inventory list.
- **Tax Rate** – The rate of tax charged for services and goods sold. This field is enabled only when the facility is classified as a customer.
- **Hourly Rate** – Hourly Rate charged toward this Facility.
- **Discount**– Discount applied to this Facility.
- **Expedite Fee**– Fee charged per Asset to expedite for this Facility.

***Note:** Concerning Hourly Rate, Discount and Expedite Fee fields*:
The Facility screen overrides the Lab Defaults. If any of the Hourly Rate, Discount and Expedite Fee fields are blank or set to “0” the Lab Defaults are used.

Facilities – Parent Tab

The Parent tab is located on the top row of tabs underneath the Tool Bar. The Parent tab title displays the name of the parent Facility name for quick reference. Information found on the Parent tab is read-only except for the Facility Name.

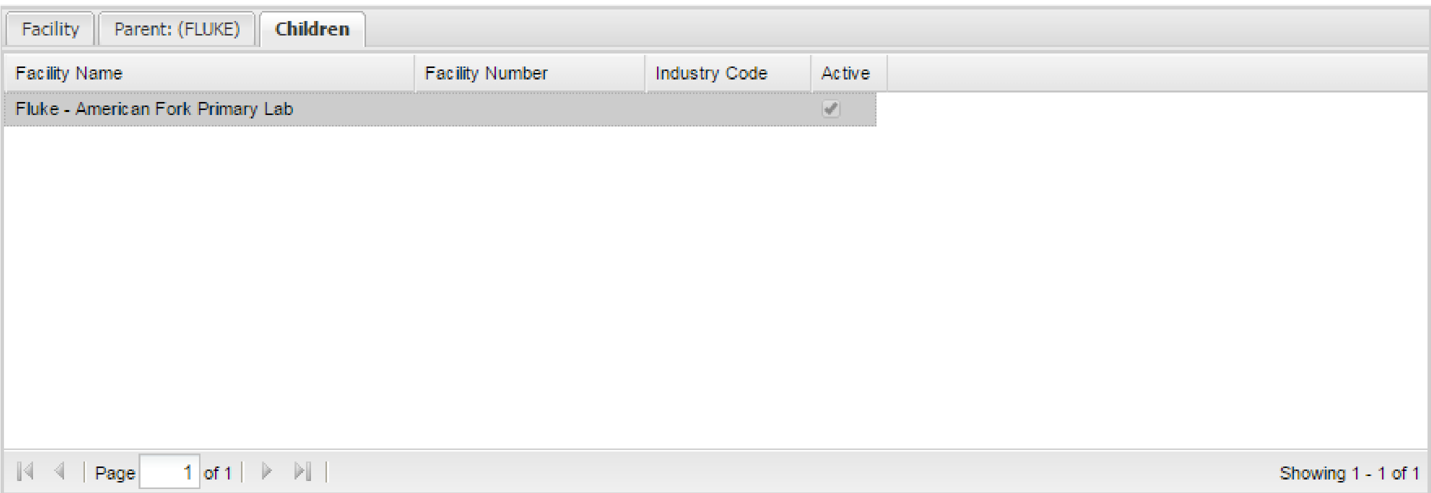


- **Facility Name –** The name of the parent Facility. The name should be unique.
- The Facility Name can be changed by selecting the “…” button.
- **Facility Number** – The number issued to the parent Facility. Could be a lab code, customer number, or other identifier.
- **Industry Code** – The code identifying this location within an industry, such as CAGE code.
- **Company Code** – The code used to identify this Facility within a company.

- **Facility Web Site** – The parent Facility URL address on the internet.
- **Shipping Method** – The desired mode of shipment (user definable).
- **Recall Rule** – The default recall rule used for this parent Facility, standard choices include; Standard, End of Month, Beginning of Month, Previous Sunday.
- **Lab Type** – System defined list of laboratory types (only used if the facility is a lab).
- **Category (Fac)** – The general category of the facility.
- **Sub Category (Fac)** – The sub category of the facility.

Facilities – Children Tab

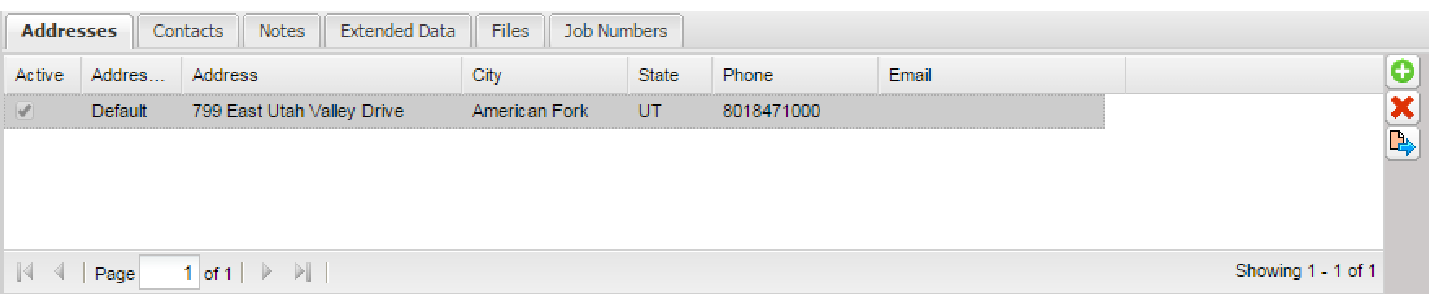
The Children tab is located next to the Parent tab on the top row of tabs underneath the Tool Bar. The Children tab displays a grid of Facilities that are children to this facility.



View the child facility information by highlighting the row in the grid and double clicking. If the Active check box is unselected, both active and inactive children are displayed.

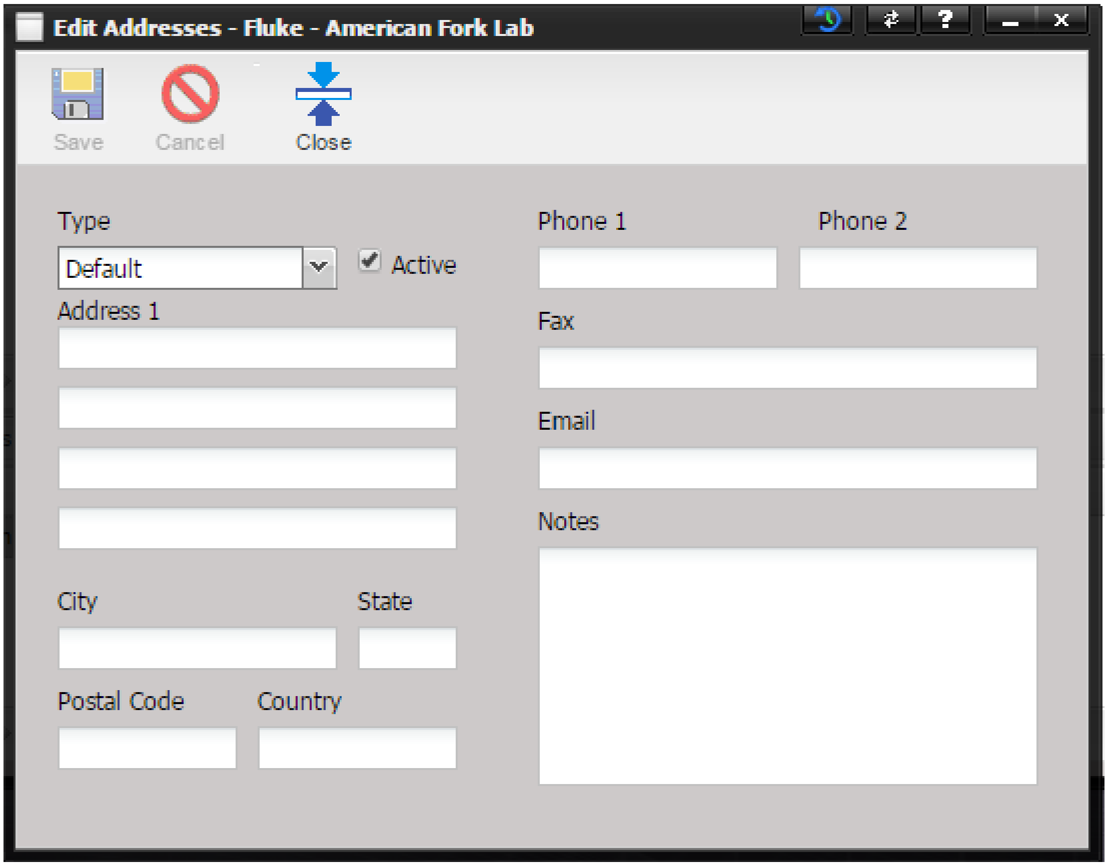
Facilities – Addresses Tab

The Addresses tab displays the physical addresses of the Facility. Many facilities have different billing and shipping addresses and MET/TEAM supports multiple addresses per facility. Grid records can be sorted by ascending or descending order by clicking on the header of the column.



The buttons to the right of the grid can be used to add, delete, or modify the address information.

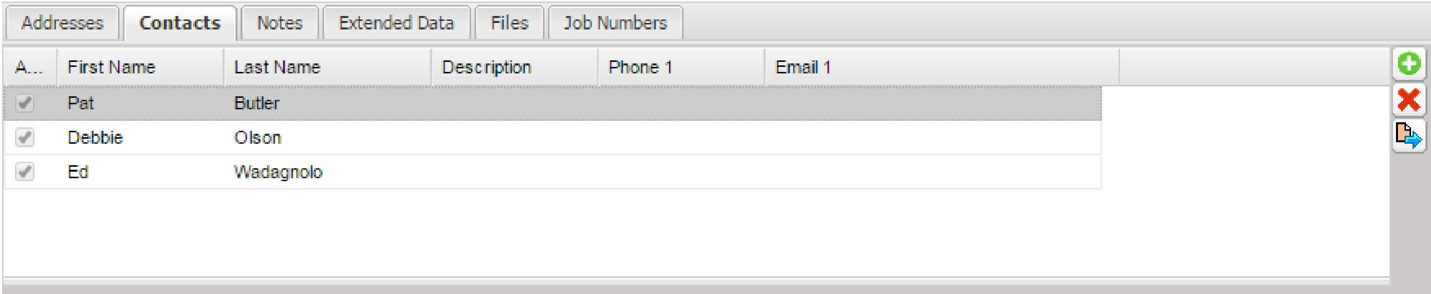
When adding an address, the Address dialog is displayed.



- **Type** – The type of address you are adding. Different contact types can be defined and then are used for specific reasons. Address types may include such choices as billing, shipping, or default.
- **Active** – Marks the address as active or inactive.
- **Address** 1 – The physical address of the facility. Four lines are included to support government or military facilities.
- **City** – The city of the facility.
- **State** – The state of the facility.
- **Zip** – The Zip code of the facility (a postal code can be entered here as well).
- **Country** – The country of the facility.
- **Phone 1** – The primary phone number of the facility.
- **Phone 2** – The secondary phone number of the facility.
- **Fax** – The facsimile number of the facility.
- **Email** – The Email address of the facility (this field could also be used to store additional web site information such as technical support, or customer service).
- **Notes** – Notes for this facility address.

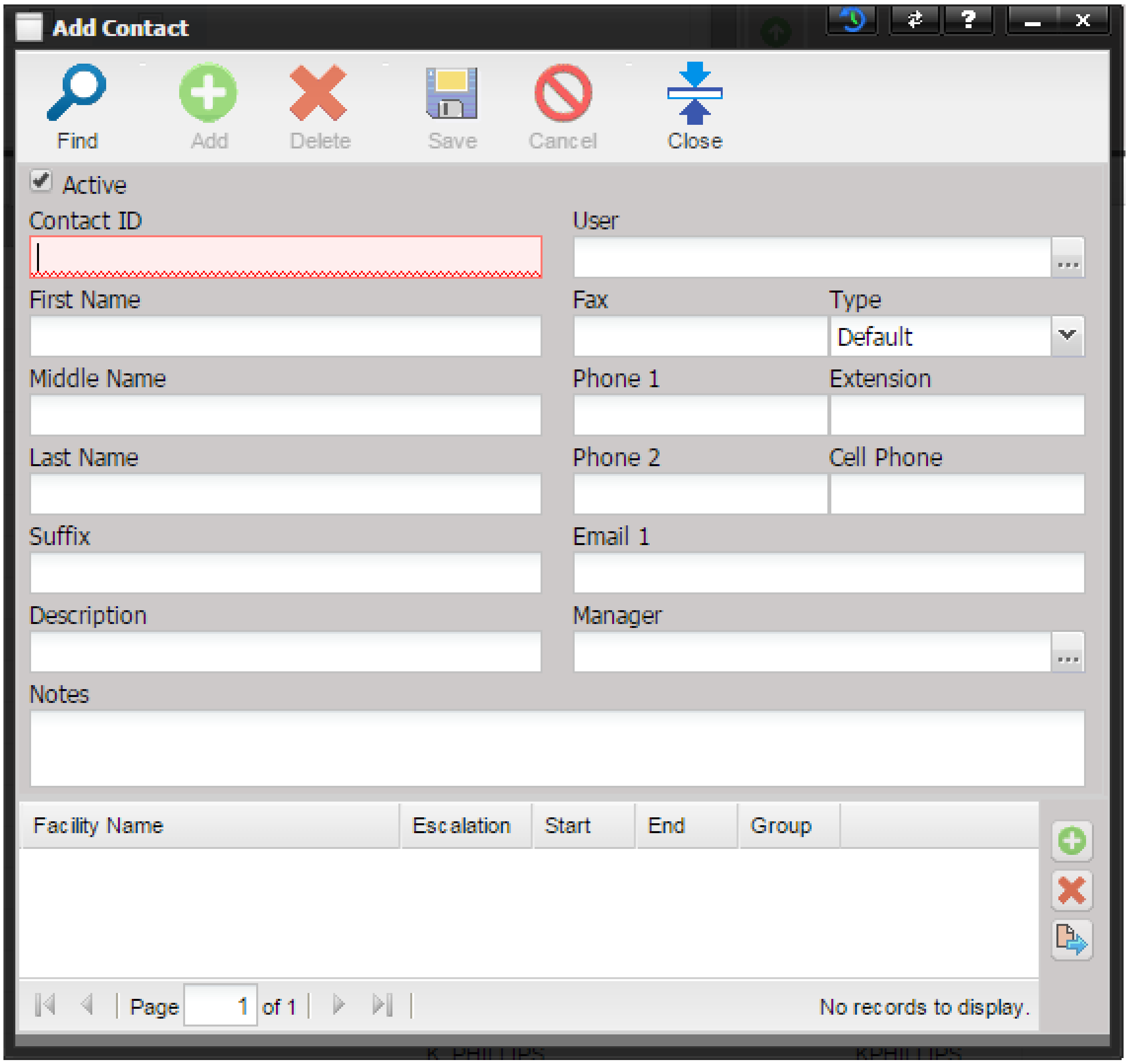
Facilities – Contacts Tab

The Contacts tab is for viewing contacts currently associated with the facility or for adding **new** contacts that will be associated with this facility. Contacts can be sorted by ascending or descending order by clicking on the header of the column.



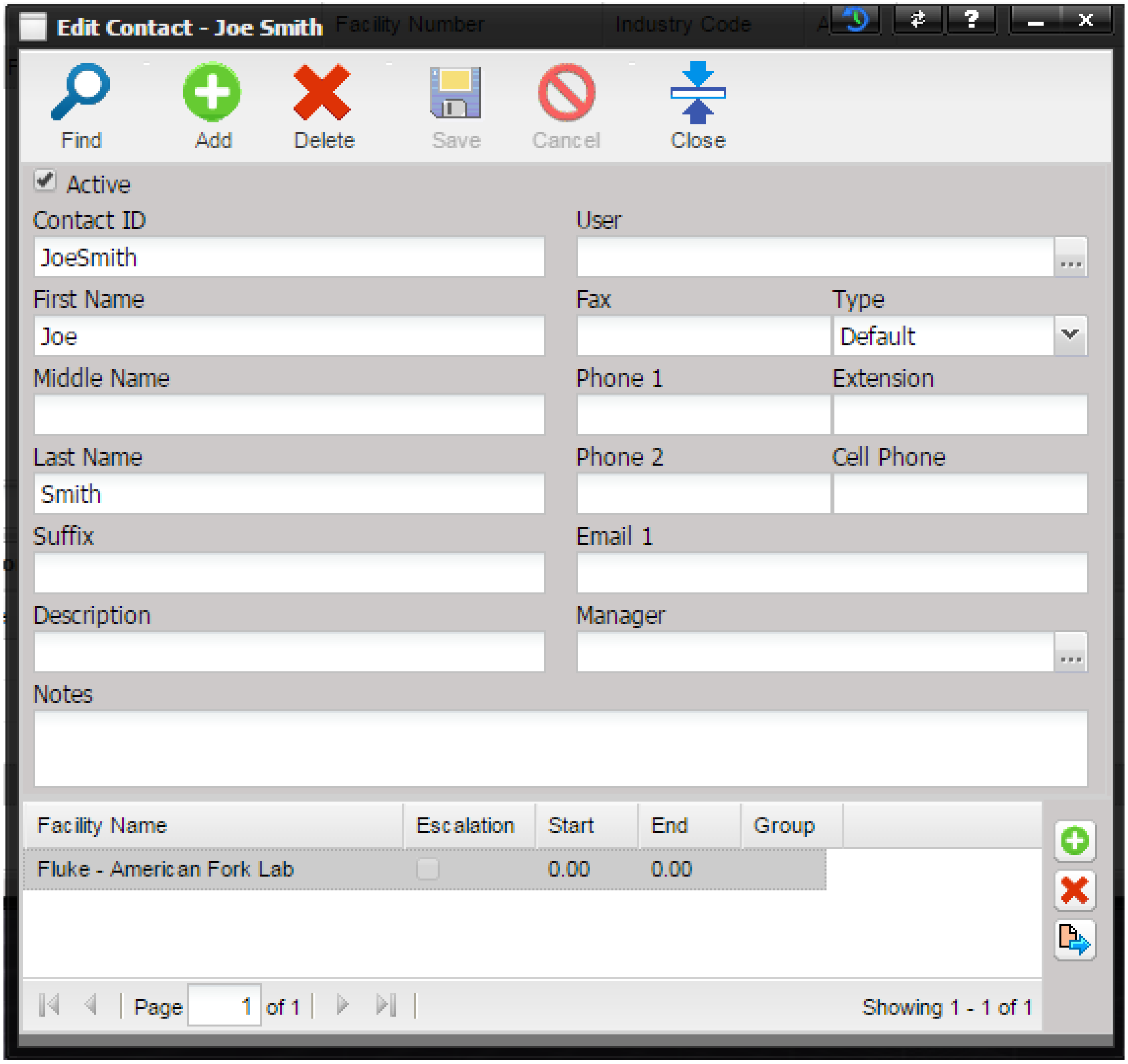
To add a **new** contact, select the "+"button. The contact will be associated with this Facility.

The Add Contact Screen is displayed for entering and then saving new Contact information.



When a **new** Contact is added from this tab, the Contact is automatically associated with this Facility when the Save button on the Add Contact screen is selected.

If you view the Contact information using the Quick Link button, you will see the Facility in the grid at the bottom of the contact screen.

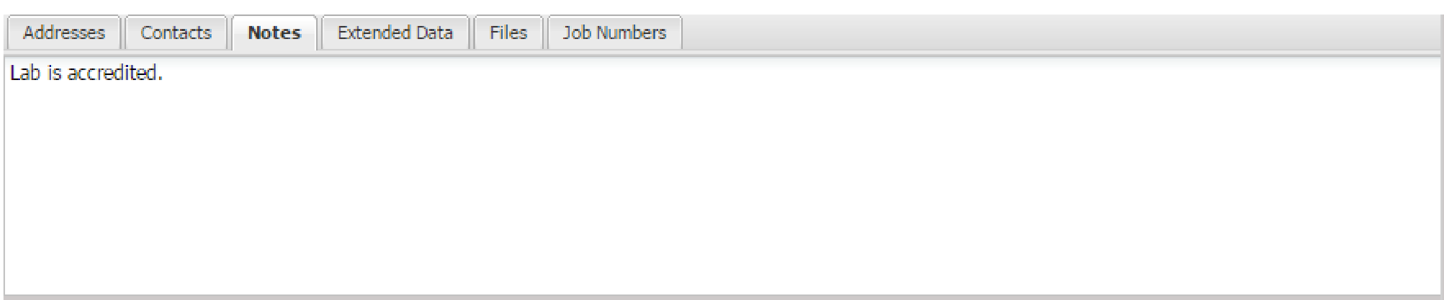


To de-associate a contact from this facility, select the “X” delete button from the right hand side of the Facility Contact tab.

To view information pertaining to a Facility, select the Quick Link button.

Facilities – Notes Tab

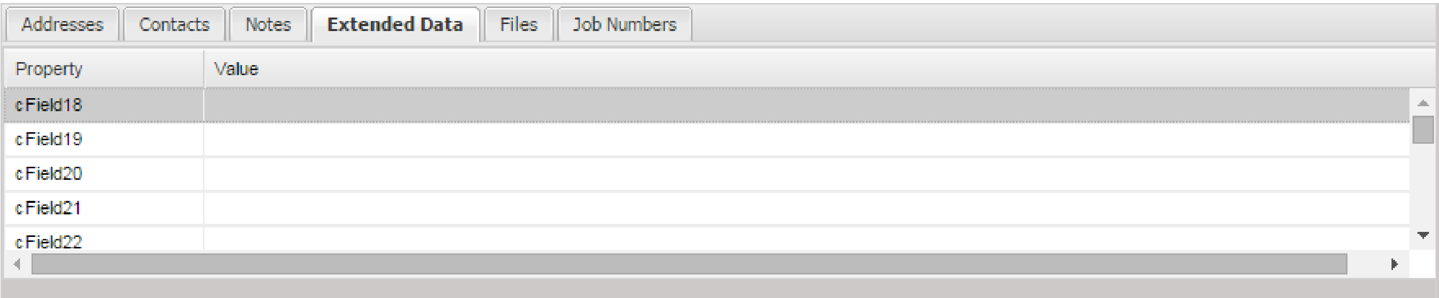
These are general notes about the Facility that are used for reference by the Service Facility.



To add a note, press the ALT+Q keys simultaneously. Refer to the section Quick Notes for additional details on notes.

Facilities – Extended Data Tab

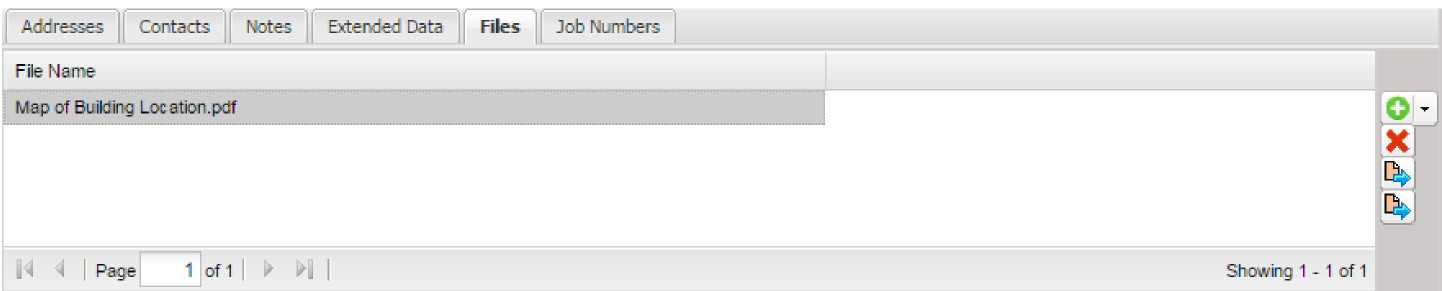
The Extended Data tab tracks user defined Facility characteristics.



If a native data element required by a user does not exist, MET/TEAM has the capability to add and track additional Facility characteristics. These values can be modified by double clicking on the element in the grid. The user is then prompted to enter or edit the data. Value validations can be created for almost any data type.

Facilities – Files Tab

The Files tab displays files related the Facility. Files may be related either by Attach File (attaches an existing file) or by Upload File (uploading a new file). The buttons to the right of the grid can be used to add, delete, modify, or view files.

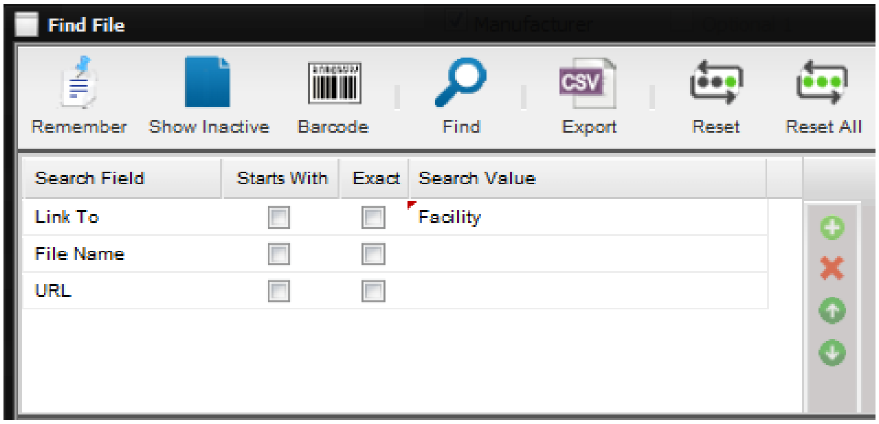


Adding a File (Attach or Upload)

When the "+"button on the right is selected, the user is presented with two options: Attach File or Upload File.

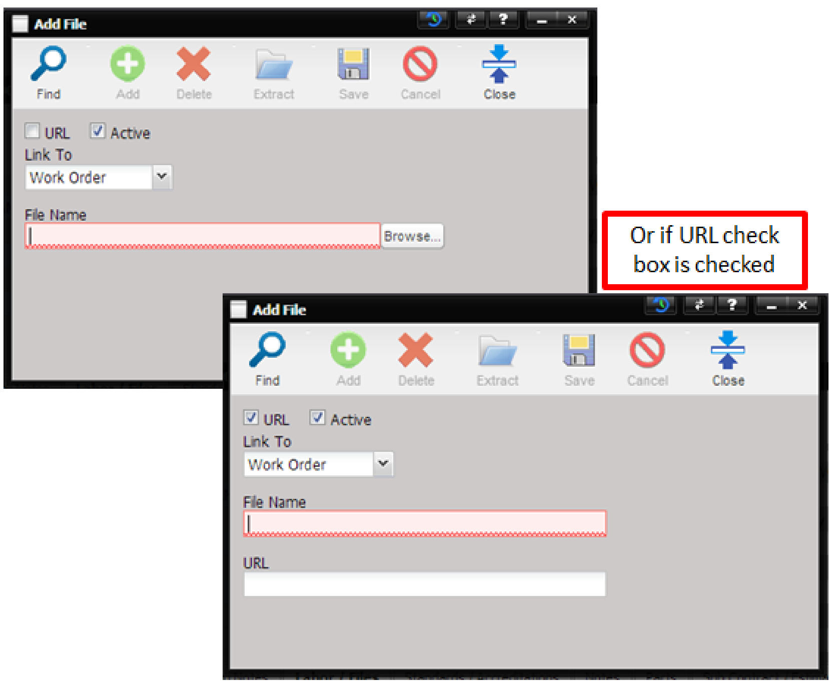
***Note:** MET/TEAM can only upload files that are 50mb or smaller.*

To attach an existing file to a Facility, select the Attach File option. The Find screen is displayed for finding the File to add. The Link To field is prefilled with "Facility". Press the Find button. The displayed files are those files that were previously added using the Maintenance menu Files submenu and created with the Link To set to Facility. Select the file to attach from the results grid and press OK.

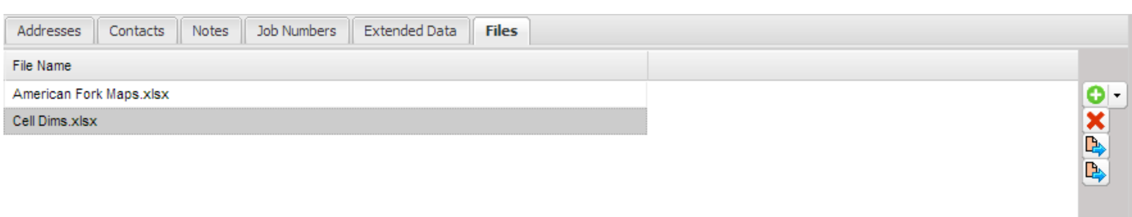


To attach a new file to a Facility, select the Upload File option. This option adds the File (as if the user had used the Maintenance menu Files submenu) and at the same time attaches the new File to the current Facility.

The Add File screen is displayed with the Link To “Facility” preselected from the dropdown. Select the Browse button to select the File to upload.



When the Save button is selected, the new File is saved as a File, the Files screen is closed, the new file is attached to the current Facility and the Files grid refreshes on the Facility screen.



Deleting a File, Modifying the File Link, Viewing the File

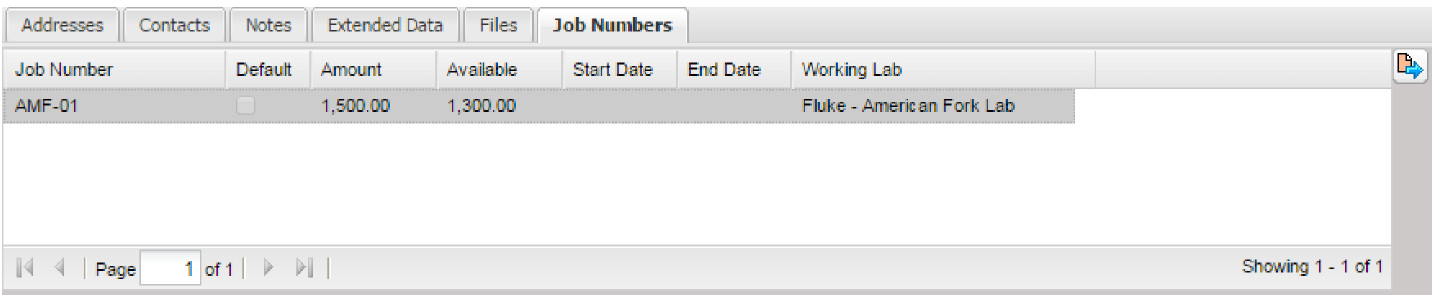
To remove a File, highlight the record in the grid on the Files tab and select the “X” button on the right of the Files tab.

To modify a File link, highlight the record in the grid on the Files tab and select the Quick Link button (the 3rd button) on the right side of the Files tab.

To view the selected File, highlight the record in the grid on the Files tab and select the Quick Link button (the 4th button) on the right side of the Files tab.

Facilities – Job Numbers Tab

The Job Numbers tab lists all of the available Job Numbers for this Facility. Job Numbers can be sorted by ascending or descending order by clicking on the header of the column.



To view information pertaining to a Job Numbers, highlight the row of the Job Number you want to view information about and then select Quick Link button on the right.

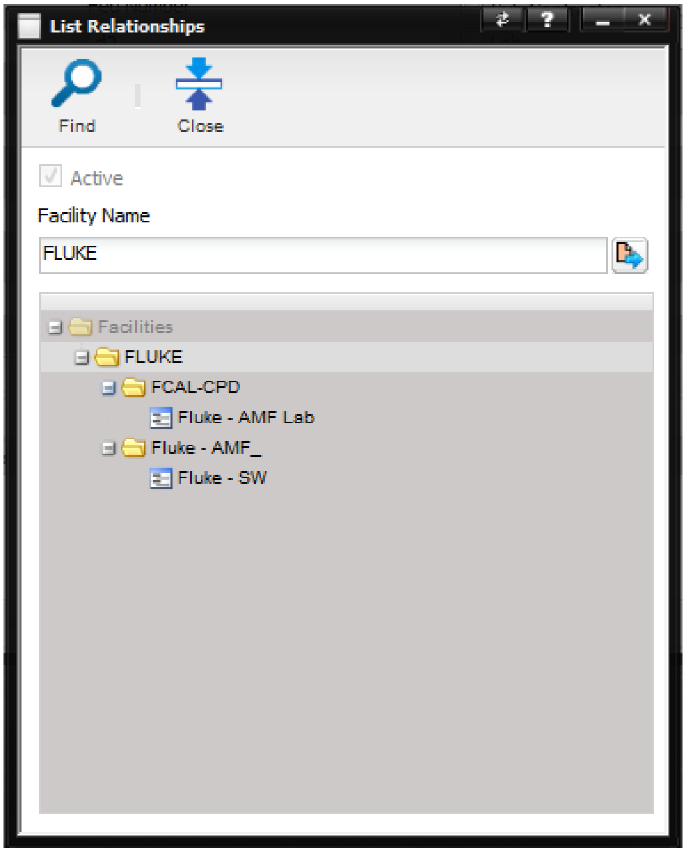
To add a Job Number use the Maintenance menu Job Numbers sub menu.

Facility Tree

The Facility Tree button displays the List Relationship screen which is a tree view of the relationship of the current facility to other facilities. The Active checkbox is checked if the highlighted Facility is active.

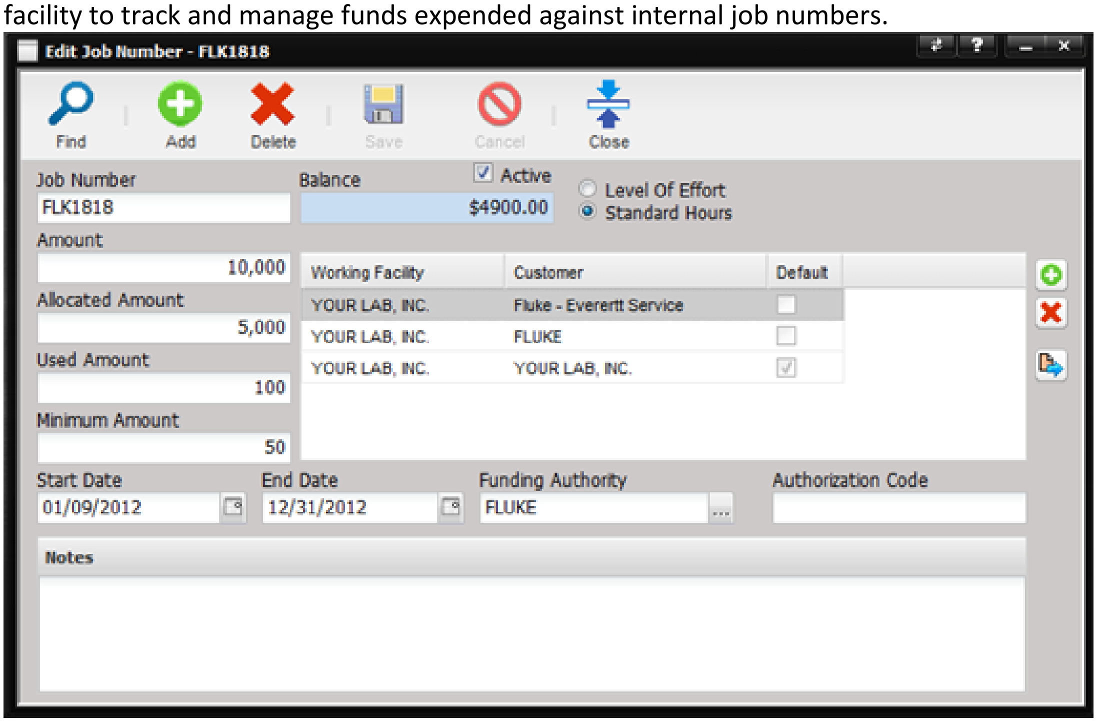
The **Facility Name** displays the name of the Facility that is highlighted and whose relationships are being displayed (both Parent and Children). Clicking on any Facility in the tree updates the tree.

Select the Quick Link button next to the Facility in the Facility Name text box to display the Facility screen with that Facility’s data visible.



Job Numbers

Job Numbers are funding lines used by the service facility for one or more customers. Job Numbers allow the service facility to track and manage funds expended against internal job numbers.



- **Active** – Checked if the job number is active. If inactive the users cannot select it to expend money against.

- **Job Number** – The number representing the job number issued by the funding source.
- **Amount** – The initial amount of the funding.
- **Allocated Amount** – The estimated amount of funds reserved for items currently under service.
- **Used Amount**– The amount of funds committed or expended against this Job Number.
- **Minimum Amount** – *Warning amount*. If the amount available falls below this limit, the user is prompted during receiving.
- **Start Date** – The date the job number is available for use.
- **End Date** – The date the job number expires.
- **Balance** – The amount of funds left on the job number.
- **Level of Effort or Standard Hours -** Indicates the type of funding. *(see the Job Number Decrementing Methods flow chart for details)*
- **Funding Authority** – The facility that opened the funding (the funding owner).
- **Authorization Code**– Authorizing code issued by the funding authority.
- **Notes** – Notes about the job number.
- **Facilities** – Grid of facilities that are allowed to use this job number.

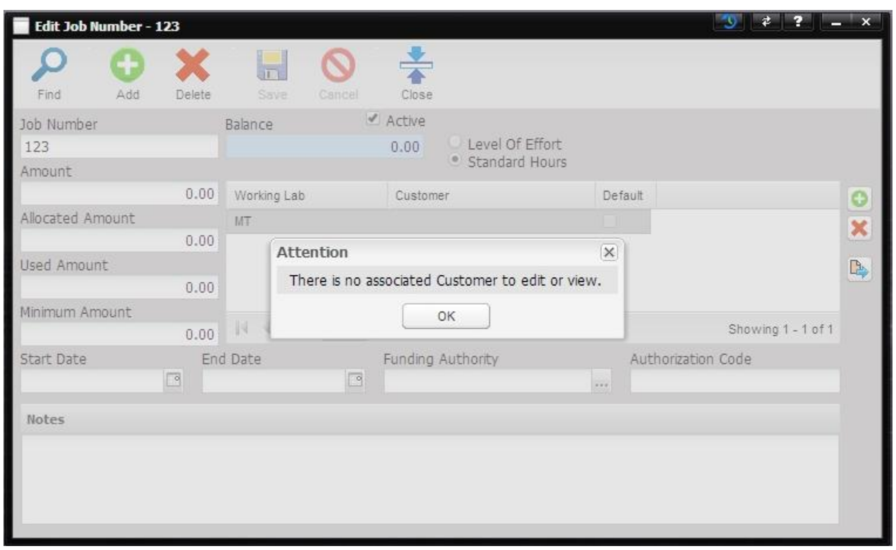
Adding Facilities to Job Numbers

To add a Facility to this job number, begin by selecting the "+" button. When the Facility Job Linking screen is displayed, select the "…" button next to the Customer text box. Select the desired Customer and then the Save button. The facility is added to the Facility Management grid.

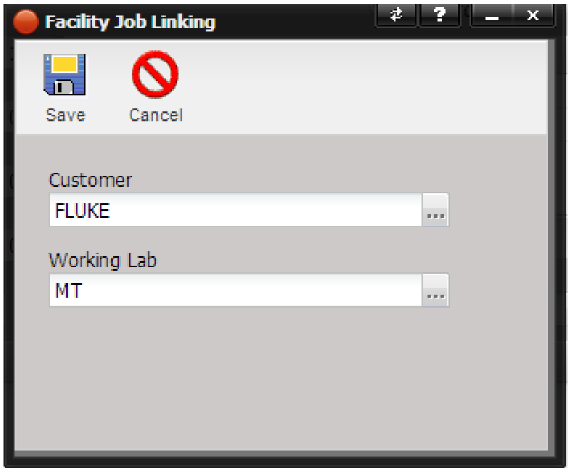
To remove a facility, select the "X" delete button.

To view information pertaining to a Facility, select the Quick Link button on the right of the Working Lab grid.

- If the Working Lab does not have an associated Customer name and the Quick Link button is selected, the following message is displayed.



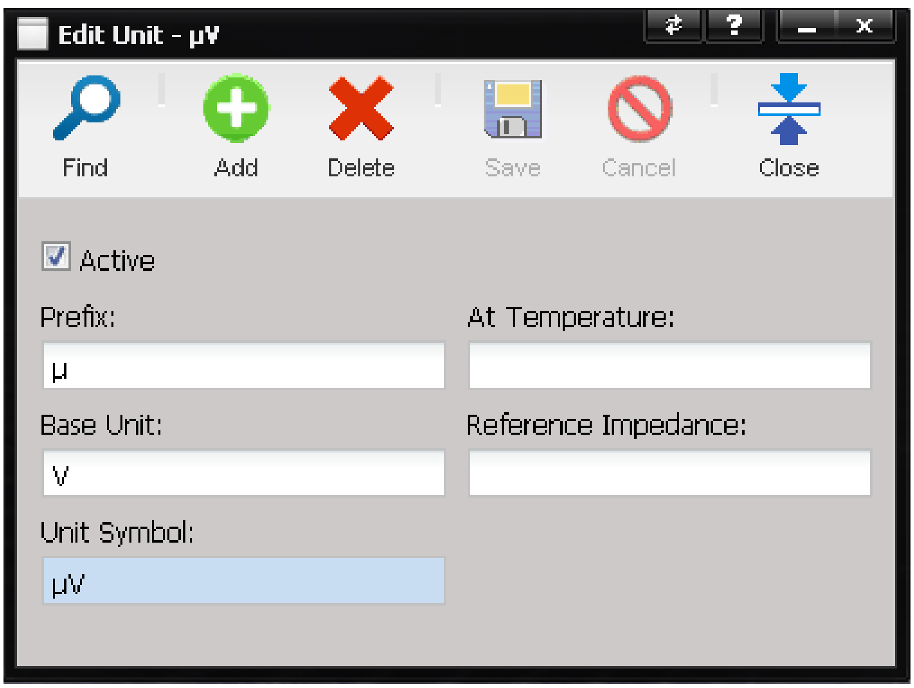
- To enter a customer, the Working Lab must be deleted. Highlight the Working Lab that does not have a customer. Select the "X" on the right hand side of the grid. Now use the "+" button to add a Working Lab making sure to select a Customer on the Facility Job Linking screen.



Facilities can be sorted by ascending or descending order by clicking on the header of the column.

Units

The Units option is used to manage units associated with measurements. Units can be setup using this menu option. The MET/TEAM default database contains many commonly used Units. See below for a list of the default Units.



- **Active** – If checked, the Unit is available on the Units pick lists.
- **Prefix** – The prefix of the Unit of measurement.
- **Base Unit** – The Unit of measurement.
- **Unit Symbol** – The symbol used for the Unit of measurement which is automatically generated by concatenating the prefix and base unit.
    - **For example**: if µ is entered for the prefix and V for the base unit, the Unit Symbol will be µV.
- **At Temperature** – The temperature as which the Unit is applicable.
    - **For example**: when used in pressure units At Temperature would be inHg@60F

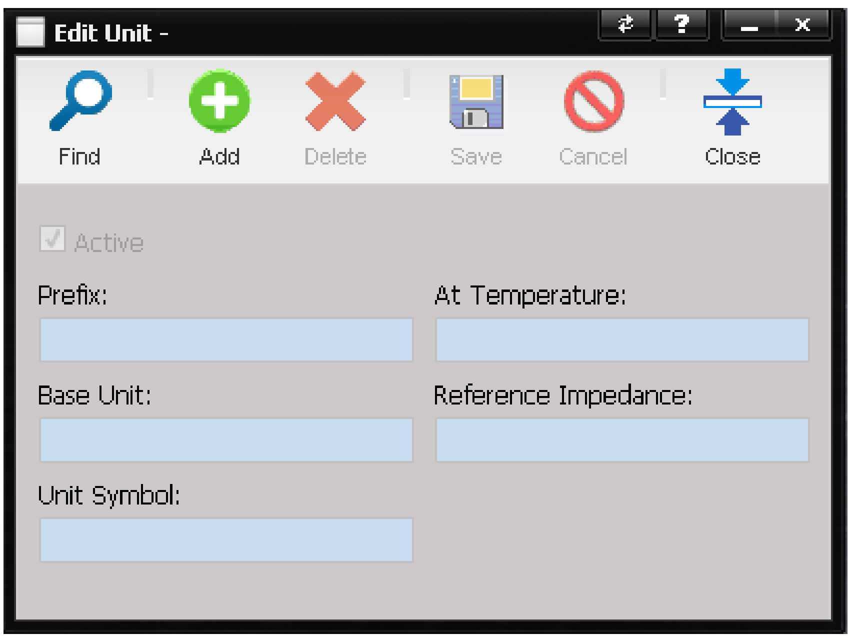
- **Reference Impedance** – Used to convert dBm to Watts or volts and visa-versa.

Default Database Units

Default Database Units
<blank>
°C
°F
°R
°Ré
°Ro
µA
µF
µs
µV
µW
A
bar
C
F
GHz
H
hPa
Hz
inHg
K
kHz
kPa
kV
kW
mA
mbar
mF
mH
mHz
MHz
mPa
MPa
mS
ms
mTorr
mV

MV
mW
MW
nF
ns
nV
nW
Ohms
Pa
pF
psi
pV
S
s
Torr
V
W

Note: The <blank> unit is used by MET/TEAM for unit less values. Because MET/TEAM functionality is dependent on this Unit value, the fields on the Edit Unit screen cannot be edited when it is selected.

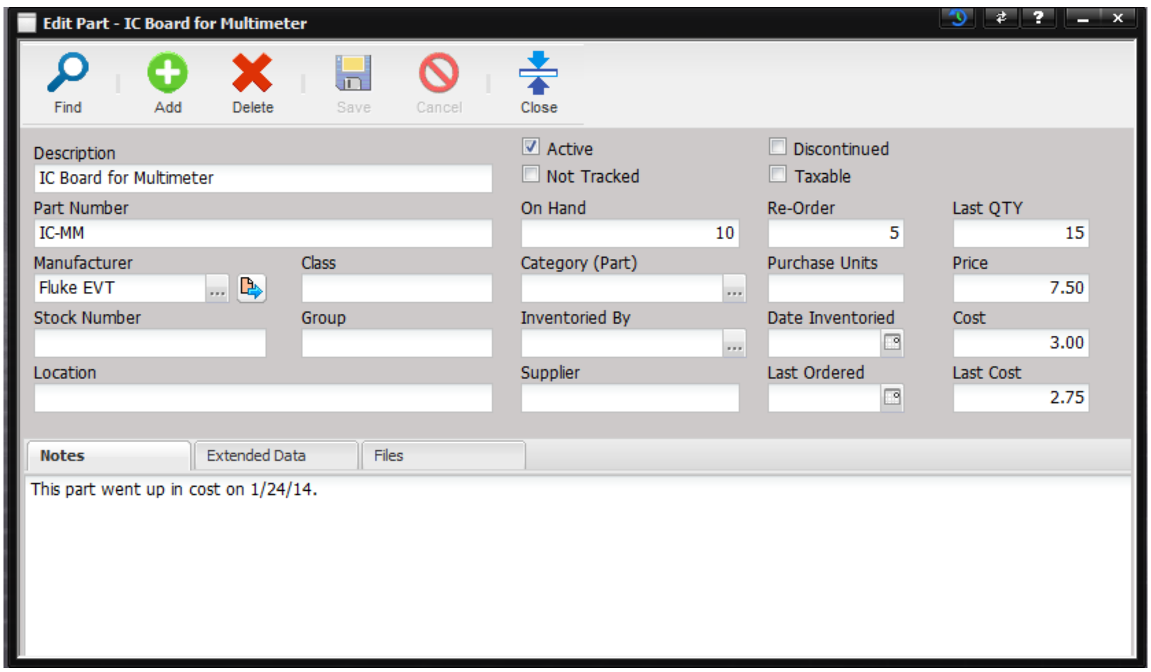


Here is how it looks on the Find screen.

Unit Symbol	Base Unit	Prefix
μV	V	μ
A	A	
Hz	Hz	
kHz	Hz	k
V	V	

Parts

The Parts option is used to manage expendable items used in the process of service. Parts can be setup using this menu option and then added to Types, Procedures, Work Orders, Quotes, Invoices and Shipments.

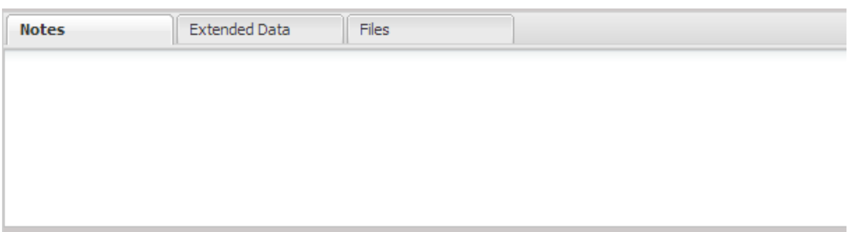


- **Description** – The description of the part.
- **Part Number** – The manufacturer's number used to order the part.
- **Manufacturer** – The company that makes the part.
- **Class** – Describes the style or type of part.
- **Stock Number** – National Stock Number (NSN) as issued by FedLog.
- **Group** – Allows the user to enter a value to group parts.
- **Location** – The physical location where the part can be found.
- **Active** – If checked, the part is available on the parts pick lists.
- **Not Tracked** – If checked, the part is an expendable item not tracked, such as cotton swabs, alcohol, etc.
- **Discontinued** – If checked, the manufacturer no longer produces this part.
- **Taxable** – If checked, tax is charged when billing is run.
- **On Hand** – The quantity that is available for use.

- **Re-order** – The part is reordered when the on hand quantity reaches this amount.
- **Last QTY** – The amount last ordered.
- **Category (Part)** – The category of the part.
    - The category can be changed by selecting the "…" button.
- **Purchase Units** – The way in which this part is purchased**.**
- **Price** – The amount the customer is charged for this part.
- **Inventoried By** – The name of the person who last inventoried this item.
    - The inventoried by can be changed by selecting the "…" button.
    - The list of names that are selectable comes from the list of users.
- **Date Inventoried** – The date this item was last inventoried.
- **Cost** – The price last paid to purchase this part.
- **Supplier** – The vendor that this part is purchased from.
- **Last Ordered** – The date this item was last ordered.
- **Last Cost** – The amount the service facility paid the last time the part was purchased.

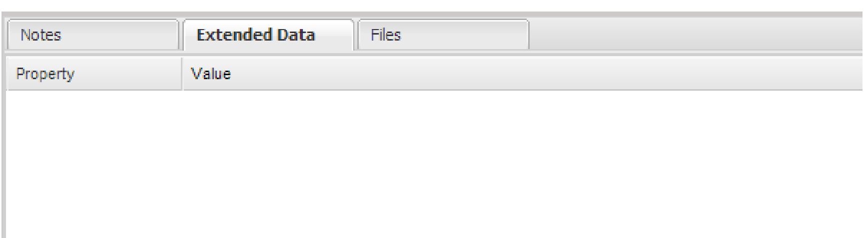
Parts - Notes Tab

The Notes tab is used for generic notes on the part. May contain data such as where the part can be purchased from or a contact point.

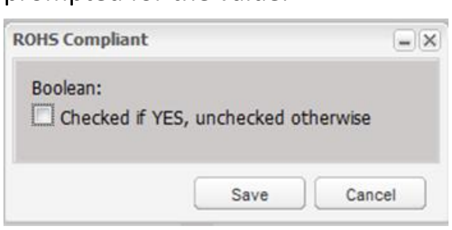


Parts - Extended Data Tab

The Extended Data tab tracks user defined part characteristics.



If MET/TEAM does not display a native data element required by user, the data element can be added and tracked using the Extended Data tab. These data elements can be modified by double clicking on the element in the grid. The user is prompted for the value.



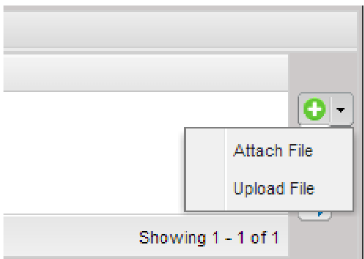
Parts - Files Tab

The Files tab displays files related the Parts. Files may be related either by Attach File (attaches an existing file) or by Upload File (uploading a new file). The buttons to the right of the grid can be used to add, delete, or view files.

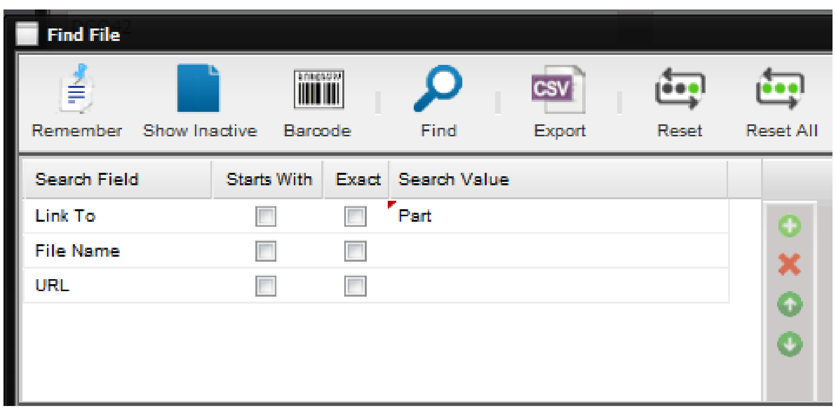
Adding a File (Attach or Upload)

When the "+"button on the right is selected, the user is presented with two options: Attach File or Upload File.

***Note:** MET/TEAM can only upload files that are 50mb or smaller.*



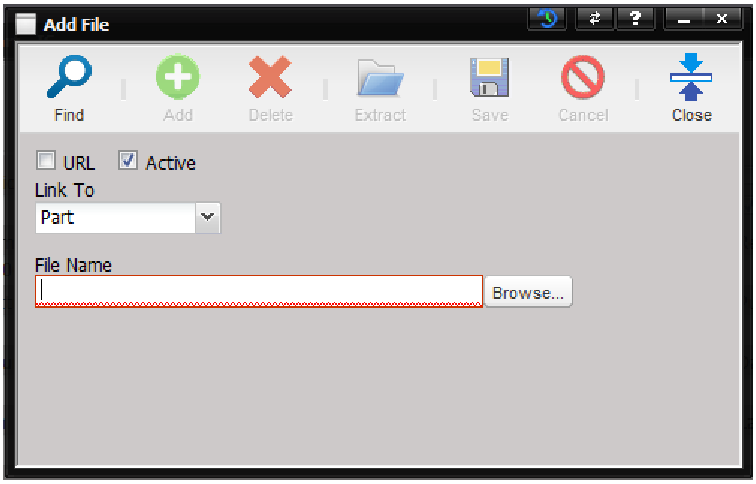
To attach an existing file to a Procedure, select the Attach File option. The Find screen is displayed for finding the File to add. Notice the 'Link To' search field contains the search value of "Part". Press the Find button. The Files displayed are those files that were previously added using the Maintenance menu Files submenu and were categorized with a 'Link To' entry of "Part". Select the file to attach from the results grid and press OK.



To attach a new file or URL to a Part, select the Upload File option. This option adds the File (as if the user had used the Maintenance menu Files submenu) and at the same time attaches the new File to the current Part.

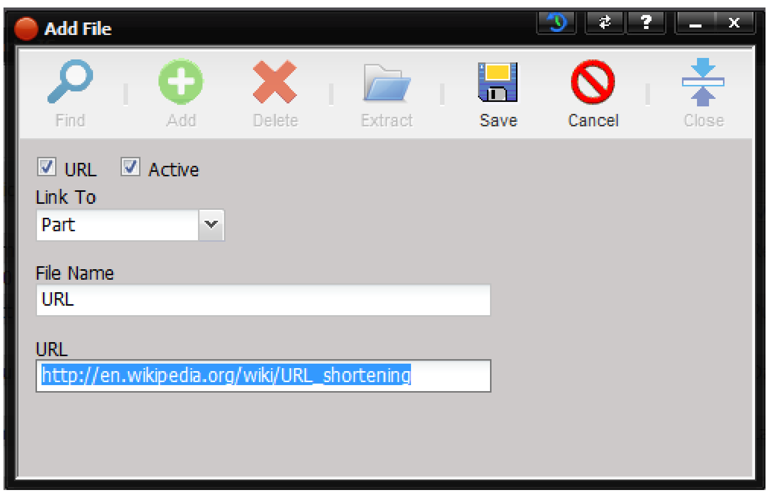
The Add File screen is displayed. Notice the 'Link To' field contains the value of "Procedure".

- To upload a file, leave the URL check box unchecked, check the Active check box, and press the "Browse…" button.

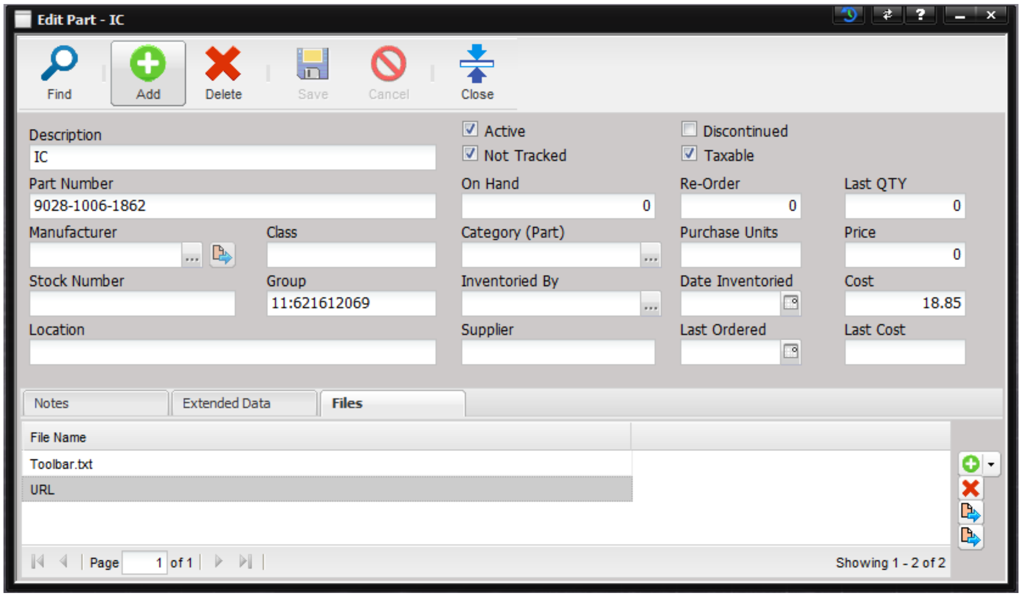


The Windows Choose File to Upload screen is displayed. Navigate to the file that is needed and select this file by double clicking. The File Name text box now contains the name of the file just selected. Select the Save button and the Add File screen closes. The file just uploaded is now displayed on the Parts Files tab.

- To enter a URL, check the URL checkbox check the Active check box, enter a filename in the File Name text box, and enter a URL in the URL text box.



Select the Save button and the Add File screen closes. The URL File Name is now displayed on the Procedure Files tab.



Deleting a File

To remove a File, highlight the record in the grid on the Files tab and select "X" button on the right of the Files tab.

Viewing a File

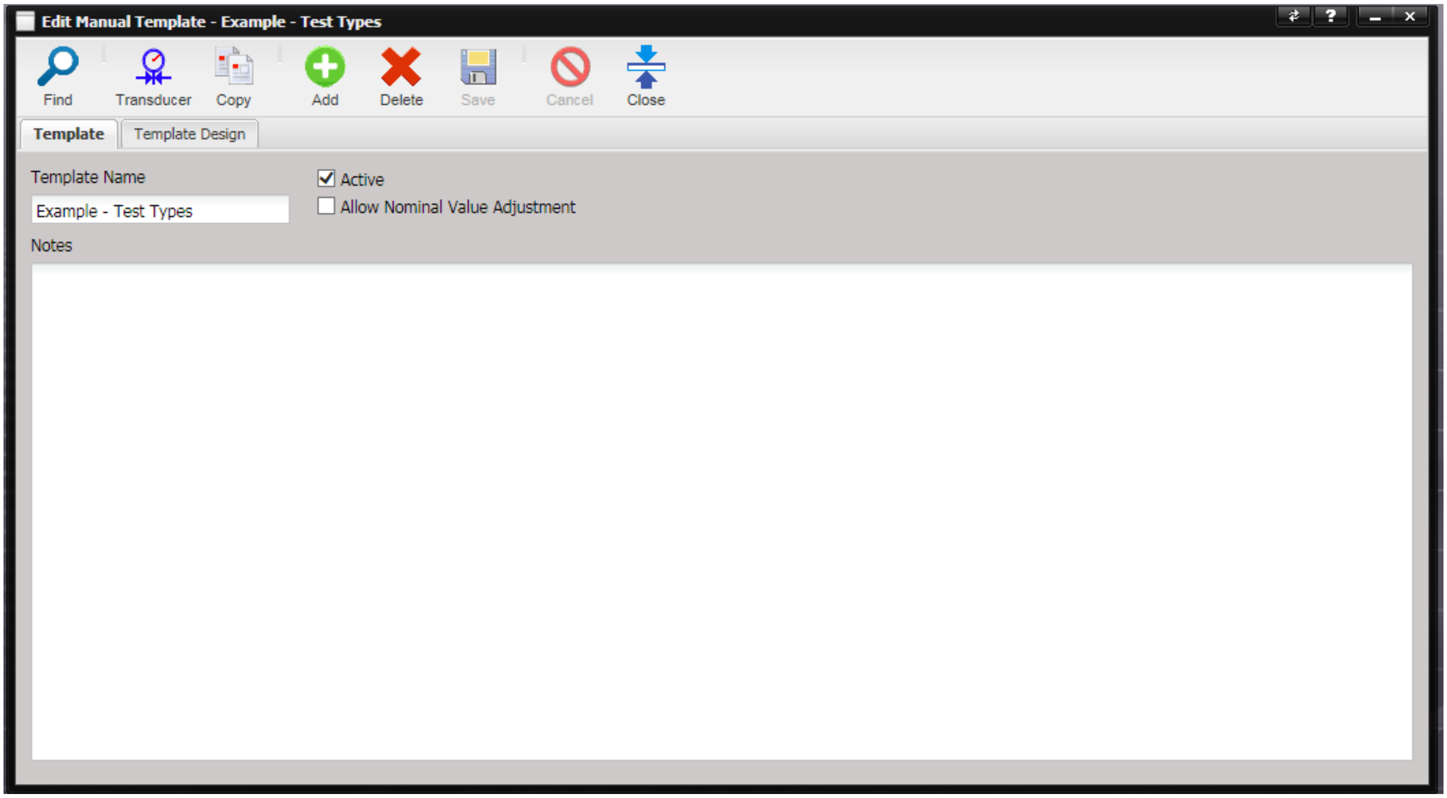
To view the selected File, highlight the record in the grid on the Files tab and select the Quick Link button (the 3rd button) on the right side of the Files tab.

Manual Templates

The Manual Templates option is for managing manual data entry templates used for recording calibration data. These templates can be associated with a Type and accessed on the Work Order screen to collect and record calibration data.

Select the Add button on the Find Manual Template screen to create a new Manual Template. The Add Manual Template screen is displayed.

Or, select the Find button to find a template to modify. The Edit Manual Template screen is displayed.



Manual Template Toolbar

The Manual Template toolbar contains some buttons that are unique to the Manual Template screen. All the buttons are explained below.

Find – Allows you to find existing Manual Templates.

Transducer- Puts the template in *transducer mode* which allows reference information to be entered. The Ref Nominal and Ref Units columns are added on the Template Design tab.

Copy – Allows for copying the current Manual Template. The Copy button is only enabled after the current template has been saved. When this button is selected, the Add Manual Template* screen is opened. The border of the Add Manual Template* screen is yellow indicating that this screen is the copy. The border remains yellow until the screen is closed. The Template Name is prefixed with the words "Copy of". All information related to the Manual Template is copied. After selecting the Save button, the new template is added to the database.

Add – Create a new blank Manual Template. The Add button is only enabled after the current template has been saved.

Delete – Deletes the current Manual Template. After deleting the template, the Manual Template screen is closed.

Note: *A Manual Template cannot be deleted if it is being used on a Work Order.*

Save – Saves the current Manual Template.

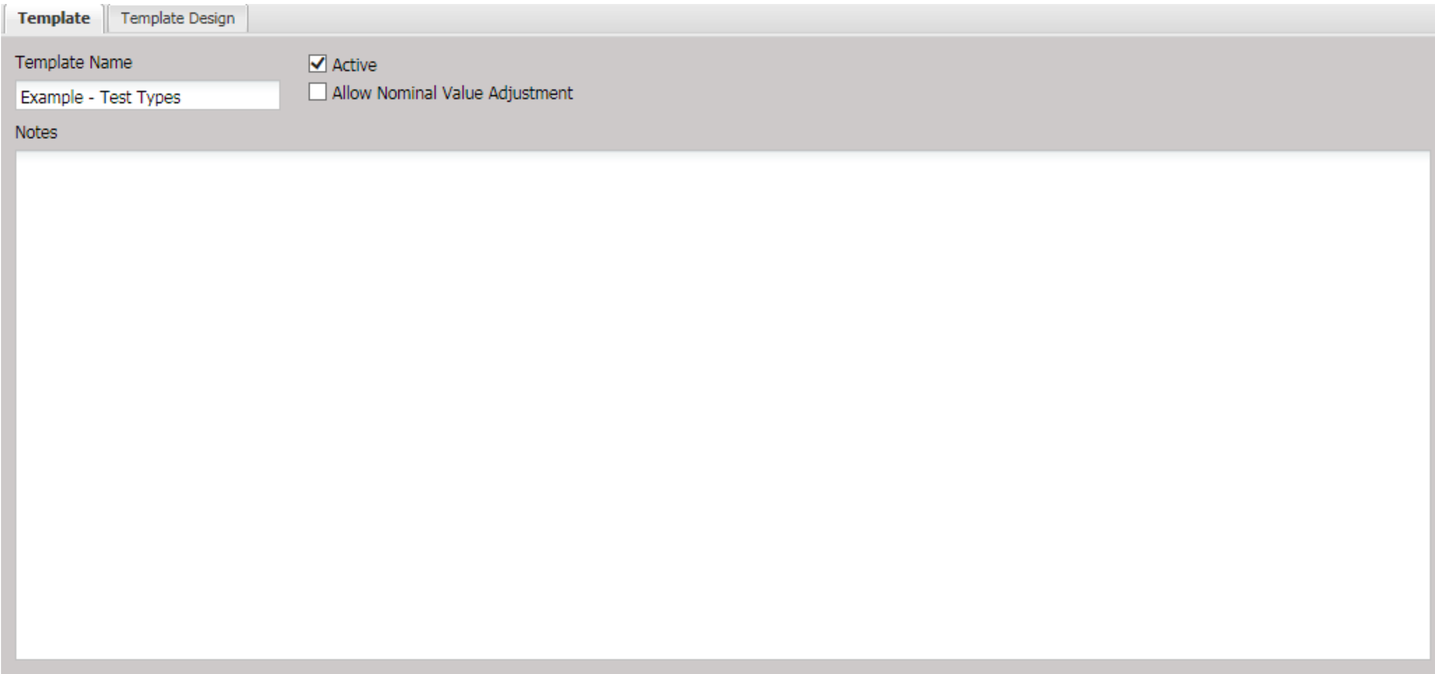
Note: *If you are editing a template, the save operation is transparent and does not cause a screen refresh alleviating the need for refreshing the screen.*

Cancel – Cancels any changes that have been made and updates the screen.

Close – Closes the Manual Template screen.

Manual Template – Template Tab

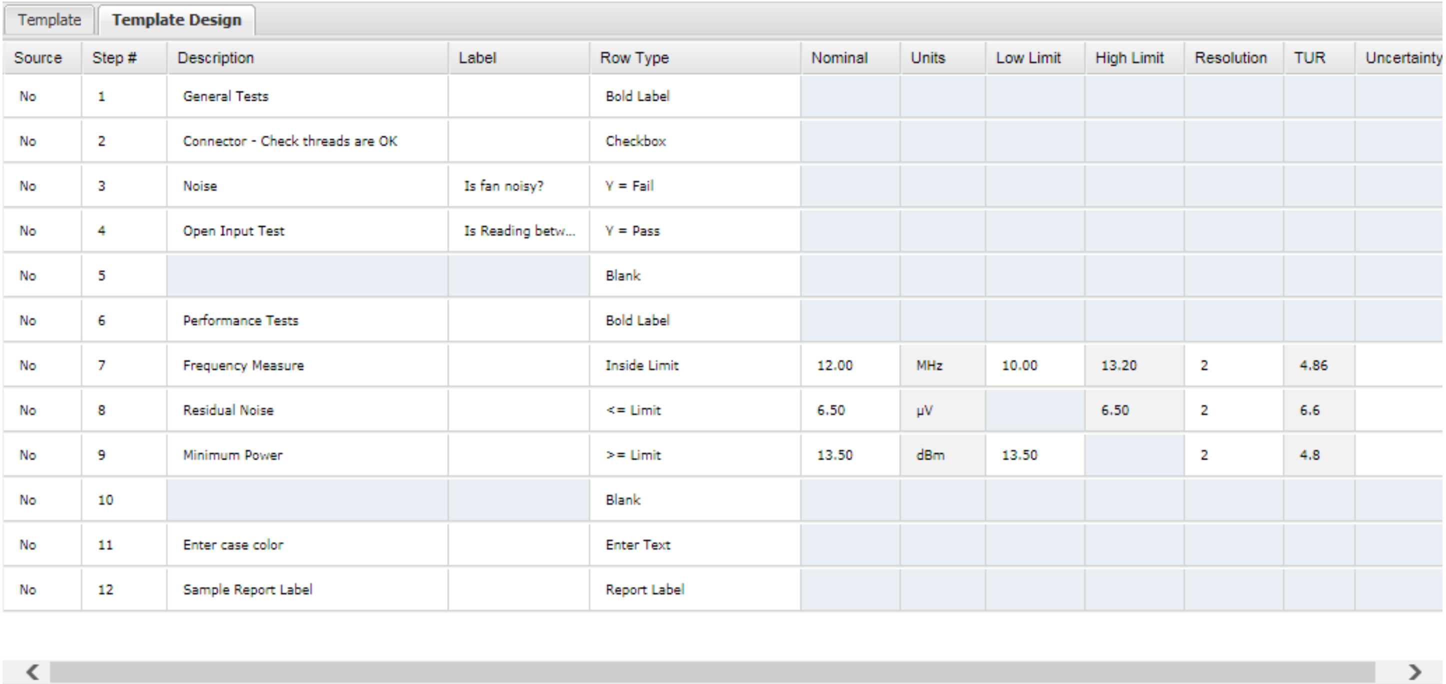
The Template tab is used to name the Manual Template, mark it as active, and enter any notes associated with the Manual Template.



- **Template Name (required)** – The name of the template displayed to the user during the selection process.
- **Active** – If checked, the template is active. By default only Active templates are displayed to the user.
- **Allow Nominal Value Adjustment** – Determines whether the Nominal column values are editable when using the template to perform a calibration. This option is not applicable to Transducer Manual Templates and is unchecked and disabled when the Transducer button is pressed.
- **Notes** – Comments or notes specific to this particular Manual Template.

Manual Template - Template Design Tab

The Template Design tab contains an editable grid allowing you to design the template.



Template Template Design

Source	Step #	Description	Label	Row Type	Nominal	Units	Low Limit	High Limit	Resolution	TUR	Uncertainty
No	1	General Tests		Bold Label							
No	2	Connector - Check threads are OK		Checkbox							
No	3	Noise	Is fan noisy?	Y = Fail							
No	4	Open Input Test	Is Reading betw...	Y = Pass							
No	5			Blank							
No	6	Performance Tests		Bold Label							
No	7	Frequency Measure		Inside Limit	12.00	MHz	10.00	13.20	2	4.86	
No	8	Residual Noise		<= Limit	6.50	µV		6.50	2	6.6	
No	9	Minimum Power		>= Limit	13.50	dBm	13.50		2	4.8	
No	10			Blank							
No	11	Enter case color		Enter Text							
No	12	Sample Report Label		Report Label							

To modify the Manual Template, right-click anywhere on the grid to display the popup menu.

- **Source** – Select Yes or No from the drop-down list to indicate whether or not the data to be entered for this test is for a source instrument (Yes) or a unit under test (No). When this checkbox is checked, the error value calculation is reversed for that row, subtracting the UUT value from the Nominal value.
- **Step #** –Enter a step number which will be referenced by the calibration technician when entering data for this test.
- **Description** – Enter a description for this test. If the Row Type is set to Report Label or Bold Label, the text in this column is printed on the report.
- **Label** –Additional descriptive information specific to this test row, optional.
- **Row Type** – Indicates the type of data to be entered for this test and allows for pass/fail limits to be specified.
  - **Blank** – Select this to make a blank row on the report.
  - **Inside Limit** – Creates a test that requires both high and low limits to determine pass or fail. The limits are based on the value in the *Nominal* column. Any calibration data entered for this test must be between the *High Limit* and *Low Limit* values specified to pass.
  - **<= Limit** – Creates a test that requires only a high limit to determine pass or fail. The limit is based on the value in the *Nominal* column. Any calibration data entered for this test must be below the *High Limit* value specified to pass.
  - **>= Limit** – Creates a test that requires only a low limit to determine pass or fail. The limit is based on the value in the *Nominal* column. Any calibration data entered for this test must be below the *Low Limit* value specified to pass.

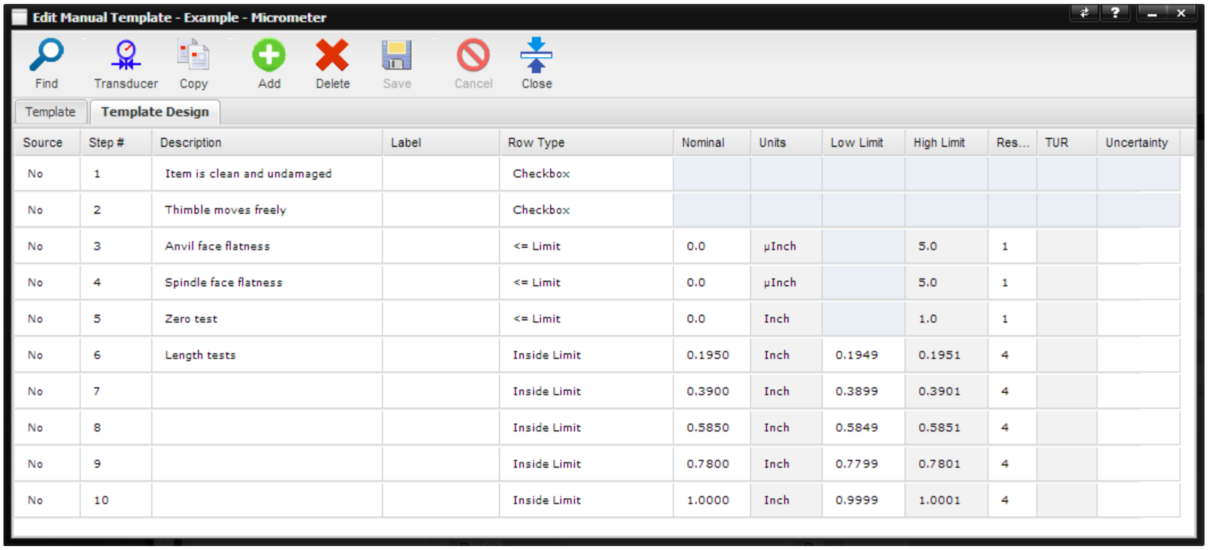
  - **Y = Pass** – Creates a test that displays a dropdown list when entering data. If the technician selects "Yes", the test was successful.
  - **Y = Fail** – Creates a test that displays a dropdown list when entering data. If the technician selects "Yes", the test failed.
  - **Checkbox** – Creates a test that displays a checkbox when entering data. If the checkbox is checked, it indicates the step was completed or performed and does not produce a Pass/Fail result. Data is not written to the database.
  - **Report Label** – Uses the text entered in the Description field as a label on the report. No data is entered for this Row Type.
  - **Bold Label** – Uses the text entered in the Description field as a bold label on the report. This Row Type is good to use for section headers on the report. No data is entered for the Row Type.
  - **Enter Text** – Creates a text that allows the user to enter non-numeric data. This Row Type does not get evaluated for pass/fail. It can be used to simply record information.

    ***Note**: When viewed using the View Results screen, the data is presented in the Test Status column which allows this data to be presented on a report.*

  - **Inside Limit (!)** – Creates a test that requires both high and low limits to determine pass or fail. This Row Type is only applicable to Transducer templates. The limits are based on the value in the *Ref Nominal* column. Any calibration data entered for this test must be between the *High Limit* and *Low Limit* values specified to pass.
  - **<= Limit (!)** – Creates a test that requires only a high limit to determine pass or fail. This Row Type is only applicable to Transducer templates. The limit is based on the value in the *Ref Nominal* column. Any calibration data entered for this test must be below the *High Limit* value specified to pass.
  - **>= Limit (!)** – Creates a test that requires only a low limit to determine pass or fail. This Row Type is only applicable to Transducer templates. The limit is based on the value in the *Ref Nominal* column. Any calibration data entered for this test must be below the *Low Limit* value specified to pass.
- **Ref Nominal** – The nominal value of the reference for this test. This column is only displayed on Transducer templates. For Row Types Inside Limit (!), <= Limit (!) and >= Limit (!), the Low Limit and High Limit values are with respect to the values in this column.
- **Ref Units** – The measurement unit of the Ref Nominal value. This column is only displayed on Transducer templates. For Row Types Inside Limit (!), <= Limit (!) and >= Limit (!), the Low Limit and/or High Limit values use these units.
- **Nominal** – The nominal value for this test. For Row Types Inside Limit, <= Limit and >= Limit, the Low Limit and High Limit values are with respect to the values in this column.
- **Units** – The measurement unit of the Nominal value for this test. For Row Types Inside Limit, <= Limit and >= Limit, the Low Limit and/or High Limit values use these units.
- **Low Limit** – The lower limit value used to determine pass/fail for this test. This column is only enable for Inside Limit, >= Limit, Inside Limit (!) and >= Limit (!) Row Types.
- **High Limit** – The upper limit value used to determine pass/fail for this test. This column is only enable for Inside Limit, <= Limit, Inside Limit (!) and <= Limit (!) Row Types.
- **Resolution** – The digits of precision used when displaying numbers on the screen for a test.
- **TUR** – The calculated Test Uncertainty Ratio for this test. If the value is <4, TUR shows on the report.
- **Uncertainty** – The determined uncertainty for the test row.

Example Manual Template

The default database that is installed with MET/TEAM contains sample Manual Templates. These sample templates can be used as a starting point when creating your own templates. Below is an example of a Manual Template.



Source	Step #	Description	Label	Row Type	Nominal	Units	Low Limit	High Limit	Res...	TUR	Uncertainty
No	1	Item is clean and undamaged		Checkbox							
No	2	Thimble moves freely		Checkbox							
No	3	Anvil face flatness		<= Limit	0.0	µInch		5.0	1		
No	4	Spindle face flatness		<= Limit	0.0	µInch		5.0	1		
No	5	Zero test		<= Limit	0.0	Inch		1.0	1		
No	6	Length tests		Inside Limit	0.1950	Inch	0.1949	0.1951	4		
No	7			Inside Limit	0.3900	Inch	0.3899	0.3901	4		
No	8			Inside Limit	0.5850	Inch	0.5849	0.5851	4		
No	9			Inside Limit	0.7800	Inch	0.7799	0.7801	4		
No	10			Inside Limit	1.0000	Inch	0.9999	1.0001	4		

Manual Template Row Add/Copy/Remove and Wizards

To manipulate the grid rows or display the Step Wizard, right click anywhere within the grid on the Template Design tab. A menu is displayed. Select the option you want to use.

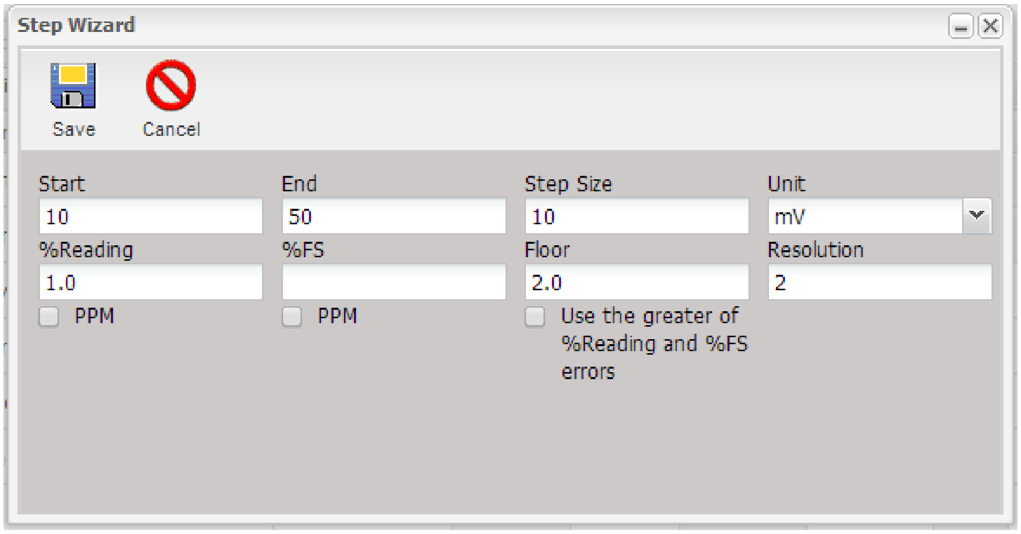
Add Row – Adds or inserts a new row below the currently selected row.

Copy Row – Copies the currently selected row and paste the new row below it.

Remove row – Removes the currently selected row.

Remove All – Removes all rows from the grid, leaving a blank template

Step Wizard – Displays the Step Wizard screen which automatically generates rows based the criteria entered. All rows generated by the wizard are assigned the *Inside Limits* Row Type. Each field on the screen is described below. After populating the necessary fields, select the Save button to generate the tests. Select the Cancel button to abort using the Step Wizard.



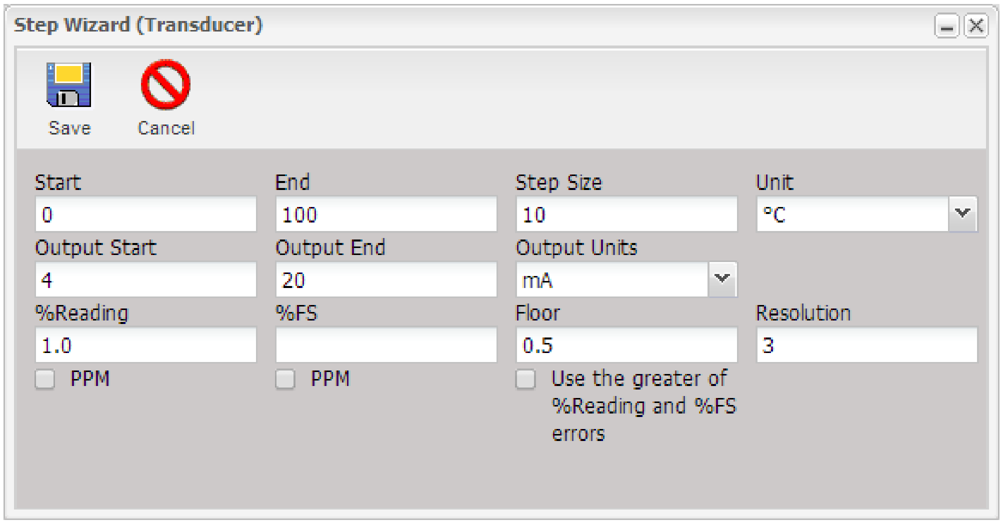
- **Start (required)** – The nominal value for the first test step.
- **End (required)** – The maximum nominal value for the last test step. If the End value is not an exact multiple of the Step Size (offset by the Start value), the Nominal value of the last test will be the last multiple less the End value.
- **Step Size (required)** – The step size between each Nominal value.
    - Example 1: If the Start value is 10 and the End value is 50 with a Step Size of 10, the Nominal values will be 10, 20, 30, 40, and 50.

	Nominal	Units	Low Limit	High Limit	Resolution
t	10...		10.00	10.00	2
t	20...		20.00	20.00	2
t	30...		30.00	30.00	2
t	40...		40.00	40.00	2
t	50...		50.00	50.00	2

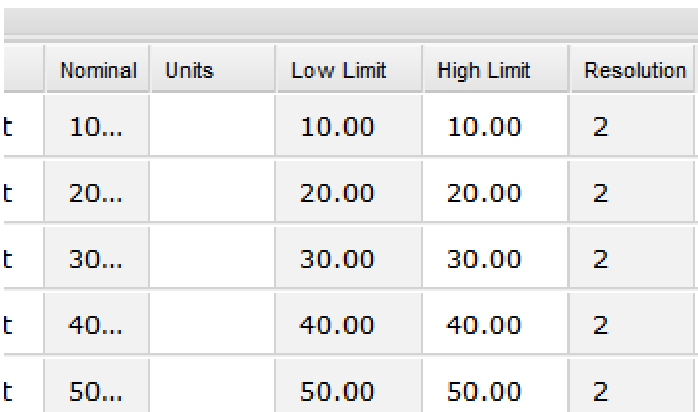
    - Example2: If the Start value is 5 and the End value is 12 with a Step Size of 3, the Nominal values will be 5, 8, and 11.
- **Unit** – The measurement unit of the values for each test.
- **% Reading** – Indicates the percentage to use to calculate the specifications for each test as a percentage of each Nominal value.
- **%FS** – Indicates to use a percentage of full scale to calculate the test specification for each test. Note that the End value is used as the full scale value.
- **Floor** – Indicates the floor value for specifications. This value is added to the calculated specification for each test.
- **Resolution (required)** – Indicates the number of decimal places to use to format all values.
- **PPM** – If checked, the value entered is parts per million (PPM). If unchecked, the value entered is in percentage.

- **Use the greater of % Reading and %FS errors** – If checked, the greater of % Reading and %FS is applied to the calculated specification value for each test.

Step Wizard (Transducer) – Displays the Step Wizard (Transducer) screen which automatically generates rows for a transducer template based the criteria entered. All rows generated by the wizard are assigned the *Inside Limits* Row Type. Each field on the screen is described below. After populating the necessary fields, select the Save button to generate the tests. Select the Cancel button to abort using the Step Wizard (Transducer).



- **Start (required)** – The nominal input value for the first test.
- **End (required)** – The maximum nominal value of the last test. If the End value is not an exact multiple of the Step Size (offset by the Start value), the Nominal value of the last test will be the last multiple less the End value.
- **Step Size (required)** – The step size between each Nominal input value.
  - Example 1: If the Start value is 10 and the End value is 50 with a Step Size of 10, the Nominal values will be 10, 20, 30, 40, and 50.



	Nominal	Units	Low Limit	High Limit	Resolution
t	10...		10.00	10.00	2
t	20...		20.00	20.00	2
t	30...		30.00	30.00	2
t	40...		40.00	40.00	2
t	50...		50.00	50.00	2

  - Example2: If the Start value is 5 and the End value is 12 with a Step Size of 3, the Nominal values will be 5, 8, and 11.
- **Unit** – The measurement unit of the nominal values for each test.
- **Output Start (required)** – The output value for the transducer that corresponds to the Start value.
- **Output End (required)** – The output value for the transducer that corresponds to the End value.
- **Output Units** – The measurement unit for the Output values.

Note: The Output values are the linear relationship between the input and output. For example, the Start could be 0 PSI, the End could be 100 PSI, the Output Start could be 0 Volts and the Output End could be 5 Volts.

- **% Reading** – Indicates the percentage to use to calculate the specifications for each test as a percentage of each Nominal value.
- **%FS** – Indicates to use a percentage of full scale to calculate the test specification for each test. Note that the End value is used as the full scale value.
- **Floor** – Indicates the floor value for specifications. This value is added to the calculated specification for each test.
- **Resolution (required)** – Indicates the number of decimal places to use to format all values.
- **PPM** – If checked, the value entered is parts per million (PPM). If unchecked, the value entered is in percentage.
- **Use the greater of % Reading and %FS errors** – If checked, the greater of % Reading and %FS is applied to the calculated specification value for each test.

Generating Sequences Using the Step Wizards

The Step Wizard and Step Wizard Transducer are used to generate sequences of measurement points for manual calibration.

- **Generating Ascending Points** – To generate a set of ascending points, the Start value should be smaller than the End value.
- **Generating Descending Points** – To generate a set of descending points, the End value should be smaller than the Start value.
- **Step Size** – The step size is always a positive value, indicating the span between the measurement points, regardless of the direction of the sequence defined.
- **Generating Points with one or more Changes of Direction** – To generate a set of points with one or more changes of direction, e.g. a ramp-up, ramp-down sequence, use the step wizard to generate the ramp-up sequence, then use it again to generate the ramp-down sequence, repeating as necessary.
- **Rollback Changes** – The Cancel button allows for rolling back changes. In order to be able to roll back only the latest points generated by the wizard, make sure to save the template before generating the next sequence.
- **Sequences containing Negative Values** – The step wizards support sequences that contain negative values, e.g. Start -100, End 0 will generate an ascending sequence from -100 to 0. Start 100, End -100 will generate a descending sequence from 100 to -100.

Determination of Low Limit and High Limit (using %Reading and/or %FS)

The Low Limit and High Limit values are calculated based on the error determined for each point. The options for defining allowable error values include reading and/or full-scale (FS) error, expressed as a percentage or parts per million (PPM), if the respective PPM check box is checked.

- A Floor value can be specified, which is added to the calculated error.
- Reading and Full-Scale error values are added at each point, unless the Use greater of %Reading and %FS errors option is checked, in which case either reading or FS error is applied, depending on which is greater.

Error value at nominal value 0

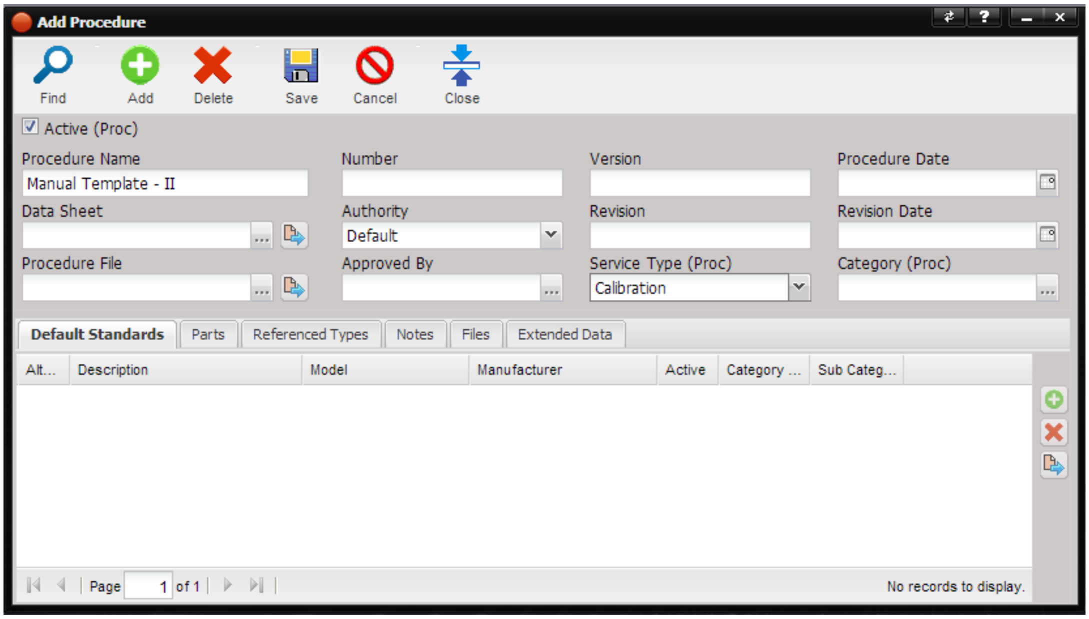
The error at a nominal value of 0 is undefined. The following conventions apply for 0 nominal values:

- For a Full-Scale value of 0, the span error is used instead of Full-Scale error. For example, for a sequence from -100 to 0, a 1% FS error is determined to be 1, based on 1% of the span between -100 and 0.
- The Reading Error for a measurement point at 0 defaults to 0.
- The author of the template is expected to adjust Low Limit and High Limit values for 0 nominal values, depending on the specific requirements.

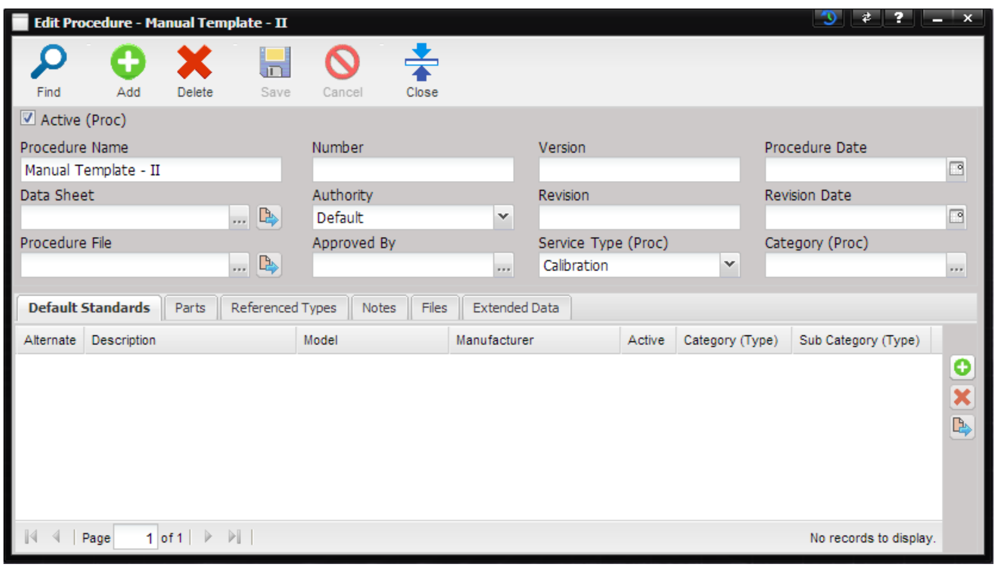
Using Manual Templates

To use a Manual Template, the template must be associated with a Procedure and the Procedure must be associated with a Type.

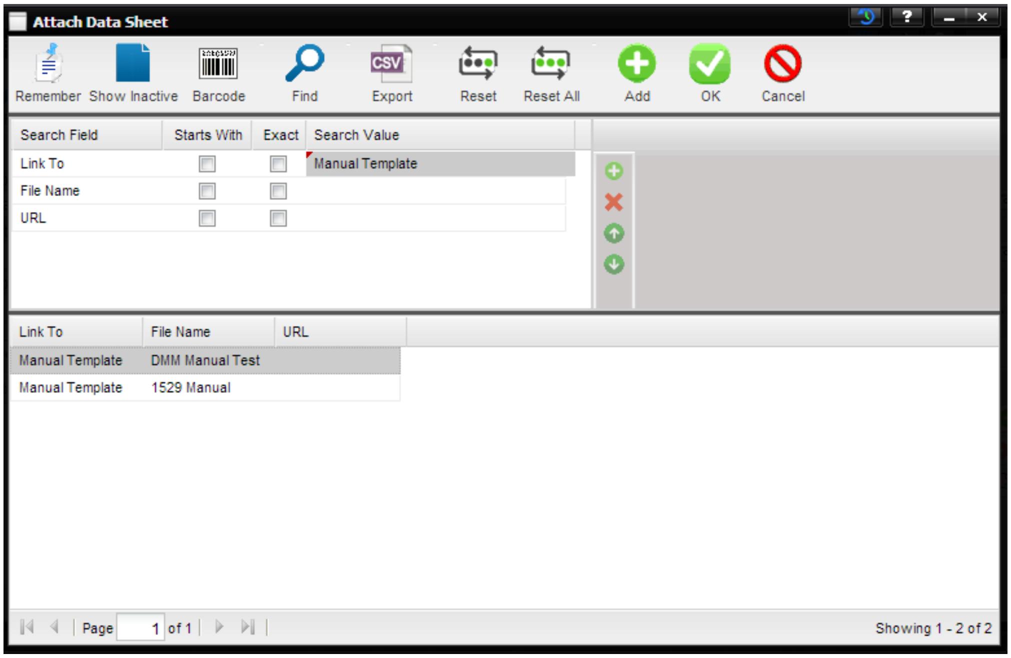
To associate a Manual Template with a Procedure, use the Maintenance menu Procedures option. An existing Procedure can be opened by selecting the Procedure from the Find Procedure screen or a new Procedure can be created by selecting the Cancel button on the Find Procedure screen that is displayed after selecting the Procedures menu option from the Maintenance menu.



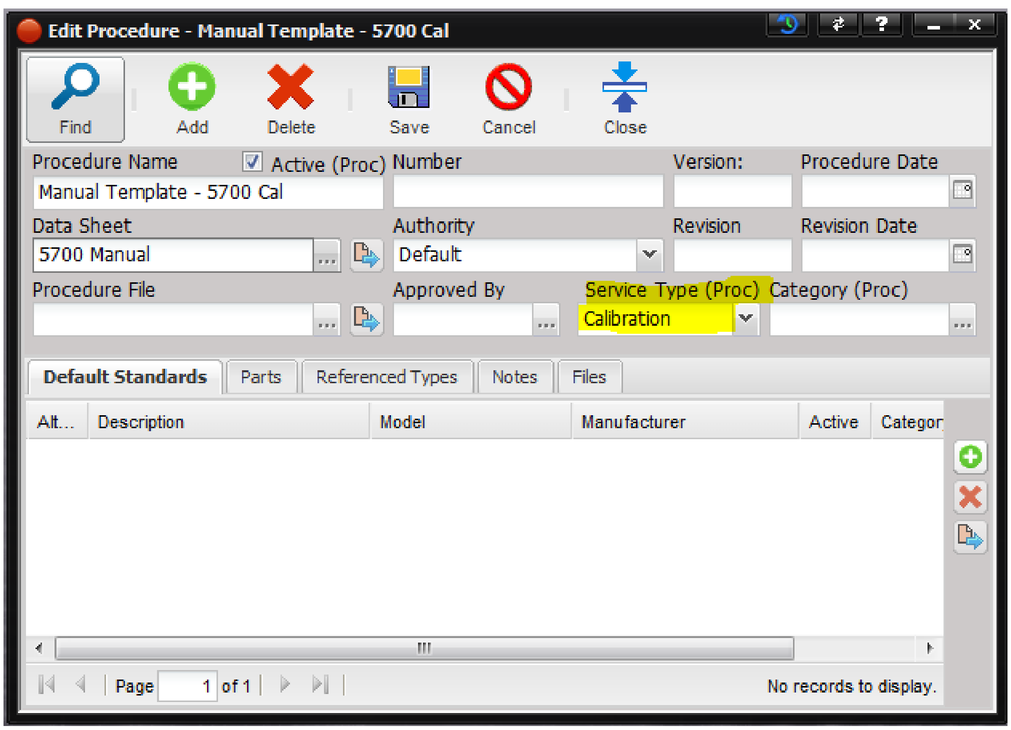
1. Enter a Procedure Name (when creating a new Procedure) and Save the Procedure.



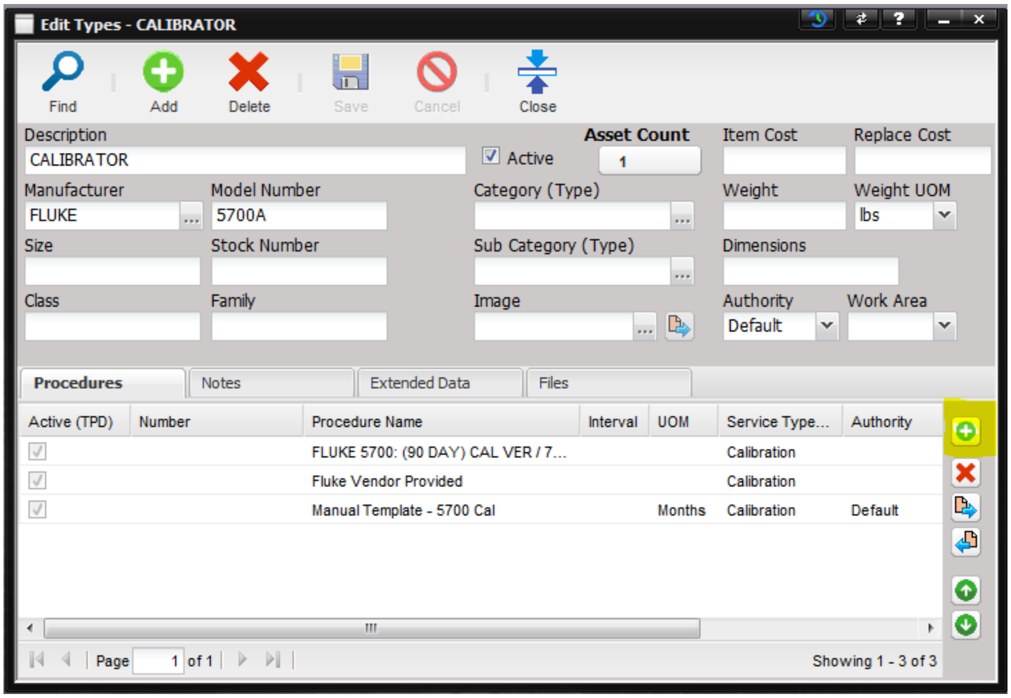
2. To select a Manual Template (that was created using the Manual Template option under the Maintenance menu), use the "…" button next to the Data Sheet field. The Attach Data Sheet screen is displayed. Select the Find screen to see all Manual Templates.



3. Highlight the desired Manual Template and select the OK button.
4. On the Edit Procedure screen, select the Service Type of "Calibration" or "Cal/Repair".

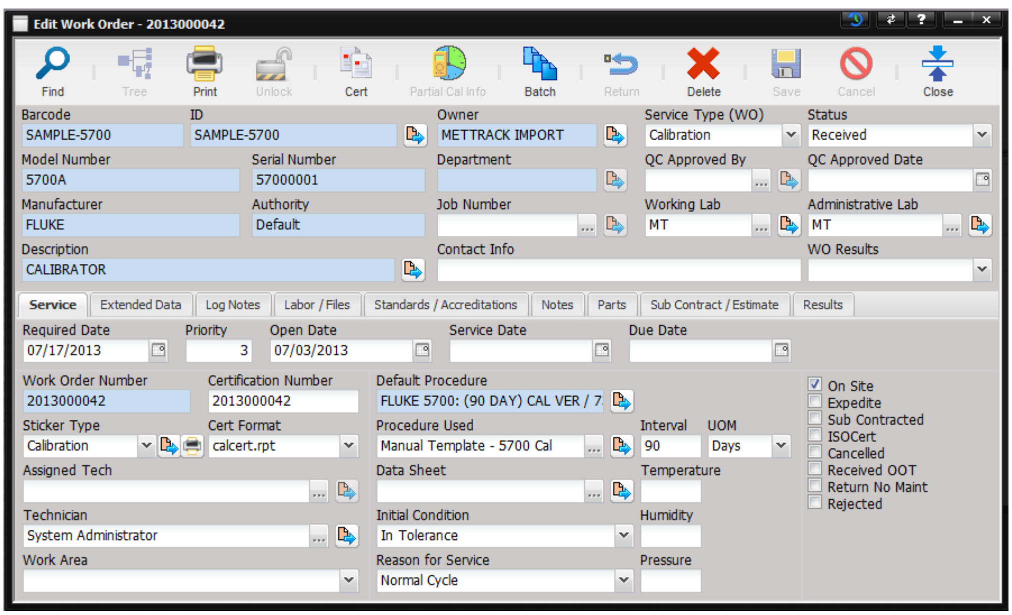


5. This Procedure must be associated with the Asset Type. If the Type does not have this Procedure associated with it (on the Procedures tab of the Type), you will not be able to 'run' the Manual Template. To associate the Manual Template, use the "+" button on the right side of the Procedures tab on the Type screen.

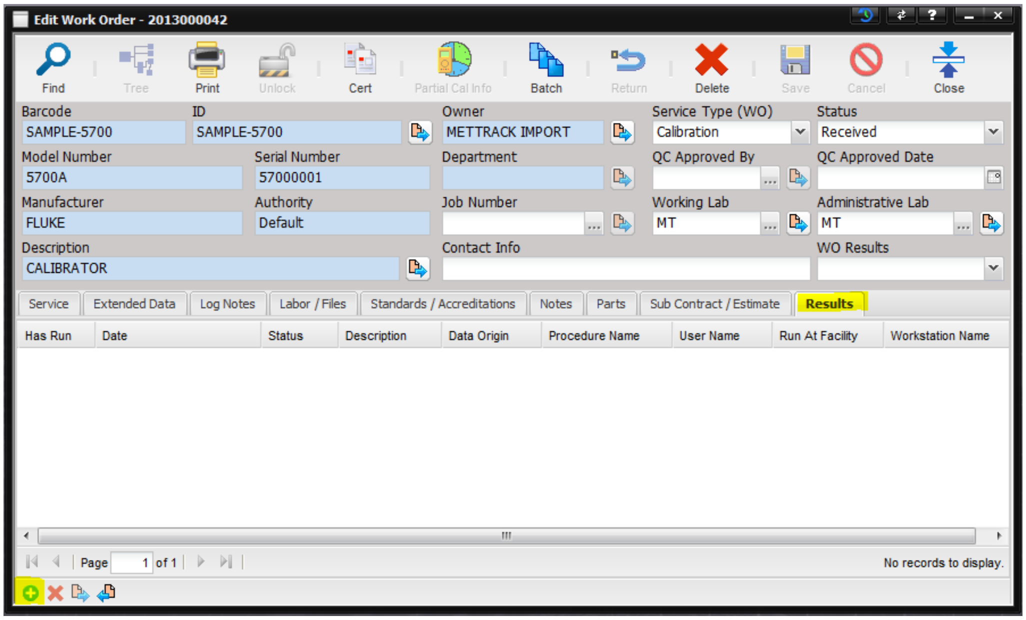


Once the procedure is associated with the Type, any Asset of this Type will now be able to run the Procedure containing the Manual Template specified in the Procedures tab of the Type screen.

6. Receive the Asset and open the Work Order created from the receiving process.
7. From the Work Order Service tab select the Procedure to use by pressing the "…" button next to Procedure Used text field. Select the Procedure that contains the Manual Template to use.



8. To run the Procedure, either select the "…" button next to the Data Sheet field on the Work Order Service tab or navigate to the Results tab and select the "+" button below the results grid.

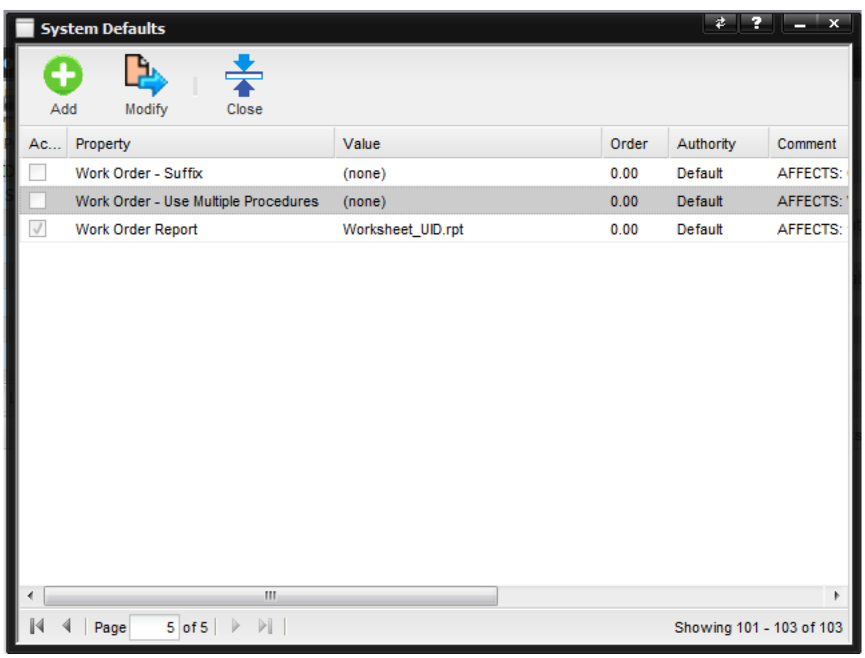


When the "+" button is selected from the bottom left corner of the Results tab or the "…" button next to the Data Sheet field is selected from the Service tab, the Manual Template associated with the selected Procedure is displayed waiting for manual calibration data entry.

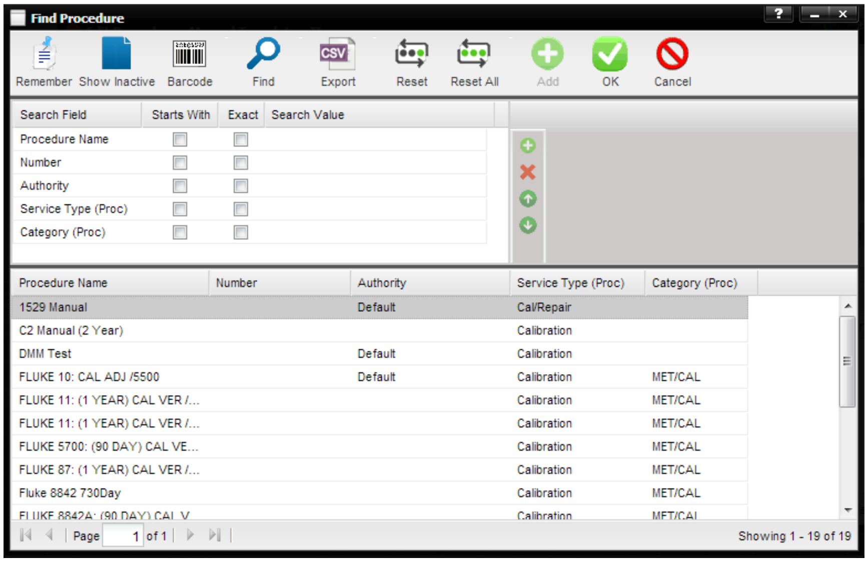
Note: The behavior of the "+" button on the Results tab can be controlled by the "Work Order – Use Multiple Procedures" System Default.

Work Order – Use Multiple Procedures System Default

This System Default controls the behavior of the "+" button at the bottom of the Work Order Results tab.



- If active, different procedures can be selected and used in the calibration process other than the Procedure specified by the Procedure Used field on the Service Tab of the Work Order. The Find Procedure screen is displayed, for selecting a different Procedure as defined on the Procedure tab of the Type.

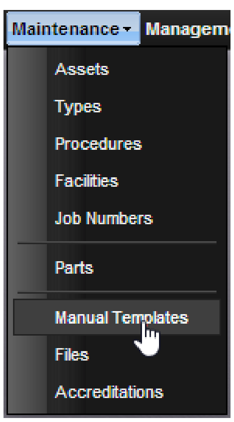


- If inactive, only the Procedure specified by the Procedure Used field on the Service tab can be used in the calibration process. The Value field of this System Default is ignored. The Order field of this System Default is ignored.

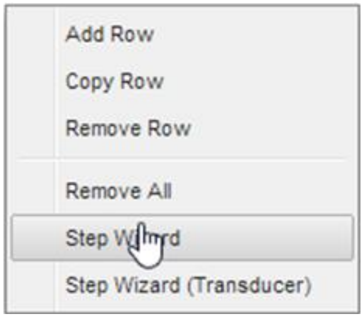
Example – Creating a Manual Template

The following example provides step-by-step instructions for creating a Manual Template.

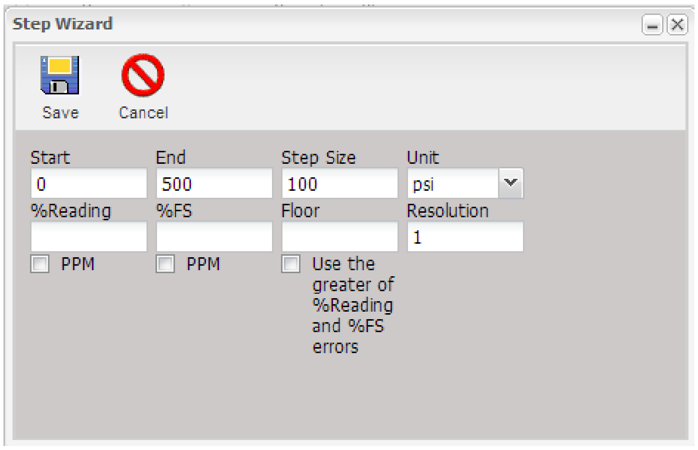
1. Go to Maintenance -> Manual Templates.



2. Select the Add button to add a new Manual Template.
3. Give the Manual Template a new name. For example: **Pressure Gauge**.
4. Add any necessary notes.
5. Select the Template Design tab.
6. Right click anywhere inside the grid and select the Step Wizard option.

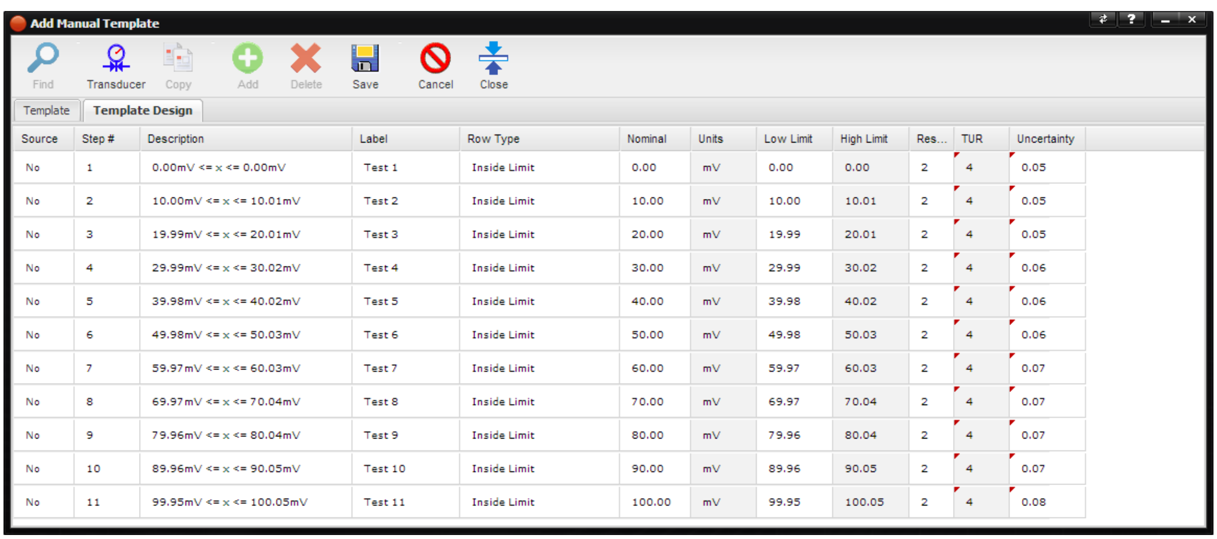


7. Fill out the form with the relevant information.



   a. Enter 0 for the Start value.
   b. Enter 500 for the End value.
   c. Enter 100 for the Step Size (each row will increment by 100 units).
   d. Enter PSI for the Unit of measure.
   e. Enter 1% for the % Reading.
   f. Enter 1 digit of resolution.

9. Select the Save button.
10. The Manual Template grid is automatically populated with the relevant rows of data.



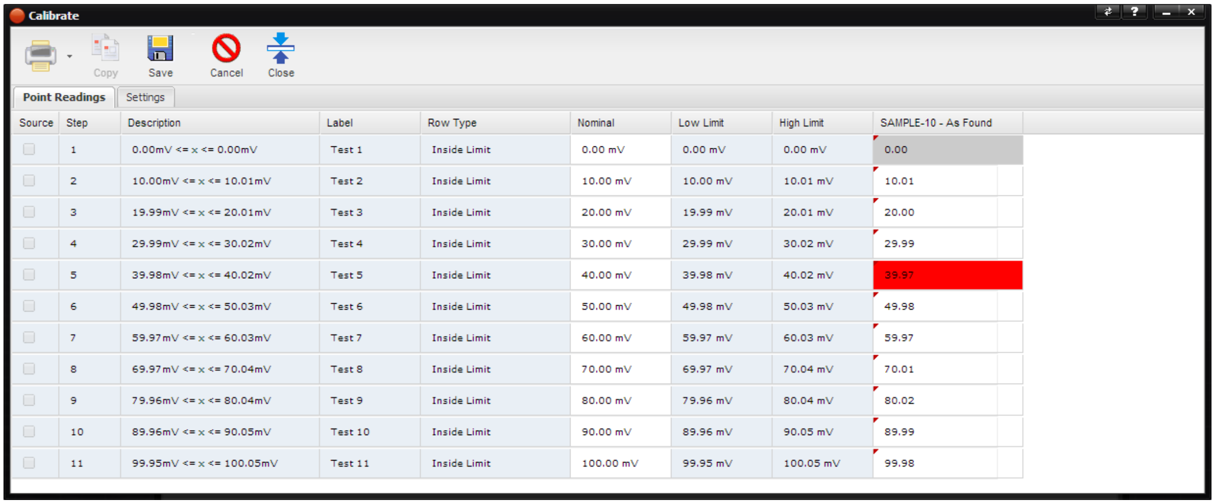
Source	Step #	Description	Label	Row Type	Nominal	Units	Low Limit	High Limit	Res...	TUR	Uncertainty
No	1	0.00mV <= x <= 0.00mV	Test 1	Inside Limit	0.00	mV	0.00	0.00	2	4	0.05
No	2	10.00mV <= x <= 10.01mV	Test 2	Inside Limit	10.00	mV	10.00	10.01	2	4	0.05
No	3	19.99mV <= x <= 20.01mV	Test 3	Inside Limit	20.00	mV	19.99	20.01	2	4	0.05
No	4	29.99mV <= x <= 30.02mV	Test 4	Inside Limit	30.00	mV	29.99	30.02	2	4	0.06
No	5	39.98mV <= x <= 40.02mV	Test 5	Inside Limit	40.00	mV	39.98	40.02	2	4	0.06
No	6	49.98mV <= x <= 50.03mV	Test 6	Inside Limit	50.00	mV	49.98	50.03	2	4	0.06
No	7	59.97mV <= x <= 60.03mV	Test 7	Inside Limit	60.00	mV	59.97	60.03	2	4	0.07
No	8	69.97mV <= x <= 70.04mV	Test 8	Inside Limit	70.00	mV	69.97	70.04	2	4	0.07
No	9	79.96mV <= x <= 80.04mV	Test 9	Inside Limit	80.00	mV	79.96	80.04	2	4	0.07
No	10	89.96mV <= x <= 90.05mV	Test 10	Inside Limit	90.00	mV	89.96	90.05	2	4	0.07
No	11	99.95mV <= x <= 100.05mV	Test 11	Inside Limit	100.00	mV	99.95	100.05	2	4	0.08

11. Fill in the description, label and/or uncertainty for each of the rows by placing the cursor in the appropriate cell.

12. Select the Save button at the top of the screen.
13. The screen will refresh, and your template is complete!

Manual Template – Calibrate Screen

To enter data on the Manual Template, position your cursor in the UUT column on the far right and enter the calibration data for each test. If the data entered exceeds the specifications for that test defined by the template, the cell will turn red.

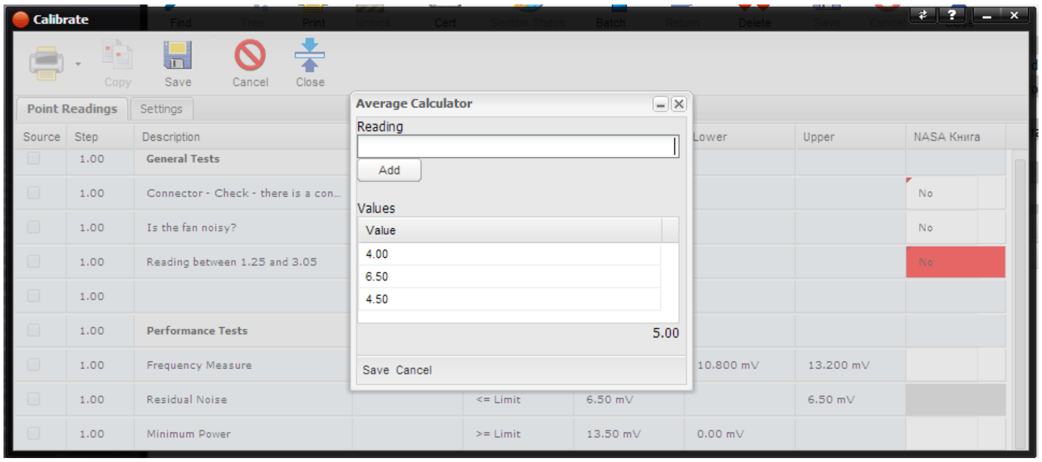


Source	Step	Description	Label	Row Type	Nominal	Low Limit	High Limit	SAMPLE-10 - As Found
	1	0.00mV <= x <= 0.00mV	Test 1	Inside Limit	0.00 mV	0.00 mV	0.00 mV	0.00
	2	10.00mV <= x <= 10.01mV	Test 2	Inside Limit	10.00 mV	10.00 mV	10.01 mV	10.01
	3	19.99mV <= x <= 20.01mV	Test 3	Inside Limit	20.00 mV	19.99 mV	20.01 mV	20.00
	4	29.99mV <= x <= 30.02mV	Test 4	Inside Limit	30.00 mV	29.99 mV	30.02 mV	29.99
	5	39.98mV <= x <= 40.02mV	Test 5	Inside Limit	40.00 mV	39.98 mV	40.02 mV	39.97
	6	49.98mV <= x <= 50.03mV	Test 6	Inside Limit	50.00 mV	49.98 mV	50.03 mV	49.98
	7	59.97mV <= x <= 60.03mV	Test 7	Inside Limit	60.00 mV	59.97 mV	60.03 mV	59.97
	8	69.97mV <= x <= 70.04mV	Test 8	Inside Limit	70.00 mV	69.97 mV	70.04 mV	70.01
	9	79.96mV <= x <= 80.04mV	Test 9	Inside Limit	80.00 mV	79.96 mV	80.04 mV	80.02
	10	89.96mV <= x <= 90.05mV	Test 10	Inside Limit	90.00 mV	89.96 mV	90.05 mV	89.99
	11	99.95mV <= x <= 100.05mV	Test 11	Inside Limit	100.00 mV	99.95 mV	100.05 mV	99.98

If the Allow Nominal Value Adjustment checkbox was checked for non-transducer templates, the values in the Nominal column are editable. Changing a value in the Nominal column causes the Low Limit and/or High Limit values to be recalculated.

For transducer templates, the values in the Ref Nominal column are always editable. Changing a value in the Ref Nominal column for Row Types Inside Limits (!), <= Limit (!) and >= Limit (!) causes the Low Limit and/or High Limit values to be recalculated. Values in the Nominal column are editable only for Row Types Inside Limits, <= Limit and >= Limit. Changing a value in the Nominal column for these Row Types causes the Low Limit and/or High Limit values to be recalculated.

If you need to enter the average value of multiple UUT readings, right-click in the appropriate cell in the UUT column and select Manage Readings from the popup menu. The Average Calculator window is displayed. Enter readings one at a time in the Value box and click Add to add each reading to the Values grid. The calculated average of the readings entered appears below the Values grid. When all readings have been entered, click the Save button. The average value is written to the UUT Reading cell.



Note: When entering data, avoid using the thousands separator as this may result in an improperly formatted number.

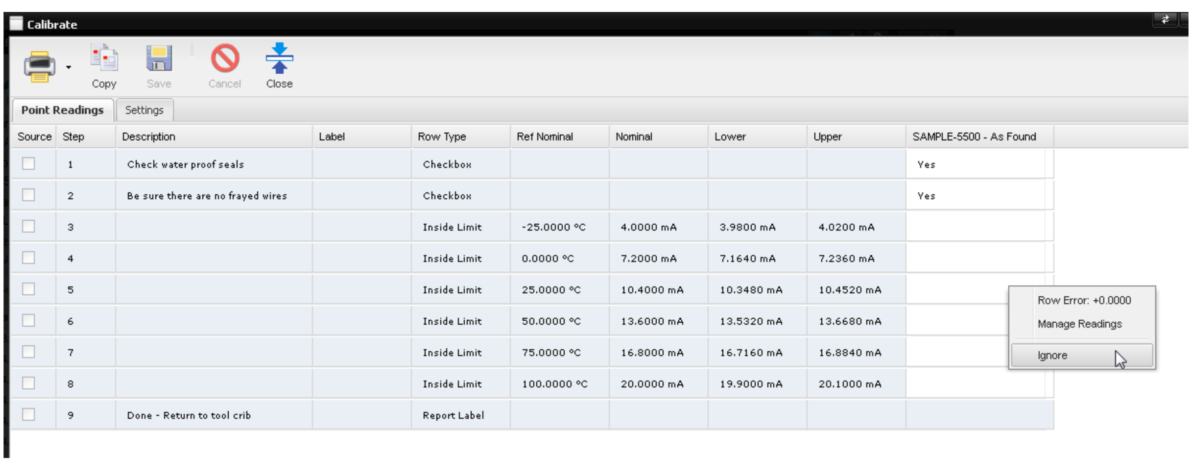
The Print button provides the option to print a Crystal Report or to create a .CSV file. The Crystal Report prints one UUT Reading column. The .CSV file contains multiple UUT Readings as determined by the template.

The Copy button provides the ability to duplicate your data, but only if it the 'Data Condition' is marked 'As Found'. This duplicated data will be copied exactly as-is, with the exception of the 'Data Condition' which will be changed to 'As Left' for the new record only. A yellow bordered window is displayed awaiting any changes that need to be made for 'As Left'. Once saved, the resulting record can be seen on the Results tab of the Work Order.

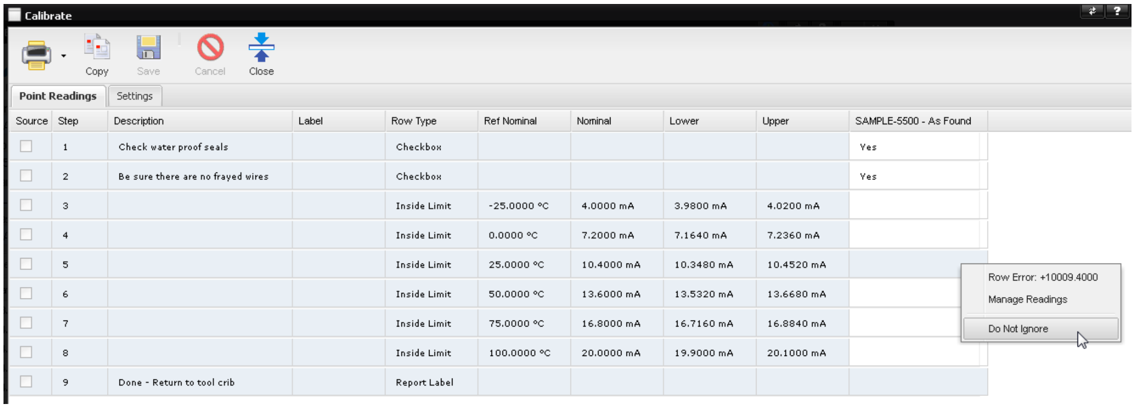
Note: The Copy button is only enabled if the 'Data Condition' is set to 'As Found', and the record has been saved at least once.

Skipping a Test

If a specific test cannot be performed, the technician has the option to set the entry to "Ignore", using the right-click context menu.



The field becomes disabled and displays in the same color/shading as the other fields that are not editable. To reverse the change, the same right-click menu offers a "Do Not Ignore" option.

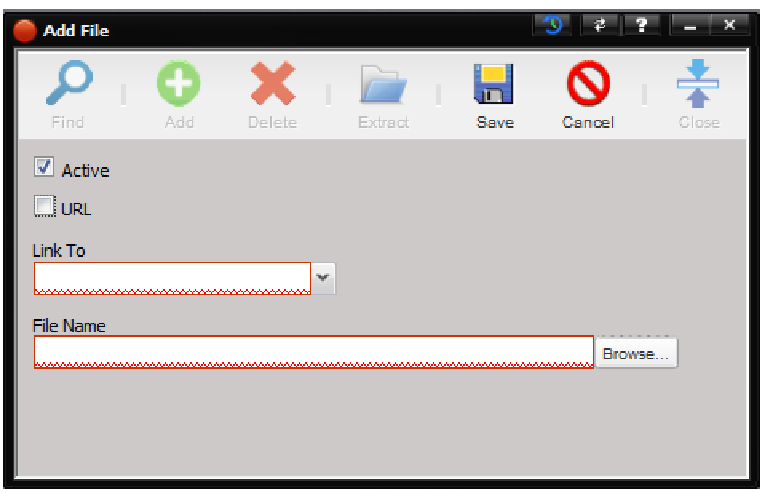


Test points set to be ignored are recorded with a Pass/Fail status of "N/A" on the point and do not affect the overall Pass/Fail determination of the work order result.

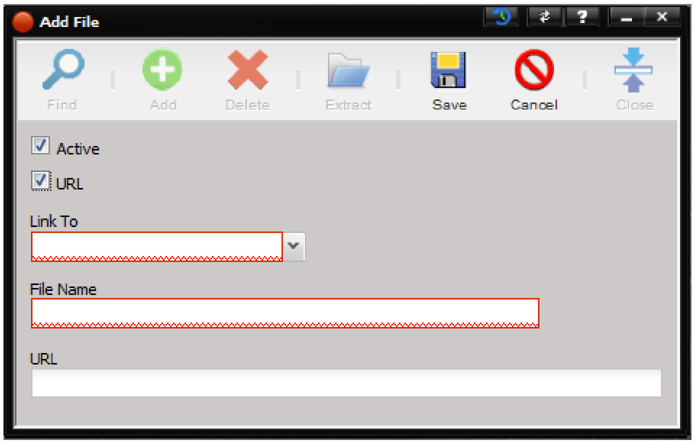
Files

The Files option stores external files in the MET/TEAM database allowing for document management. By default the maximum size allowed is a 50MB file. Once stored the user can reference the document within MET/TEAM components (such as Work Orders). These files are stored in the database, removing the need for external file management and security.

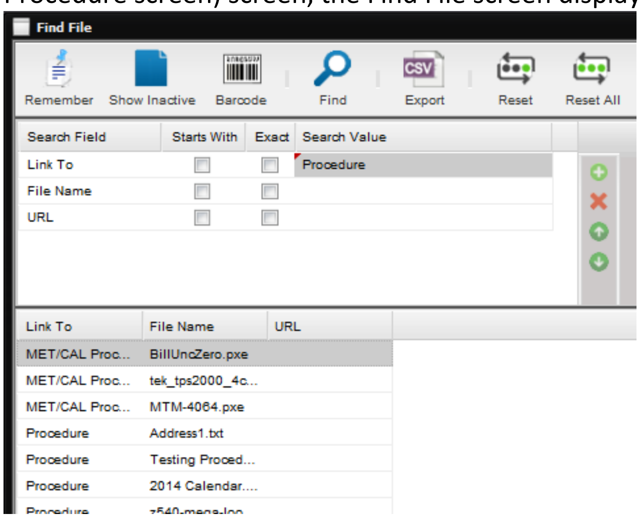
MET/TEAM also supports files on network shares as well as on the internet. These files are not stored in the database. They are linked to by the URL field.



- **URL –** If checked, the screen refreshes displaying a text box for entering a URL. Files are now supported that exist on a network share as well as on the internet.



- **Active** – Marks the file as active or inactive. If unchecked, the file is inactive and is not displayed in pick lists within MET/TEAM.
- **Link to (required)** – A dropdown list for selecting where the File is linked.
  - Indicates where the File is linked (Facilities, Procedure, Types, etc.) and affects where the File appears in MET/TEAM.
  - For example if Procedure is selected from the Link To dropdown, when adding Files to a Procedure (on the Procedure screen) screen, the Find File screen displays Procedure in the Link To Search Field.

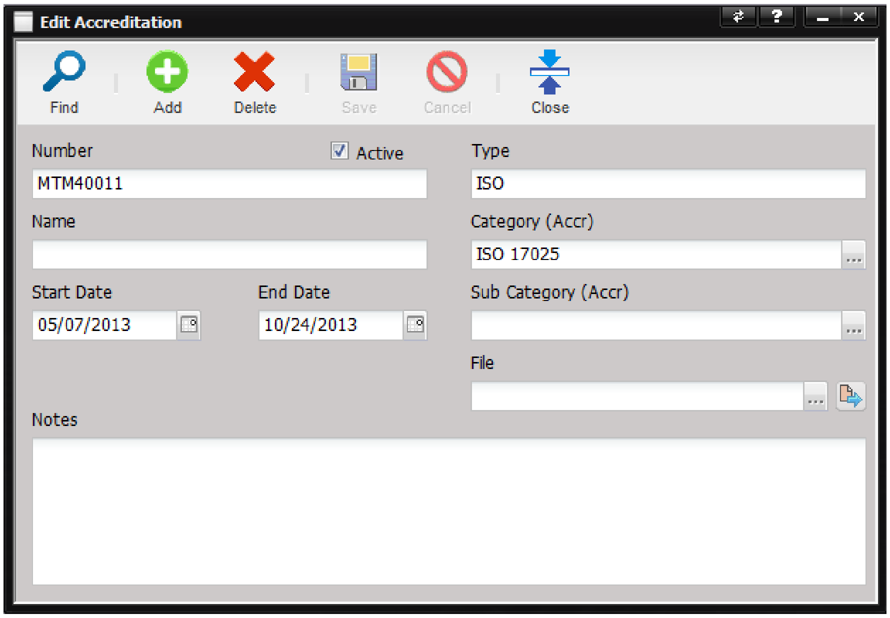


- **File Name (required)** – The name of the File.
  - IF the URL checkbox **is not** checked, select the Browse button which opens the Windows Open dialog for selecting the file. The File Name is the actual name of the File selected by the user.
  - If the URL checkbox **is** checked, the File Name is the user facing identifier. This File Name does not have to be the name of the file but can be.
- **URL** – The URL for this File.
  - Paths starting with the server name "\\servername" or file protocol "file://servername" are supported.
    - Due to security in Firefox and Chrome, links to these types of paths are blocked. In order to support this, it must be handled on the server side. This means the MET/TEAM server must have access to the network share, as well as the appropriate permissions to access files on the network share.
  - Also supported are files on the internet, paths starting with "http://" and "https://" which are accessed directly by the client.
  - The URL field must contain the full path to the file including the name of the file.

The **Extract** button opens the file in its native application (Word, Excel, etc.).

Accreditations

Traceability information, such as NIST numbers are entered here and then referenced by service events, reducing the amount of data entry required. Accreditation information such as A2LA certifications can also be added here and referenced by maintenance events.



- **Active** – Marks the item active or in-active. Inactive items are not selectable by the technician.
- **Number** – The reference number of the accreditation or traceable document.
- **Name** – The name of the accreditation or traceable document.
- **Start Date** – Date the accreditation begins.
    - For a date picker, select the calendar button.
- **End Date** – Date the accreditation expires.
    - For a date picker, select the calendar button.
- **Type** – Type of accreditation or traceability.
- **Category (Accr)** – Category of the accreditation or traceable document.
    - The category can be changed by selecting the "…" button.
- **Sub Category (Accr)** – Sub Category of the accreditation or traceable document.
    - The sub category can be changed by selecting the "…" button.
- **File** – Name of the physical document. This document can be stored in the database and reproduced with other certifications on service events.
    - The file can be changed by selecting the "…" button.
    - The File can be viewed by selecting the Quick Link button.
- **Notes** – Allows the user to enter notes or actual information from the accreditation or traceable document.

Data Cleanup

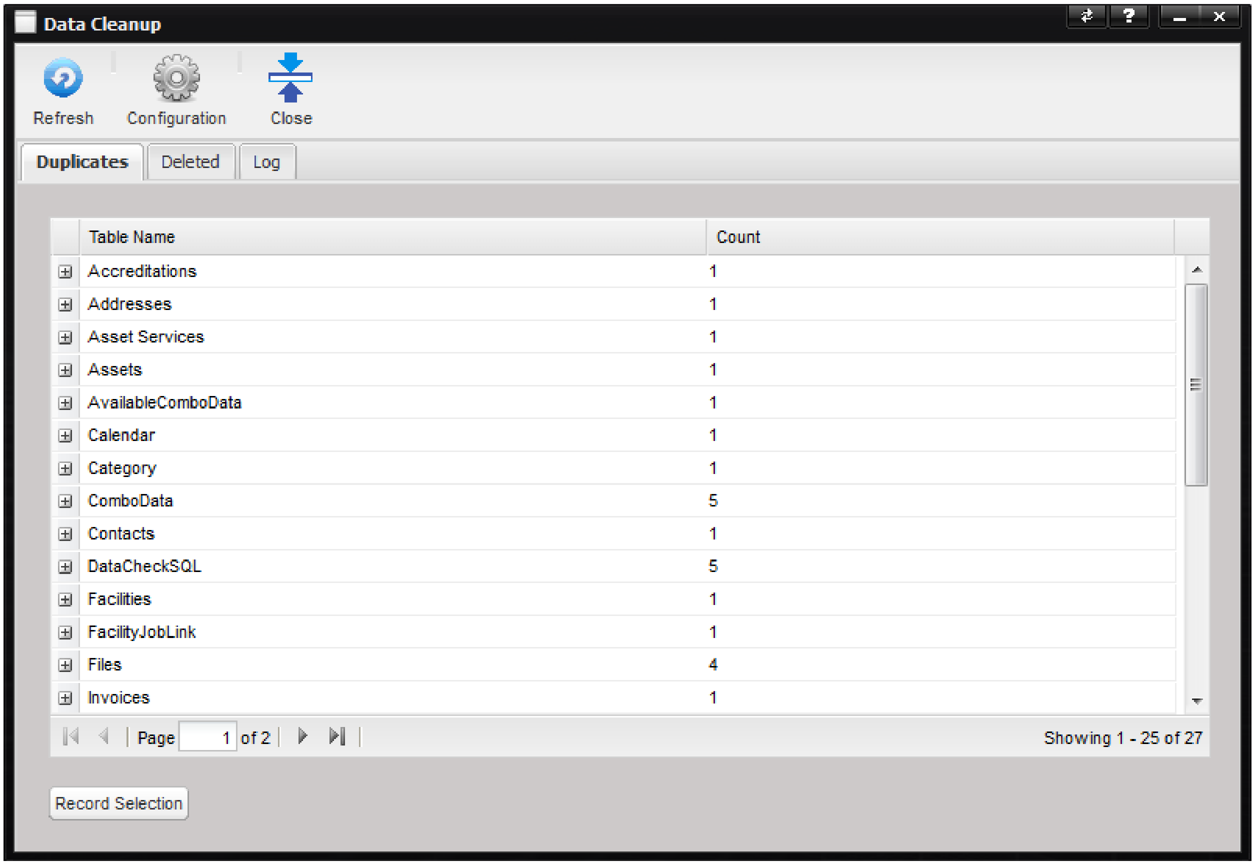
The Data Cleanup Tool serves two purposes, to consolidate records that are considered duplicate and to delete records that have been marked for deletion but have not yet been removed from the database.

Consolidating duplicates involves selecting one record that will be kept and marking the others for deletion once the Process button is selected. The references on the records marked for deletion are updated to the record to keep.

Records marked for deletion contain a non-zero value in the record's lDeleted flag and upon processing, the records are removed from the database. This frees up space in the database.

***Note:** Access to this tool is restricted to members of the Administrator security group by default. Only one user should access the tool at any given time. Running multiple concurrent sessions in the enterprise will result in unpredictable database changes!*

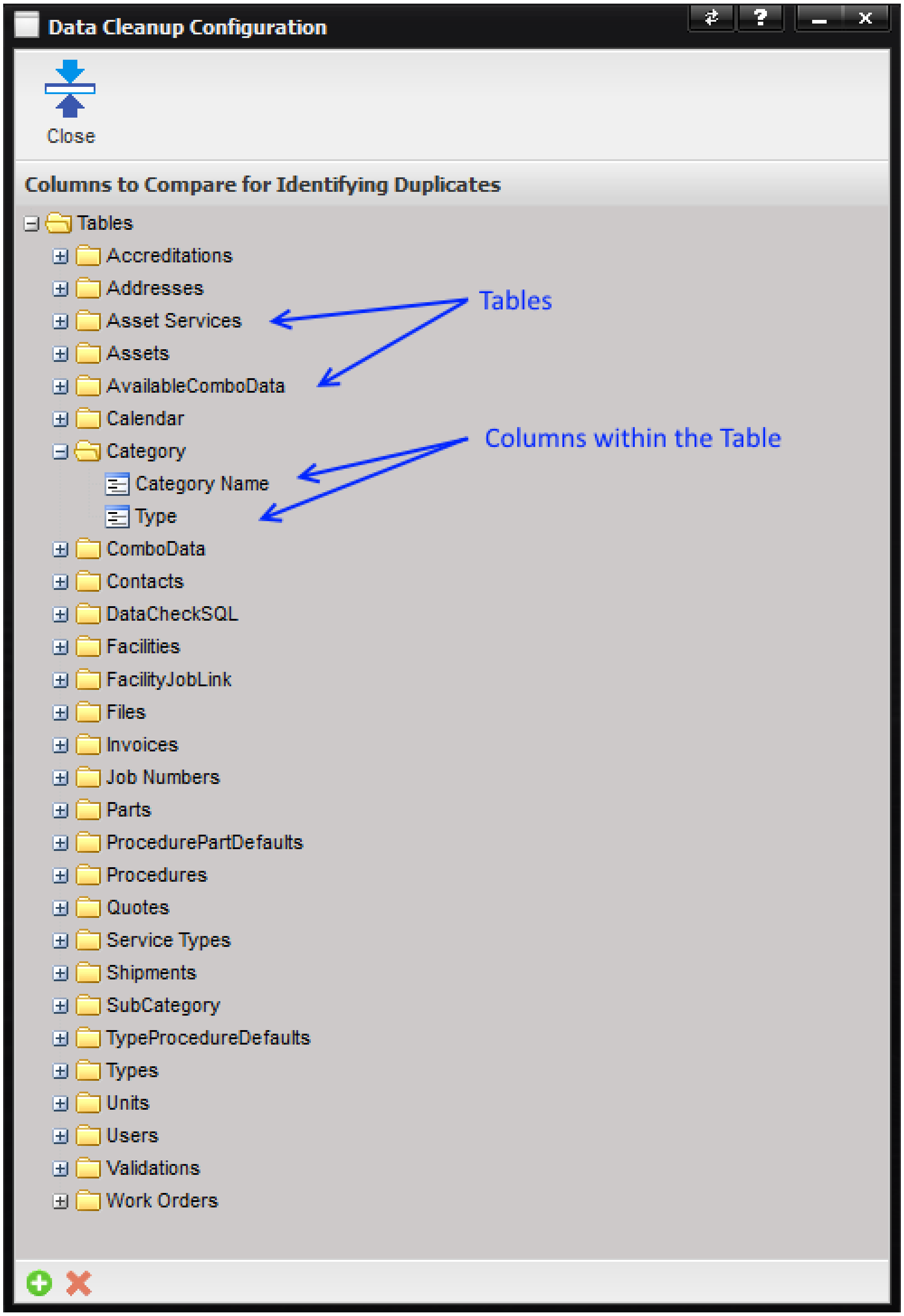
The Data Cleanup Tool toolbar contains a Refresh button which populates the grid on the selected tab and a Configuration button which displays the Data Cleanup Configuration screen.



Configuration Button

The Configuration button opens the Data Cleanup Configuration screen which allows for selecting columns from every configurable table. Use this screen to define how a unique record is identified for a specific table.

Configurations set up here are set up initially and are rarely changed. These configurations reflect the business logic of the enterprise. The order in which the columns are added has no impact on the identification of a duplicate.



Example:

If the columns *Category Name* and *Type* are selected for the Category table, any records in the Category table that have identical values for cDescription and cType are considered duplicates.

Default Configuration

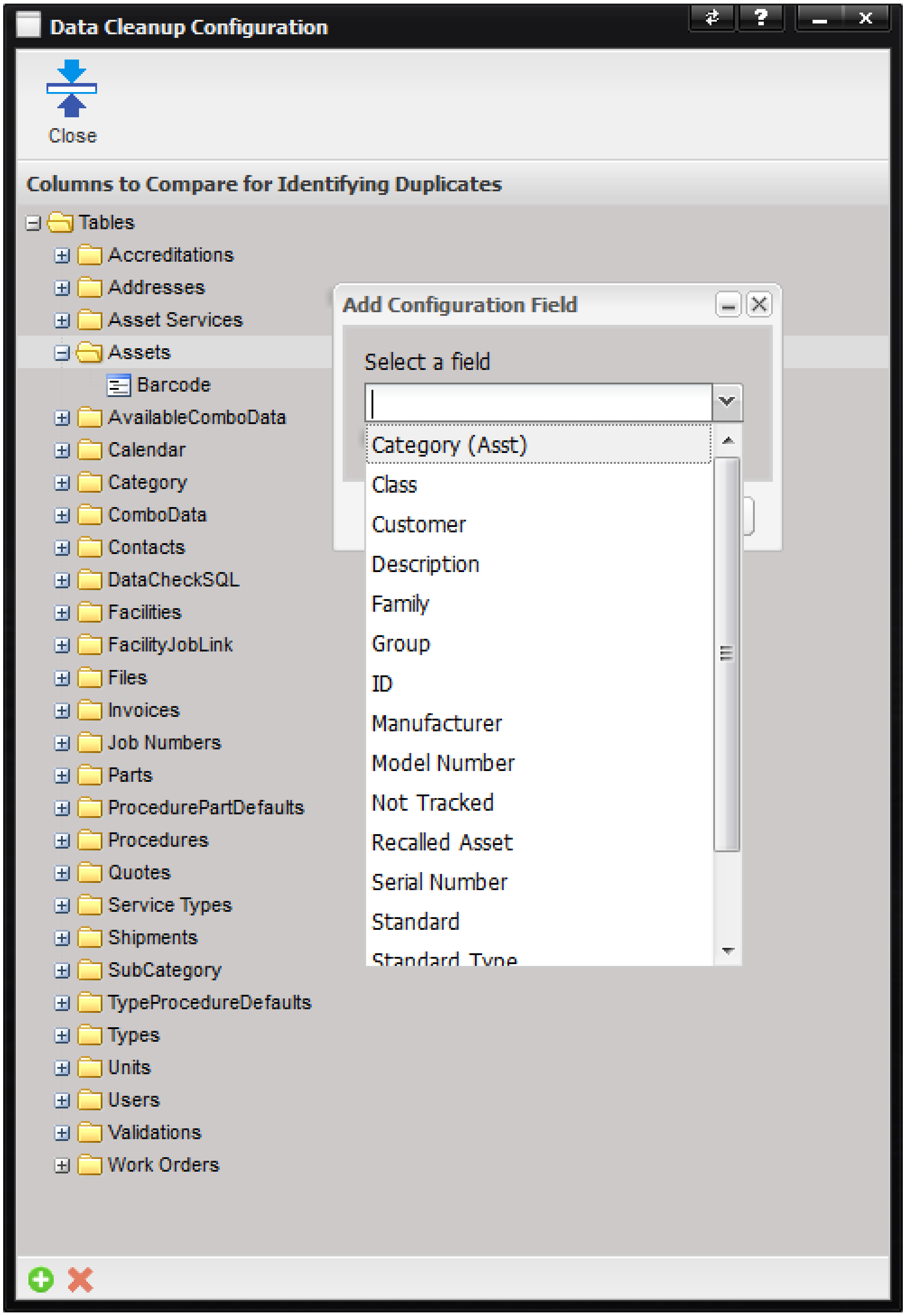
The following table shows the default configuration for a new MET/TEAM installation. Each table is listed with the configured columns and order of the columns.

Table	Column	Order
Accreditations	Name	1
Addresses	Facility Name	1
Addresses	Type	2
Addresses	Address 1	3
Addresses	City	4
Addresses	Country	5
Asset Services	Barcode	1
Asset Services	Service Type	2
Asset Services	Service Mode	3
Assets	Barcode	1
AvailableComboData	Text	1
Calendar	Task Subject	1
Calendar	Task Due Date	2
Category	Category Name	1
Category	Type	2
ComboData	Text	1
ComboData	Model	2
ComboData	Field	3
Contacts	Contact Id	1
DataCheckSQL	Affected Page	1
DataCheckSQL	Data Check Name	2
DataCheckSQL	Function Name	3
Facilities	Facility Name	1
FacilityJobLink	Facility Name	1
FacilityJobLink	Job Number	2
Files	File Name	1
Files	Link To	2
Invoices	Invoice Number	1
JobNumbers	Job Number	1
Parts	Part Number	1
ProcedurePartDefaults	Procedure Name	1
ProcedurePartDefaults	Part Number	2
Procedures	Procedure Name	1
Quotes	Quote Number	1
ServiceTypes	Service Type	1
ServiceTypes	Service Mode	2

Table	Column	Order
Shipments	Shipment Name	1
SubCategory	Sub Category Name	1
SubCategory	Category Name	2
SubCategory	Type	3
TypeProcedureDefaults	Description	1
TypeProcedureDefaults	Model Number	2
TypeProcedureDefaults	Manufacturer	3
TypeProcedureDefaults	Procedure Name	4
Types	Description	1
Types	Model Number	2
Types	Manufacturer	3
Units	Unit Symbol	1
Units	Code	2
Units	Conversion Factor Exponent	3
Users	User Name	1
Validations	Affected Page	1
Validations	Data Check Name	2
Work Orders	Barcode	1

The default configuration supplied with a new installation of MET/TEAM may be sufficient for most use cases.

To add another column to table, highlight the table in the tree and select the "+" button at the bottom of the screen. The Add Configuration Field dialog is displayed. Select a field from the drop down list and push Save.



To remove a column from a table, highlight the table in the tree and select the “x” button at the bottom of the screen.

***Note:** The same configuration entered here applies to the MET/TEAM Import Tool. Therefore, the same logic applies when determining if a record imported already exists in the database as when cleaning up duplicates. The Import covers tables that cannot be cleaned up by themselves, e.g. Points and related tables, so there is a separate configuration screen for the Import Tool, which includes the data presented here, as well as tables specific to Import only. When a* *change is made to the configuration, the data shown on the grid of the Duplicates tab will be outdated and must be refreshed.*

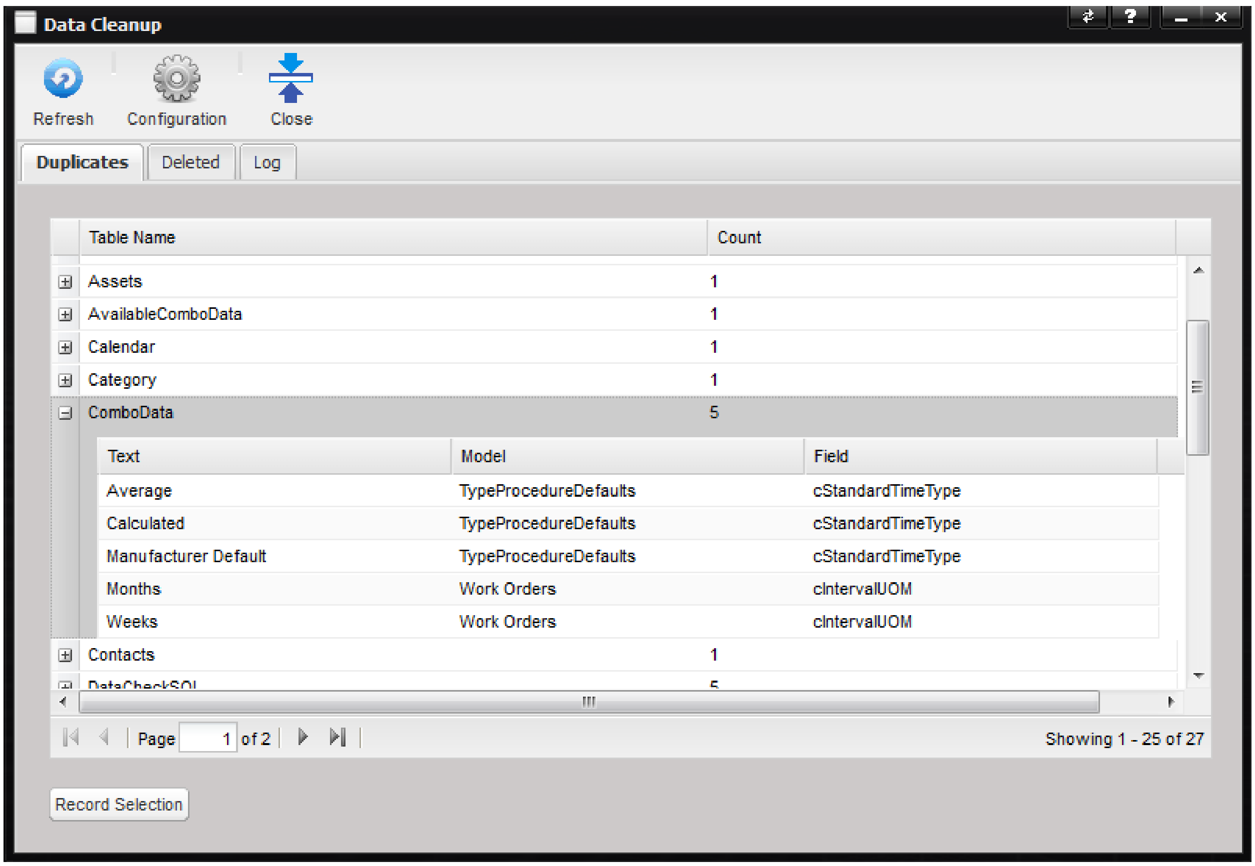
Data Cleanup Tool Tabs

The Data Cleanup Tool is used for cleaning up data that may be duplicated or marked for deletion. The Data Cleanup Tool consists of three tabs:

- Tab for processing duplicate records
- Tab for removing records flagged for deletion
- Tab for accessing the logs of past cleanups.

Data Clean up - Duplicates Tab

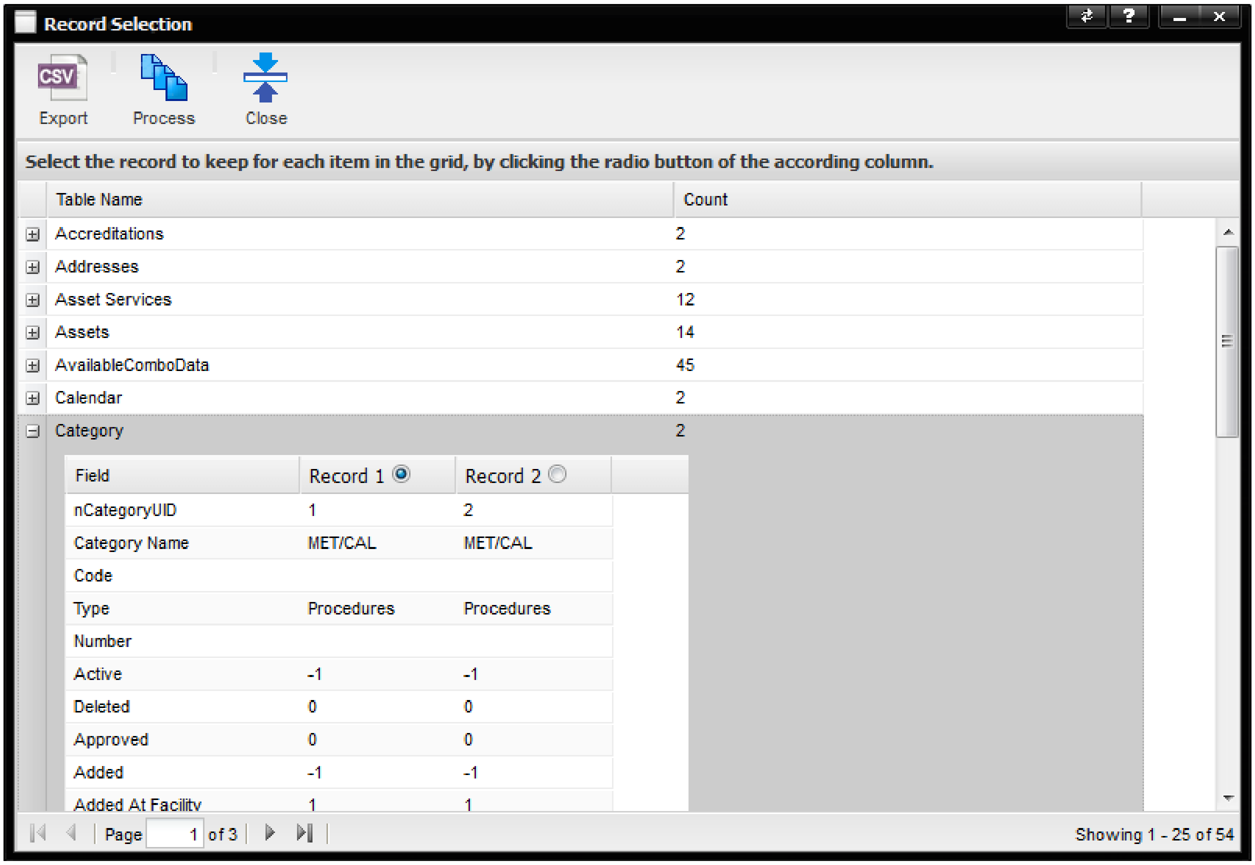
The Duplicates tab is for processing duplicate records. Press the Refresh button to view a list of all records considered to be duplicates in the database.



The grid contains the Table Name and a Count of the conflicts. By pressing the "+" button next to the Table Name record, the record expands and the individual conflicts are displayed.

Record Selection

The Record Selection button on the Duplicates tab displays the Record Selection screen. This screen lists the duplicates found in all tables in the database. These duplicates are based on the configuration defined.



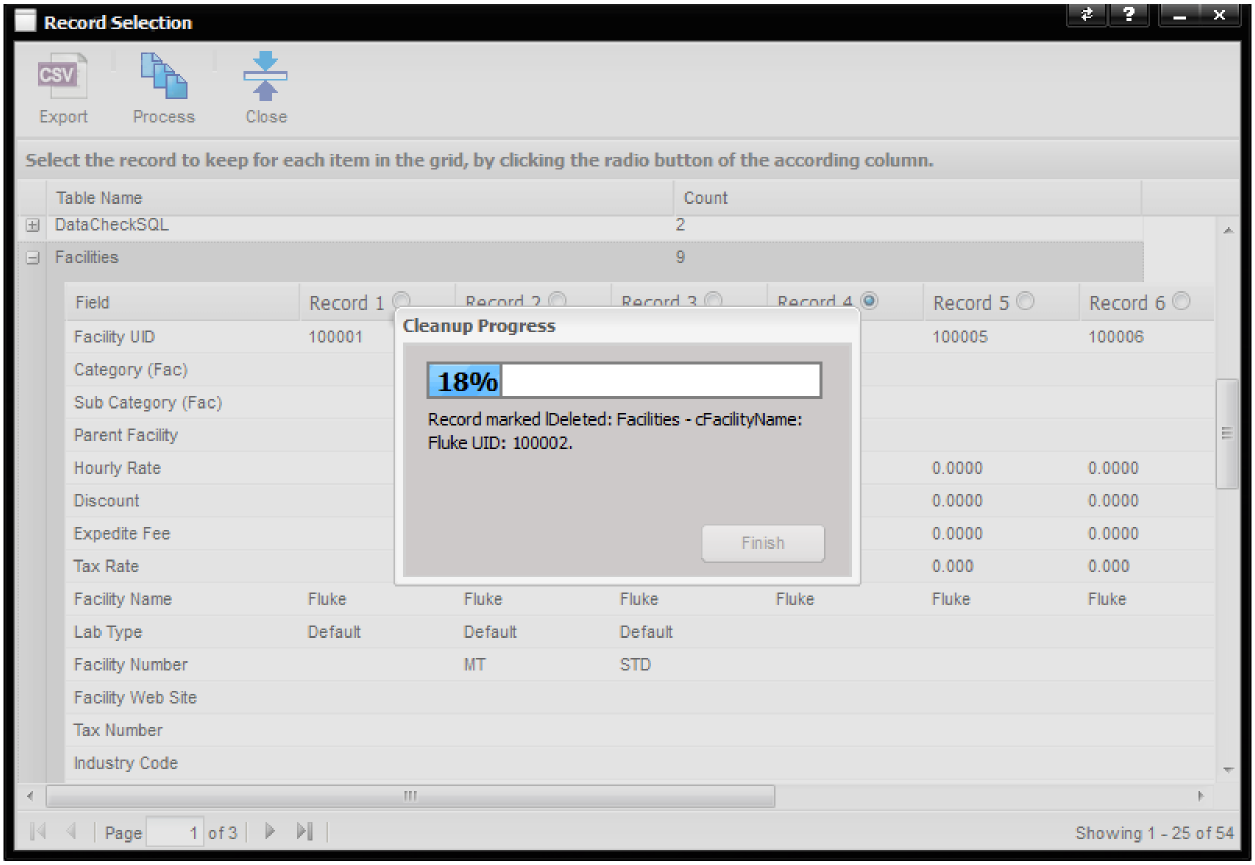
To process one or more duplicates, expand a Table Name and select the record to keep. The records are presented in a pivot view, i.e. each column represents one record in the database. In order to determine which record is the valid one, compare the data between the records (columns) and click the radio button of the record to keep. When a duplicate is marked for deletion, other records in the database that reference that record are updated to reference the record to keep instead.

Example:

When a Facility designated as a manufacturer is processed as a duplicate, Types and Assets that reference that Facility will be updated to instead reference the Facility that was selected to be kept. Therefore, removing a duplicate does not interfere with the referential integrity of the data as the Type and Asset will now reference the selected one that is not removed.

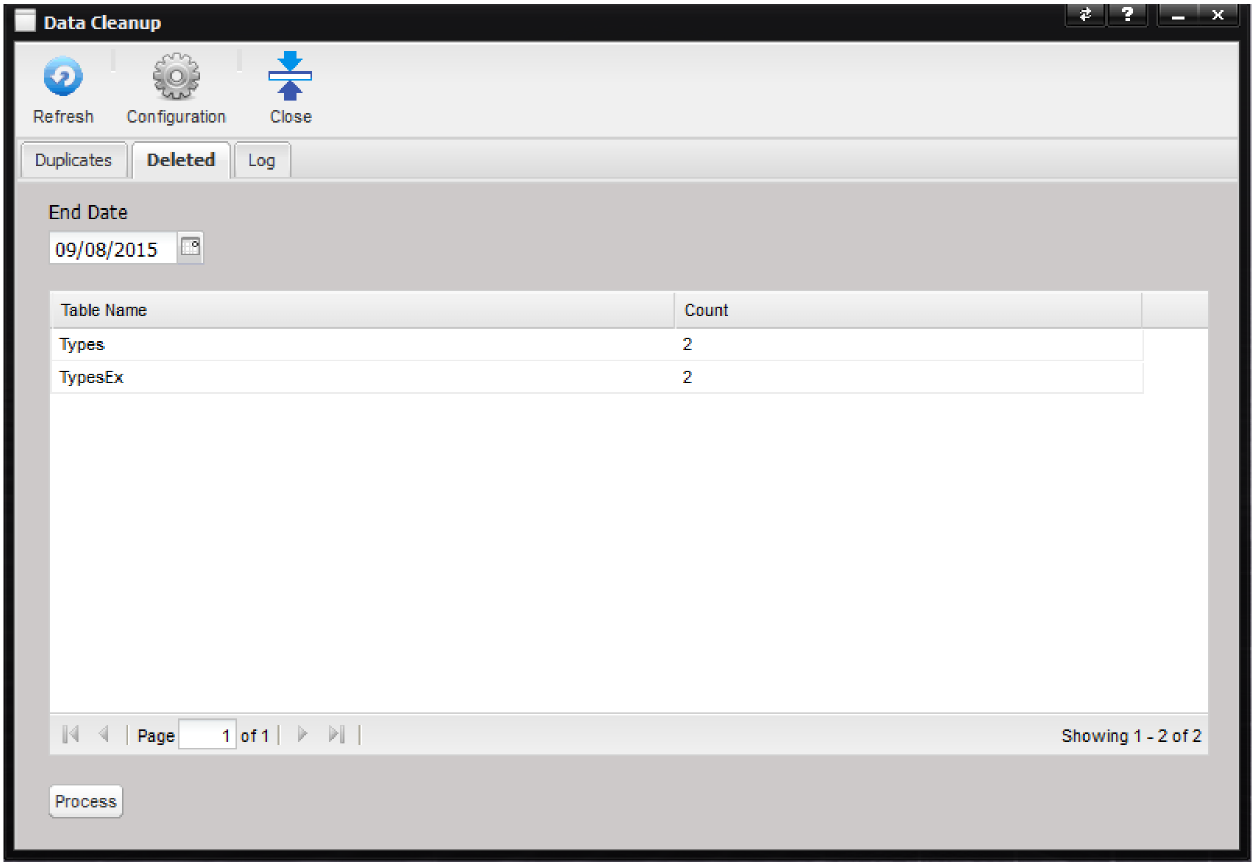
However, the FacilityEX record of the Facility removed is also removed, because moving it to the Facility that is kept would result in more than one EX record for the same Facility, which is not supported.

Once one or more records are selected, the Process button is enabled. Selecting the Process button, will process all table entries for which a selection has been made, the others are ignored and can be processed later. When the Process button is selected, a progress indicator is shown. Once the process is complete, the Record Selection screen closes and the grid is refreshed, to show the remaining items.



Data Cleanup - Deleted Tab

The Deleted tab is for removing records flagged for deletion. Press the Refresh button to see the records that have not been updated after the End Date entered.



- **End Date** – Records will be displayed that have been marked for deletion and have been updated prior to and including the data entered. Defaults to today's date.

The grid contains Table Name and a count of the number of records marked for deletion in each table.

Processing of Data – Deleted

To filter the removal to records older than a specific date, enter that specific date in the End Date field. The data is a filter based on the tUpdateTime of the records marked for deletion.

To process records marked for deletion, press the Process button at the bottom left of the screen. The progress is shown similar to the processing of duplicates. When processing is complete, the screen closes. Some records may not be removed, due to dependencies on other records that are newer, and therefore past the End Date entered.

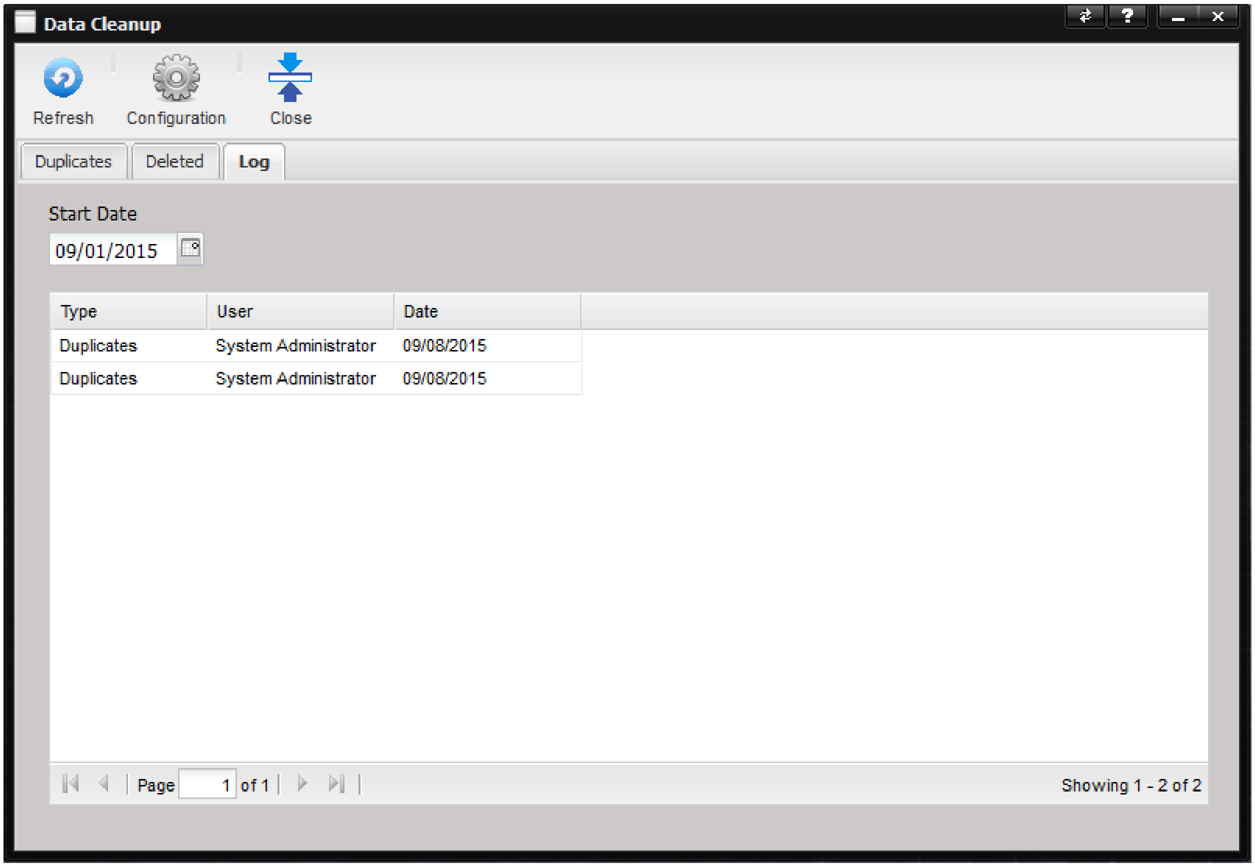
Example:

If an Asset marked for deletion hasn't been updated since the End Date entered, but newer Work Orders exist for this Asset, the Asset cannot be removed. At a later time, once the Work Orders fall within the End Date, they will appear in the grid as well and now the Asset (and Work Orders) can be deleted.

Data Cleanup - Log Tab

The Log Tab displays entries of previous cleanups performed before the date entered as the Start Date.

The Log tab displays entries from previous cleanups performed after the Start Date entered.



- **Start Date** – The date from which to list the log entries. Defaults to 1 week from today (to show the most recent week of cleanups).

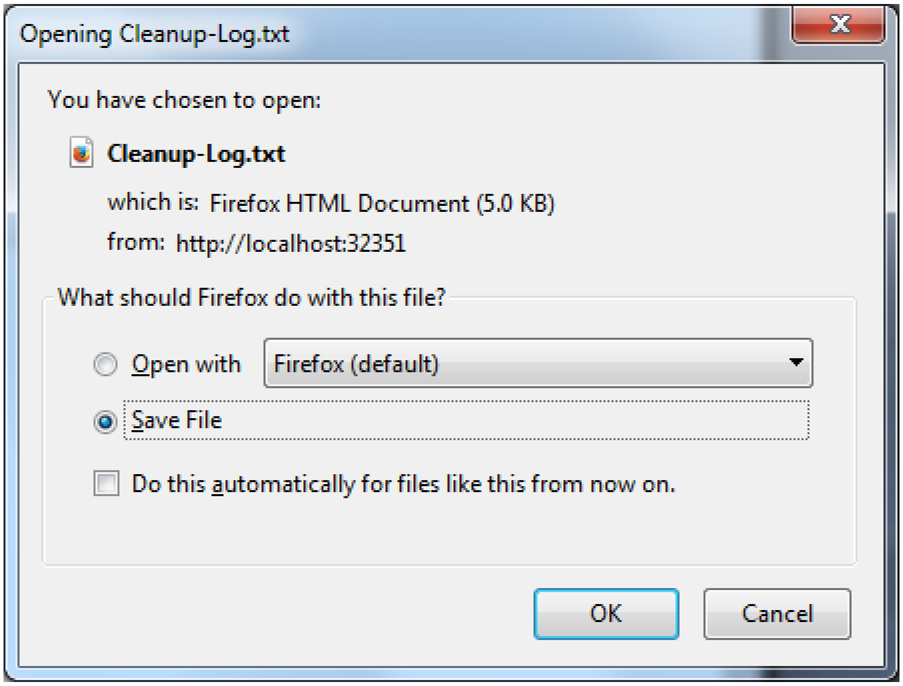
The grid contains the Type (Duplicate or Deleted), User (who performed the action), and the Date the action was performed.

Reviewing the Logs of Past Cleanups

More data can be retrieved, by setting the Start Date back further and pressing Refresh.

To view the log of a past cleanup, double-click the desired record; the log will be downloaded as a file in the web browser and stored in the download location set up in the web browser's settings. From there it can be viewed with the text viewer set up in Windows – usually by double-clicking the file in the download history.

The log shows a detailed list of the items updated. The fields listed for each type of record are those defined in the Configuration screen for the according table, e.g. for a Category record, it shows Category Name (Category.cDescription) and Type (Category.cType) by default. For tables updated that are not configurable, a hard-coded list of fields is retrieved. E.g. for a record from the Asset Ex table, the fields configured for Assets are displayed, plus the first character field in the ex table, i.e. cField1.

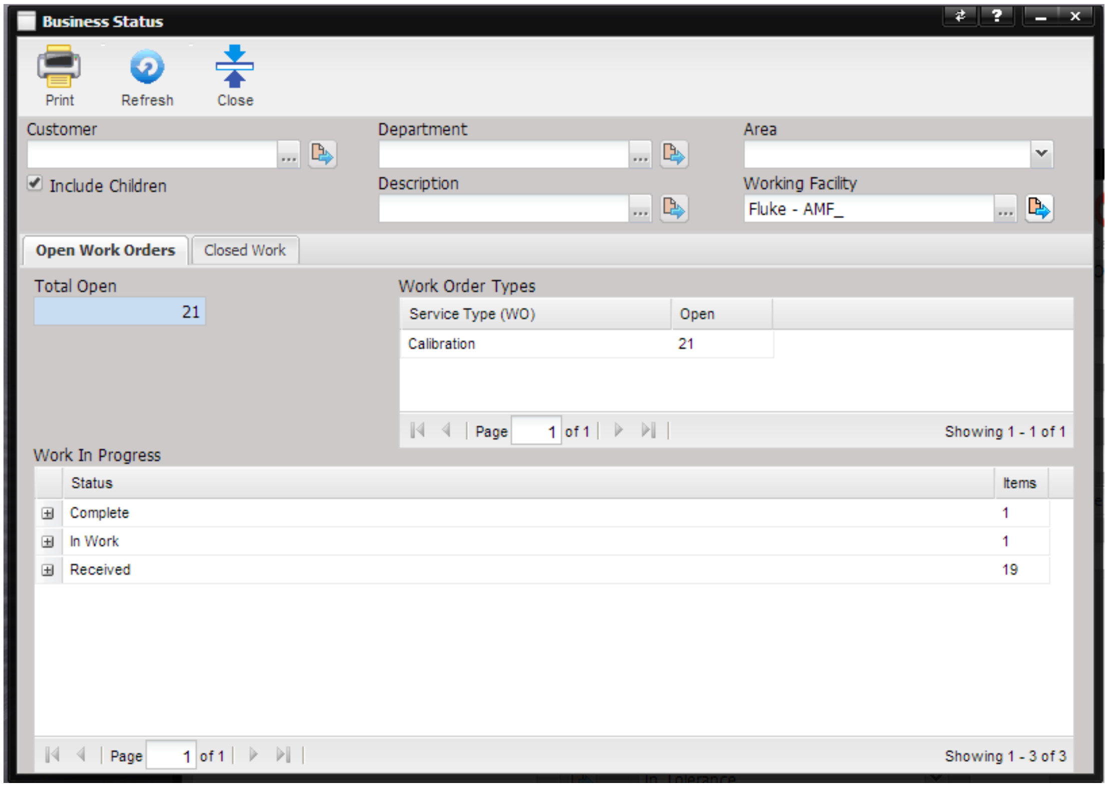


Management Menu

The Management Menu is used for managing the servicing facility. The menu items are: Business Status, Billing, Problem Reports, Tech Assignment, Quote, Contract Pricing, and Calendar.

Business Status

Business Status allows managers to view work in progress, and look at past work. Business Status is designed to give the manager enough information to quickly identify areas of concern, to plan budgets and workload, as well as show process bottlenecks.



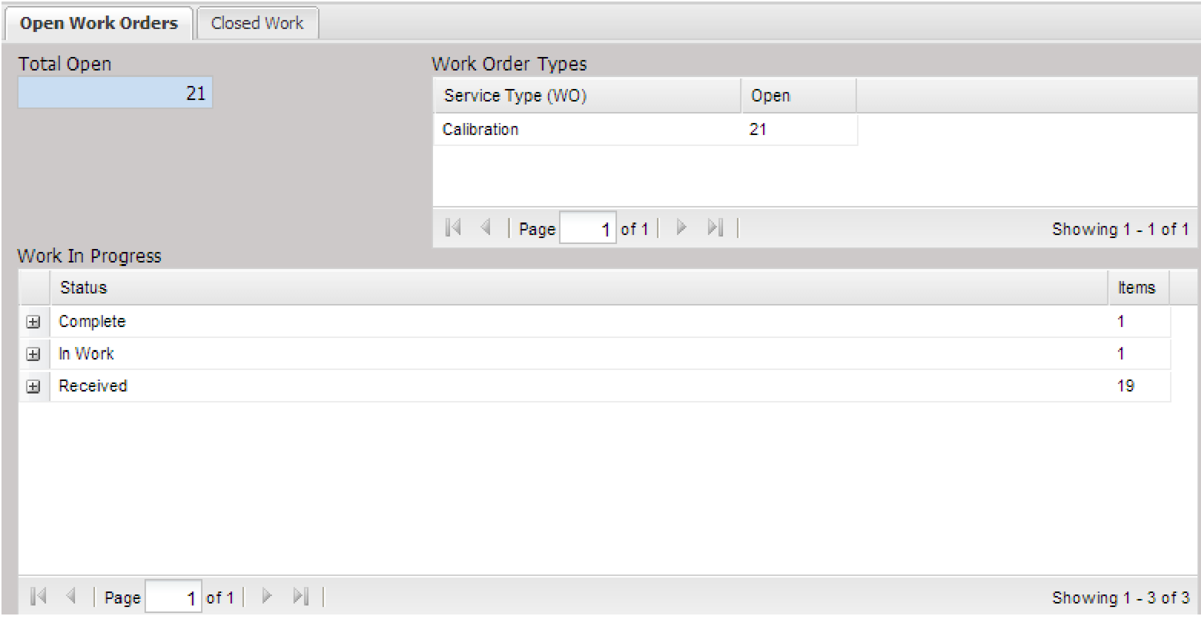
The business status screen can be filtered by Asset Customer, Department, Area, Description Type, and Working Facility (in multiple facility data stores, by one or all facilities). When filtered for one Customer, the "Include Children" check box provides the option of including data for the Customer's related children facilities.

Note: *These filters are additive in function and are applied in addition to the date filters.*

To update the data on the screen, click the Refresh button.

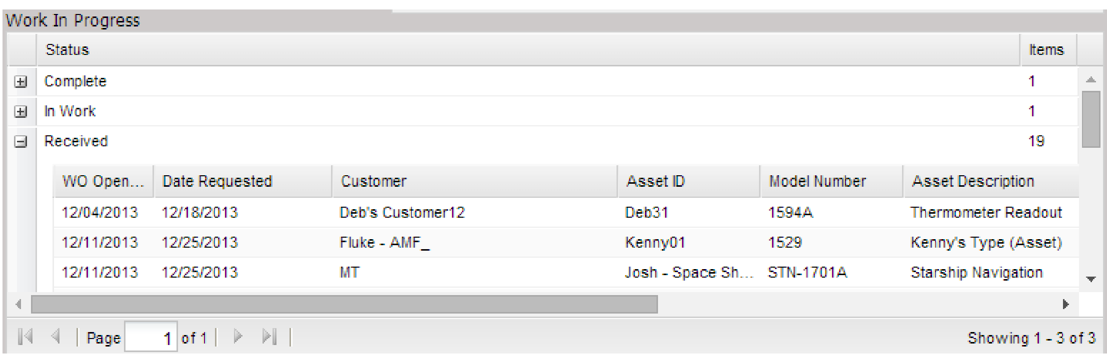
Business Status - Open Work Orders Tab

The Open Work Orders tab displays the work in progress in the service facility.



Total Open – Total number of open Work Orders in the Service Facility.
Work Order Types (grid) - Displays the types of service currently being performed and the number of each type open in the Service Facility.
Work in Progress (grid) - Displays the open Work Orders by status and the number of Work Orders in each status.

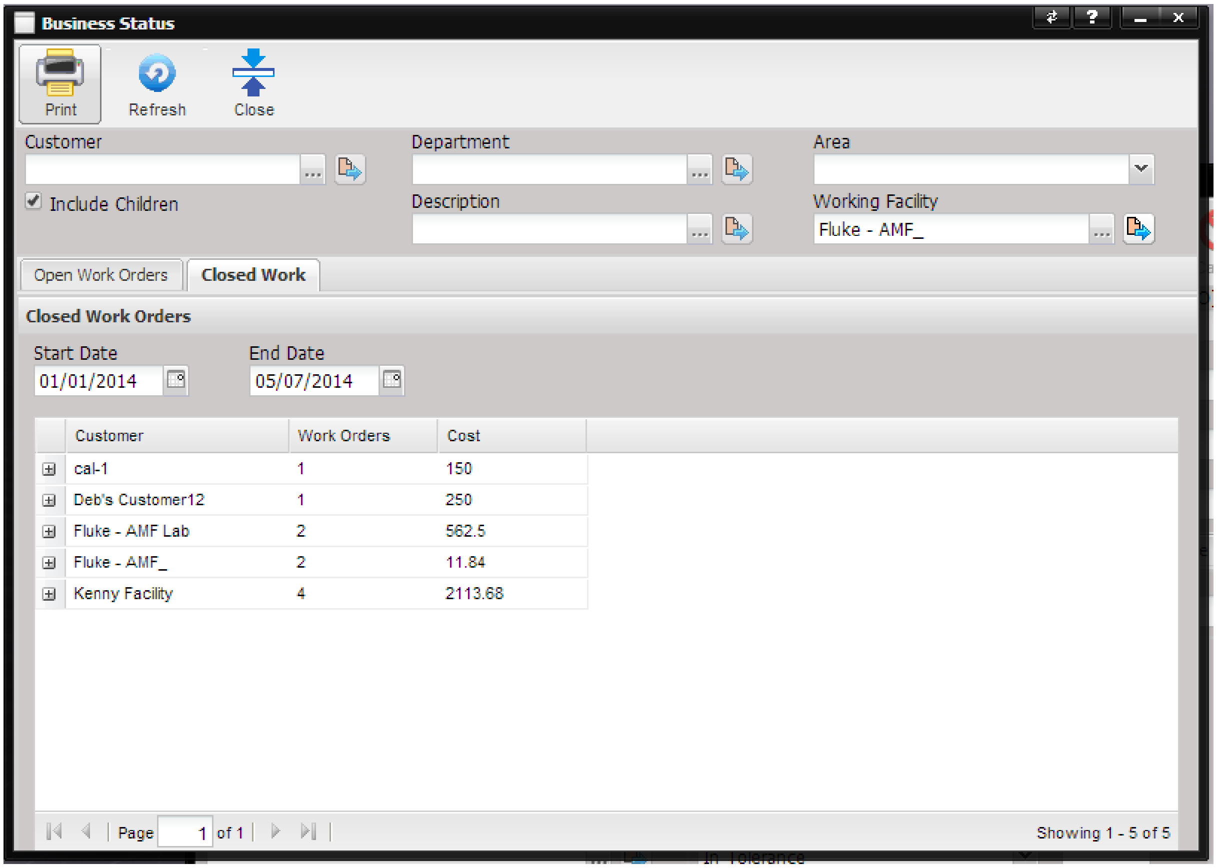
- To view a list of the Work Orders, select the "+" by the Status type.



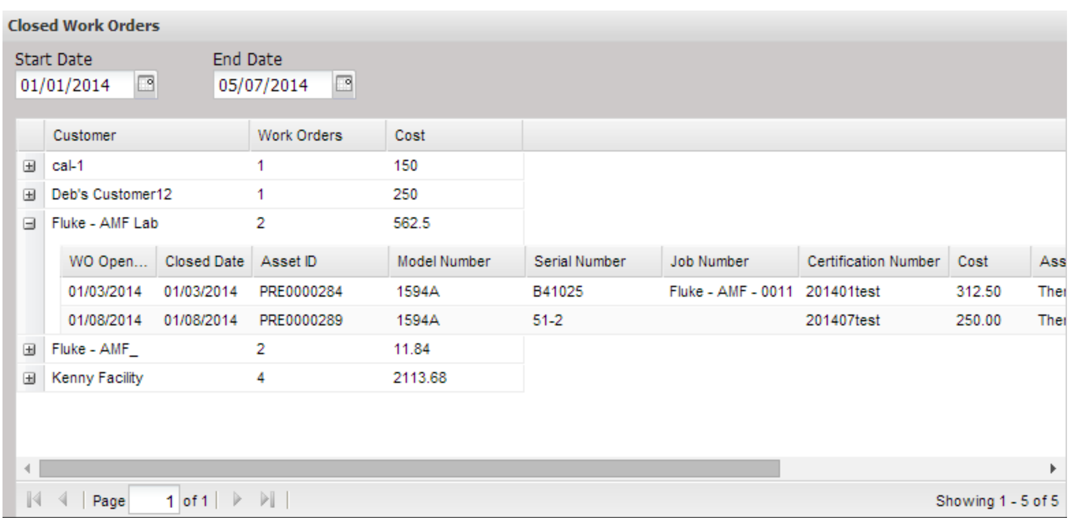
- To view a specific Work Order, highlight the Work Order in the grid and double click.

Business Status - Closed Work Tab

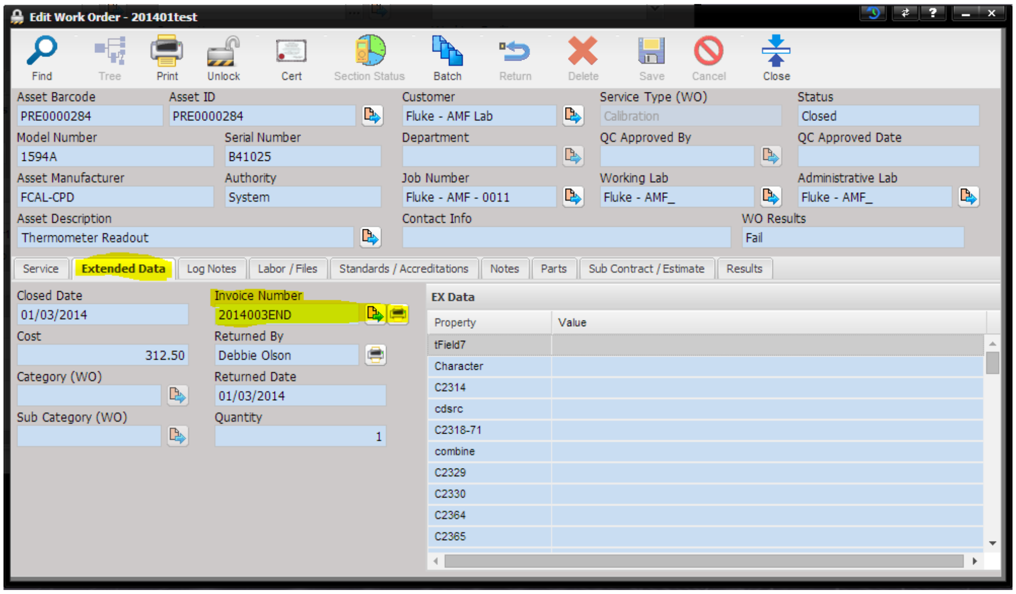
The Closed Work tab displays the number and cost of Work Orders closed for each customer for a date range.



Select the “+” next to the customer to display the Work Orders closed for that customer.

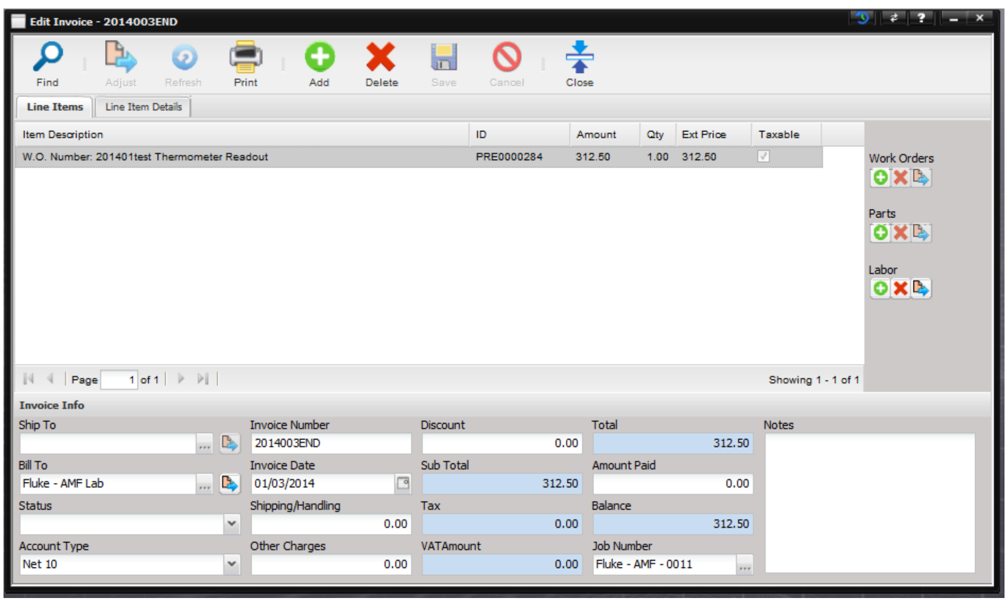


Double clicking a Work Order in the grid displays the Work Order. To view the invoice for a closed Work Order, select eh Extended Data tab on the Work Order and then the Quick Link button to view the invoice or the print button to print the invoice.



Billing

Billing is the process of creating Invoices and Invoice line items for selected Work Orders, Parts, and Labor.

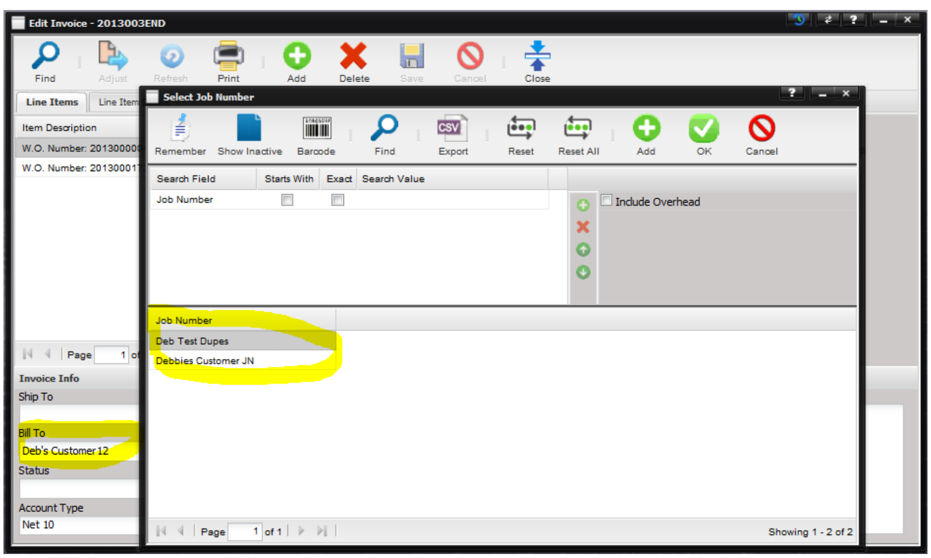


***Note:** Additional details about each item can be displayed by activating the System Default "Billing-CreateDetail" When this System Default is active, the Line Item Details tab is enabled.*

Invoice Info

- **Ship To** – The Facility the items are shipped to.
  - The Ship To Facility can be changed by selecting the "…" button.
  - The Ship To Facility can be viewed by selecting the Quick Link button.
- **Bill To (required)** – When a Work Order is added, Bill To is auto filled with the current Asset Customer.
  - If another customer needs to be billed for the work, select the "…" button to change the Bill To customer.
  - To view the Bill To customer information, select the Quick Link button.

- ○ The Bill To information ***does not*** change if a different Job Number is selected. The user must manually change the Bill To information by using the "…" button.
- **Status** – The status of the Invoice.
  - ○ The Status is automatically updated to "Closed" when the Amount Paid and the Total are the same (balance is 0).
  - ○ The Status can be changed until the "Closed" is selected.
- **Account Type** – Allows the user to define the kind of account (Net 10, Net 30, COD etc.).
- **Invoice Number** – The unique invoice number as generated by the system based on the System Default values; Invoice – Length, Invoice – Prefix, Invoice – Suffix.
- **Invoice Date –** The date the invoice was generated.
- **Shipping/Handling** – The amount of shipping and handling charges (no tax is applied to this value).
- **Other Charges** – Other charges incurred by the Service Facility which are passed on to the customer.
- **Discount** – A cash amount of discount.
- **Sub Total** – Sub Total of all the items in the invoice.
- **Tax** – The amount of the tax charged.
- **VAT Amount** – Value Added Tax, charged if the system default is active. The system default also controls the amount of the VAT.
- **Total** – The total of the invoice.
- **Amount Paid** – The amount paid on this invoice.
- **Balance** – The amount still owed on this invoice.
- **Job Number** - When a Work Order is added, Job Number is auto filled with the Job Number associated to the current Asset owner.
  - ○ To change the Job Number, select the "…" button. The Select Job Number screen is displayed. When the Find button is selected, the Job Numbers available to select from are filtered to the Job Number owner that matches the customer in the Bill To text box.



  - ○ The Job Number ***does not*** change if a different Bill To is selected. The user must manually change the Job Number by selecting the "…" button.
- **Notes** – Allows the service facility to enter notes that can be printed on the invoice.

Add Work Orders, Part, or Labor to the Invoice

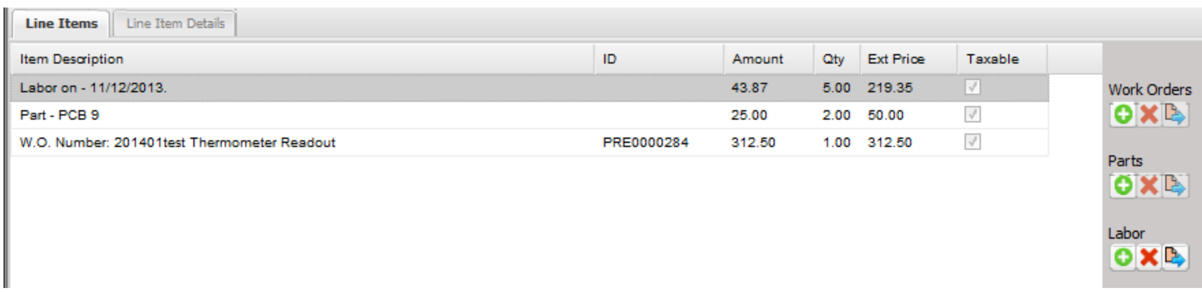
- To add additional Work Orders, Parts, or Labor select the "+" button in the row of buttons labeled Work Orders, Parts, or Labor. Select the entity from the Find dialog.
- To remove a Work Orders, Part, or Labor from the invoice, select the "X" delete button in the row of buttons labeled Work Orders, Parts, or Labor.
- To view a Work Order, Part, or Labor, select the Quick Link button in the row of buttons labeled Work Orders, Parts, or Labor.

Note: *Modification of information in the Parts selection screen result in a change to the parts inventory.*

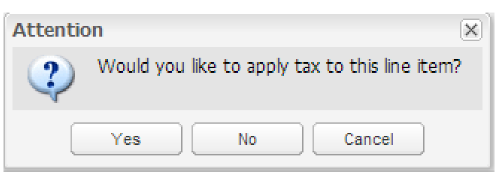
Note: *Only non- service labor (from My Work) is added through this process. Labor associated with a service event must be added to the Work Order.*

Billing – Line Items Tab

The Line Items tab displays a list of the Work Orders, Parts, and non-service Labor.

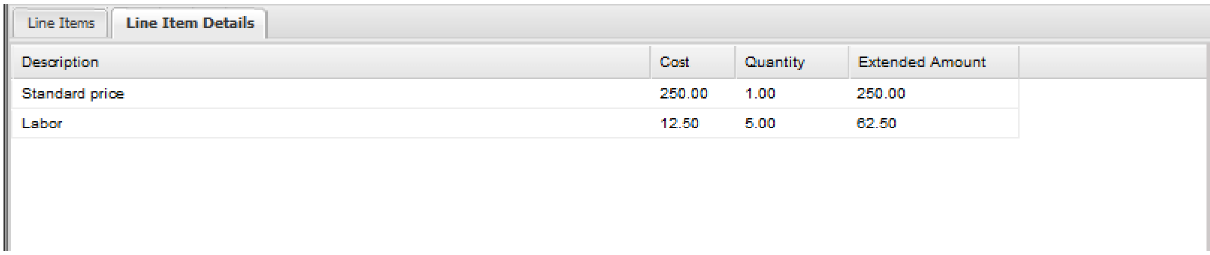


- **Item Description** – The description of the Work Order, Part, or Labor.
- **ID** – The Work Order number.
- **Amount** – The unit cost to the customer for this item.
- **Qty** – The quantity being invoiced for this item.
- **Ext Price** – The calculation of Amount * Qty which is the total cost to the customer for this item.
- **Taxable** – Whether or not the line item is taxable.
    - To apply tax to a line item, double click the line item.
    - A prompt is displayed asking the user whether or not to apply tax. The taxable check box displays checked when 'Yes' is selected from this prompt.



Billing – Line Item Details Tab

If the System Default 'Billing – CreateDetail' is active, the Line Item Details tab is enabled for Work Orders. A list of costs associated with the highlighted Work Orders is displayed.

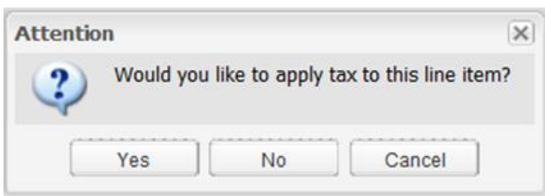


- **Description** – The description of the Work Order detail.
- **Cost** – The unit cost to the customer of this detail item.
- **Quantity** – The quantity of this detail item.
- **Extended Amount** – The calculation of Cost * Quantity which is the total cost.

Note: *The Invoice Line Item Details tab is only enabled when the System Default 'Billing-CreateDetail' is active.*

Charging Tax

Inventory items and services have default properties that cause tax to be charged. If tax for the individual line needs to be modified, double click the item in the Invoice Items grid. A prompt is displayed asking if tax is to be applied to this line item.



Select "Yes" to mark this line as taxable. Select "No" to uncheck the taxable check box on this line item. Select "Cancel" to dismiss this prompt.

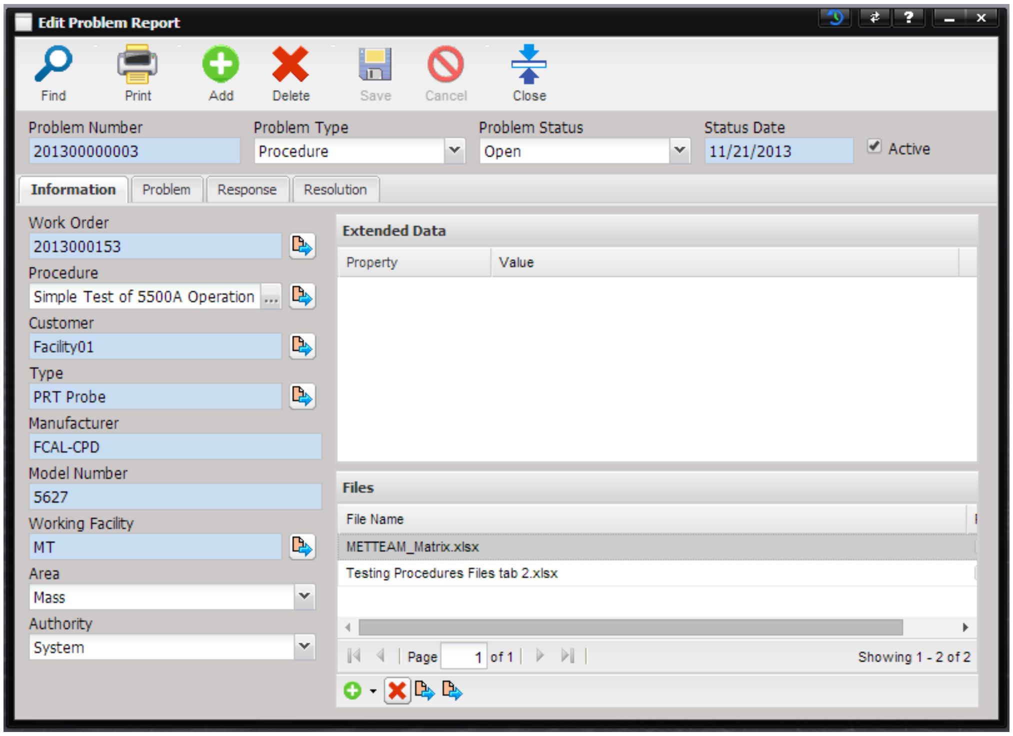
Adjusting the Invoice

Once the user has selected the desired Work Orders, parts, and labor, select the Adjust button to update the shipping / handling, other charges, discount, and total information on the Invoice.

To view any of the items selected, highlight the item and select the appropriate Modify button. Items on the bottom of the screen in white are modifiable by the user until the invoice is closed.

Problem Reports

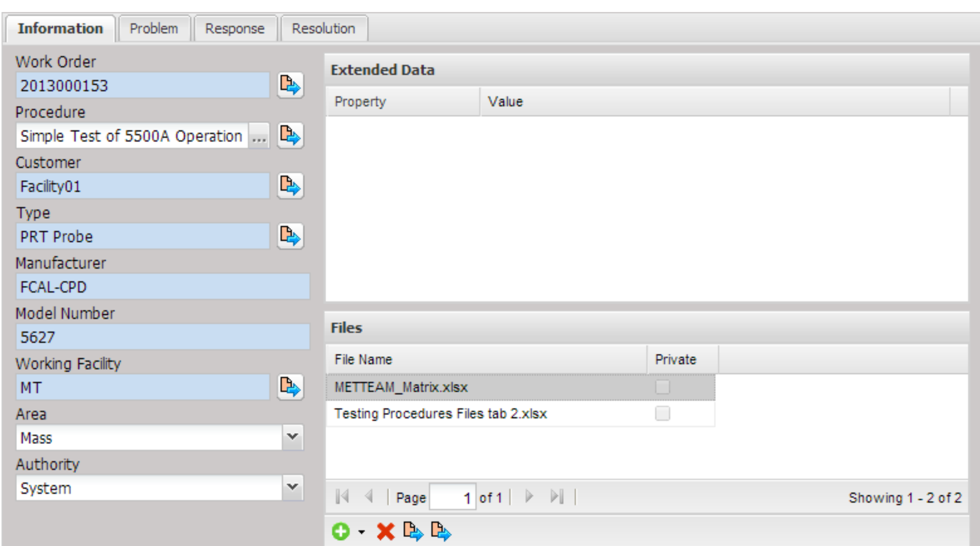
The Problem Reports option is used to document and track issues in the Facility that may be incorrect or need improvement. Typically, a problem is reported by a technician for a procedure or a type and the follow-up is done by a manager or QA person.



- **Problem Number** – The tracking number is automatically generated by MET/TEAM using, System Default settings.
- **Problem Type** – The type of problem selectable from the dropdown list: Procedure, Type, Work Order, etc.
- **Problem Status** – The state of the problem report; open or closed.
- **Status Date** – The date the status was updated.
- **Active** – If checked, the problem report is active.

Problem Report – Information Tab

The Information tab contains information pertaining to the Type.



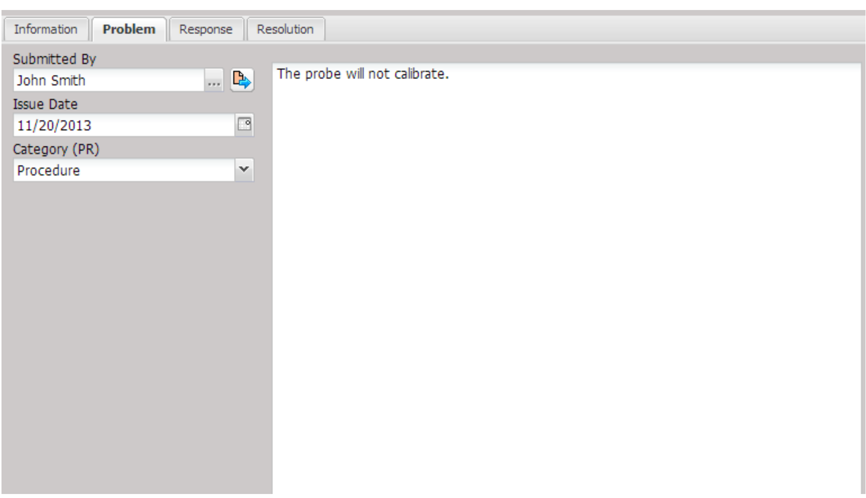
- **Work Order –** Indicates the Work Order the problem report is referencing.

- When creating a Problem Report, selecting the Work Order will cause the other information to be populated from the Work Order information.
- The Work Order can be selected by selecting the "…" button.
- When the Problem Report is being created, the Work Order can be viewed by selecting the Quick Link button.

- **Procedure** – Indicates the procedure the problem report is referencing.
  - The procedure can be selected or changed by selecting the "…" button.
  - The procedure can be viewed by selecting the Quick Link button.
- **Customer** – The customer who owns the type that the problem report is referencing.
  - The customer can be selected by selecting the "…" button.
  - The customer can be viewed by selecting the Quick Link button.
- **Type** – Indicates the Type the problem report is referencing.
  - The type can be selected by selecting the "…" button.
  - The type can be viewed by or modified by selecting the Quick Link button.
- **Manufacturer** – Indicates the Manufacturer from the type the report is referencing.
- **Model Number** – Indicates the Model Number from the type the report is referencing.
- **Working Facility** – Indicates the facility reporting the problem.
  - The working facility can be selected by selecting the "…" button.
  - The working facility can be viewed by selecting the Quick Link button.
- **Area** – Indicates the area of the facility reporting the problem.
- **Authority** – Indicates the authority of the facility reporting the problem.

Problem Report – Problem Tab

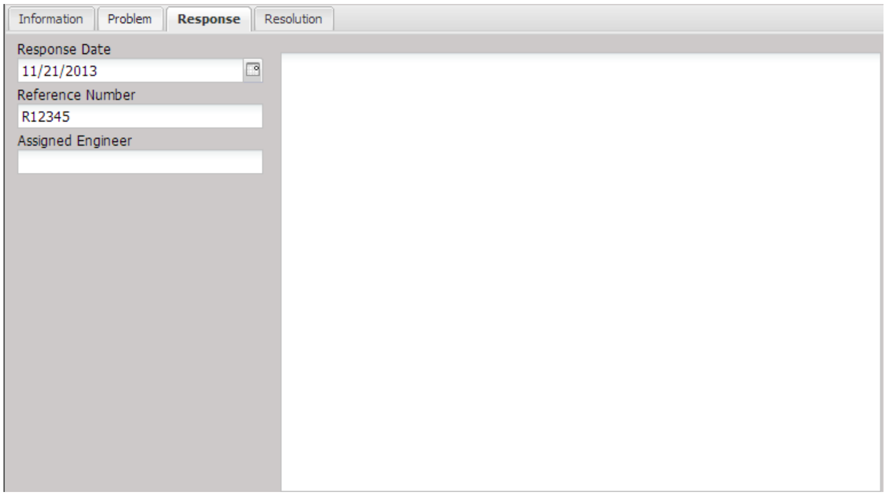
The Problem tab is for inserting the problem description in detail.



- **Submitted By** – The name of the person completing the problem report.
  - The submitted by can be selected or changed by selecting the "…"button.
  - The submitted by to facility can be viewed by selecting the Quick Link button.
- **Issue Date** – The date the problem report was issued.
- **Category (PR)** – The category of the problem report. To manage the values in the drop-down list, right-click the label above the field and select Edit Combo Data from the popup menu.
- **Notes** – Text identifying the details of the Problem.

Problem Report – Response Tab

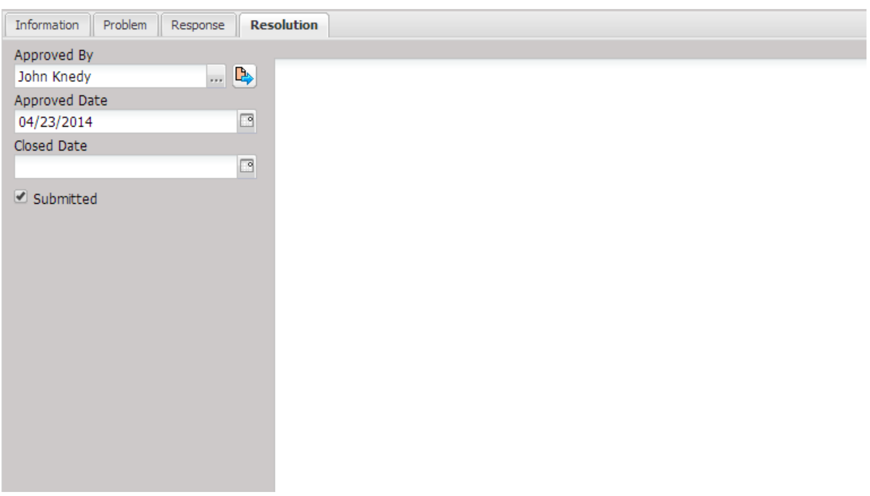
The Response tab is for recording results for the problem typically made by the quality personnel or management.



- **Response Date** – The date the response was completed.
- **Reference Number** – The reference identification for the problem.
- **Assigned Engineer** – The person responding to the problem.
- **Notes** – Text identifying the details of the Response.

Problem Report – Resolution Tab

The Resolution tab is for recording the resolution to the problem.



- **Approved By** – The user that approved the resolution for the problem.
- **Approved Date** – The date the result was approved.
- **Closed Date** – The date the problem report is considered closed or implemented.
- **Submitted** – Indicates the problem report has been submitted. When checked, the only person that can edit the data is the “Approved by” user. Typically, checked when the report investigation begins.
- **Notes** – Text identifying the details of the resolution.

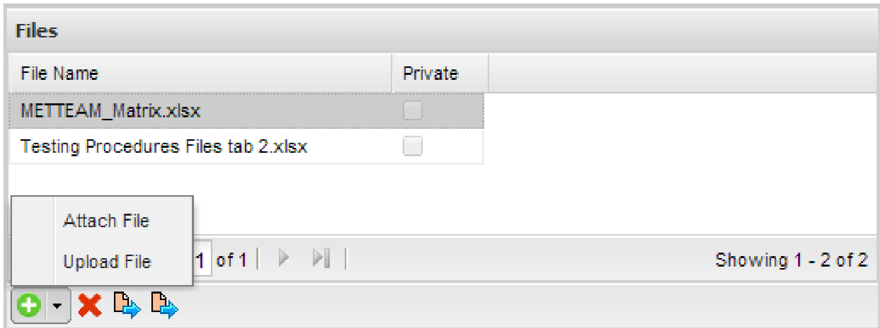
Adding Files

The Files section displays files related the Problem Report. Files may be related either by “Attach File” (attaches an existing file) or by “Upload File” (uploading a new file). The buttons at the bottom of the grid can be used to add, delete, modify, or view files.

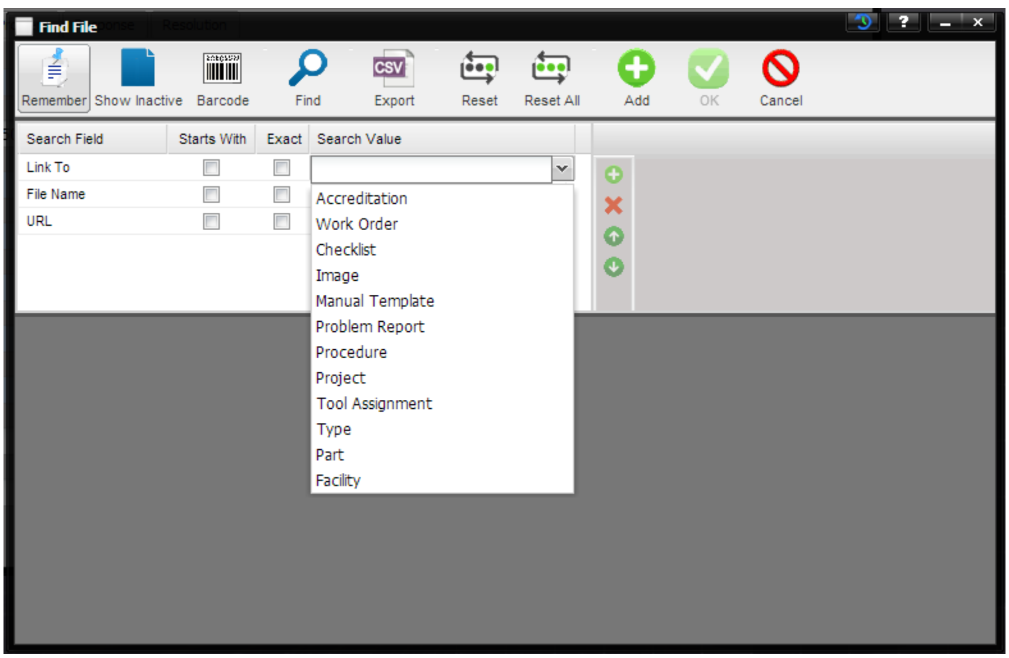
Adding a File (Attach or Upload)

When the “+”button on the right is selected, the user is presented with two options: Attach File or Upload File.

Note: *MET/TEAM can only upload files that are 50mb or smaller.*



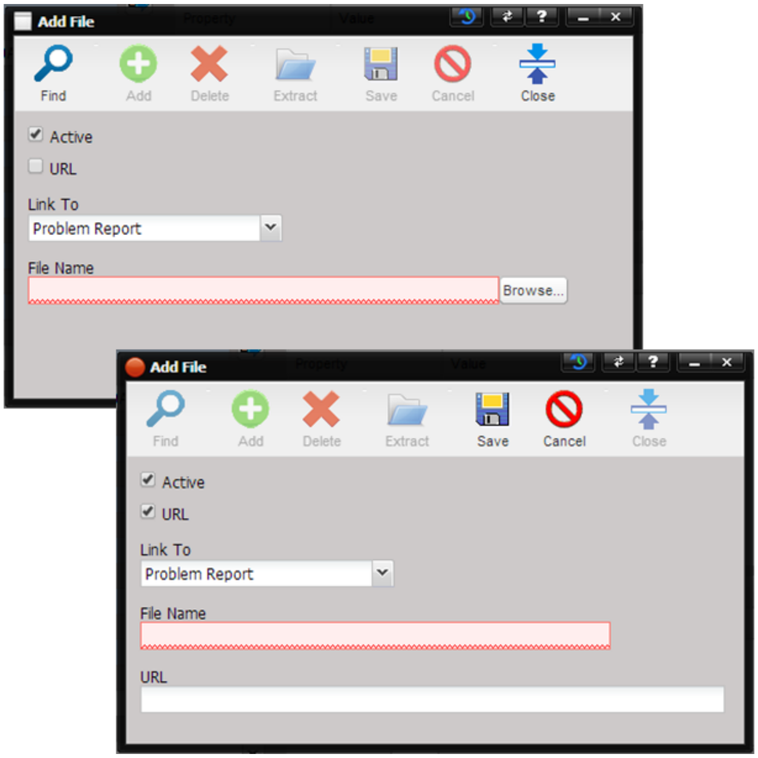
To attach an existing file to a Problem Report, select the Attach File option. The Find screen is displayed for finding the File to add. The Search Value shows the available values for “Link To”. Select Problem Report. Press the Find button. The Files displayed are those files that were previously added using the Maintenance menu Files submenu and created with the Link To set to Problem Report. Select the file to attach from the results grid and press OK.



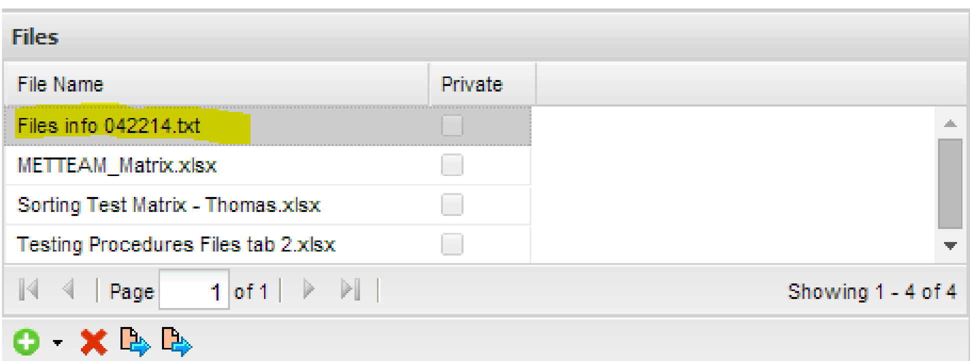
The File you selected is displayed in the Files grid.

To attach a new file to a Problem Report, select the Upload File option. This option adds the File (as if the user had used the Maintenance menu Files submenu) and at the same time attaches the new File to the Problem Report.

The Add File screen is displayed with the Link To prefilled with “Problem Report”. Select the Browse button to select the File to upload.



When the Save button is selected, the new File is saved as a File, the Files screen is closed, the new file is attached to the current Problem Report and the Files grid refreshes on the Problem Report screen.



Deleting a File, Modifying the File Link, Viewing the File

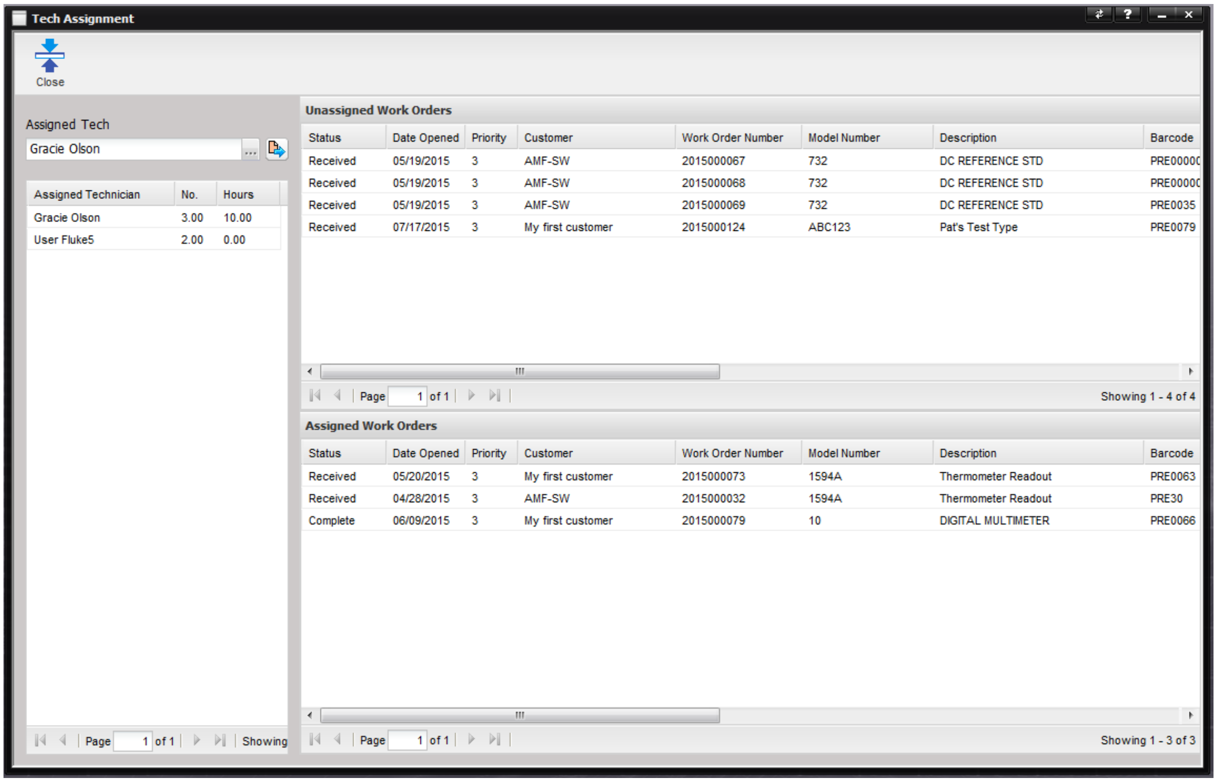
To remove a File, highlight the record in the Files grid and select the “X” button at the bottom of the Files grid.

To modify a File link, highlight the record in the Files grid and select the Quick Link button (the 3rd button) at the bottom of the Files grid.

To view the selected File, highlight the record in the Files grid and select the Quick Link button (the 4th button) at the bottom of the Files grid.

Tech Assignment

Tech Assignment allows managers to assign open Work Orders to technicians. Managers can monitor and manage workloads for their technicians. This screen is resizable.



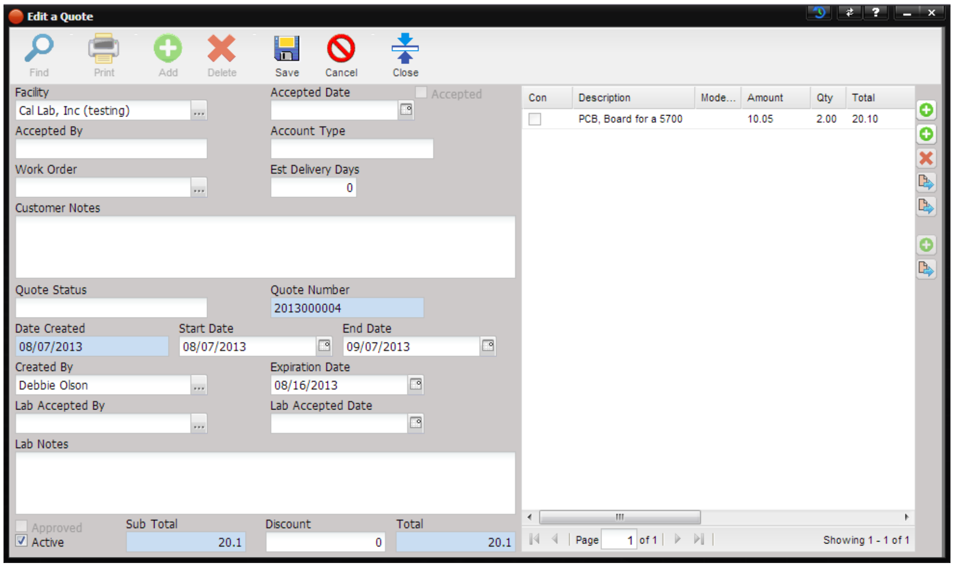
Only Work Orders that are assigned to the logged in user's current facility are displayed on the Tech Assign screen. Work Orders are assigned to a facility from the Working Lab field on the Work Order screen. The user's current facility is indicated in the upper right corner of the MET/TEAM™ screen.

***Note**: Any changes made between the Unassigned Work Orders and Assigned Work Orders are saved immediately.*

- **Assigned Tech** – Allows the user to select a technician. When the technician is selected the Assigned Work Orders grid displays the current Work Orders assigned to the selected technician.
    - The Assigned Tech can be selected or changed by selecting the "…" button.
    - The Assigned Tech can be viewed by selecting the Quick Link button.
- **Assigned Technician Grid** – Displays all technicians that have Work Orders assigned to them and the number of Work Orders assigned to them.
    - To view the Work Orders assigned to a technician, highlight the technician in the grid.
    - To assign Work Orders to a technician that does not appear in the grid, select the technician in the "Assigned Tech" box and assign at least one Work Order to that technician.
- **Unassigned Work Orders** – Displays a list of all open Work Orders that have not been assigned.
    - To assign a Work Order, highlight the correct technician and double click the desired Work Order in the grid. The Work Order is moved to the "Assigned Work Orders" grid, showing it has been assigned to the highlighted technician.
    - To save the assignments, select the Save button.
- **Assigned Work Orders** – Displays the Work Orders assigned to the highlighted technician.
    - To un-assign a Work Order, double click the desired Work Order in the grid. The Work Order is moved to the Unassigned Work Orders grid.
    - To save the changes, select the Save button.

Quote

The Quote menu allows a quote to be created for work requested by a customer. The Quote contains a start date, end date, name of person who created the quote (estimator), and allows for tracking who accepted the quote and the date.



Quote Fields

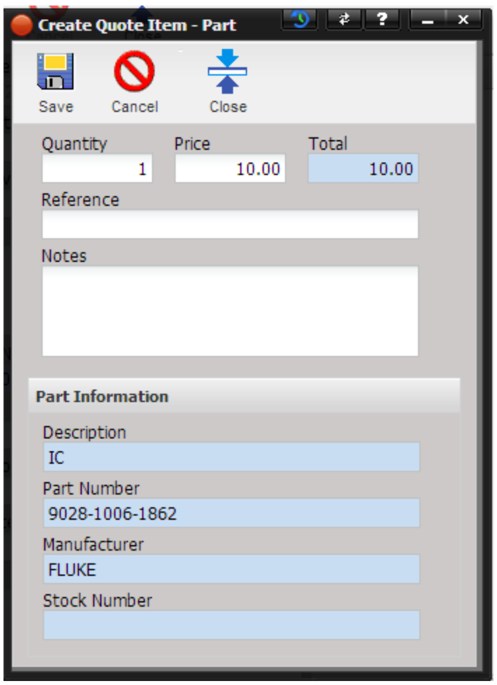
- **Facility** – The Facility the quote is being prepared for.
    - The Facility can be selected or changed by selecting the "…" button.
- **Accepted Date** – The date the customer contact accepted the quote.
- **Accepted** – If checked, the customer has approved this quote.
- **Accepted By** – The customer contact that approved the quote.
- **Account Type** – The customer account type.
- **Work Order** – The Work Order that the quote pertains to.
    - The Work Order can be selected or changed by selecting the "…" button.
- **Est Delivery Days** – The number of days estimated to complete the work quoted.
- **Customer Notes** – Notes pertaining to the customer.
- **Quote Status** – Indicates the progress of the quote.
- **Quote Number** – The number used to identify the quote.
- **Date Created** – The date the estimate was created.
- **Start Date** – The date that the work could begin assuming the quote is accepted before the Expiration Date expires.
- **End Date** – The date the work could be completed assuming the quote is accepted before the Expiration Date expires.
- **Created By** – The User who created the quote.
    - The User can be selected or changed by selecting the "…" button.
- **Expiration Date** – The date the quote expires (must be accepted by the customer).
- **Lab Accepted By** – The User that approved this quote.
    - The User can be selected or changed by selecting the "…" button.
- **Lab Accepted Date** – The date the quote was approved by the lab.
- **Lab Notes** – Notes about this quote for the lab.
- **Approved** – If checked, the quote is locked and indicates approval by the lab.

- **Active** – If checked, the quote active or inactive.
- **Sub Total** – The cost before discount.
- **Discount** – The discount for this quote (as a percentage).
- **Total –** The net total for this quote. Calculation = Sub Total – (Sub Total * (Discount/100))
    - **For example:** If the Sub Total = 9 and the Discount = 10, the Total equals 8.10 which is 9 – (9*(10/100)).

Adding / Deleting / Modifying Quote Parts or Types

To add Parts or Types, the Quote must first be saved. After saving, the Add Part and Add Type "+" button become enabled. Select either "+" button and the appropriate Find dialog is displayed for selecting the Part or Type.

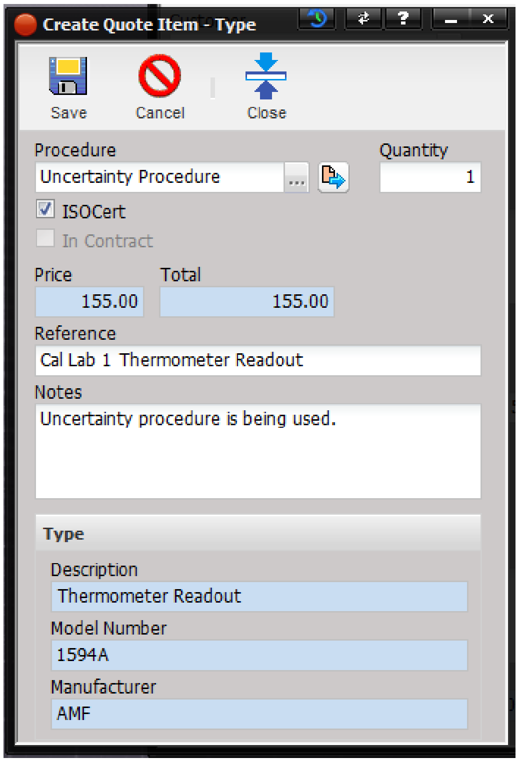
If a Part is being added to the quote, the Create Quote Item – Part screen is displayed. When the quantity and price are entered, the Total is calculated.



- **Quantity –** The number of Parts used for this quote.
- **Price –** The price the customer is being charged for the Part.
- **Total –** The calculated value of Quantity times the Price.
- **Reference –** The reference for this Part.
- **Notes –** Any notes pertaining to this Part.
- **Description –** The Part description pulled from the information about this Part. See Maintenance Parts menu option.
- **Part Number –** The Part number pulled from the information about this Part. See Maintenance Parts menu option.
- **Manufacturer -** The manufacturer of this Part number pulled from the information about this part. See Maintenance Parts menu option.
- **Stock Number -** The Part stock number pulled from the information about this Part. See Maintenance Parts menu option.

Once the information is complete, select the Save button. The Part is added to the Quote grid.

If a Type is being added to the Quote, the Create Quote Item – Type screen is displayed.



- **Procedure –** The Procedure associated with the selected type.
  - The Procedure can be selected or changed by selecting the "…" button.
  - The Procedure can be viewed by selecting the Quick Link button.
- **Quantity –** The number of Types being quoted.
- **ISOCert –** If checked the ISO Cert cost is included in the Total.
- **In Contract –** If checked, the Type is included in the Contract with this customer.
- **Price –** The price being charged to the customer to perform the Procedure specified for this Type. See the Procedure tab on the Types screen (navigate there by using the Maintenance Types menu option).
- **Total –** The calculated value of Quantity times the Price.
- **Reference –** The reference for this Type.
- **Notes –** Any notes pertaining to this Type.
- **Description –** The Type description pulled from the information about this Type. See Maintenance Types menu option.
- **Model Number –** The Model Number pulled from the information about this Type. See Maintenance Types menu option.
- **Manufacturer -** The Manufacturer of this Type number pulled from the information about this Type. See Maintenance Types menu option.

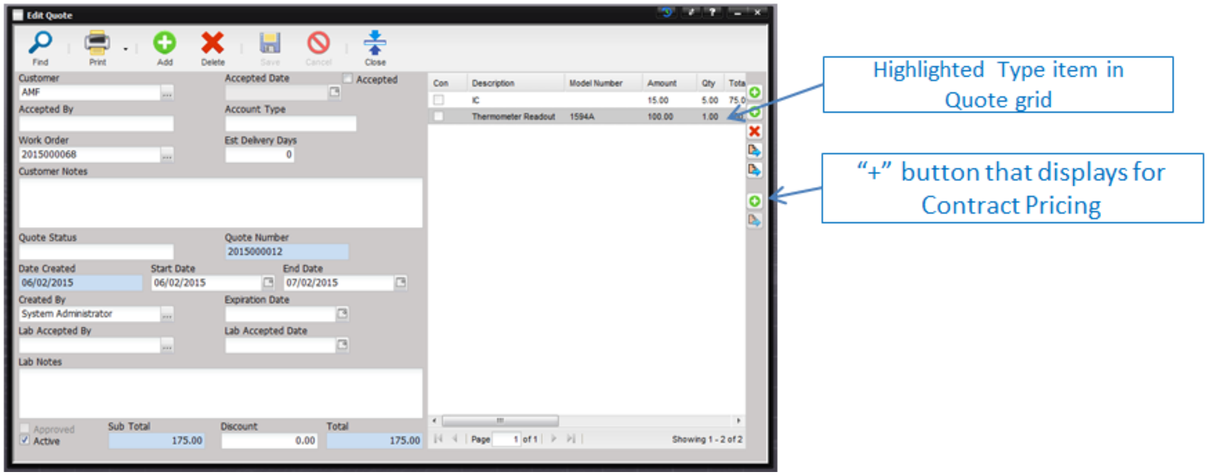
Once the information is complete, select the Save button. The Type is added to the Quote grid.

To delete a Part or Type, select the "X" button after highlighting the item to be deleted in the Quote grid.

To modify a Part or Type, highlight the item in the Quote grid and select the Quick Link button that displays the appropriate tool tip.

Adding / Deleting / Modifying Contract Pricing

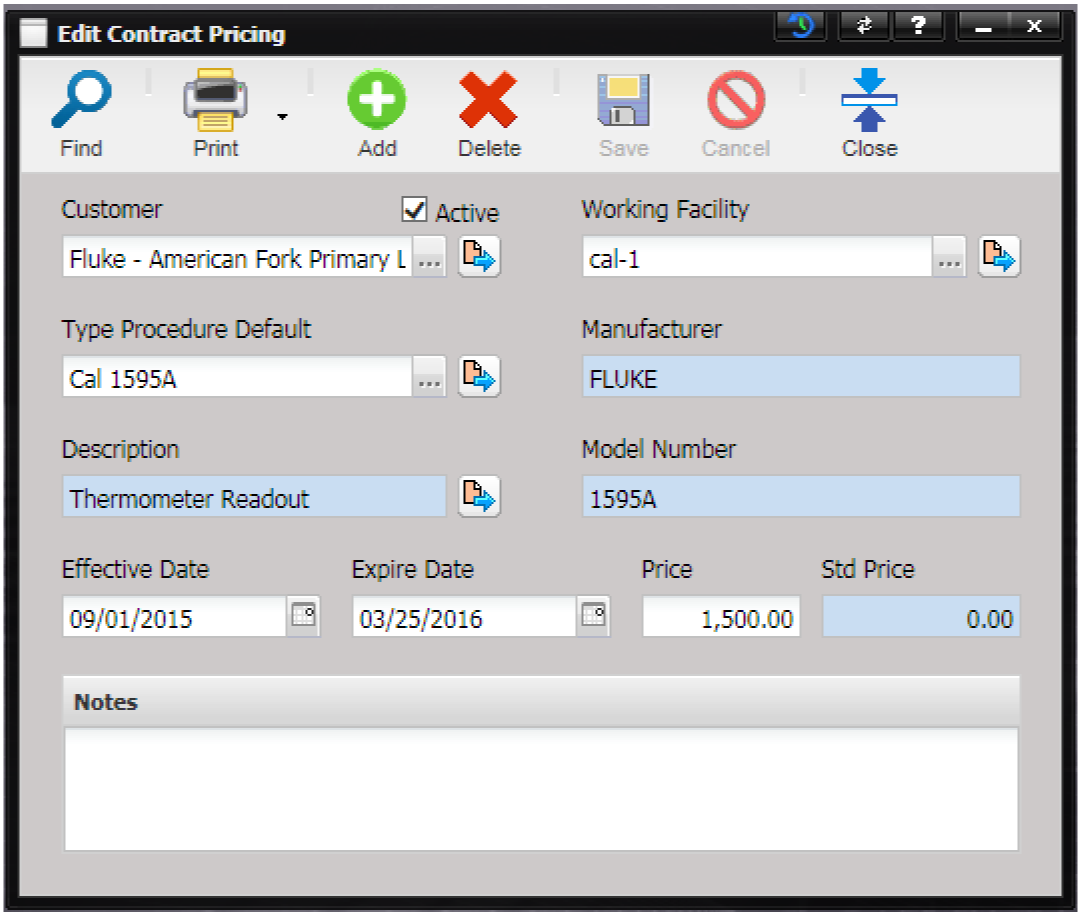
To add Contract Pricing to the Quote, highlight the Type item in the Quote grid that the Contract Pricing will apply to and select the "+" button that displays the Contract Pricing tool tip. The Find dialog is displayed for selecting the Contract Pricing.



To modify the Contract Pricing, select the Quick Link button.

Contract Pricing

Contract pricing is used to create custom pricing for facilities that are owners. Select a Customer, a Type/Procedure combination and optionally a Working Facility; enter Effective and Expire dates, contracted price and any notes. Any Work Orders matching the customer and Type/Procedure that are opened between the dates set are charged the contract price instead of the standard price. Expedite or ISO cert fees and any parts on the Work Order can be added to the contract price when calculating the Work Order cost.

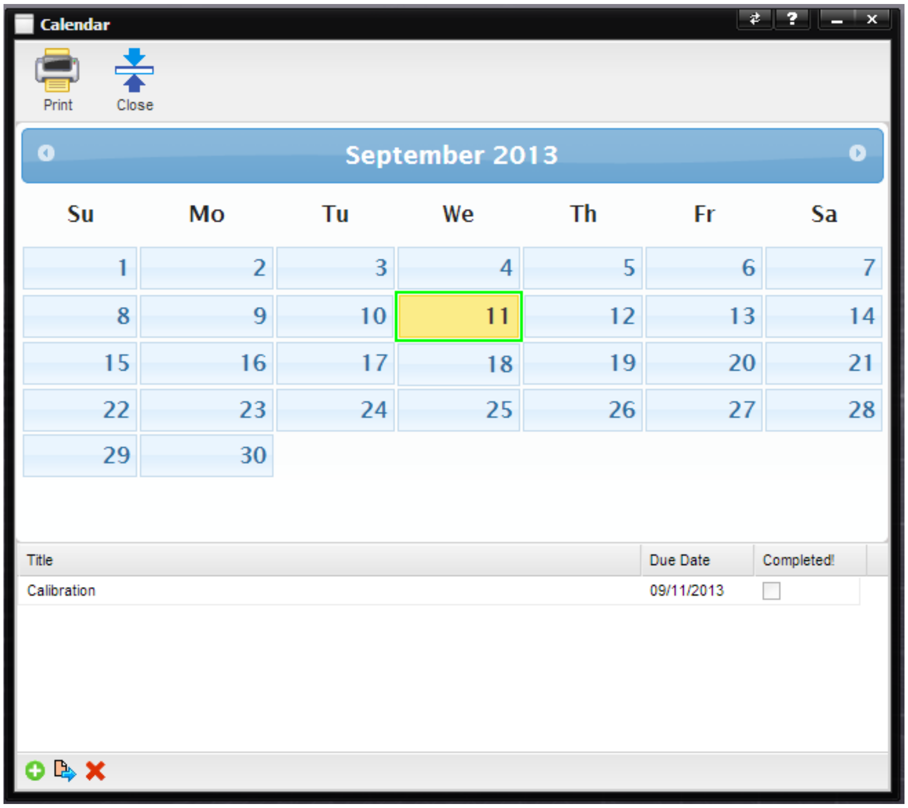


- **Customer –** The customer that the contract pricing applies to.
- **Active** – Marks the item active or in-active. In-active prices are not used.
- **Working Facility** – Only required if the contract price applies to a specific servicing facility. If blank, the Servicing Facility is not evaluated.
- **Type Procedure Default** – The procedure that the contract pricing applies to.
- **Manufacturer** – The Manufacturer for the type the contract pricing applies to.
- **Description** – The description for the type the contract pricing applies to.
- **Model Number** – The model number for the type the contract pricing applies to.
- **Effective Date –** The date that the contract price becomes effective.
- **Expire Date** – The date that the contract price is no longer in effect.
- **Price** – The new price that applies to the customer and type procedure combination selected.
- **Std Price** – The standard price for the type procedure being adjusted.
- **Notes** - Notes about the contract price.

Calendar

The Calendar provides a place to enter facility wide tasks and appointments. Each day is color coded to describe the type of tasks/appointments associated with the particular day.

- If all tasks for a given day are marked as “Completed”, the block for the given day is highlight in ***orange***.
- If there are tasks which are not marked as “Completed”, the block for the given day is highlight in ***green***.

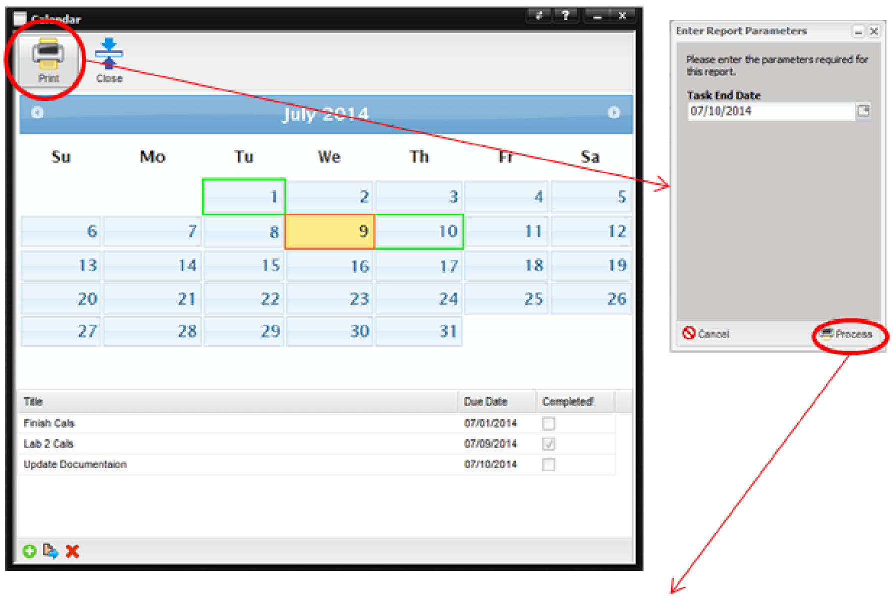


To add a task or appointment, select the "+" button. The Add Calendar Task dialog is displayed.

To modify a task or appointment, highlight the item in the grid and select the Quick Link button.

To remove a task or appointment, highlight the item in the grid and select the "X" button.

To print the calendar, select the Print button. When the Enter Report Parameter screen is displayed, enter the date through which you want tasks listed. Only tasks which are not completed are printed.



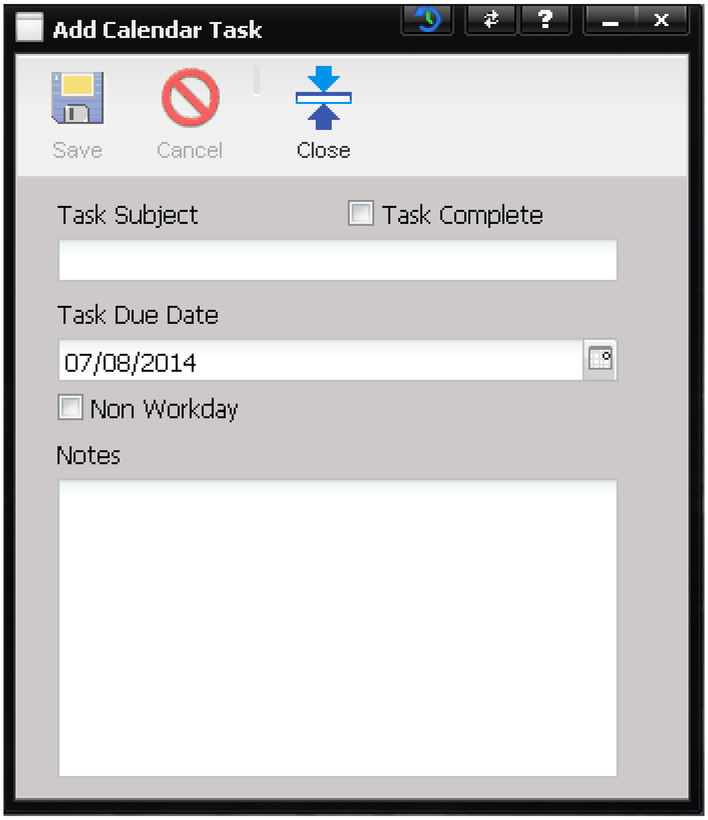
Calendar

Tasks Due on or before 07/10/2014	Due Date	Complete	Notes
Finish Cals	7/1/2014	No	
Update Documentaion	7/10/2014	No	

Total Tasks: 2

Adding a New Task

The Add calendar task dialog pops up whenever the "+"button (located below the task grid) is selected. Tasks created are automatically added to the task list for the associated month.



- **Task Subject** – The description of the task.
- **Task Complete** – To mark the task as complete, select this checkbox.
- **Task Due Date** – The date the task is due. If the day the task is due is highlighted in the calendar, it displays the task in the Tasks grid. If the task is past due and is not completed, it continues to display in the Tasks grid.
- **Non Workday** – Select this checkbox to mark the Task Due Date as a day where work will not occur. Non workdays are taken into account when calibration due dates are calculated.
- **Notes** – Any additional information regarding the task.

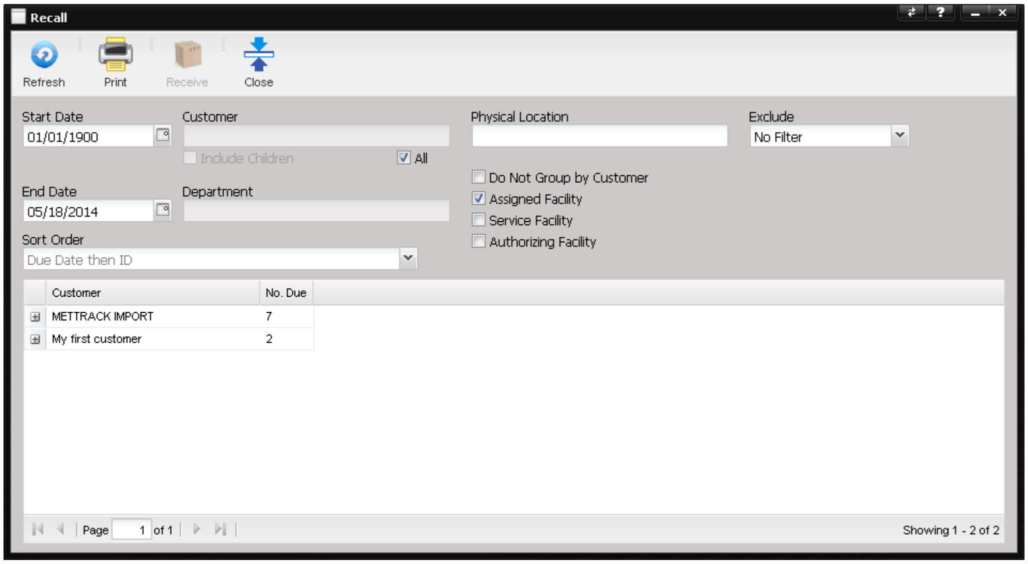
Reports Menu

The Reports Menu is used for performing reporting tasks. The menu items are: Recall, Recall Escalation, Batch Cert Printing, and Custom Reports.

All reports are generated in Portable Document Format (PDF), which allows for viewing, printing, emailing or web publishing.

Recall

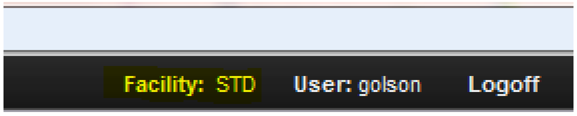
Recall is used to review and produce customer recall reports, based on a date range which can be narrowed down by customer (owner), physical location and department. An additional filter can be applied to exclude Assets on site or in house.



The grid displays the Assets due for maintenance during the specified date range and are grouped by customer in a tree structure. The tree can be expanded by pressing the "+" button and collapsed by pressing the "–" button. To view the Assets in a straight list, check the "Do Not Group By Customer" check box and select the Refresh button. To view an Asset in the list, highlight the Asset in the grid and double click.

- **Start Date** – The starting date of the recall report.
  - For a date picker, select the calendar button.
- **End Date** – The ending date of the recall report.
  - For a date picker, select the calendar button.
- **Sort Order** – Used to determine the order of the data in the grid and on the report.
- **Customer** – Limits the scope to one customer (owner).
  - The Customer can be changed by selecting the "…" button.
  - **Include Children**–When checked, all Assets belonging to the selected facility and all children of the selected facility are included. This is only available when "All" is not selected.
    Example: Let's say there is a Facility called "Fluke" with children facilities called "Fluke – Service" and "Fluke – Cal Lab". If this check box is selected and the Customer is "Fluke", all Assets with the owning Facility of "Fluke", "Fluke – Service", and "Fluke – Cal Lab" will be displayed. If this check box is not selected, only the Assets owned by "Fluke" will be displayed. (See the section about the Facility sub menu under the Maintenance menu for details on adding Facilities and children facilities.)
  - **All** – If checked, the recall reports include all customers for the designated date range and the Customer and Department selection options are disabled.
- **Department** – Allows the user to select a department. Based upon a System Default, "DepartmentBypass", this information represents one of two elements.
  - If the System Default is inactive, the department must be a child facility of the Customer.
  - If the System Default is active, the Department does not have to be a child facility of the Customer.
  - The inactive state is most commonly used to assign Assets to facilities that belong to an Asset pool or tool crib. The department would then indicate the facility that currently has possession of the Asset so the recall notice would go to the correct facility.
  - The department can be changed by selecting the "…" button.
- **Physical Location** – Used to filter for a specific location or leave blank for all.

- **Do Not Group by Customer** – If checked, the data is displayed without grouping by Customer. If checked, the System Default "Recall – No Group" determines the report used.
- **Assigned Facility** – If checked (default state), only Assets with an Assigned Facility that matches the user's logged in facility will be included in the Recall list. The user's logged in facility is displayed in the top right of the MET/TEAM page.

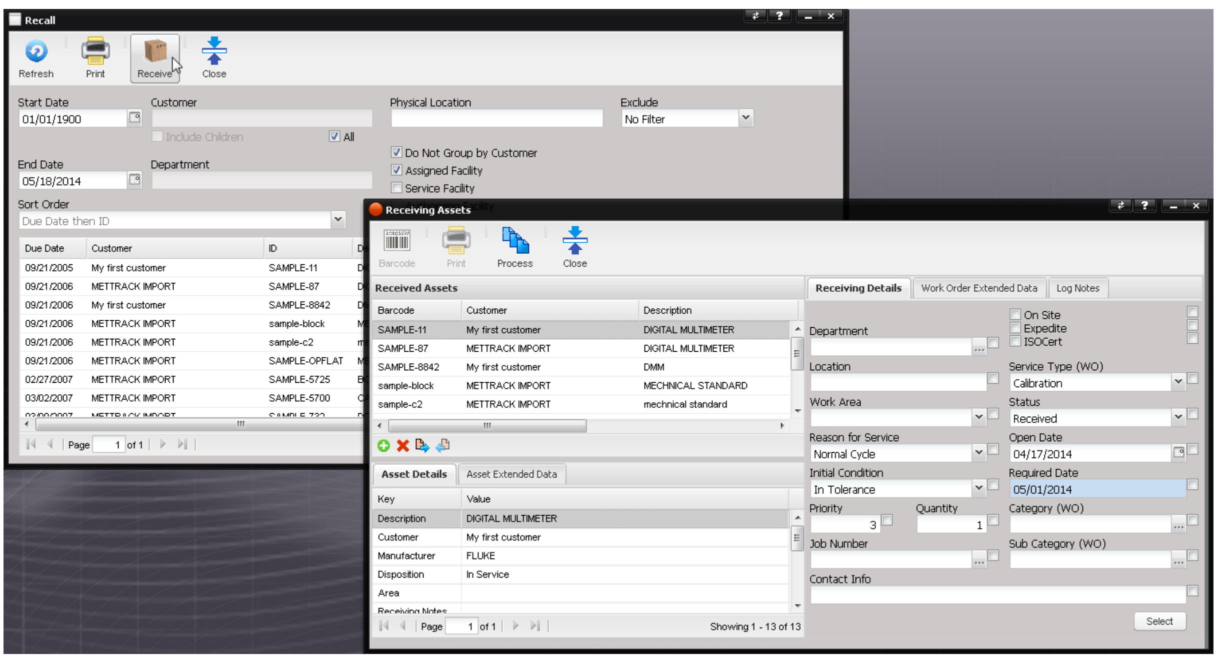


- **Service Facility** – If checked, only Assets with a Service Facility that matches the user's logged in facility will be included in the Recall list. The user's logged in facility is displayed in the top right of the MET/TEAM page.
- **Authorizing Facility** – If checked, only Assets with an Authorizing Facility that matches the user's logged in facility will be included in the Recall list. The user's logged in facility is displayed in the top right of the MET/TEAM page.
- **Exclude** – Used to filter as desired for "On Site" or "In House" items. Leave blank and all items are included.

Note: *The Assets returned when the Assigned Facility, Service Facility, and Authorizing Facility are checked must match one or more of the check box options. The results are **not** exclusive.*

Receiving Assets – Recall Screen

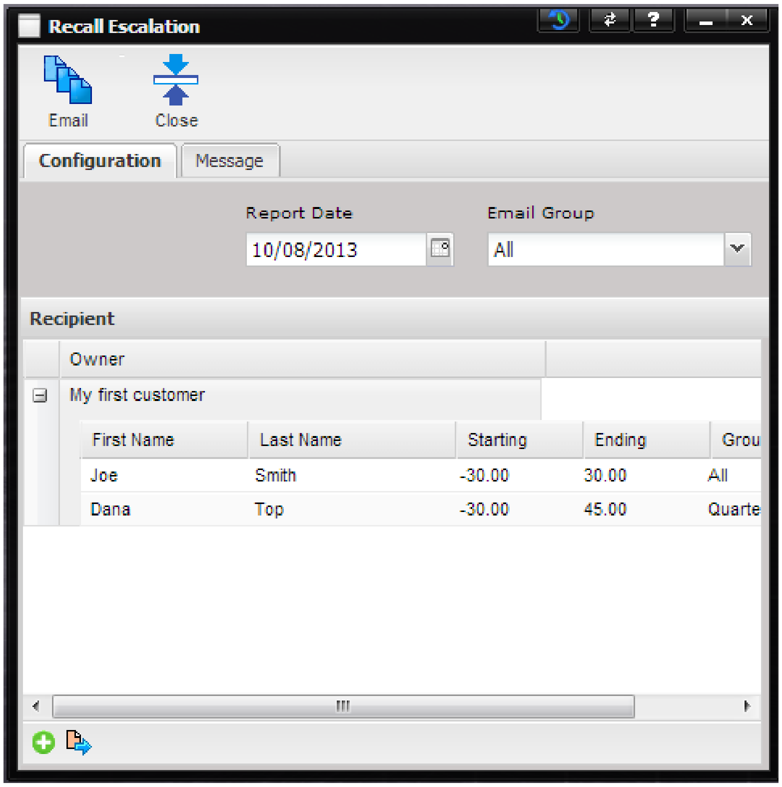
To receive the Assets identified as due for recall, refresh the grid with the "Do Not Group by Customer" check box checked and press the Receive button. The Receiving screen opens with the assets listed here.



Continue receiving the Assets using the Receiving screen.

Recall Escalation

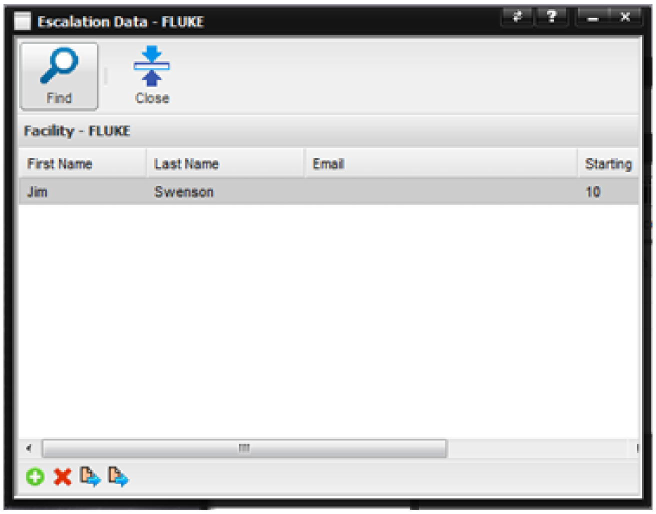
Recall escalation sends e-mails to facility contacts notifying them of items past due and\or coming due. Contacts can be grouped to allow e-mails to be sent monthly, quarterly or yearly.



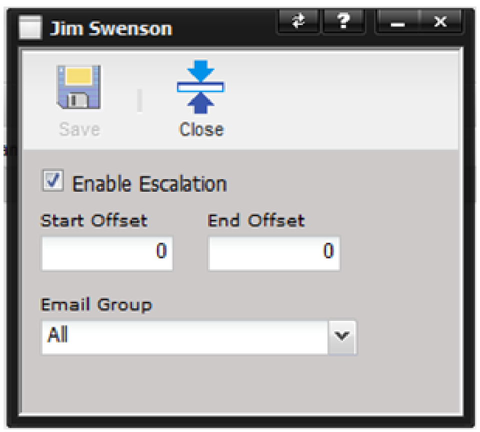
The Configuration tab of the Recall Escalation dialog displays the facilities and contacts that will receive the email.

- **Report Date** – Date on which the Recall Report is based. The frequency is based on the Start Offset and End Offset entered for each contact. See the Escalation Days dialog below.
    - Example: Assume the Start Offset is 5 and the End Offset is 15, if the Recall Date was 1/1, the recall escalation would occur 5 days from 1/1 (1/6) and then 15 days after (1/21).
- **Email Group** – Filters which recipients will receive e-mails. Blank will send to all.
- **Customer** – The owner of the recalled Assets and list of contacts associated with the owner that will receive the emails. Customer^ can be sorted by ascending or descending order by clicking on the header of the column.
    - Use the "+" or "-" next to the Customer^ to view the contacts associated with that facility.

The **Add** button opens the Escalation Data dialog used to add facilities and contacts

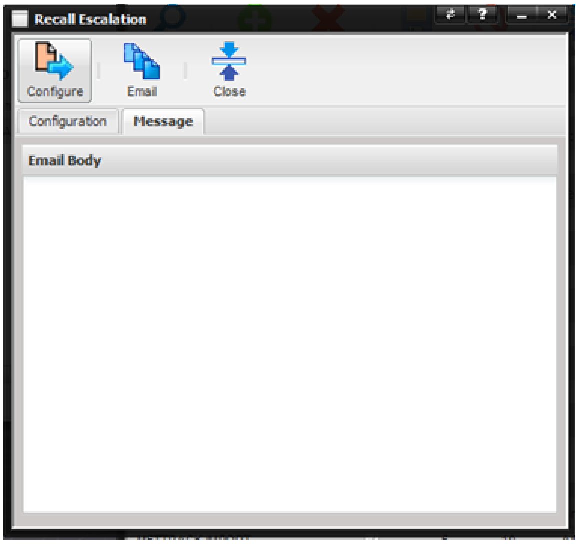


- Begin by selecting the Find button which opens the Find Facility dialog for selecting a facility.



- Use the "+" button at the bottom of the Escalation Data dialog to add contacts that belong to the facility listed. The Escalation Days dialog is displayed.
    - **Enable Escalation** – If checked, this Contact is active for receiving email escalations.
    - **Start Offset** –Number of days from the Report Date to start the recall. Negative numbers can be used.
    - **End Offset** – Number of days after the Report Date to end the recall date span.
    - **Email Group** – The escalation group (monthly, quarterly, yearly) this Contact belongs to for email sending.
- Use the "X" button at the bottom of the Escalation Data dialog to delete contacts from the escalation email list.
- Use the first Quick Link button or double click a highlighted contact to change or modify the escalation information for the contact. The Escalation Days dialog is displayed.
- Use the second Quick Link button to view or modify the selected contact.
- Use the Close button to return to the Recall Escalation dialog that displays all the facilities and contacts that will receive the email.

The Message tab of the Recall Escalation dialog contains the email body for the email that will be sent.



Recall Escalation System Defaults

The following is a list of System Defaults used in the Alerting Module.

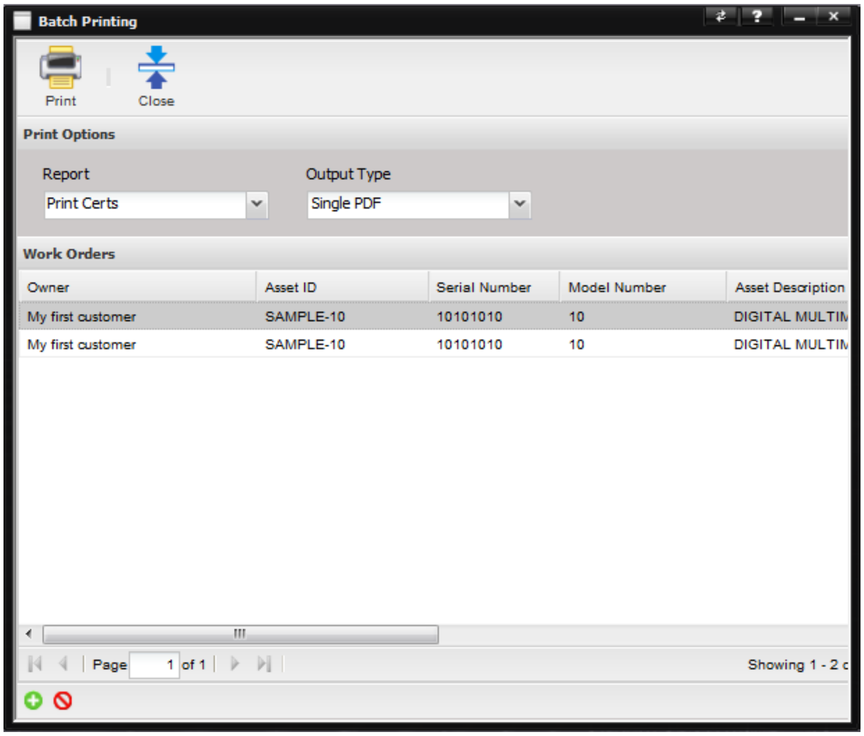
Note: *All of them are required to be configured prior to the Alerting Engine being run.*

Alerts.Email.FromAddress
Alerts.Email.FromName
Alerts. Smtp.Host
Alerts. Smtp.Port
Alerts. Smtp.UseSSL
Reports - Default System directory (make sure this path ends with a slash "\")

Batch Printing

The Batch Printing option is for generating certificates, Work Order reports, or stickers for multiple work orders at once. The certificates and stickers are defined on each Work Order. The filenames are controlled on the Work Order for the certificates and the stickers. The Work Order is the standard Work Order report.

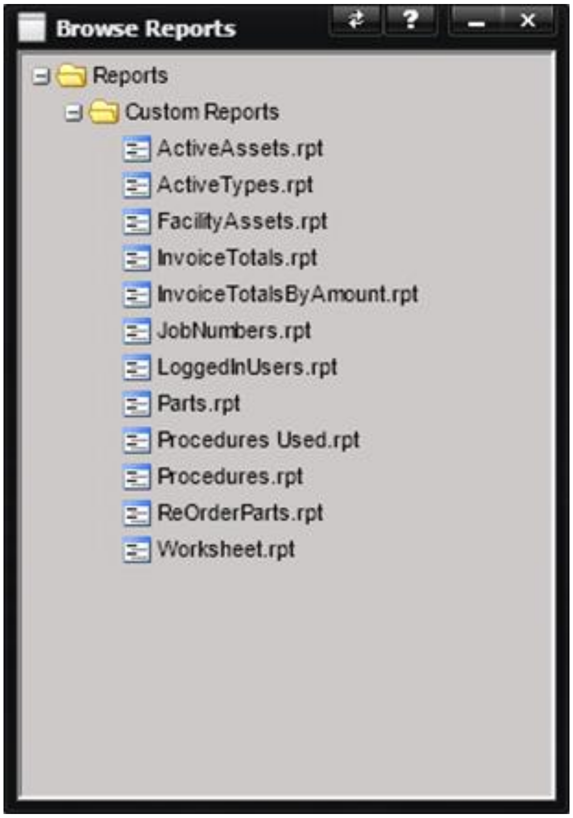
The output is a combined PDF or compressed archive (ZIP) of individual PDFs.



Report – The type of report to print (selection: Certs, Stickers, or Work Orders).
Output Type – Print to a single PDF (all reports combined into one PDF) or to a ZIP file (each report is a separate PDF).
The Work Order information is displayed in the grid. To add Work Orders, use the “+”button at the bottom of the grid.
Use the “X” button to remove a Work Order from the list.

Custom Reports

Unlike system reports, which are tied to a particular screen and receive their run time parameter values automatically from the calling screen, custom reports are run standalone and present prompts to be filled in, if needed, for their run time parameters. The reports that require additional information and for which a Crystal Report prompt screen is displayed are: *InvoiceTotals.rpt* (requires Start Date and End Date), *InvoiceTotalsByAmount.rpt* (requires Start Date and End Date), and *Worksheet.rpt* (requires WO Number).



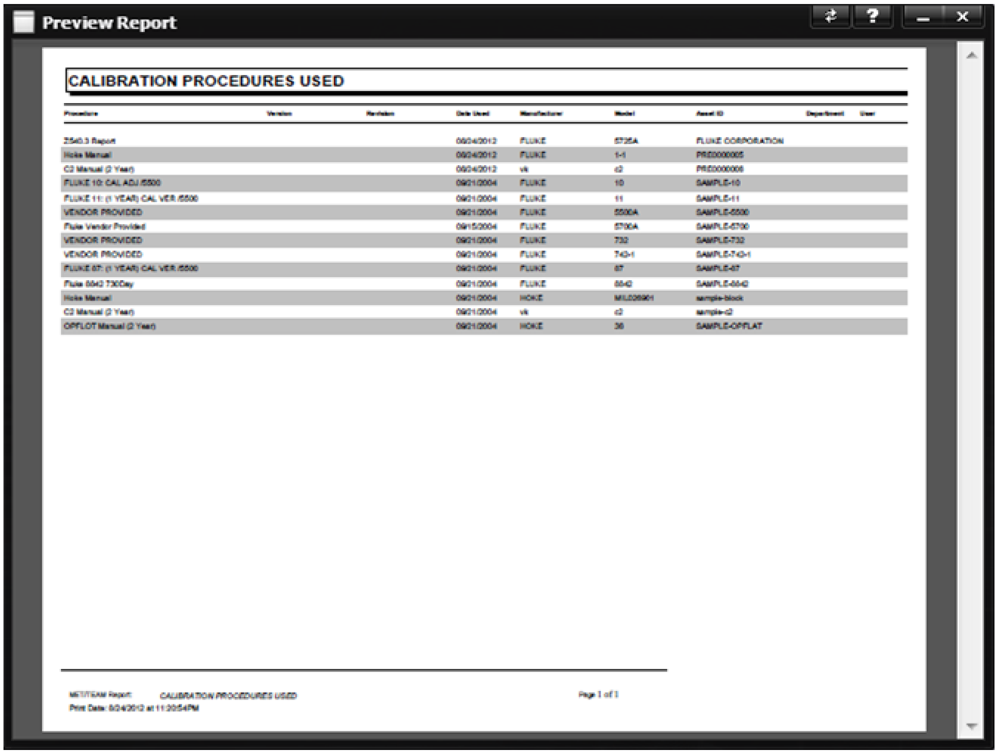
Double-clicking a report in the tree displays the report viewer, or if parameters are to be supplied, present the Prompts screen used for entering information needed for the report.

- **Parameter Name** – List of available parameters.

  Note: *Although, the Crystal Report Designer allows for symbols (i.e. +,*, $, #, etc.) in parameter names, symbols should not be used in parameter names when writing reports for use in MET/TEAM.*

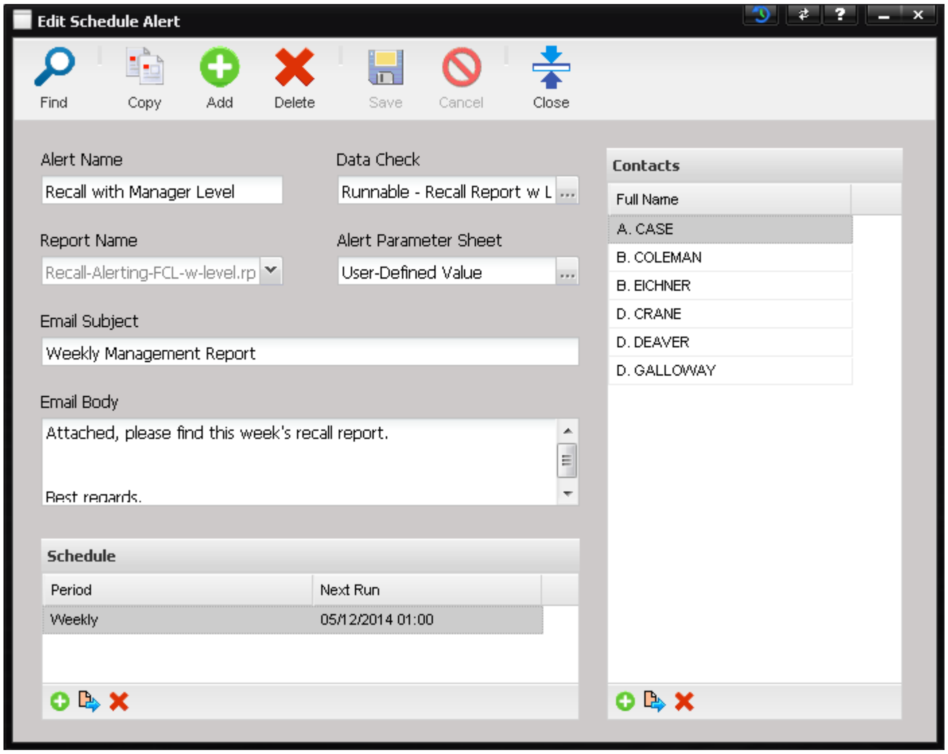
- **Discrete Value** – Value associated with the parameter.

Select a parameter from the dropdown and enter a value into the Discrete Value entry field. Then press the Add Value button and repeat the process until all parameters have been selected and a value supplied. Press the Submit button to generate the report.



Alerting Schedules

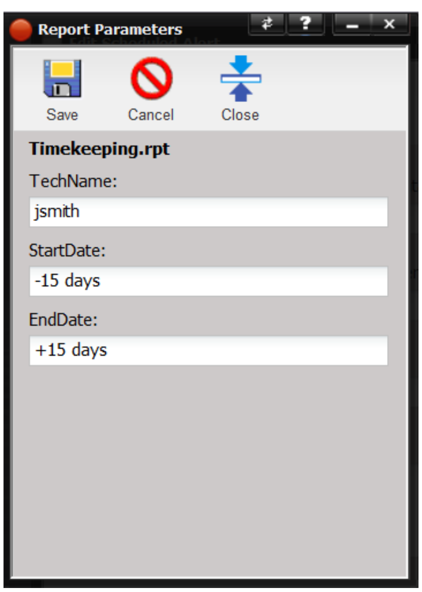
The Alerting Schedules option allows adding and editing scheduled alerts and emails. The New or Edit Scheduled Alert screen is displayed.



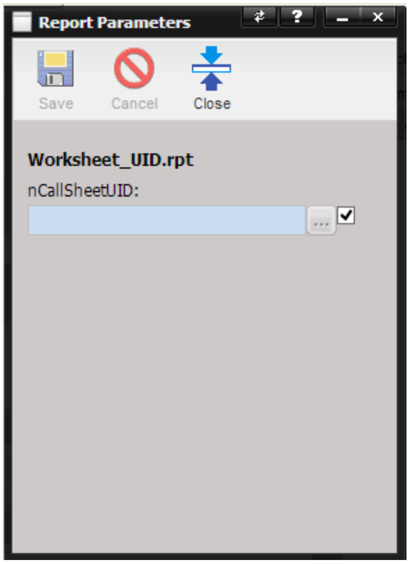
- **Alert Name** – The name of the Alert used to identify each Alert.
- **Data Check** – You may select a data check to run whenever this alert is triggered. Such functionality enables database cleanup (since a Data Check may run SQL) as well as conditional logic.

***Note:** Only Data Checks of type "runnable" should be scheduled.*

- **Report Name** – Displays a list of available reports.
- **Alert Parameter Sheet** – Displays the Report Parameters screen for entering parameters related to the report. The parameters are specific to the report being used. The labels for each parameter describe the data required.



If the report parameter name is **exactly** equal to 'nFacilityUID' an option will be available for selecting a record using a lookup picker as displayed in the following Report Parameters screen.

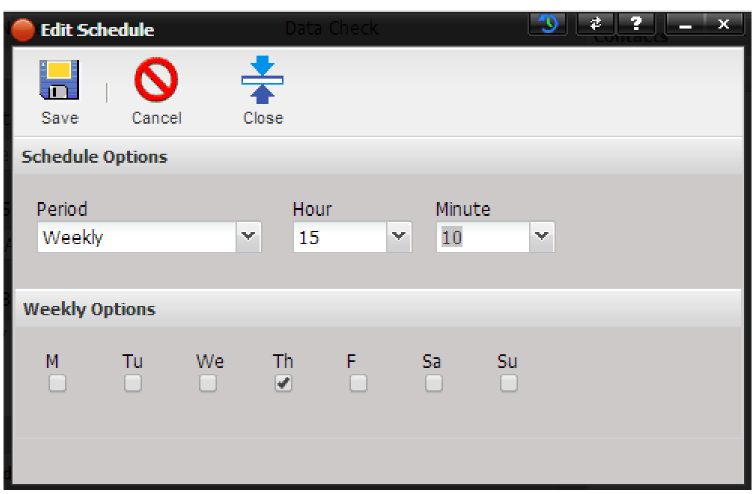


In addition to the lookup picker, a checkbox is available on the right side of the control. Checking this checkbox, automates MET/TEAM to derive the relationship between the contact receiving the email and the value for the report.

***Note**: If there are more than values found, multiple reports are generated and sent to the contact.*

- Enter the required data and select the Save button. Date fields require a range as shown below.
- The offset is relative to the day in which the report runs.
- The options are: "+" quantity [days, months, year] or "-"quantity [days, months, year].

- **Email Subject** – The content of the subject of the email that is sent to each contact.
- **Email Body** – The content of the body of the email that is sent to each contact.
- **Schedule Grid** – Displays each time this Alert is scheduled to run.
  - **Period** – The occurrence of the Alert: Daily, Weekly, Monthly.
  - **Next Run** – The time in PC local time that the alert will next run.
  - Select the "+" Add button to add a new schedule. The New Schedule screen is displayed.



- Period – The occurrence of the Alert: Daily, Weekly, Monthly. If Weekly is selected, the day of the week can be selected.
- Hour – The hour of the day the Alert will occur.
- Minute – The minute of the hour of the day the Alert will occur.

- **Contacts Grid** -Displays the contacts that will receive the Alert. You may only add a contact to the grid once. Duplicates are not allowed.

The Save button at the top of the Alert screen must be selected before adding Schedules or Contacts to the Alert.

Copying an Alert

The Copy button allows for copying the current Alert. When this button is selected, the Add Alert* screen is opened. The border of the Add Alert* screen is yellow indicating that this screen is the copy. The border stays yellow until the screen is closed.

When an alert is copied, all information from the Alert screen is applied to the new Alert. The name is changed from "Name" to "Copy of – Name". Changes should be made to the new Alert immediately after selecting the Save button on copy, to avoid sending out the same notifications twice. Once the Save button is pressed, the grids are populated.

Alerting Contacts

MET/TEAM supports dynamic alerting if configured properly. For example: assume you have two contacts associated with an Alert and each contact is assigned a distinct facility. Furthermore, let's assume your report has the parameter **nFacilityUID.** In this case, MET/TEAM will automatically populate the parameter for each contact when it generates the report. This allows dynamic reporting.

***Note**: If a report generates no data, it will not be emailed to the respective contact.*

Alerting Contact Tokens

The Alerting supports adding "tokens" to the email body. These tokens are replaced with the information about the Contact receiving the email.

[name]	This token will be replaced with the "first" + "last" name of the contact receiving the email.
[full name]	This token will be replaced with the "first" + "last" name of the contact receiving the email.
[first]	This token will be replaced with the "first" name of the contact receiving the email.
[first name]	This token will be replaced with the "first" name of the contact receiving the email.
[last]	This token will be replaced with the "last" name of the contact receiving the email.
[last name]	This token will be replaced with the "last" name of the contact receiving the email.

For example:

If the email Subject and Body were as follows:

Subject: Monthly Recall Report

Body: [name], see all items currently due.

The token [name] would be replaced with the full name of the contact who is receiving the respective email.

Alerting System Defaults

The following is a list of System Defaults used in the Alerting Module.

***Note:** All of them are required to be configured prior to the Alerting Engine being run.*

Alerts.Email.FromAddress
Alerts.Email.FromName

Alerts. Smtp.Host
Alerts. Smtp.Port
Alerts. Smtp.UseSSL
Reports - Default Reports directory (make sure this path ends with a slash “\”)
Reports - Default System directory (make sure this path ends with a slash “\”)

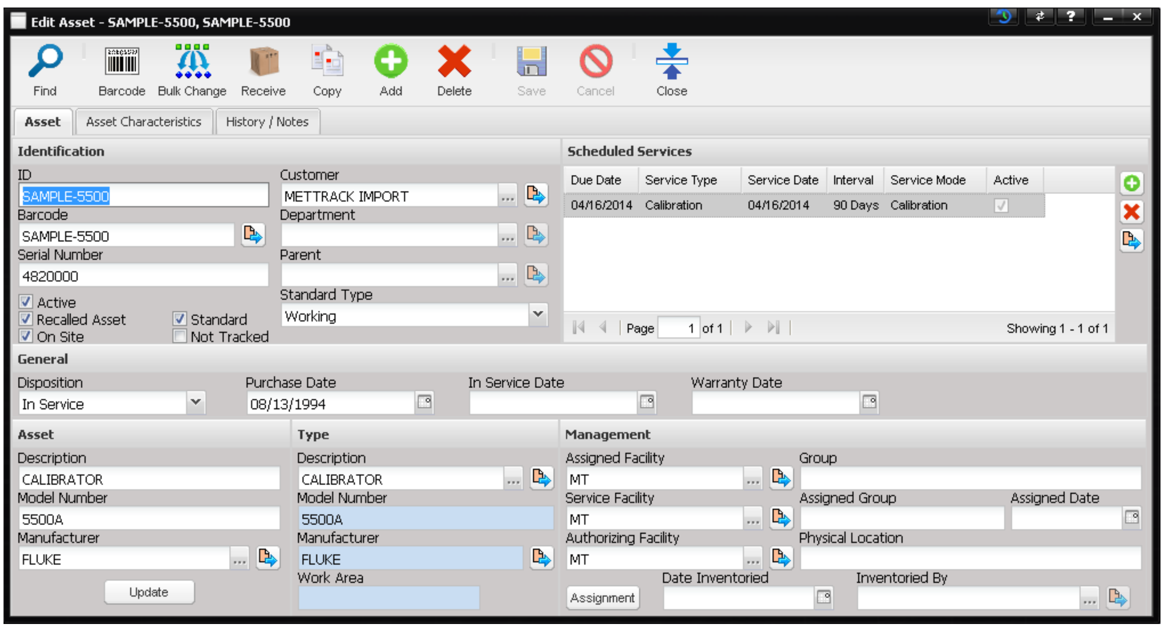
Exception 1 –
If the following System Default values are missing, the system assumes that authentication is not required to access the SMTP server.
Alerts.Smtp.User
Alerts.Smtp.Password

Incorporating Tool Assignment with a Recall Alert

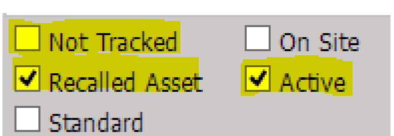
A scheduled Recall report can be setup based on Tool Assignment criteria. The report “Recall-Alerting-ToolAssignment.rpt” was designed to meet this need.

Setting up the Asset

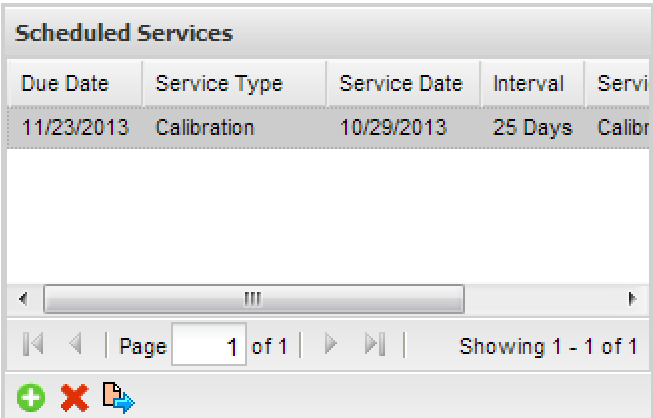
This functionality can be applied to any Asset. However, the Asset must meet specific criteria to function properly with the report “Recall-Alerting-ToolAssignment.rpt”. These criteria are set on the Asset screen.



- The checkbox “Not Tracked” must **not be** checked.
- The checkbox “Recalled Asset” must be checked.
- The checkbox “Active” must be checked.



- The Asset Scheduled Services grid must show that the Asset is due between ‘today’ and ‘today+1 month’. For example: If my recall report runs on October 25, 2013. The Asset must be due on or between October 25th and before November 25th.

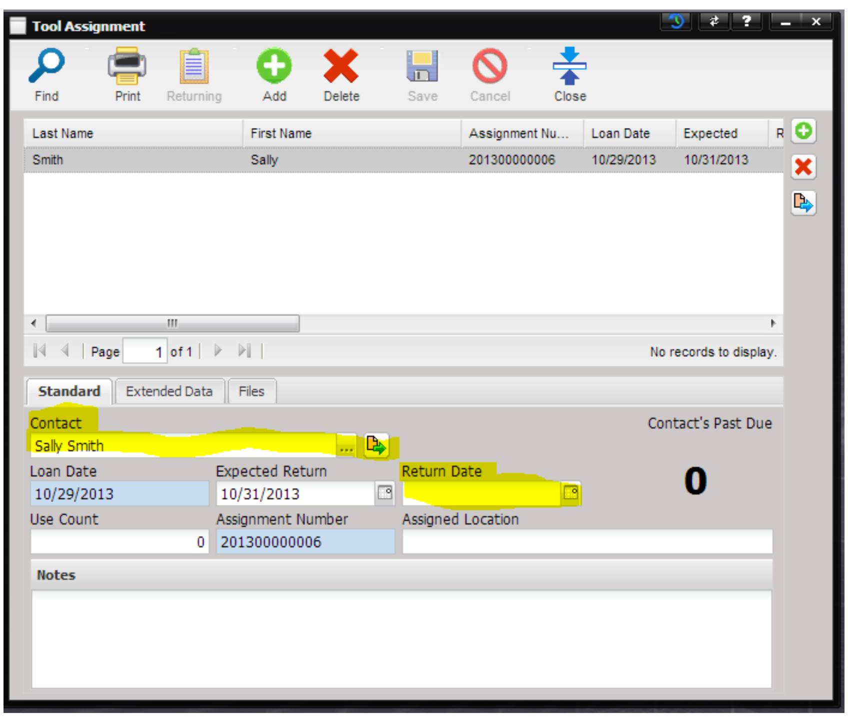


- On the Tool Assignment screen, the Asset must **not** have a Returned Date.

Setting up the Tool Assignment

This functionality works with the Tool Assignment. The Tool Assignment must have the following criteria.

- The Contact must be assigned to the Tool Assignment.
- The Tool Assignment Return Date must be blank. The Tool Assignment has not been returned.



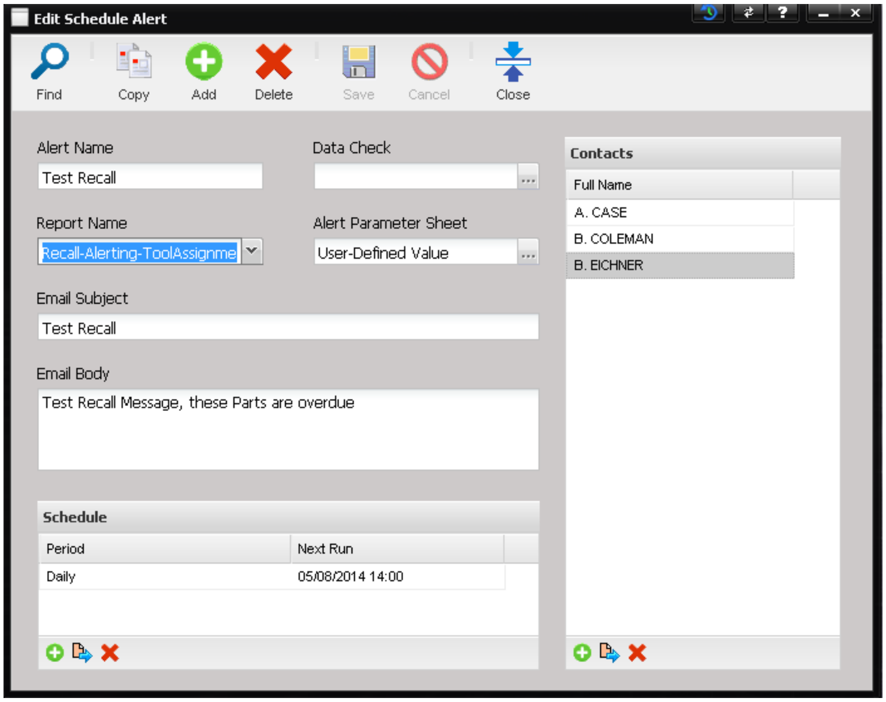
Alerting Schedule

The scheduled Alert must be setup.

- The Tool Assignment Contact must be in the Scheduled Alert Contacts list.

- If a Contact is in the list and the Contact does not have an overdue Assets assigned to them with Tool Assignments, the Contact will not receive an email. Only Contacts with overdue Assets assigned to them through Tool Assignment will receive an email.
- The Report Name must be “Recall-Alerting-ToolAssignment.rpt”.
- The Alert Name must be ***Recall Alert*.**

Note: *This Alert Name is referenced in a later section.*



- The report parameter is setup by selecting the ellipsis next to the Alert Parameter Sheet field.
- This report was designed to have a single parameter “nContactUID”. MET/TEAM is programmed to automatically replace that specific token with the respective contact who will be receiving the report which allows for customization per Contact.
- Next close the parameter screen and press ‘Save’ on the Edit Scheduled Alert screen.

Using a Data Check to Manage the Tool Assignment Recall Alert Recipients

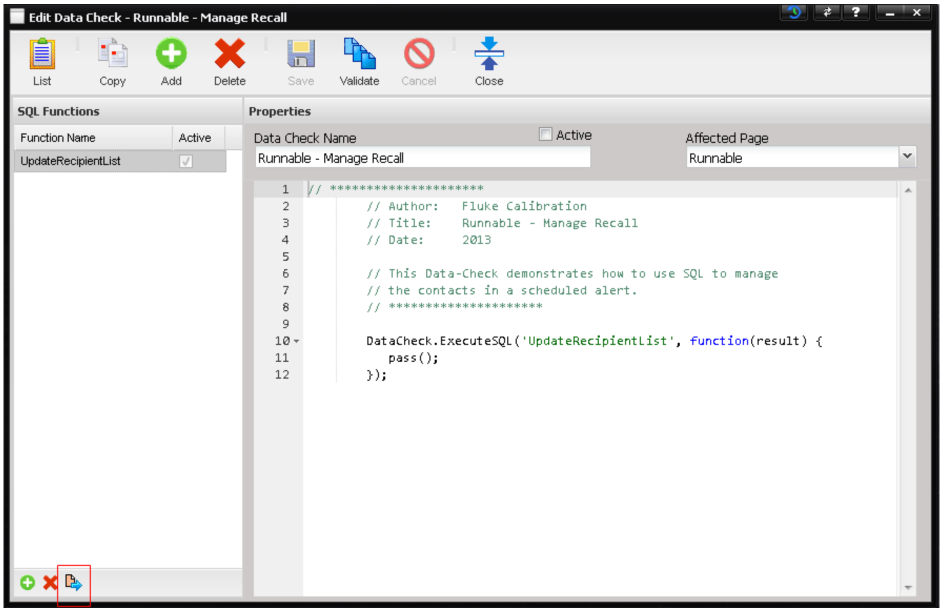
An understanding of Data Checks and SQL script is recommended when using this functionality. An advanced Data Check is used to manage the Scheduled Alert setup for the “Recall-Alerting-ToolAssignment.rpt”.

Note: *The SQL script creates a Data Check called “Runnable - Manage Recall”.*

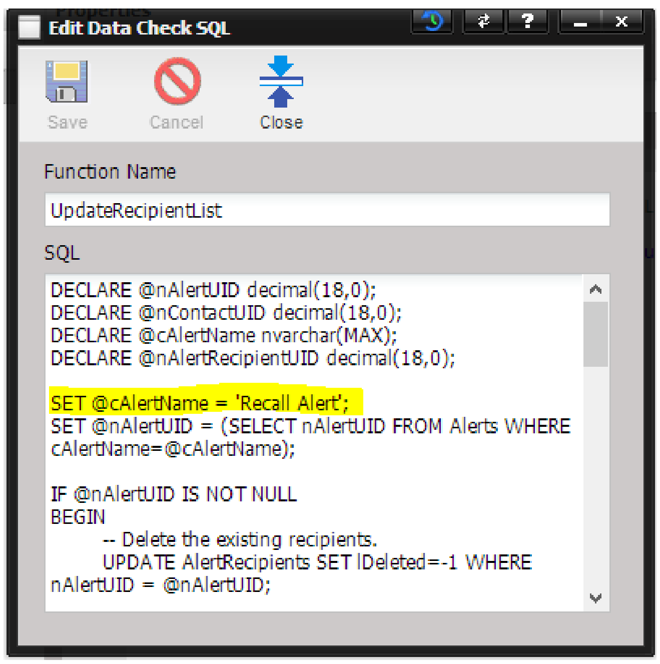
Customizing the Data Check

The Data Check must be configured for a single Recall report. If there is a need to use this Data Check on more than one Recall report, a separate Data Check must be created. The SQL script can be customized by following these instructions.

- Log in to MET/TEAM as an Administrator.
- Go to Configure menu Data Checks submenu.
- Select the Data Check “Runnable – Manage Recall”.
- Select the Quick Link button underneath the “SQL Functions” list (at the bottom of the page). This will allow us to configure the SQL script.



- The Edit Data Check SQL screen is displayed. Look for the line highlighted in the following screenshot and change the value to exactly match your Recall Alert name. (If you followed the earlier portion, this value should be 'Recall Alert').

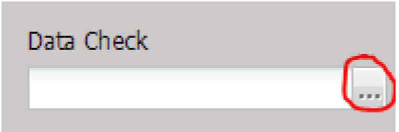


Once the necessary changes have been made, select the Save button. Close the Data Check.

Associating the Data Check to the Scheduled Alert

Once the Data Check has been configured, it must be associated with the Scheduled Alert.

- Go to Reports menu Alerting Schedules submenu.
- Find the Scheduled Alert.
- Select the ellipsis button next to the Data Check field on the Scheduled Alert screen.



- The Manage Data Check Scripts screen is displayed. Select the item titled “Runnable – Manage Recall”.
- Double-click the Data Check “Runnable – Manage Recall”. The Data Check is now displayed on the Scheduled Alert screen.
- Save the Scheduled Alert.

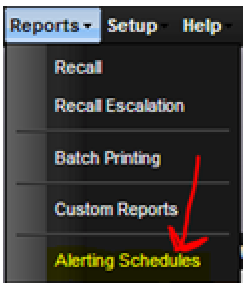
Everything is now configured and Scheduled Alert will fill in the Contacts when run.

Using a Data Check to Manage Recall Escalation Recipients with an Alert

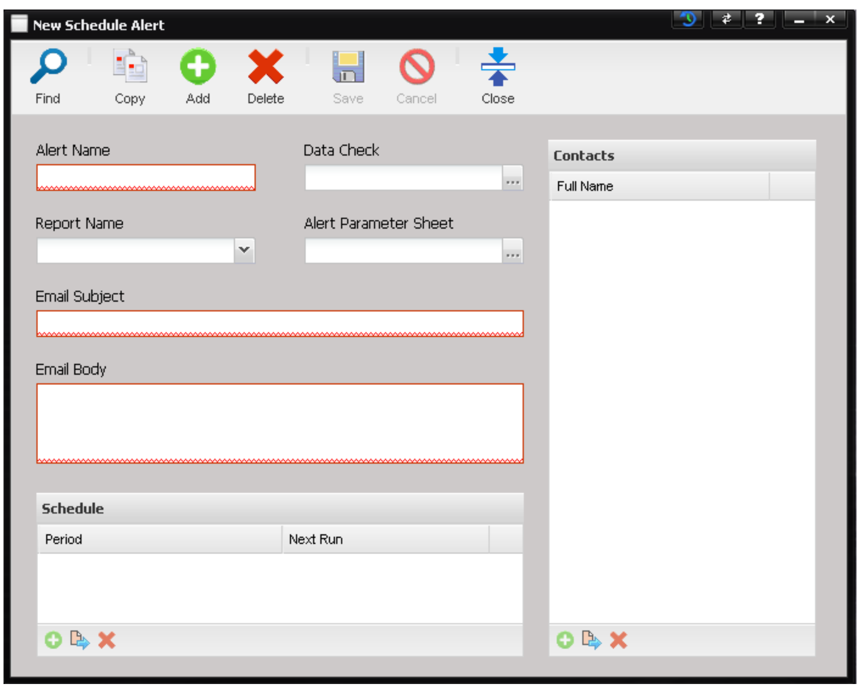
An understanding of Data Checks and SQL script is recommended when using this functionality.

Setting up a recall escalation report is possible using a default Data Check that is pre-configured to work with our standard “Recall-Alerting-FCL-w-Level.rpt” report.

1. To begin, create a new Alert Schedule by navigating to Reports -> Alerting Schedules.

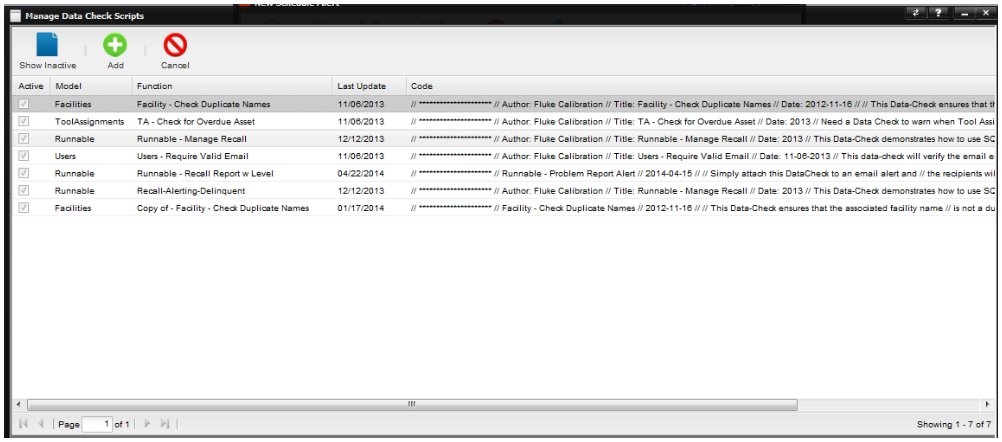


2. The Find Alert screen is displayed. Select the “+” Add button and the New Schedule Alert screen is displayed.

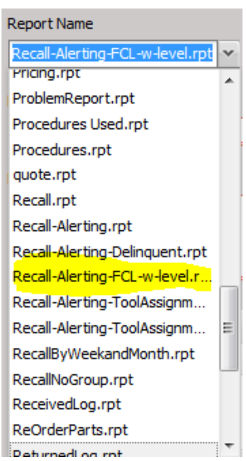


3. Enter a name for this Alert in the Alert Name field. Any title will suffice.

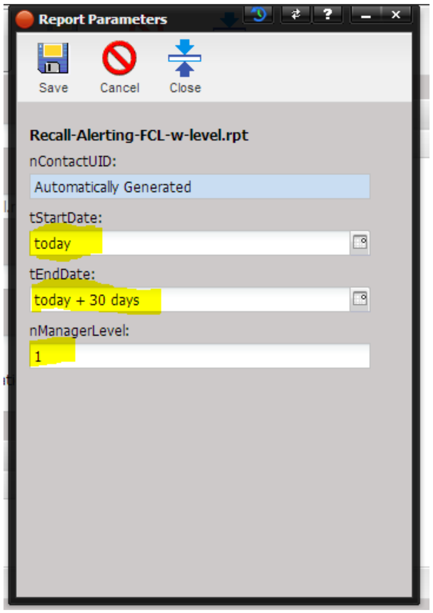
4. Next, select the data check. A default Data Check has been provided with MET/TEAM titled "Runnable – Recall Report w Level". The purpose of this data check is to automatically populate the recipient list prior to the report being executed. The Data Check is pre-configured to detect which contacts should receive the report and react accordingly.



5. Now select the actual report. By default, MET/TEAM ships with a report titled "Recall-Alerting-FCL-w-level.rpt".

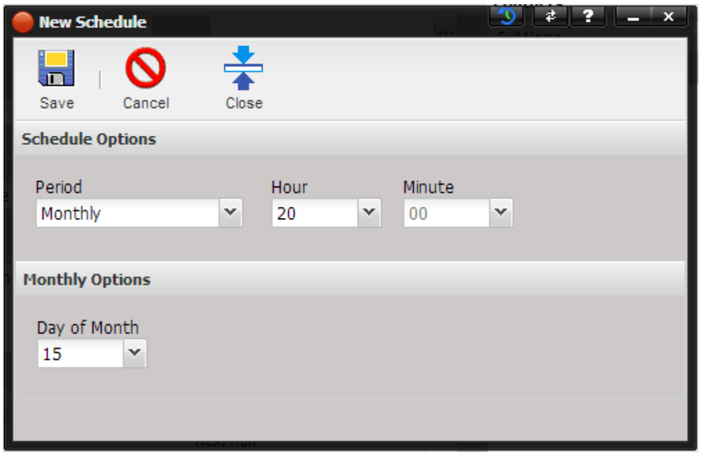


6. Select the "…" next to the Alert Parameter Sheet field and the Report Parameters screen is displayed for entering specific details regarding this instance of this report.

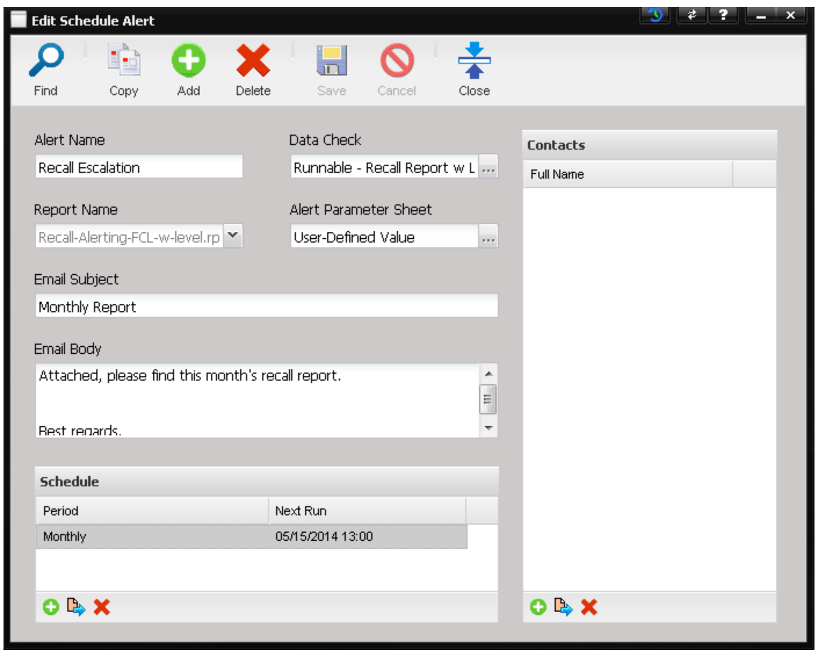


- **nContactUID** – This parameter is automatically populated by the Alerting Engine and requires no further interaction.
- **tStartDate** – This parameter is used to specify the starting date for the recall escalation process. Any asset with a "Next Maintenance Date" between the two parameters tStartDate and tEndDate is eligible for recall escalation.
- **tEndDate** – This parameter is used to specify the ending date for the recall escalation process.
- **nManagerLevel** – This parameter is used to specify how far up the hierarchy escalation should go. The value must be 0 (contact level), 1 (contact manager's level), 2 (contact manager's level manager's level), or 3 (contact manager's level manager's level, manager's level). Providing three levels of manager escalation.
  - For example: suppose there is a contact named Sam Smith who is associated with Facility by the name of One Lab and whose manager is Bill Jones. Within One Lab, an asset is currently overdue for maintenance. If the nManagerLevel parameter is set to 1, Bill Jones will receive an email which lists the overdue asset.

7. Fill in the tStartDate, tEndDate, and nManager level fields. Select the Save button and then the Close button to save the parameter settings and close this screen.
8. Enter an Email Subject and Email Body with the message to be included in the email.
9. Set up a schedule by selecting "+" button underneath the Schedule grid. The New Schedule screen is displayed. Fill out the information on this screen to specify the frequency that the report will be sent. Select the Save button and then the Close button to save and close the Alert schedule.



10. After completing all the steps, the Schedule Alert screen should look similar to the screenshot below.



11. Save this Schedule Alert and that's it! You are now setup for recall escalation.

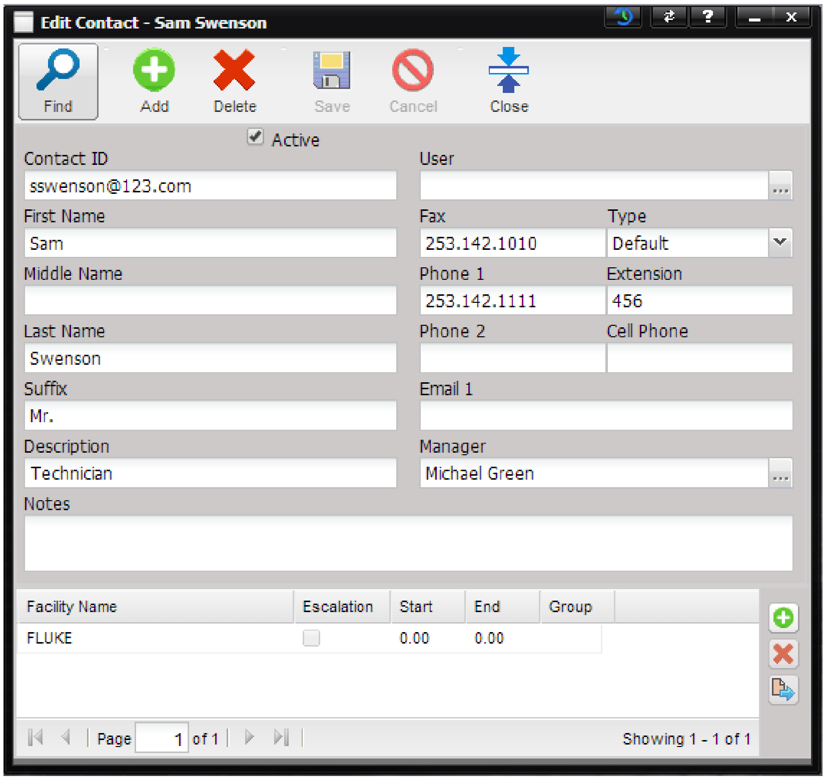
Setup Menu

The Setup menu is for setting up: Contacts, Users, and Services.

Contacts

The Add Contact screen allows the user to enter information related to a Contact for a Facility.

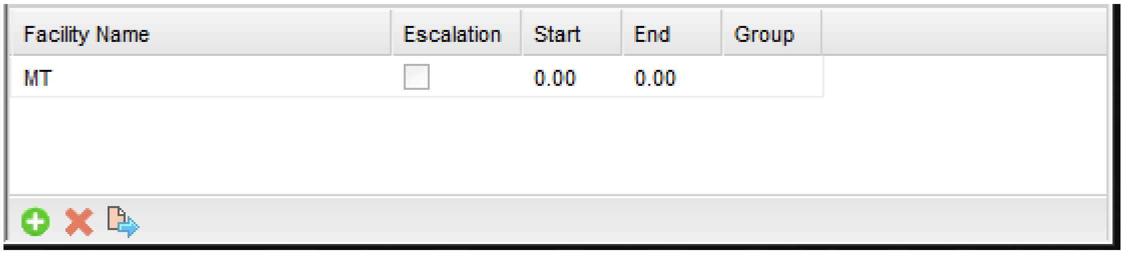
Note: *Only Administrators or Configurators can add Contacts.*



- **Active** – Marks the Contact as active.
- **Contact ID (required)** – Unique identification for the Contact.
- **First Name** – First name of the Contact.
- **Middle Name** – Middle name of the Contact.
- **Last Name** – Last name of the Contact.
- **Suffix** – Suffix associated with the last name.
- **Description** – A description of the Contact type.
- **User** – The User associated with this Contact. A User is someone who can login to the MET/TEAM application.
  - The User can be changed by selecting the "…" button.
  - When the User is selected, the First Name, Last Name, Phone 1, Phone 2, and Email 1 are filled in from the User information. This information does not overwrite what currently exists on the Contact screen. The Facility grid will be populated once the Save button is selected.
- **Fax** – Facsimile number of the Contact.
- **Type** – Pick list defining the type of Contact.
- **Phone 1** – Primary phone number of the Contact.
- **Extension** – Extension number of the Contact.
- **Phone 2** – Secondary phone number of the Contact.
- **Cell Phone** – Mobile phone number of` the Contact.
- **Manager** – Supervisor for this Contact. The supervisor must be saved as a Contact.
  - The Manager can be changed by selecting the "…" button.
- **Email 1** – Primary email address of the Contact.
- **Notes** – Notes about the Contact.

Facility Grid

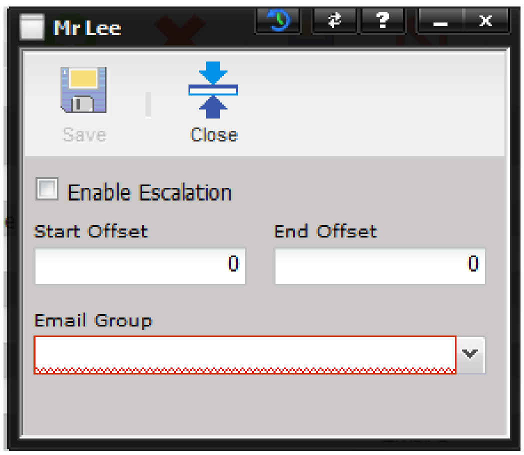
The Facility Grid contains the Facilities that this Contact is associated with and the Recall Escalation attributes for the Facility.



Contacts are added to Facilities by selecting the “+” (add) button.

Contacts are removed from a Facility by selecting the “X” (delete) button.

To modify the Recall Escalation parameters for a specific Facility for this contact, highlight the contact in the Facility Grid and select the Quick Link button. The Escalation dialog is displayed.

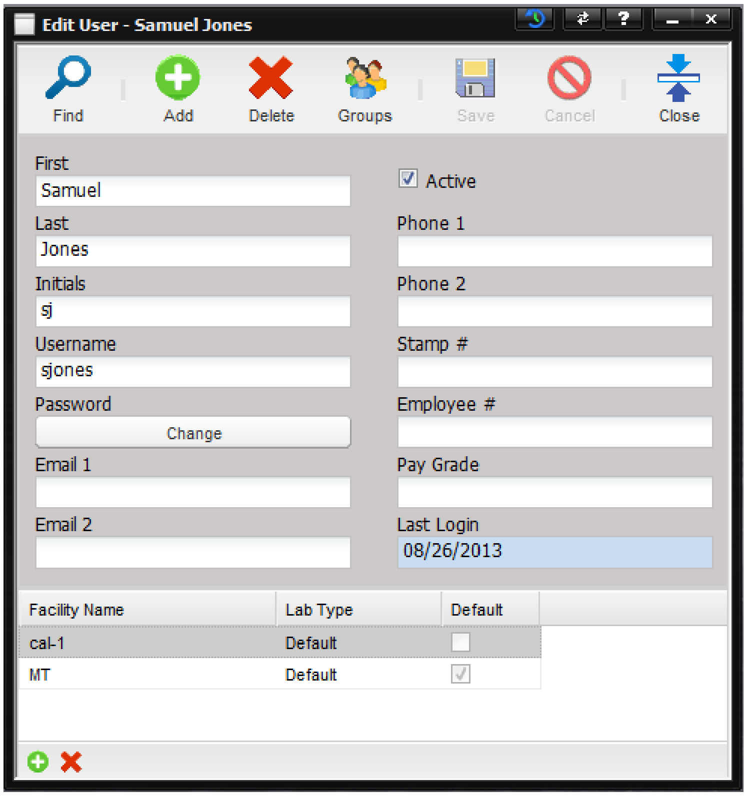


- **Enable Escalation** – If checked, this Contact is active for receiving email escalations.
- **Start Offset** – The number of days from the Report Date to start the recall. Negative numbers can be used.
- **End Offset** – The number of days after the Report Date to end the recall span.
- **Email Group** – The escalation group (monthly, quarterly, yearly) this Contact belongs to for email sending.

Users

The Users menu is used to add, remove, modify, and manage user information, security access, and lab access.

***Note:** Only Administrators can add Users.*

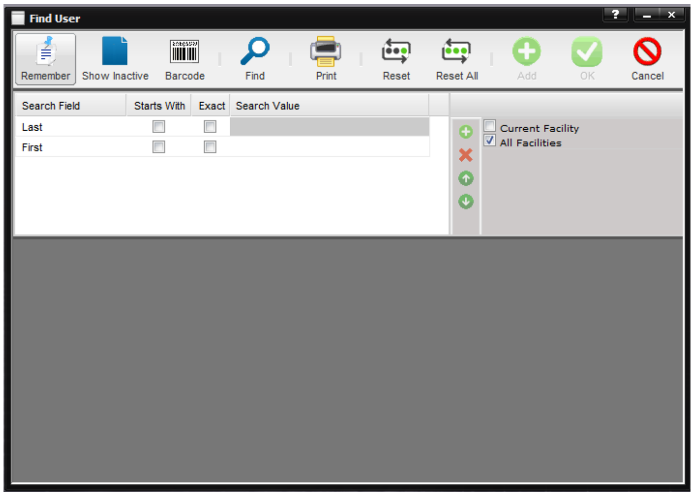


- **First** – First name of the User.
- **Last** – Last Name of the User.
- **Initials** – The User's initials. Initials are used for the calibration sticker.
- **Username** – Name given to the User to log on to MET/TEAM.
- **Password** – The User's password. This value cannot be seen by anyone, including the administrator. There are no minimum or maximum length requirements for passwords.
  - If the User has forgotten his/her password, the User can change his/her password when logging in. See the Help section "Change Password from Log-In".
  - An Administrator can also reset the User's password from the edit User screen by pressing the Change button.
- **Email 1** – The User's primary email address.
- **Email 2** – The User's alternate email address.
- **Active –** If checked, the User name appears in the drop down lists.
- **Phone 1** – The User's primary phone number.
- **Phone 2** – The User's alternate phone number.
- **Stamp #** – Stamp number issued to the User.
- **Pay Grade** – Pay grade of the User.
- **Employee #** – The number the employee is given by the employer.
- **Last Login** – The date and time that the User last logged in to MET/TEAM.

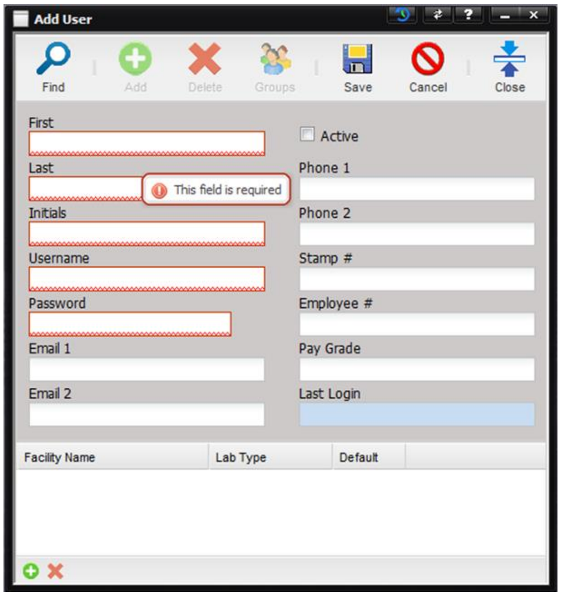
Adding Users

Users can be added either by selecting the Setup menu Users option or from within the Users screen selecting the Add button.

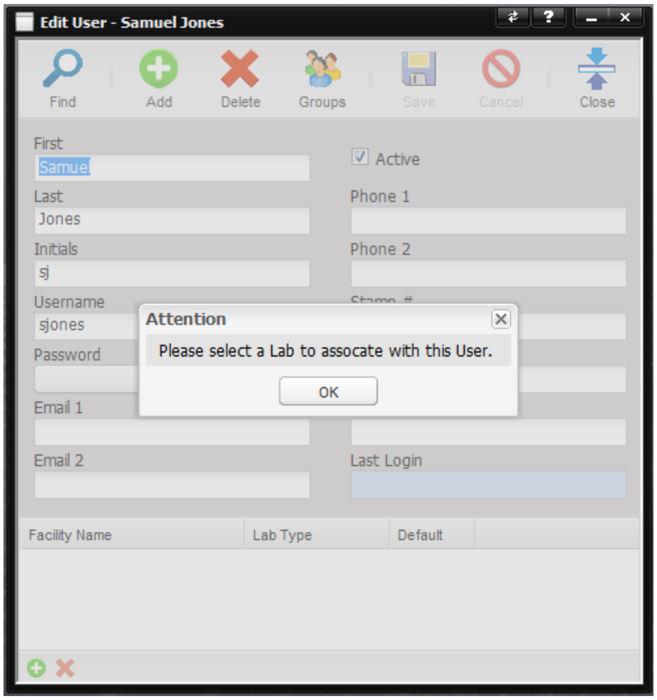
The Find screen is displayed.



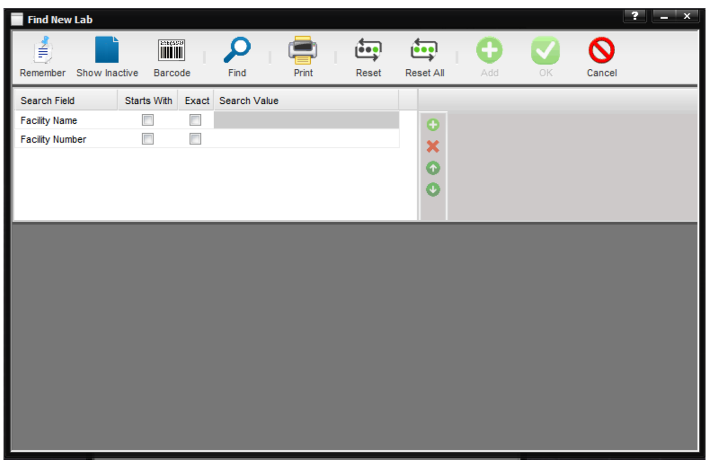
Select the Cancel button and the Add User screen is displayed. Required fields are outlined in red. When the mouse hoovers over a required field, a tooltip is displayed stating that the field is required.



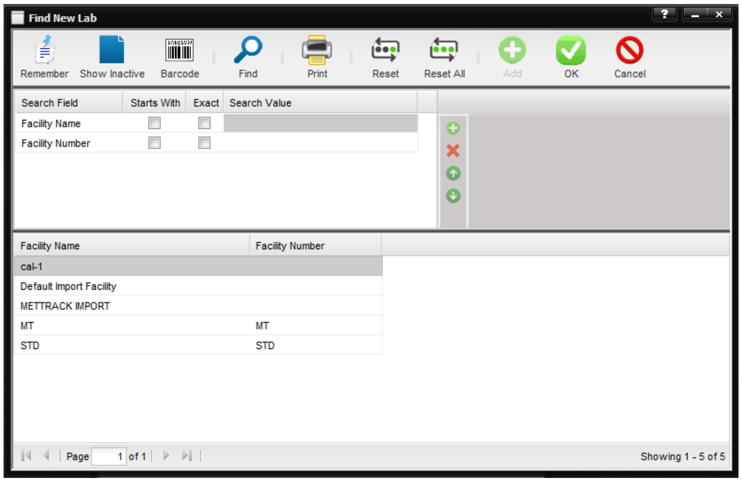
Fill in the attributes for the user and select the Save button when all desired attributes are complete.



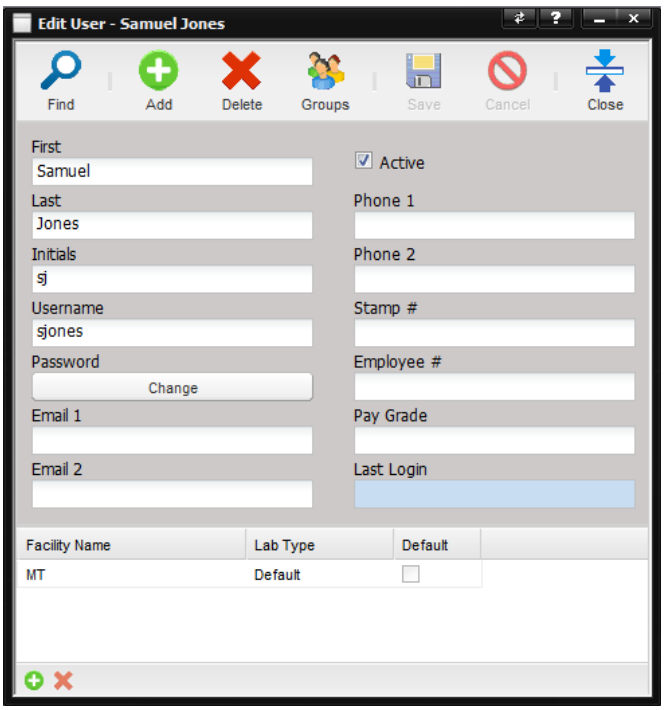
A message is displayed stating that the User must be associated with a Lab. Select OK on the prompt. The Find New Lab screen is displayed.



Select the Find button and the list of Facilities to select as the Lab for this User is displayed.

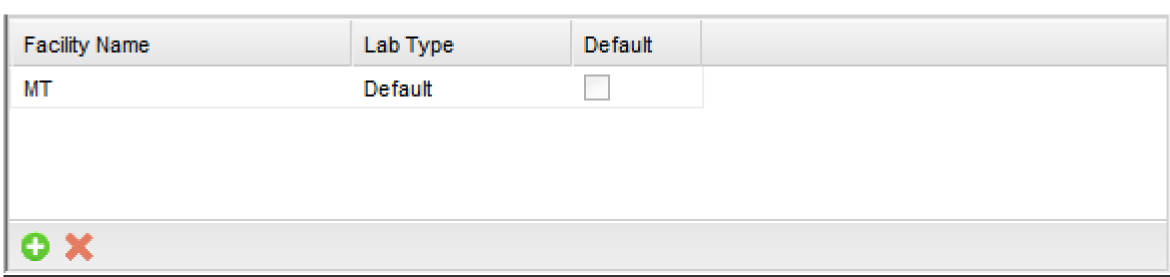


Select the Lab and the Edit User screen is displayed. The Facility Grid displays the Lab you selected for this User.



Facility Grid

The Facility Grid contains the labs in which this user can work.

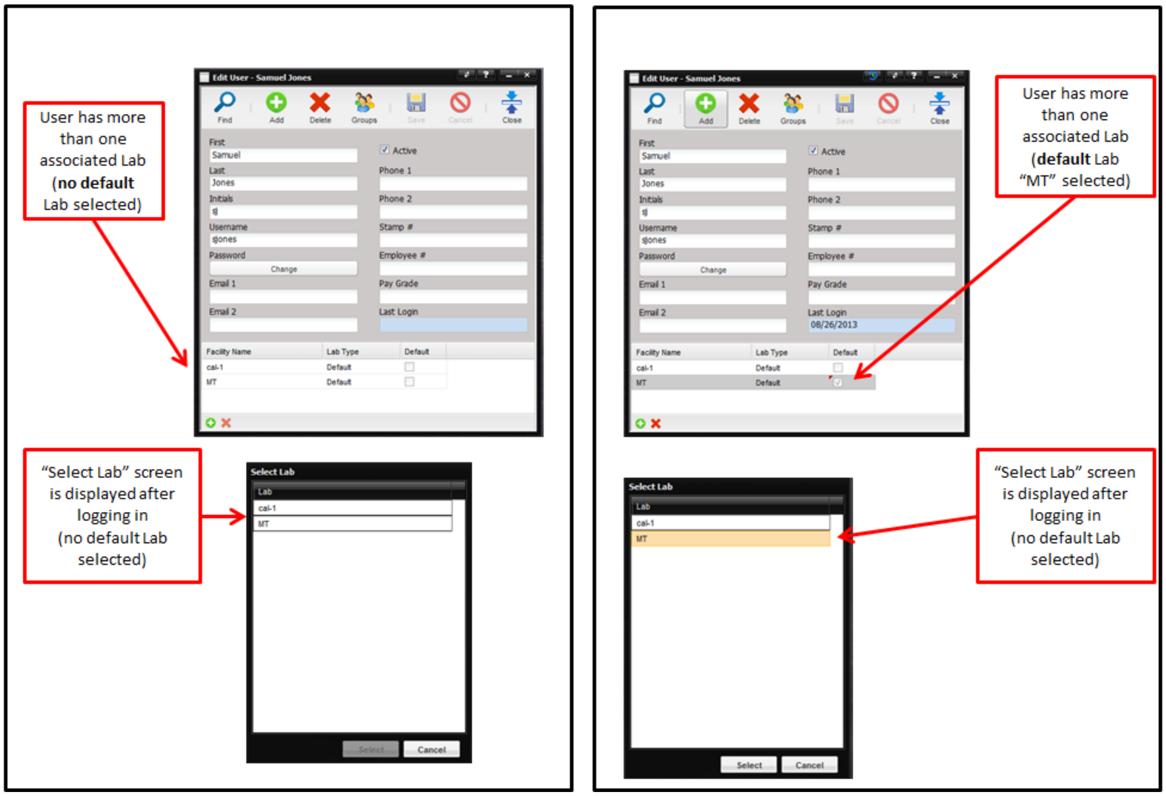


The "+" button below the grid can be used to add a lab or the "X" button can be used to delete a Lab.

***Note**: When creating or editing a Facility from the Maintenance menu Facility submenu, a Facility must be setup as a Lab to be added to this grid.*

If more than one lab is added and listed in this grid, the user is prompted at log in with the Select Lab dialog to select which lab they wish to log in to.

- If a lab is marked as default, it appears highlighted in the Select Lab dialog, allowing the user to log on quickly.
- The user is not required to have a default lab; it is simply a convenience. To set a lab as a default, double click the lab and select “Yes” when the prompt appears.



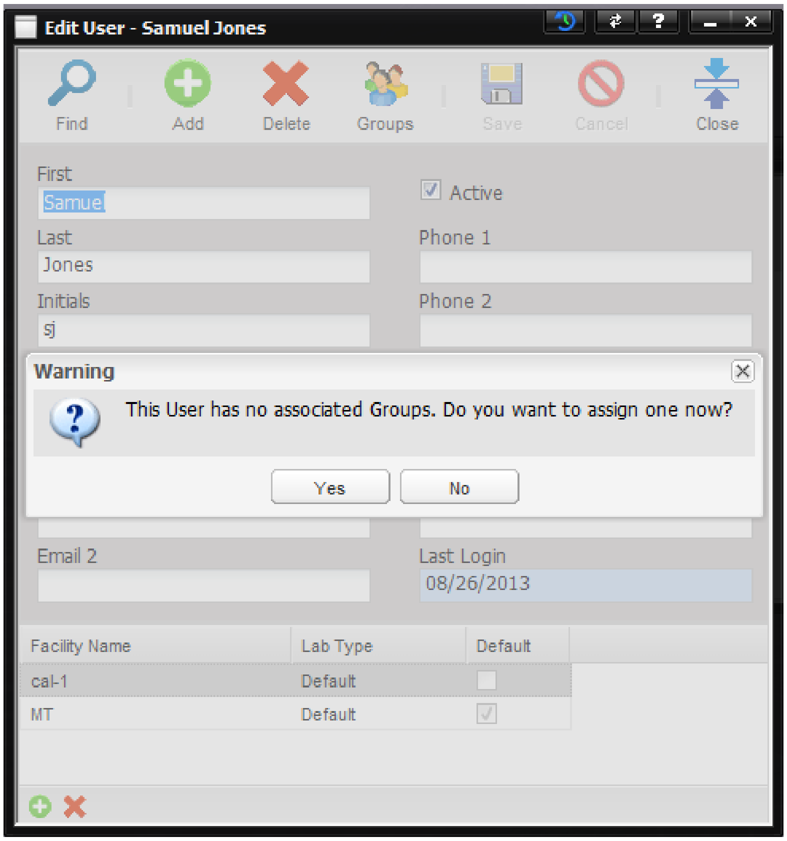
Assigning Groups (User Rights)

When a User is setup, the Administrator decides what Group or Groups a User is assigned to.

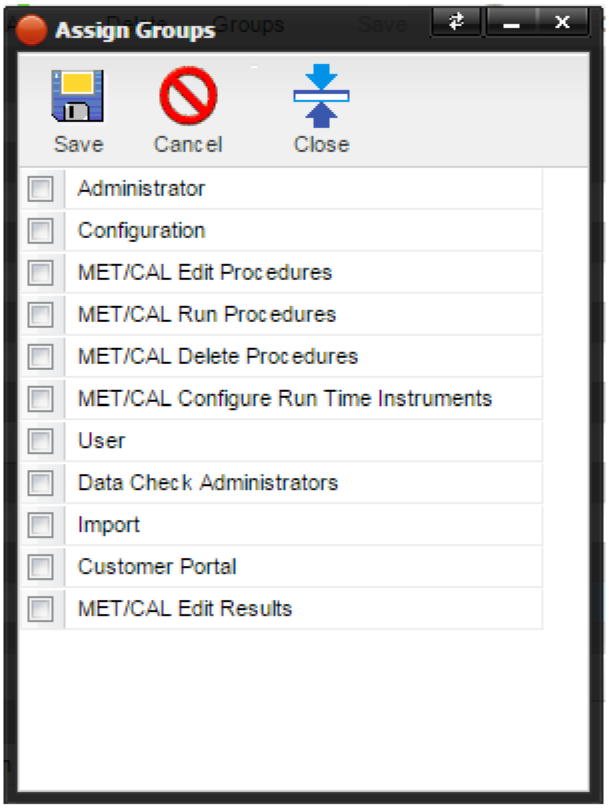
A User is not required to be assigned to any User Groups. If a User is not assigned to any Group, the User has rights to those functions that have been enabled or made visible for ‘Everyone’ through the Edit Control Security screen. This screen is only available to Users in the Administrator and Configuration Groups. See your MET/TEAM Administrator for further details.

Groups are used to determine what the User is allowed to do.

- When creating a new User, you must save the User account settings before you can assign the User to Groups.
- The Groups button can be also be used to assign a User to one or more Groups.
- When attempting to close the Edit User screen, a prompt is displayed asking if you want to assign the User to a Group.



Select Yes, to open the Assign Groups screen or no to continue to close the Edit User screen without assigning the User to a Group.



The MET/TEAM application ships with a set of default groups. Additional groups can be added by a trained Administrator. For more information, see the section

Display Type	Function	Field Type
Numeric	Number Input	nField
Text	Text Input	cField
Combo	Drop Down	cField/mField
Date	Date Input	tField
Currency	Currency Input	nField
Memo	Long Text Input	mField
Boolean	Check box Input (Logical)	lField

Groups.

Access to Administrator and Configuration provides a User with the ability to disable and enable buttons, menus, and the Setup menu.

Access to User provides a User with the ability to “use” the application as configured by the Administrator and/or Configurator.

Access to the “MET/CAL….” Groups, Data Check Administrator Group, or Import Group allows a User perform the functionality. If a User needs to perform any of these functions and does not have access, a message is displayed or the particular menu is disabled.

- **Administrator** – Highest level of access for MET/TEAM, no restrictions within MET/TEAM.
    - A User in this Group has access to the Configure menu and all functionality contained within that menu.

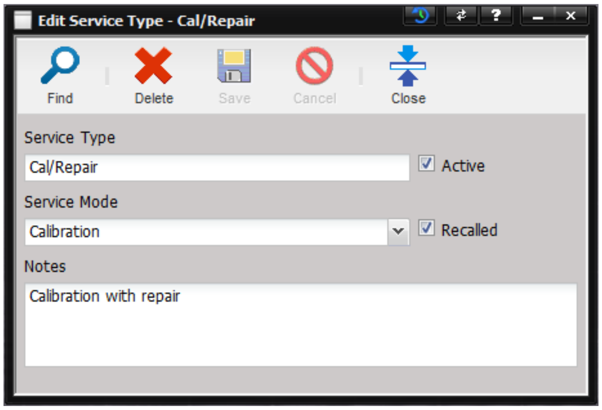
- A User in this Group can configure individual screens using the right-click functionality.
- A User in this Group can create Data Checks.
- A User in this Group can Import data into MET/TEAM.
- A User in this Group can assign Users to Groups.
- A User in this Group can reset an individual User's password.
- For an Administrator to use MET/CAL, the 4 MET/CAL Groups must be checked.

- **Configuration** – One level of access below Administrator.
  - A User in this Group has access to the Configure menu and all functionality contained within that menu.
  - A User in this Group can configure individual screens using the right-click functionality.
  - A User in this Group can create Data Checks.
  - A User in this Group can Import data into MET/TEAM.
  - A User in this Group can assign Users to Groups.
- **Import –** Required to Import data into MET/TEAM.
- **MET/CAL Configure Runtime Instruments** – Required to alter instrument and station specific setup details using the MET/CAL Runtime Configure tab. The User must also be assigned to the MET/CAL Run Procedures group to login to the MET/CAL Runtime.
- **MET/CAL Delete Procedures** – Required to delete a procedure from Proc.Dir using the MET/CAL Procedure Editor. The User must also be assigned to the MET/CAL Edit Procedures group to login to the MET/CAL Editor.
- **MET/CAL Edit Procedures** – Required to edit MET/CAL procedures using the MET/CAL Procedure Editor. Allows the User to login to the MET/CAL Editor.
- **MET/CAL Run Procedures** – Required to run a MET/CAL procedure in the MET/CAL Runtime. Provides read-only access to the MET/CAL Runtime Configure tab and full access to the MET/CAL Runtime Setup and Run tab.
- **Edit Results** – Required to edit calibration results on the MET/TEAM Work Order Results tab. Provides access to all tabs under the MET/CAL Runtime Configure tab.
- **User** – Basic level of access needed to use MET/TEAM.
  - A User in this Group cannot perform any Administrative tasks.
  - A User in this Group cannot perform any Configuration tasks.
  - A User in this Group cannot perform any Data Check tasks.
  - A User in this Group cannot perform any Import tasks.
  - A User in this Group cannot perform any MET/CAL tasks.
  - A User in this Group cannot create a new user.
  - A User in this Group cannot create a new contact.
- No Group Assigned – Lowest level of access needed to use MET/TEAM.
  - If a User is not assigned to any Group, the User has rights to those functions that have been enabled or made visible for 'Everyone' through the Edit Control Security screen. Functionality is customizable by the Administrator and may have been changed from how the MET/TEAM product is shipped.

Services

The Services option is for adding or editing Service Types. When adding Service Types, the Save is **case-insensitive**.

Note: *The last service edited is the first Service Type displayed in all Service Type dropdown lists. The Service Type dropdown lists appear on the Work Order, Receiving, Procedure and Type Procedure Defaults screens.*



- **Service Type** – The name of the service type such as 'Cal/Repair', 'Calibration', 'PM', 'Repair'.
- **Active** – If checked, the Service Type is visible in other parts of MET/TEAM. Service Type is selectable from a non-editable dropdown on the Work Order, Receiving, Procedures, and Type Procedures screen.

  Note: *Service Type can only be customized by using the Setup menu Services submenu screen.*

- **Service Mode** – The mode of service being created ('Calibration', 'Unscheduled', and 'Preventative Maintenance').
- **Recalled** – If checked, this service type is used when determining recall notices. A Service Mode must be checked as Recalled to be used in the Assets Scheduled Services grid.
- **Notes** – Notes pertaining to the service type.
- Highest level of access, no restrictions.

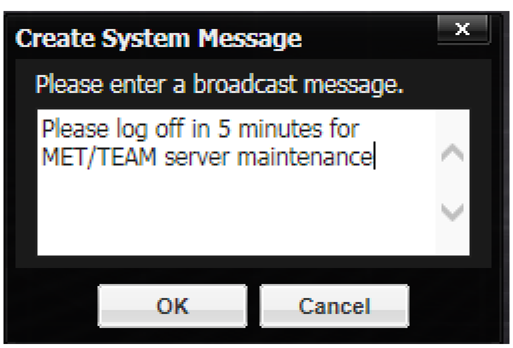
Note: *When saving a Service Type, the Save is **case-insensitive**. For example: "Calibration" and "calibration" are the same and only one Service Type of Service Mode "Calibration" can be exist.*

Configure Menu

The Configure Menu is used for configuring the application specifically to your installation. This menu is only available for users with administrative or configuration privileges.

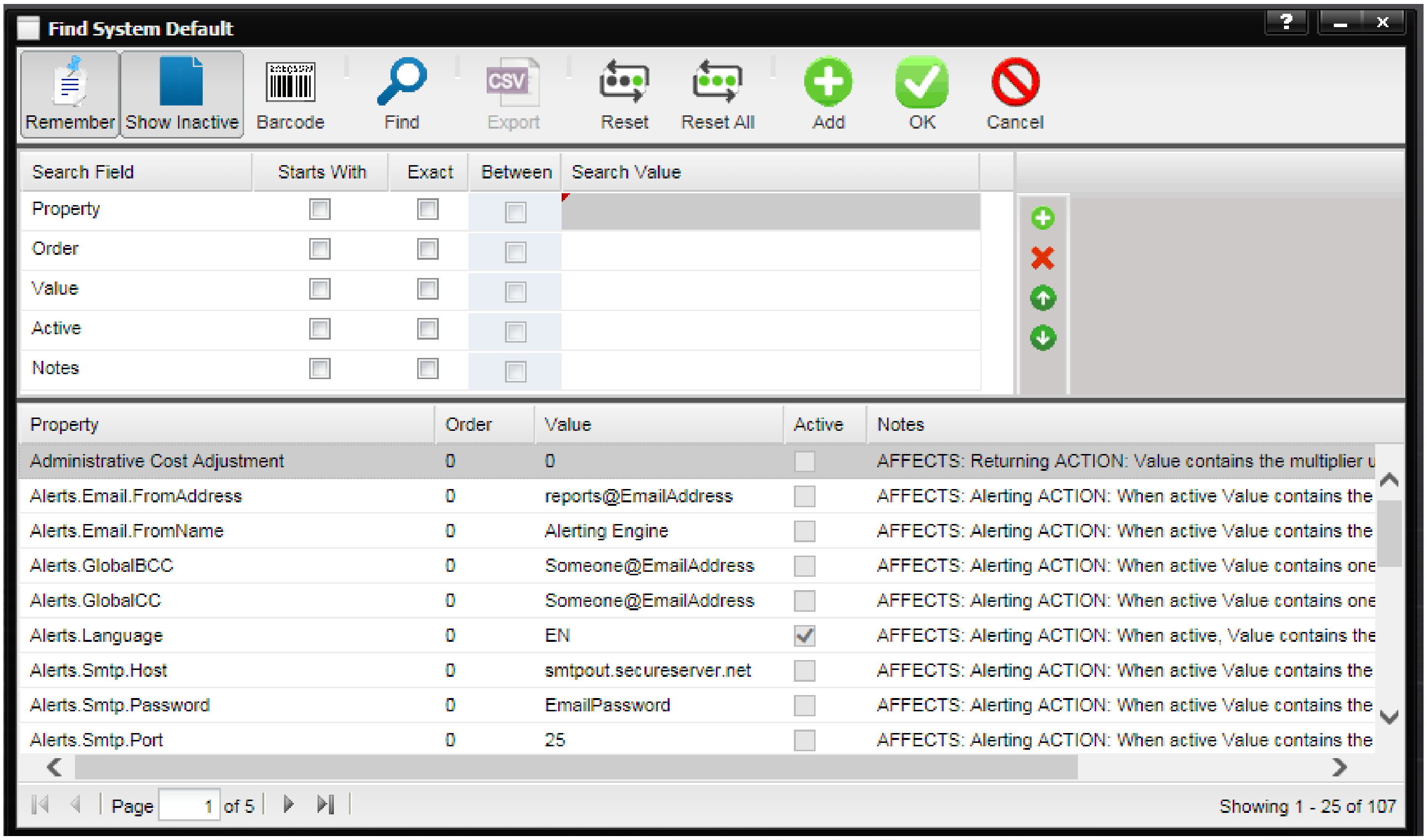
Send System Message

The Send System Message menu allows for entry of a message to be broadcast to all MET/TEAM users on the server.



System Defaults

The System Defaults menu contains defaults used throughout MET/TEAM. These system defaults are systemic, the changes made affect all users within MET/TEAM.
The Find System Default screen is displayed when from the Configure menu System Defaults submenu.



Some behaviors of MET/TEAM can be modified by the user depending upon the business needs. Items such as reports, turn-around-time, taxes, etc. can be modified to better fit the business practices of the user.

1. For ***Receiving***, ***Receiving – Priority,*** and ***Returning*** System Defaults, additional records can be added. Customers can add any number of reports to be printed from the Returning and Receiving Print by adding another System Default.
2. All reports specified in the System Default(s) “Returning” or “Receiving” are printed from the Print button on the Returning and Receiving screen, respectively.
3. The order these reports print is based on the System Default Order. If there are more than one Returning (or Receiving) System Defaults with Order =1, it still prints the reports.
4. The Returned By field on the Work Order only prints the report that is in the System Default Returning where the Order=0.
5.

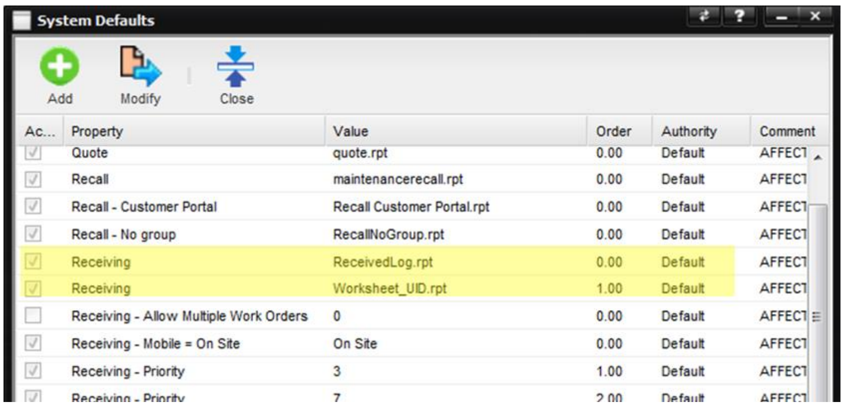
Conclusion:

1. Making the property of Returning and Receiving System Defaults unique is not going to work. We have existing customers with multiple Returning and Receiving System Defaults so they can print multiple reports from these Print buttons.
2. The Returning and Receiving Print buttons must print the multiple reports specified in the System Defaults. Now that we’ve added Export to the Print button, the Export must export the multiple reports also.
3. If I have setup 4 Returning reports in the System Default and have the Order= value set to 0, 1, 2, 3 the reports must print in that order.

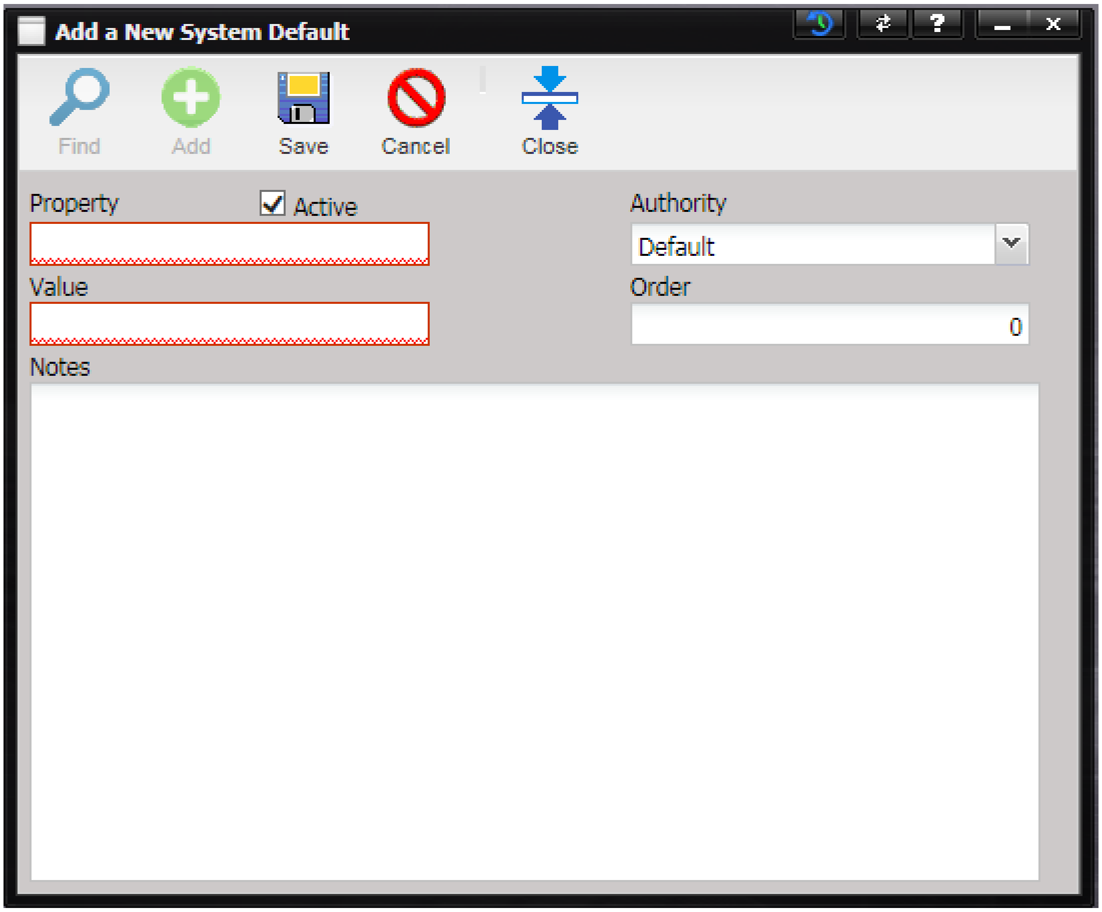
Adding a System Default
A System Default can be added by selecting the "Add" button on the screen toolbar. Generally, these additional System Defaults are added for printing multiple reports.

For example:

Currently, MET/TEAM uses two System Defaults to print two different reports from the Receiving Screen.



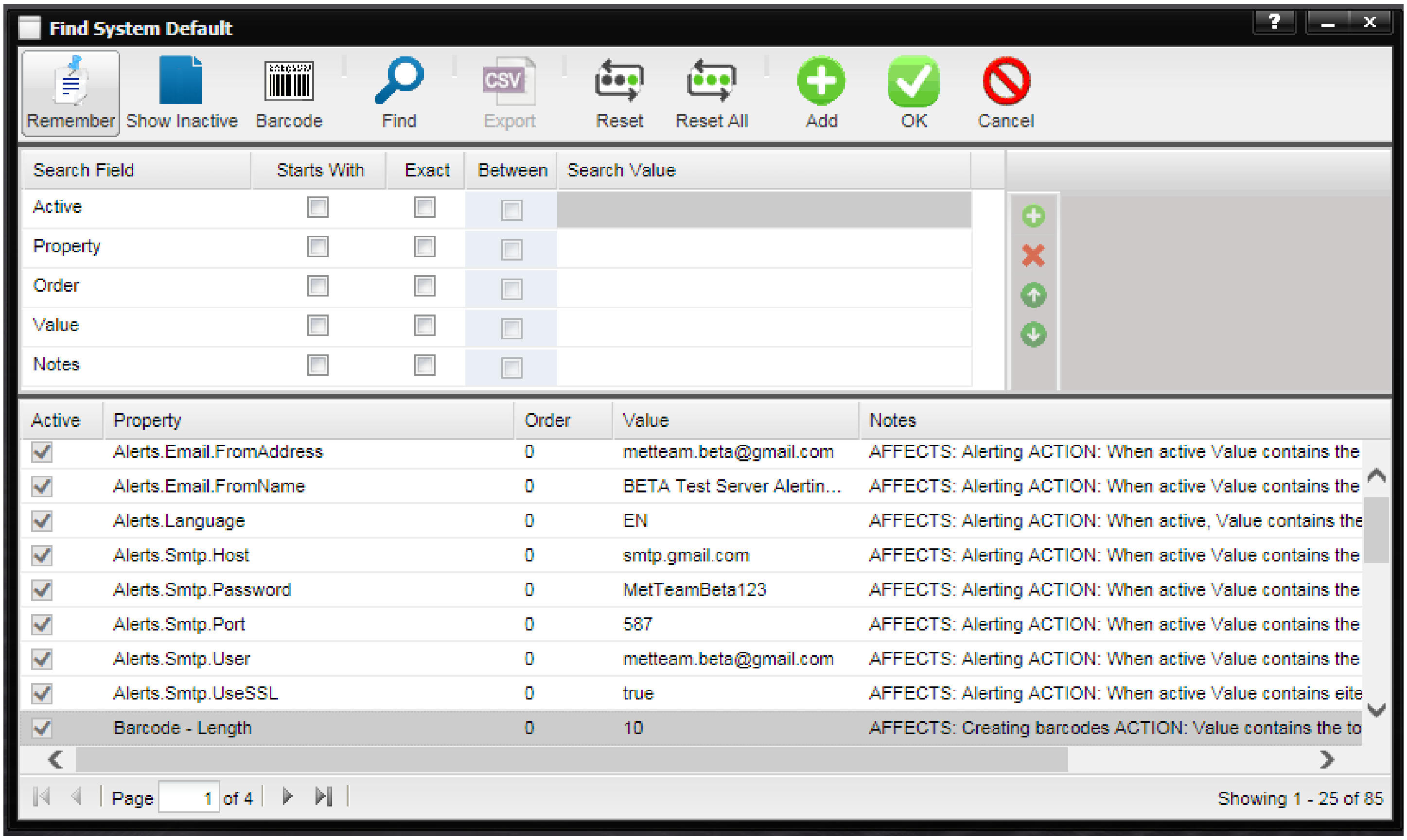
If a third report was needed, select the "Add" button on the toolbar.
The Add a System Default screen is displayed.



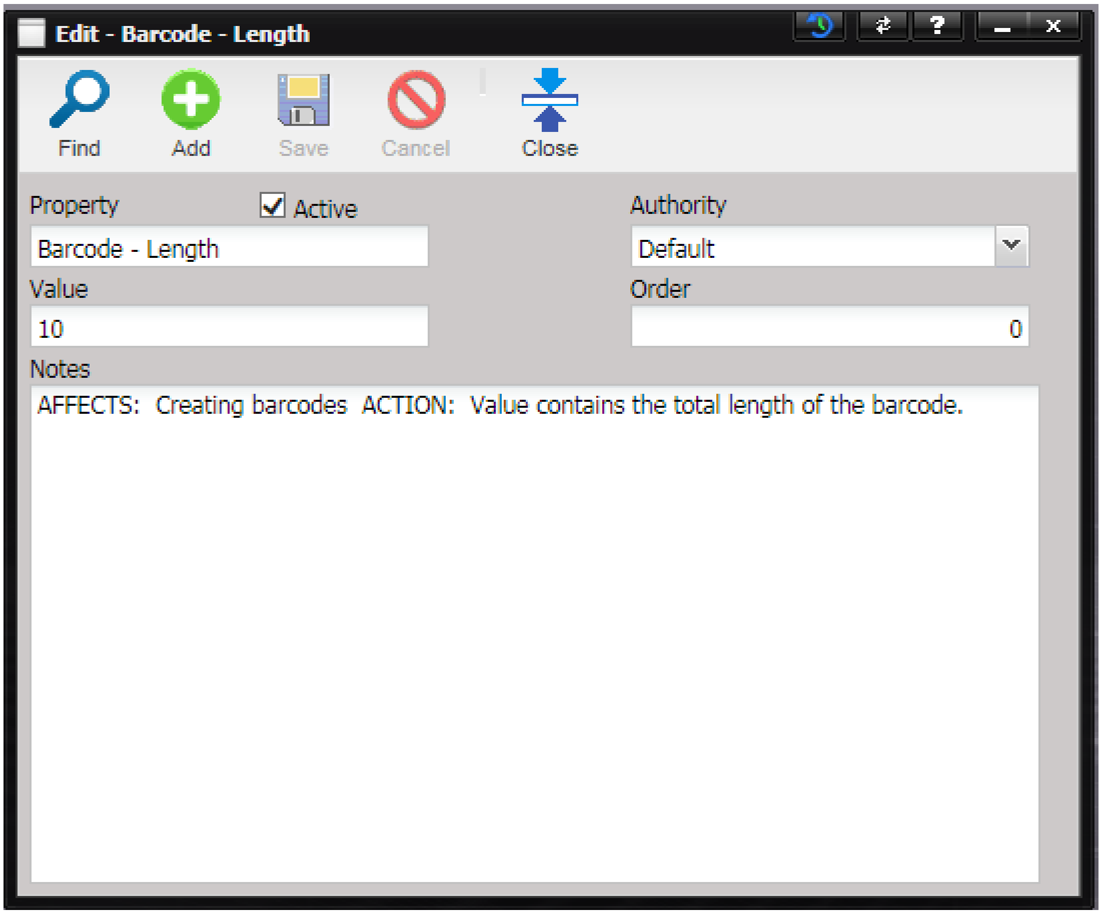
- **Property** – The screen that the System Default applies to.
- **Active** – If checked, the System Default is active and being used by MET/TEAM.
- **Authority** – The authority indicator for this System Default.
- **Value** – The entry specified in the notes for this System Default.
  ***Note**: The Value field must be in English and if the Value is a number, the numbers must be formatted EN-US.*
- **Order** – If "0" (zero), the parameter passed to the report is the parameter that is common to all work order that we just created in the receiving process. If order is greater than "0" (zero), nCallSheetUID is sent to the report. The report will show only data related to one work order record.
- **Notes** – Explains what the System Default does. In the System Default for Receiving when the Order is set to 1, the notes states: "AFFECTS: Receiving ACTION: If 'Order'<>0 then "Value" contains the name of any additional reports to be run during receiving."

Modifying a System Default

To modify a System Default, select the System Default to be modified in the Find System Default screen and select OK.



In this case, the Barcode –Length System Default is being edited. The Edit – Barcode – Length screen is displayed. (The edit screen is the same regardless of the System Default being edited.)



- **Property** – Name of the property.

  Note: *The Property Name should never be changed for the System Defaults that are part of the MET/TEAM software when purchased.*
- **Active** – Turns on or off the functionality of the System Default. If checked, the System Default is enabled.
- **Authority** – The authority this default applies to. If an authority for the logged in Facility does not exist, the "System" authority is used.
- **Value** – Value of the property that determines the outcome of the selected System Default. Refer to the Notes for the System Default to determine valid Values.
- **Order** – If there is more than one System Default that reacts at the same time, the Order controls the sequence.
- **Notes** – A description of the system default and what part of the program it has an effect on.

Note: *Modifications to system defaults may cause parts of the program to function incorrectly. Please refer to the* *Systems Default Table* *before modifying System Defaults.*

Select the Save button to save any changes. Another System Default can be found by selecting the Find button. To close this screen, select the Close button.

System Defaults Table

Note: *This is a listing of system defaults as of the publishing of this Help. System defaults and values are constantly being updated and changed.*

Property	***Value***	***Order***	***Notes***
Administrative Cost Adjustment	*0*	*0*	*AFFECTS: Returning ACTION: Value contains the multiplier used to adjust the cost for all work orders. If value = .1 and work order cost was 100, the new cost will be 110 (100*.1 = 10 added to the original 100). If value is negative then the total in the above example would be 90.*
Alerts.Email.FromAddress	*reports@EmailAddress*	*0*	*AFFECTS: Alerting ACTION: When active Value contains the email address the reports are to be sent from.*
Alerts.Email.FromName	*Alerting Engine*	*0*	*AFFECTS: Alerting ACTION: When active Value contains the name displayed when the reports are sent.*
Alerts.GlobalBCC	*Someone@EmailAddress*	*0*	*AFFECTS: Alerting ACTION: When active Value contains one or more e-mail addresses that will receive a BCC for every report sent via alerting.*
Alerts.GlobalCC	*Someone@EmailAddress*	*0*	*AFFECTS: Alerting ACTION: When active Value contains one or more e-mail addresses that will receive a CC for every report sent via alerting.*
Alerts.Language	*Choose from: DE, EN, ES, FR, IT, JA, PT-BR, RU, ZH*	*0*	*AFFECTS: Alerting ACTION: When active, Value contains the country code for the language used when sending email alerts. Supported values include: DE, EN, ES, FR, IT, JA, PT-BR, RU, ZH.*
Alerts.Smtp.Host	*smtpout.secureserver.net*	*0*	*AFFECTS: Alerting ACTION: When active Value contains the name of the SMTP server used to send the emails.*
Alerts.Smtp.Password	*EmailPassword*	*0*	*AFFECTS: Alerting ACTION: When active Value contains the password for the account that will send emails.*
Alerts.Smtp.Port	*25*	*0*	*AFFECTS: Alerting ACTION: When active Value contains the port used on the SMTP server.*
Alerts.Smtp.User	*reports@EmailAddress*	*0*	*AFFECTS: Alerting ACTION: When active Value contains the SMTP user name for the account that will send emails.*
Alerts.Smtp.UseSSL	*false*	*0*	*AFFECTS: Alerting ACTION: When active Value contains either "true" or "false" as an indication if SSL encryption will be used.*
Auditing	*0*	*0*	*AFFECTS: Turns auditing on for 21CFR Part 11*
Barcode – Length	*10*	*0*	*AFFECTS: Creating barcodes ACTION: Value contains the total length of the barcode.*
Barcode – Prefix	*PRE*	*0*	*AFFECTS: Creating barcodes ACTION: When active, value contains the text value used at the beginning of all barcodes that will be created.*
Barcode – Report	*barcode.rpt*	*0*	*AFFECTS: Printing barcodes ACTION: Value contains the name of the report used to print a barcode sticker.*
Barcode – Suffix	*(none)*	*0*	*AFFECTS: Creating barcodes ACTION: When active, value contains the text value used at the end of all barcodes that will be created.*

Billing	*Invoice_Detail.rpt*	*0*	*AFFECTS: Printing Invoices ACTION: Value contains the name of the report used to print an Invoice.*
Billing – Create Detail	*(none)*	*0*	*AFFECTS: Billing ACTION: If Active, Billing details from all associated charges are stored in the InvoiceItemDetails table. If Inactive, Billing details are not stored in the InvoicItemDetails table.*
Billing – Do not discount labor	*0*	*0*	*AFFECTS: Billing, Returning ACTION: When active customer discounts do not apply to labor entered in MET/TEAM™.*
BusinessProcessed	*CompletedWork.rpt*	*0*	*AFFECTS: ACTION:*
BusinessWIP	*WIP.rpt*	*0*	*AFFECTS: Report run from the first tab (Open work orders) in Business Status ACTION: Value contains the name of the report.*
Calendar	*calendar.rpt*	*0*	*AFFECTS: Report run from the Calendar screen. ACTION: Value contains the name of the report.*
Cert – Detailed Fee	*10%*	*0*	*AFFECTS: Returning ACTION: When active, Value determines the fee added to the cost of a work order when the ISO check box is checked. If a '%' is included in the value, then the fee is added as a percent of the labor costs. Otherwise the value is added directly to the work order cost.*
Cert – Detailed Fee Minimum	*20*	*0*	*AFFECTS: Returning ACTION: When active, Value determines the minimum fee added to the cost of a work order when the ISO check box is checked.*
Cert – Logo Visible	*N/A*	*.*	*AFFECTS: Certificate printing.*
Change Tracking	*-1*	*0*	*AFFECTS: When active, changes to most database tables are tracked, keeping complete history. Must be active along with 'Auditing' for 21CFR Part 11 compliance.*
Company Name	*<Your Company Name Goes Here>*	*6*	*MET/BASE Conversion*
DepartmentBypass	*Bypass*	*0*	*AFFECTS: Assets and Parent Asset ACTION: When this is marked active, Departments don't have to be children facilities of the Customer facility. Any "Customer" facility can be selected as a department. When inactive, Departments, on the Asset, can only be selected when they are configured as children facilities of the Asset's Customer facility. The department facility record must also have Customer check box selected.*
Escalation – Default Message	*(none)*	*0*	*AFFECTS: Recall Escalation ACTION: if Active, Value contains the 'Title' of the quick note to be automatically selected when the Recall Escalation screen is opened. If the Quick Note can't be located or this default is inactive, the 'Message' will NOT be auto filled when Recall Escalation screen is opened.*

Escalation – Summarize Message	*(none)*	*0*	*AFFECTS: Recall Escalation ACTION: if Active, no attachments with a list of Assets due are sent. The body of the e-mail contains counts of the items due for the configured date range. Typically a link to the website where the detailed data can be found is included in the e-mail message. The data in Value is used to define an optional context query used provide any desired info for each facility. If no additional data is desired use "(none)", other typical entry would be "Escalation summary".*
Escalation – Summarize, separate past due	*Past Due*	*0*	*AFFECTS: Recall Escalation ACTION: if Active, value contains the caption used to summarize the 'past due' count in the body of the summary e-mail. This only applies if the 'Escalation – Summarize Message' default is also active. Past due items are any items with a due date prior to the "Report" date selected in the Escalation screen.*
Facility – Inventory	*Inventory.rpt*	*0*	*AFFECTS: Printing inventory report ACTION: Value contains the name of the report used to print an inventory report from the facilities screen*
HelpWebsite	*http://us.flukecal.com/*	*0*	*AFFECTS: Website on Help menu ACTION: Opens the default web browser to the address in Value.*
Import – Data Directory	*\\{server}\METCAL\Import \Data*	*0*	*AFFECTS: File Import ACTION: Value contains the shared server folder repository for data (files) to be imported. Must be a valid directory on the server. Do not use for storing data - internal use only.*
Import – Files Directory	*\\{server}\METCAL\Import \Files*	*1*	*AFFECTS: File Import ACTION: Value contains the shared server folder repository for certs and other files to be imported. Must be a valid directory on the server. Copy files to be imported to this location.*
Invoice – Length	*10*	*0*	*AFFECTS: Creating Invoice numbers ACTION: Value contains the total length of the Invoice number.*
Invoice – Prefix	*Annual*	*0*	*AFFECTS: Creating Invoice number ACTION: When active, value contains the text value used at the beginning of all Invoice numbers that will be created. If value contains "Annual" the prefix will be the four digit year and the count value will reset to 1 at the beginning of each year.*
Invoice – Suffix	*(none)*	*0*	*AFFECTS: Creating Invoice numbers ACTION: When active, value contains the text value used at the end of all Invoice numbers that will be created.*

Login – Use Windows Authentication	*1 or 2*	*0*	*AFFECTS: Login ACTION: When Active is not checked, users login to MET/TEAM and Customer Portal using their MET/TEAM username and password.* *When Active and the Value = 1, MET/TEAM uses Windows Authentication and Customer Portal uses MET/TEAM Login.* *When Active and the Value = 2, both MET/TEAM and Customer Portal use Windows Authentication.* *When Active and any other Value is entered, Windows Authentication is NOT used. The user is presented with the MET/TEAM Login screen.* *ATTENTION: - If you have activated this System Default, setup a user that matches your domain username and verify it has administration rights. Failure to do so may result in being locked out of MET/TEAM.* *Note: Refer to the MET/TEAM Help for more information on setting up IIS to support Windows Authentication mode.*
Manual Template	*ManualTemplateFields.rpt*	*0*	*AFFECTS: Manual Template ACTION: If 'Order' = 0 then 'Value' contains the name of the report to be run from the Print button on the Manual Template screen.*
Mobile – Check In Directory	*D:\Source Base\Met Track\MetTrack\Source\MET-Track\Mobile\Databases\CheckIn*	*0*	*AFFECTS: Mobile check in process ACTION: Use Value to configure a UNC path, accessible by users who will check in, the system running MET/TEAM™, and SQL Server®.*
Mobile – Check Out Directory	*D:\Source Base\Met Track\MetTrack\Source\MET-Track\Mobile\Databases\CheckOut*	*0*	*AFFECTS: Mobile check out process ACTION: Use Value to configure a UNC path, accessible by the users who will check out, the system running MET/TEAM™, and SQL Server®.*
Mobile – METCAL Shared Files Path	*\\server\share*	*0*	*UNC path to MET/CAL Shared Files for use during MET/TEAM Mobile Check Out*
Parts Negative Inventory	*Yes*	*0*	*AFFECTS: Using parts on a work order when new on hand level will be negative. ACTION: If Value contains "Ask" then the user is asked to update the value to a negative number. If "Yes" the negative number is used. If "No" 0 is saved as the on hand value. If Value = "Yes" or "No" then the user is not asked but the functionality described above occurs.*
Pricing report	*Pricing.rpt*	*0*	*AFFECTS: Contract Pricing ACTION: Value contains name of the report printed from the screen.*
Problem Report – Length	*12*	*0*	*AFFECTS: Creating Problem Report numbers ACTION: Value contains the total length of the Problem Report number.*

Problem Report – Prefix	*Annual*	*0*	*AFFECTS: Creating Problem Report numbers ACTION: When active, value contains the text value used at the beginning of all Problem Report numbers that will be created. If value contains "Annual" the prefix will be the four digit year and the count value will reset to 1 at the beginning of each year.*
Problem Report – Suffix	*(none)*	*0*	*AFFECTS: Creating Problem Report numbers ACTION: When active value contains the text value used at the end of all Problem Reports that will be created.*
Problem Report – Report	*ProbleReportNew.rpt*	*0*	*AFFECTS: Problem Report ACTION: When Active, the report name in the Value field is used to produce the report printed from the Problem Report screen. The default value is ProblemReportNew.rpt.*
Quote	*quote.rpt*	*0*	*AFFECTS: Printing Quotes ACTION: Value contains the name of the report used to print quotes.*
Quote – Length	*10*	*0*	*AFFECTS: Quoting ACTION: Value contains the total length of the Estimate number.*
Quote – Prefix	*Annual*	*0*	*AFFECTS: Quoting ACTION: When active, value contains the text value used at the beginning of all Estimate numbers that will be created. If value contains "Annual" the prefix will be the four digit year and the count value will reset to 1 at the beginning of each year.*
Quote – Suffix	*(none)*	*0*	*AFFECTS: Quoting ACTION: When active, value contains the text value used at the end of all Estimate numbers that will be created.*
Recall	*maintenancerecall.rpt*	*0*	*AFFECTS: Recall printing ACTION: Value contains the name of the report used to print when "Do not Group by Customer" is unchecked.*
Recall – Customer Portal	*Recall Customer Portal.rpt*	*0*	*AFFECTS: Recall printing in Customer Portal ACTION: Value contains the name of the report used to print Recall or Delinquent reports via Customer Portal.*
Recall – No group	*RecallNoGroup.rpt*	*0*	*AFFECTS: Recall printing ACTION: Value contains the name of the report used to print when "Do not Group by Customer" is checked.*
Receiving	*ReceivedLog.rpt*	*0*	*AFFECTS: Receiving ACTION: If 'Order' = 0 then 'Value' contains the name of the summary report run during Receiving.* *If ‘Order' <> 0 then 'Value' contains the name of any additional reports to be run during Receiving.*
Receiving	*Worksheet_UID.rpt*	*1*	*AFFECTS: Receiving ACTION: If 'Order' = 0 then 'Value' contains the name of the summary report run during Receiving..* *If ‘Order' <> 0 then 'Value' contains the name of any additional reports to be run during Receiving.*
Receiving – Allow Multiple Work Orders	*0*	*0*	*AFFECTS: Receiving ACTION: Allows multiple work orders to be opened at the same time against the same Asset in the same lab. VALUE: Does NOT affect functionality.*

Receiving – Mobile = On Site	*On Site*	*0*	*AFFECTS: Receiving ACTION: If Active and MET/TEAM Mobile is checked out, then the On Site checkbox on the Receiving screen is checked.*
Receiving – Priority	*3*	*1*	*AFFECTS: Receiving ACTION: Sets the RDD (Required Date). When the ORDER value matches the Priority in the receiving screen then the VALUE is added to the received date to calculate the RDD.*
Receiving – Priority	*7*	*2*	*AFFECTS: Receiving ACTION: Sets the RDD (Required Date). When the ORDER value matches the Priority in the receiving screen then the VALUE is added to the received date to calculate the RDD.*
Receiving – Priority	*14*	*3*	*AFFECTS: Receiving ACTION: Sets the RDD (Required Date). When the ORDER value matches the Priority in the receiving screen then the VALUE is added to the received date to calculate the RDD.*
Receiving – Priority Default	*3*	*0*	*AFFECTS: Receiving ACTION: This is the default priority used when receiving Assets in MET/TEAM™. If no corresponding Priority record is created then no RDD calculations will be done.*
Receiving – Set Interval	*Asset*	*0*	*AFFECTS: Receiving, Work Orders ACTION: If active, and value="Asset" when creating a new work order, MET/TEAM will use the interval from the Asset's scheduled services with a matching service type. If active, and value="Type", MET/TEAM™ will use the interval data from the default or top procedure configured for the Asset's type with a matching service. If inactive, MET/TEAM™ will leave the interval blank.*
Receiving – Set Notes	*Type*	*0*	*AFFECTS: Receiving, work orders ACTION: If active, when creating a new 'calibration' type of work order, MET/TEAM™ will set the Accuracy and Uncertainty notes based on the system default's 'value'. "Asset" will use the data from the Asset, "Type" will use the Accuracy and Uncertainty notes form the Asset's type. If inactive, MET/TEAM™ will leave the Accuracy and Uncertainty notes blank on the Work Order.*
Receiving – Show Receiving Notes	*0*	*0*	*AFFECTS: Receiving ACTION: When active the receiving process will display to the receiving clerk any notes for the type in the 'Receiving Notes' field.*
Report String 1	*<report substitution mt_user1>*	*14*	*MET/BASE Conversion*
Report String 2	*<report substitution mt_user2>*	*15*	*MET/BASE Conversion*

Report String 3	*<report substitution mt_user3>*	*16*	*MET/BASE Conversion*
Report String 4	*<report substitution mt_user4>*	*17*	*MET/BASE Conversion*
Report String 5	*<report substitution mt_user5>*	*18*	*MET/BASE Conversion*
Reports – Default Reports directory	*\\{Server}\inetpub\wwwroot\METTEAM\Reporting\Reports*	*0*	*AFFECTS: Alerting using custom reports ACTION: If active, Value contains the default path to the custom reports directory. If inactive Alerting will not function correctly. NOTE: It is recommended that you use a UNC path such as \\{computer name}\{share}\. If active the last character should be a "\".*
Reports – Default System directory	*\\{Server}\inetpub\wwwroot\METTEAM\Reporting\System*	*0*	*AFFECTS: Alerting using system reports ACTION: If active, Value contains the default path to the system reports directory. If inactive Alerting will not function correctly. NOTE: It is recommended that you use a UNC path such as \\{computer name}\{share}\. If active the last character should be a "\".*
Reports – Customer Portal reports directory	*\\{Server}\inetpub\wwwroot\CustomerPortal\Reporting\Customer Portal*	*0*	*AFFECTS: Customer Portal reports ACTION: If active, Value contains the default path to the Customer Portal reports directory. NOTE: It is recommended to use a local path on the server such as C:\inetpub\wwwroot\CustomerPortal\Reporting\Customer Portal\. If active the last character should be a "\".*
Reports – Customer Portal system directory	*\\[Server]\inetpub\wwwroot\CustomerPortal\Reporting\System*	*0*	*AFFECTS: Customer Portal reports ACTION: If active, Value contains the default path to the Customer Portal system reports directory. NOTE: It is recommended to use a local path on the server such as C:\inetpub\wwwroot\CustomerPortal\Reporting\System\. If active the last character should be a "\".*
Returning	*PackingSlip.rpt*	*0*	*AFFECTS: Returning ACTION: If 'Order' = 0 then 'Value' contains the name of the summary report run during returning.* *If 'Order' <> 0 then 'Value' contains the name of any additional reports to be run during returning.*
Returning	*Worksheet_UID.rpt*	*1*	*AFFECTS: Returning ACTION: If 'Order' = 0 then 'Value' contains the name of the summary report run during returning.* *If 'Order' <> 0 then 'Value' contains the name of any additional reports to be run during returning.*
Returning – Update Notes	*N*	*0*	*AFFECTS: Work Orders ACTION: When active, Value contains the key to indicate which Asset notes are automatically updated when the work order is complete. Valid values are:*

			A – Accuracy notes are copied form the Work Order to the Asset. *U – Uncertainty notes are copied from the Work Order to the Asset.* *B – Both Accuracy and uncertainty notes are copied to the Asset.* *N – Neither of the notes are copied to the Asset.* ***Note:** Marking this default inactive causes the "N" value to be in effect.*
Shipping – Length	*10*	*0*	*AFFECTS: Creating Shipment Numbers ACTION: Value contains the total length of the Shipment Number.*
Shipping – Prefix	*Annual*	*0*	*AFFECTS: Creating Shipment Numbers ACTION: When active, Value contains the text value used at the beginning of all Shipment Numbers that will be created. If Value contains "Annual" the prefix will be the four digit year and the count value will reset to 1 at the beginning of each year.*
Shipping – Suffix	*(none)*	*0*	*AFFECTS: Creating Shipment Numbers ACTION: When active, Value contains the text value used at the end of all Shipment Numbers that will be created.*
Shipping Report	*shipping.rpt*	*0*	*AFFECTS: Shipping ACTION: When active value contains the report printed from the shipping screen. The default value is "dd1149.rpt".*
Technician Work	*TechWork.rpt*	*0*	*AFFECTS: My Work ACTION: When active, value contains name of the report printed when the Tech Work button is pressed.*
TimeCard	*Timekeeping.rpt*	*0*	*AFFECTS: My Work ACTION: When active, value contains name of the report printed when the Print button is pressed.*
Tool Assignment – Length	*12*	*0*	*AFFECTS: Creating Tool Assignment numbers ACTION: Value contains the total length of the Tool Assignment number.*
Tool Assignment – Prefix	*Annual*	*0*	*AFFECTS: Creating Tool Assignment numbers ACTION: When active, value contains the text value used at the beginning of all Tool Assignment numbers that will be created. If value contains "Annual" the prefix will be the four digit year and the count value will reset to 1 at the beginning of each year.*
Tool Assignment – Suffix	*(none)*	*0*	*AFFECTS: Creating Tool Assignment numbers ACTION: When active, value contains the text value used at the end of all Tool Assignment numbers that will be created.*
ToolRoomReport	*ToolRoom.rpt*	*0*	*AFFECTS: Report run from the Tool Assignment screen. ACTION: Value contains the name of the report.*
Uncert Coverage Factor	*2.00000000*	*10*	*MET/BASE Conversion*
Uncert Num Meas	*0*	*12*	*MET/BASE Conversion*
Uncert Sign Digits	*2*	*11*	*MET/BASE Conversion*

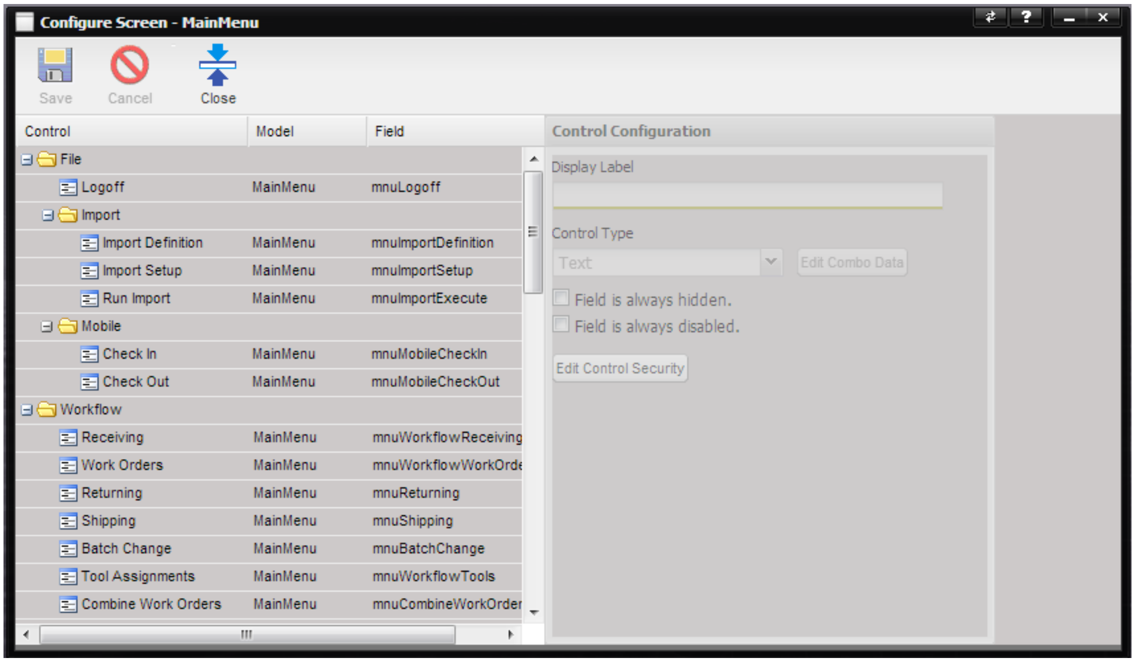
Use Student T	*N*	*13*	*MET/BASE Conversion*
VAT	*1.5*	*0*	*AFFECTS: Billing ACTION: Percentage of Value Added Tax that will be charged on all transactions.*
Work Order – Edit Calibration Points	*(none)*	*0*	*AFFECTS: Work Order ACTION: If Active, the Work Order calibration points are editable from the Work Order View Results screen. Value is not applicable. Order is not applicable.*
Work Order – Edit Status	*0*	*0*	*AFFECTS: Work Orders ACTION: If active, the Status is editable and is a dropdown. If inactive, the Status is read only and is filled with the Blue read only color. When inactive and the Work Order has not been returned and 'closed', the Status is changed by adding a Log Note.*
Work Order – Enable COMPASS Data File Import	*(none)*	*0*	*AFFECTS: COMPASS Data File Import ACTION: If active, the Work Order Results tab shows a COMPASSS button which allows for importing COMPASS data files into the current Work Order. Value is not applicable. Order is not applicable. NOTE: The temporary directory used is the same as used for imports, defined in the Import – Data Directory System Default.*
Work Order – Forward Trace Report	*ttrace.rpt*	*0*	*AFFECTS: Work Orders ACTION: When active value contains the report printed from the forward trace button on the work order screen. The default value is "ttrace.rpt".*
Work Order – Length	*10*	*0*	*AFFECTS: Creating Work Order Numbers ACTION: Value contains the total length of the Work Order Number.*
Work Order – MET/CAL Work Order Creation	*0*	*0*	*AFFECTS: Work Orders and MET/CAL Interaction ACTION:When Active:* *If there is not a Work Order open for the Asset, create a new Work Order.* *If there is only one Work Order open for the Asset and the System Default Receiving – Allow Multiple Works Orders is active, the user is prompted asking if a new Work Order should be created or the existing Work Order should be used.* *If Yes, create a new Work Order.* *If No, use the existing Work Order.* *If Cancel, exit.* *If there is only one Work Order open for the Asset and the System Default Receiving – Allow Multiple Works Orders is not active, use the existing Work Order.* *If there is more than one Work Order open for the Asset and the System Default Receiving – Allow Multiple Works Orders is active, create a new Work Order.* *If there is more than one Work Order open for the Asset and the System Default Receiving – Allow Multiple Works Orders is not active, exit.* *When Not Active:*

			If there is not a Work Order open for the Asset, prompt the user to receive the Asset prior to performing a calibration and exit. *If there is only one Work Order open for the Asset, use the existing Work Order appending the data.* *If there is more than one Work Order open for the Asset, the user is prompted to select the Work Order to use.*
Work Order – Prefix	*Annual*	*0*	*AFFECTS: Creating Work Order Numbers ACTION: When active, value contains the text value used at the beginning of all Work Order Numbers that will be created. If value contains "Annual" the prefix will be the four digit year and the count value will reset to 1 at the beginning of each year.*
Work Order – Reverse Trace Report	*ttrace.rpt*	*0*	*AFFECTS: work orders ACTION: When active value contains the report printed from the reverse trace button on the work order screen. The default value is "ttrace.rpt".*
Work Order – Revision Suffix	*-Rev*	*0*	*AFFECTS: Unlocked Work Orders ACTION: If active, the Value entered is the revision suffix that is appended to the Work Order Certificate Number when a closed Work Order is unlocked, modified, and then saved.* *The default suffix is -Rev{0} where the {0} represents the revision number that is incremented with each unlock. To maintain the uniqueness of the Work Order Certificate Number and .pdf file created, you must include {0} in the suffix.*
Work Order – Revision Tracking	*0*	*0*	*AFFECTS: Unlocked Work Orders ACTION: If active, the value from the Work Order – Revision Suffix System Default is appended to the certificate number.* *If active and the Value is 0, no .pdf file of the previous revision of the certificate is created.* *If active and the Value is 0a, the user is asked whether or not to append the Work Order – Revision Suffix to the certificate number. No .pdf file of the previous revision of the certificate is created.* *If active and the Value is 1, a .pdf file of the previous revision of the certificate is created and added to the Files section on the Labor/Files tab of the Work Order, and marked as Private.* *If active and the Value is 1a, the user is asked whether or not to append the Work Order – Revision Suffix to the certificate number. If Yes is selected on the message, a .pdf file of the previous revision of the certificate is created and added to the Files section on the Labor/Files tab of the Work Order, and marked as Private. If No is selected on the message, no .pdf file of the previous revision of the certificate is created.*

			If active and the Value is 2, a .pdf file of the previous revision of the certificate is created and added to the Files section on the Labor/Files tab of the Work Order, but is not marked as Private. *If active and the Value is 2a, the user is asked whether or not to append the Work Order – Revision Suffix to the certificate number. If Yes is selected on the message, a .pdf file of the previous revision of the certificate is created and added to the Files section on the Labor/Files tab of the Work Order, but is not marked as Private. If No is selected on the message, no .pdf file of the previous revision of the certificate is created.* *If inactive, automatic revision tracking is disabled.*
Work Order – Suffix	*(none)*	*0*	*AFFECTS: Creating Work Order Numbers ACTION: When active, value contains the text value used at the end of all Work Order Numbers that will be created.*
Work Order – Temperature and Humidity Data	*30*	*0*	*AFFECTS: Work Orders and MET/CAL Interaction ACTION:* *When Active:* *The Value field must be a valid path and file name to the MET/CAL RHT.INI file which contains ambient condition data. Value can be a local path or a UNC path. This file is queried when the ambient conditions button on the Work Order screen is clicked.* *When Inactive:* *The Value field is ignored. The ambient conditions button on the Work Order screen is disabled.*
Work Order – Use Multiple Procedures	*1*	*0*	*AFFECTS: Work Orders ACTION: If active, different procedures can be selected and used in the calibration process other than the Procedure Used on the Service Tab of the Work Order. If inactive, only the Procedure Used on the Service tab can be used in the calibration process. Value is not applicable. Order is not applicable.*
Work Order Report	*Worksheet_UID.rpt*	*0*	*AFFECTS: work orders ACTION: When active value contains the report printed from the print button on the work order screen. The default value is "Worksheet_UID.rpt".*

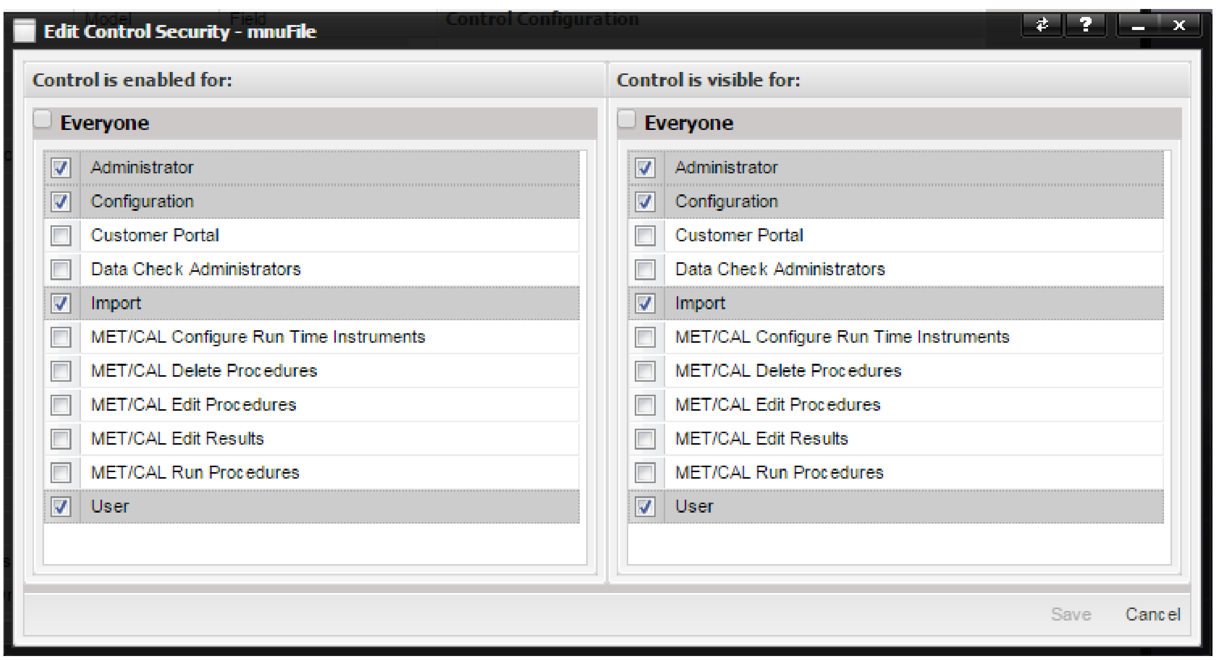
Menu Security

The Menu Security option is for customizing what features are available for what user groups.



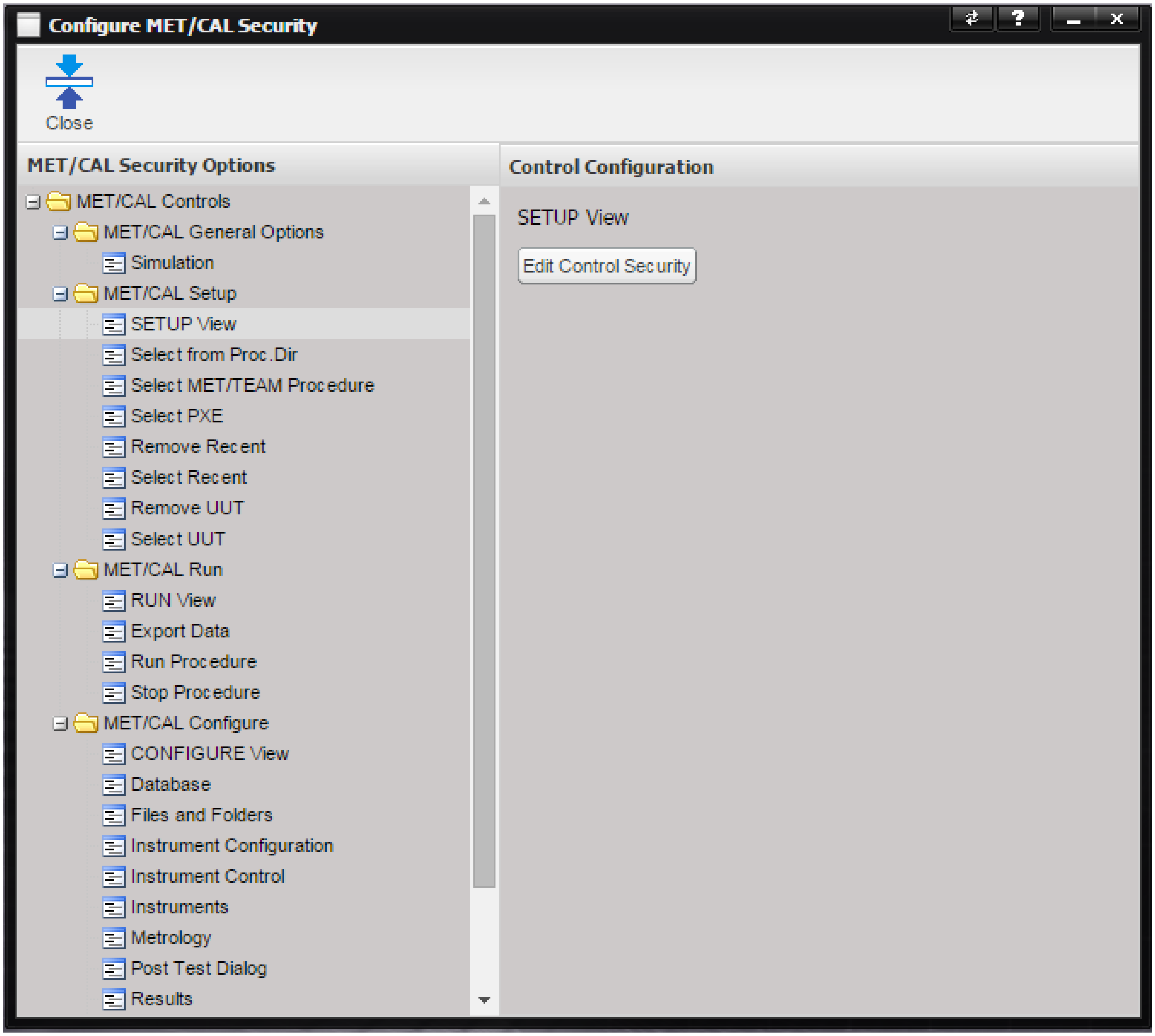
- **Field is always Hidden** – If checked, the menu item is not visible.
- **Field is always disabled** – If checked, the menu item is visible but is disabled and cannot be used.

To change the user groups that have access to this menu, select the Edit Control Security button. The Edit Control Security dialog is displayed for selecting which user groups the control is enabled and/or visible for.



MET/CAL Security

The MET/CAL Security option is for customizing availability of MET/CAL features per user groups.



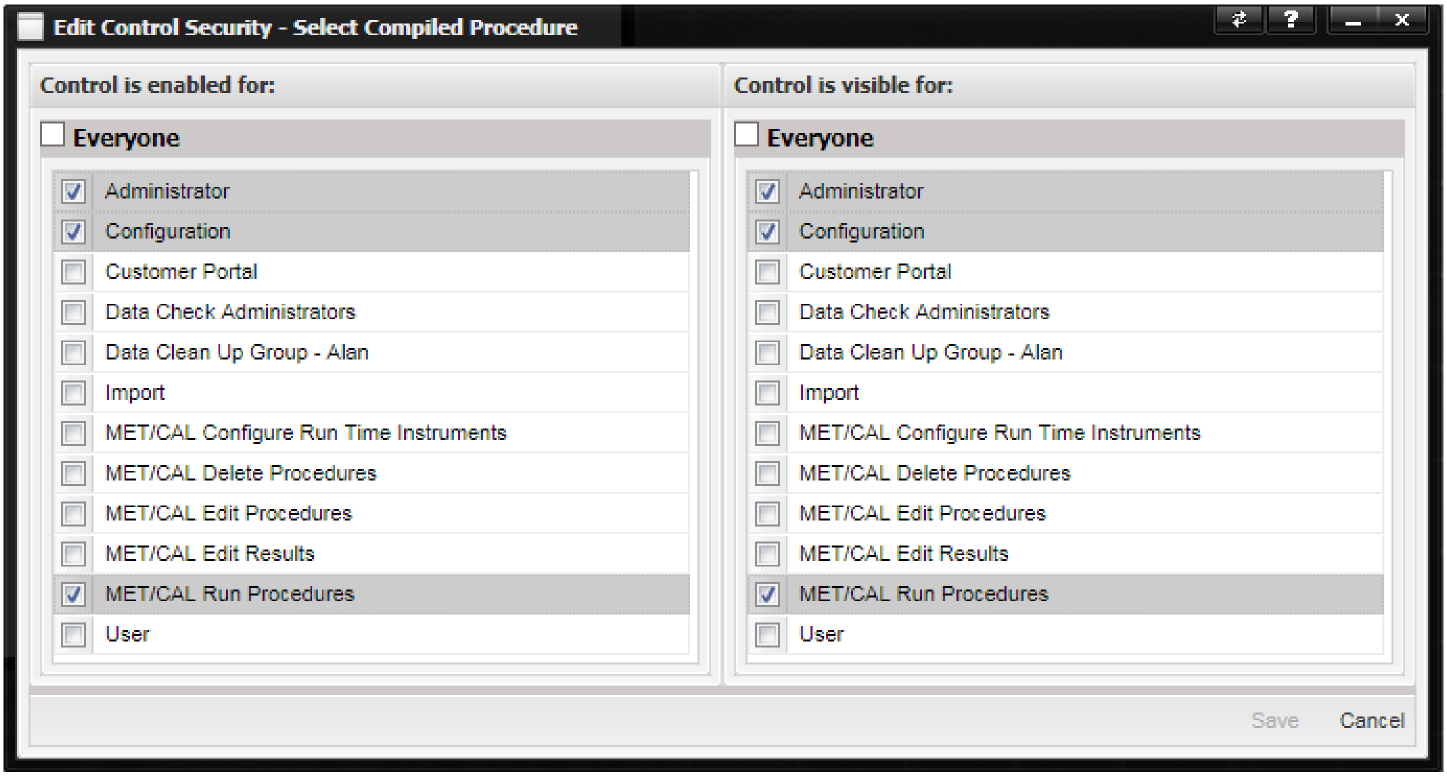
To change the user groups that have access to MET/CAL features, select the feature from the list on the left and then click the Edit Control Security button. The Edit Control Security dialog is displayed for selecting which user groups the control is enabled and/or visible for.

To set visibility and enabled/disabled state of the entire SETUP view in the MET/CAL Runtime application, select the SETUP View item under the MET/CAL Setup node. The features listed under the MET/CAL Setup node represent the controls on the SETUP view.

To set visibility and enabled/disabled state of the entire RUN view in the MET/CAL Runtime application, select the RUN View item under the MET/CAL Run node. The features listed under the MET/CAL Run node represent the controls on the RUN view.

To set visibility and enabled/disabled state of the entire CONFIGURE view in the MET/CAL Runtime application, select the CONFIGURE View item under the MET/CAL Configure node. The features listed under the MET/CAL Configure node represent the pages available on the CONFIGURE view in the MET/CAL Runtime application and the Tools > MET/CAL Configuration settings in the MET/CAL Editor application (as applicable).

Note: *Security settings only apply to features that are listed below open folder nodes and are represented by the blue and white icon. If a folder node is selected, the Edit Control Security button is disabled.*



Data Checks

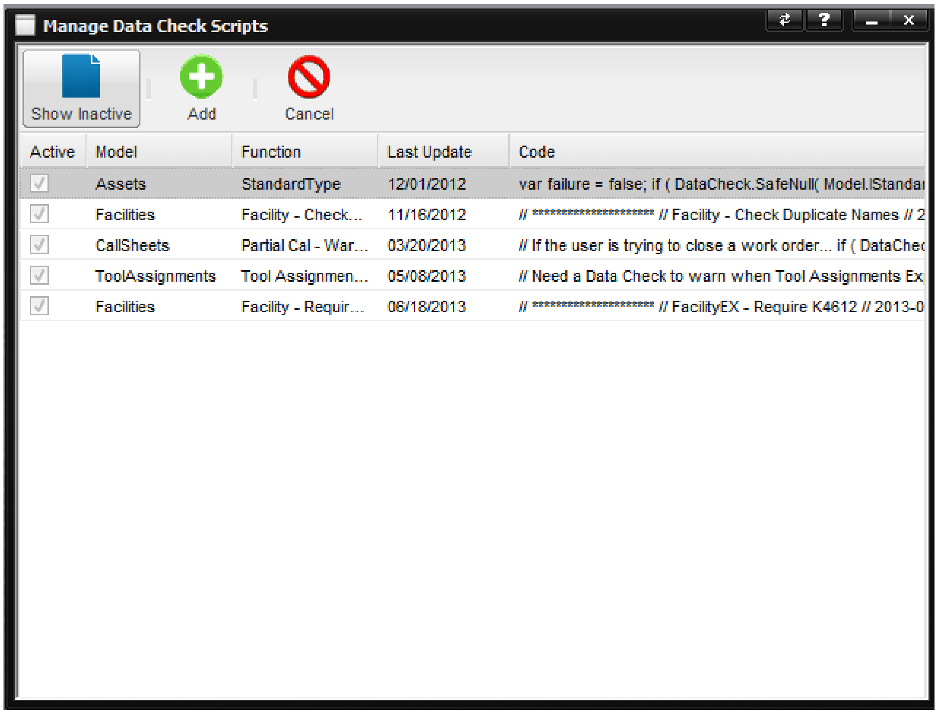
The Data Checks menu is used to create snippets of code which customize the behavior of MET/TEAM. Data Checks are JavaScript blocks of code which are executed every time data is saved to the database. This functionality is for experienced users with JavaScript knowledge.
The Manage Data Check Scripts screen displays the data checks that currently exist in the MET/TEAM. Highlight a row and double click to open the Data Check and view the details of the Data Check.

Data Checks are processed in a "first come first serve" basis. There is no post-ordering other than natural record order meaning that whichever Data Check was created first is executed first. If you are using multiple Data Checks on one screen, consider combining the individual Data Checks into a single Data Check allowing for control of order.

The following is a brief description of each Data Check example.

- **StandardType** – This Data Check applies to the Asset screen. When active, the Data Check forces the user to select the Standard Type when an Asset is marked as a Standard.
- **Facility – Check Duplicate Names** – This Data Check applies to the Facility screen. When active and a Facility is being added, the Data Check checks to ensure that the Facility name is not a duplicate of an existing Facility name.
- **Partial Cal – Warn User if Not Finished** – This Data Check applies to the Work Orders screen. When active, the Data Check prompts the user that the procedure has not executed fully.

- **Tool Assignment - Check for Overdue Asset** – This Data Check applies to the Tool Assignments screen. When active, the Data Check prompts the user when the expected Return Date of a Tool Assignment is after the calibration due date.
- **Facility - Require K4612** – This Data Check applies to the Facility screen. When active and a Facility is being edited, the Data Check ensures that a specific Extended Data field has been populated before saving the record.



If the active checkbox is checked, the Data Check is currently active and being used within MET/TEAM.

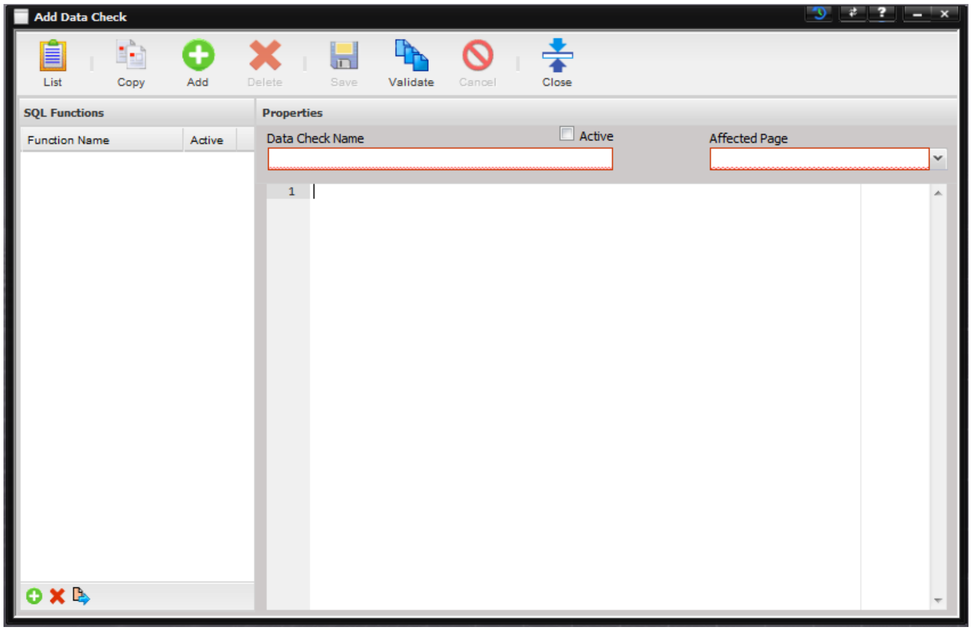
If the active checkbox is unchecked, the Data Check is not being used in MET/TEAM. To view the inactive data checks, select the Show Inactive button in the toolbar.

The form which a given Data Check affects can be noted by the "Model" column. Additionally you can see more information about each respective data check such as the last time it was updated and a brief snippet of the code that is being used.

Show Inactive – Used to toggle between showing all Data Checks (regardless of the Active state) and only showing the currently applied (being used) Data Checks.
Add – Used to add a new Data Check. It opens the Add Data Check dialog.
Cancel – Used to exit the screen.
To modify a Data Check, double click any item in the grid to automatically navigate to the Edit page dialog page.
To add a Data Check, select the Add button at the top of the Manage Data Check Scripts screen. The Add Data Check screen is displayed.

Add Data Check

The Add Data Check screen is used to display a list of Data Checks and to copy, add, delete, save, or validate a Data Check.

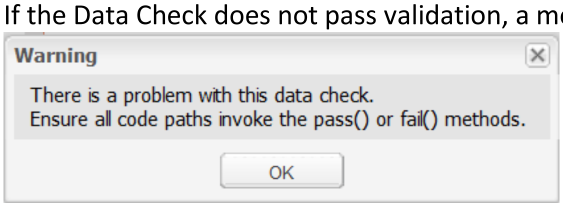


- **SQL Functions** – This grid displays any associated SQL strings that you wish to access from the Data Check.
- **Data Check Name** – The name given to this particular Data Check. Required when adding a new Data Check.
- **Affected Page** – The page (screen) that this Data Check is being applied to. Required when adding a new Data Check.
- **Active** – If checked, the Java Script is executed each time the selected Page is saved.
- **Open Area** – The area where the Java Script is written. *Required when adding a new Data Check.*

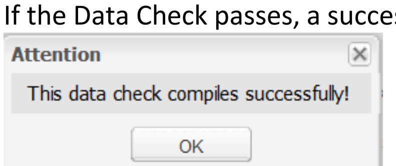
The buttons at top of the screen perform multiple functions.

List – Used to display a list of Data Checks.
Copy – Used to copy an existing Data Check.
Add – Used to add a new Data Check.
Delete – Used to delete a Data Check.
Save – Used to save a Data Check.
Validate – Used to validate the Data Check.

- If the Data Check does not pass validation, a message box is displayed.



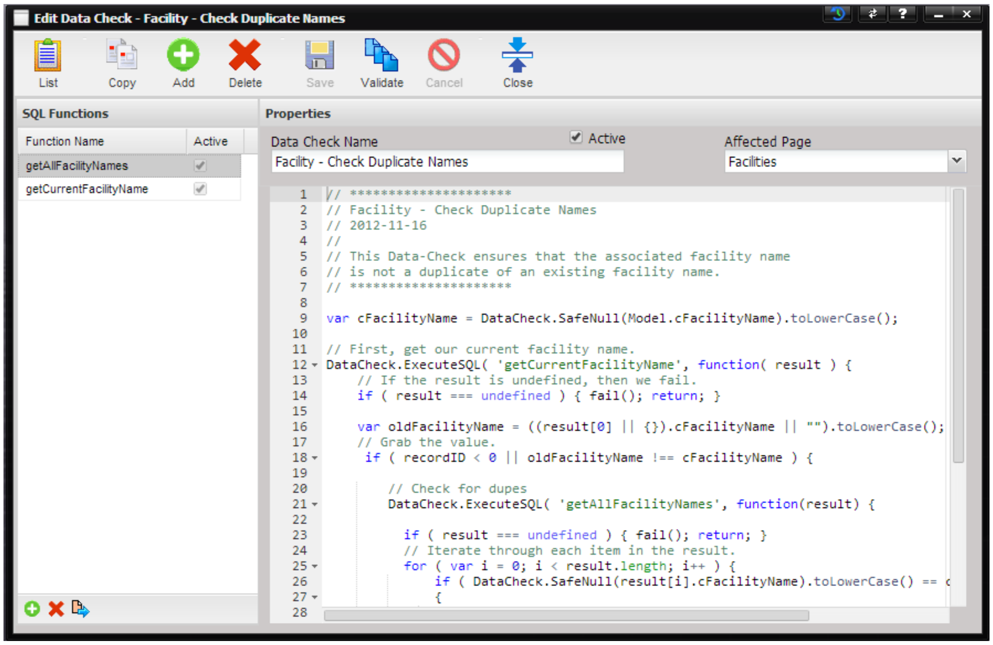
- If the Data Check passes, a success message is displayed.



Cancel – Used to cancel the adding activity.
Close – Used to close the screen.

Edit Data Check – Standard Type

The Edit Data Check screen is used for both adding and editing existing Data Check validation scripts. Syntax highlighting is included for making writing data checks easier.



- **SQL Functions** – This grid displays any associated SQL strings that you wish to access from the Data Check.
- **Data Check Name** – The name given to this particular Data Check.
- **Affected Page** – The page (screen) that this Data Check is being applied to.
- **Active** – If checked, the Java Script is executed each time the selected Page is saved.
- **Text Area** – The area where the Java Script is written.

The buttons at top of the screen perform multiple functions.

List – Used to display a list of Data Checks.

Add – Used to add a new Data Check.

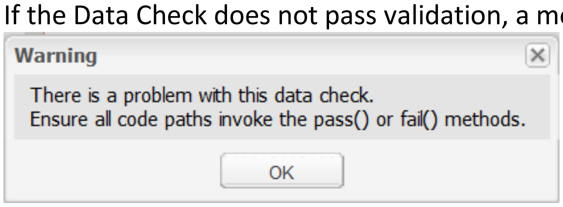
Copy – Used to copy an existing Data Check.

Delete – Used to delete a Data Check.

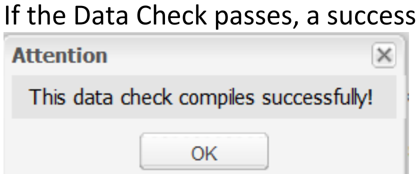
Save – Used to save a Data Check.

Validate – Used to validate the Data Check.

- If the Data Check does not pass validation, a message box is displayed.



- If the Data Check passes, a success message is displayed.



Cancel – Used to cancel the adding activity.

Close – Used to close the screen.

Data Check Keywords

When writing or modifying an existing Data Check, there are many built-in methods available to you which expose information that you can validate against. All methods reside within a JavaScript namespace titled *DataCheck*.

The following tables explain the currently supported methods and global variables.

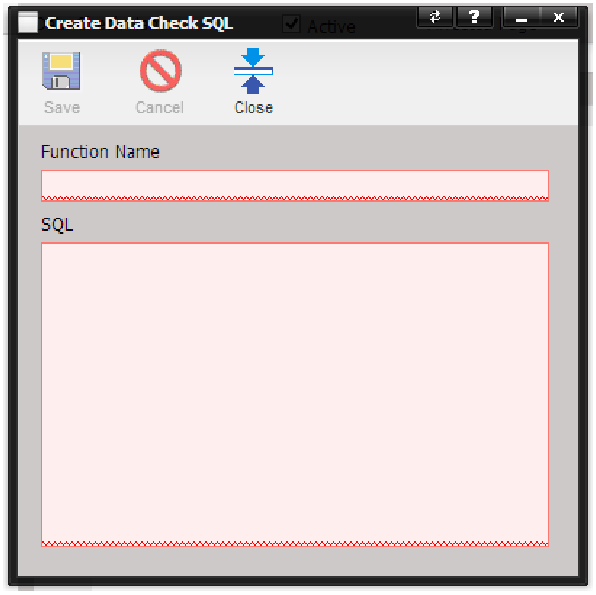
Global Variables		
Model		This variable can be accessed anywhere within the Data Check and relates to the Model-Data of the current page the user is submitting. ***Note**: The value of this model is the data currently being submitted, not the value it used to be.*
Context		This is a variable you can use to store information shared between records, specifically in multiple record-set pages such as Receiving and Returning.
Global Methods		
DataCheck.Alert		This method is used to send an alert message to the user, providing them with information. It is typically useful when describing why a validation failed.
DataCheck.Confirm	**Parameters** Title Message Callback	This method is used when asking a YES/NO question to the user. The callback supplied is passed a string object. If the user selects "Yes" (regardless of localization), the object contains the value "Yes".
DataCheck.Prompt	**Parameters** Title Message Callback	This method is used to accept text from the user in a pop-up message box. The callback is supplied a string object containing the text that the user supplied.
DataCheck.AddValidation	**Parameters** Control Name Message	When this method is invoked, attention is drawn to the control specified by highlighting the input box with red and attaching a tool-tip message describing why validation failed.
DataCheck.SetValue	**Parameters** Control Name Message	This method is used to set the value of a control field on the screen. Use it to change user input (for example, specifying a default date inside a date field).
DataCheck.SafeNull	**Parameters** Value	This method checks for *null* or *undefined* in the input value and, if detected, replaces it with an empty string. It is used primarily as a helper function when traversing Models and SQL results.
DataCheck.ExecuteSQL	**Parameters** Function Name	This method invokes the associated SQL string. The first parameter, *function name*, refers to the named SQL string which must be associated

	Callback	in grid located on the left side of the screen. The callback parameter is passed a record-set object containing the results of the SQL statement.
DataCheck.UpdateRecipients	**Parameters** Function Name Callback	This method works similar to *DataCheck.ExecuteSQL*. It accepts a *function name* which should refer to the named SQL string associated with the grid on the left side of the screen. The SQL must return a list of nContactUID values which will be used to update the recipient list of any alert that is associated with this Data Check. A dynamic Email Alert recipients lists can be created using only a Data Check. The *Callback* parameter is not passed any value, but will be invoked after the update code has executed.
DataCheck.GetExValue	**Parameters** Property	This method will search the page for an Extended Data grid. If it finds one, it will retrieve the value for the supplied *property*. If no grid can be found, it will return a blank string. The parameter, *property*, refers to the field name that has been configured. For example: ***cValue1*** would represent the first string field that you can configure. Using ***Note:*** *This method will return an empty string if no grid can be found.*
DataCheck.GetExName	**Parameters** Property	This method will search the page for an Extended Data grid. If it finds one, it will retrieve the *user configured name* for the supplied *property*. The parameter, *property*, refers to the field name that has been configured. For example: ***cValue1*** would represent the first string field that you can configure. Using our sample data set, invoking this function while supplying *cValue1* against the *Facilities* page would return the string 'K4612' ***Note:*** *This method will return an empty string if no grid can be found.*
DataCheck.IsExEnabled	**Parameters** None	This method will search the page for an Extended Data grid. If it finds one, it will return whether or not the grid is *enabled* or *disabled.* ***Note:*** *This method will return 'false' if no grid can be found.*
System Methods		
$.trim	**Parameters** Value	This method accepts a string 'Value' and returns a trimmed version of the string. Trimming a string means removing any surrounding spaces from the start and end. ***Note:*** *This method will return an empty string if the supplied parameter is null or undefined.*
pass	**Parameters** None	This method tells the data check that it has successfully passed validation. **Note**: *Be sure to invoke "return" after calling this function to ensure no more processing happening.*
fail	**Parameters** None	This method tells the data check that it has failed validation.

		***Note**: Be sure to invoke "return" after calling this function to ensure no more processing happening.*

Data Check SQL

To execute SQL statements from within a Data Check, define the SQL string using the Data Check SQL page.



- **Function Name** – The user-friendly name which invokes the SQL statement from within JavaScript.
- **SQL** – The actual SQL statement to be execute.

The buttons on top of the screen perform multiple functions.

Save – Saves the Data Check SQL record.
Cancel – Erases any changes you may have made.
Close – Closes the Data Check SQL page.

The following list contains special string-replace keys for use within SQL statements. This token system provides enhanced security while enabling the ability to access needed information.

strUID – This token is replaced with the UID (Unique Identification) number of the current record the Data Check is being run against.

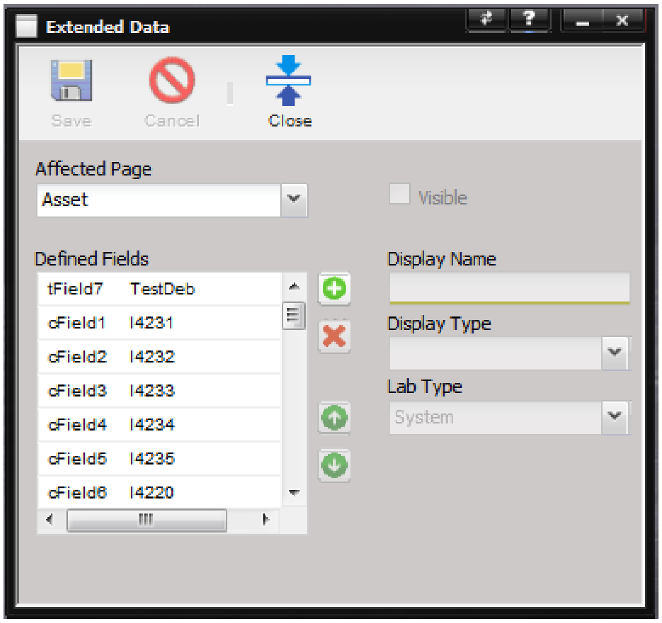
strAlertUID – This token is replaced with the UID of the currently running Email Alert. This token is only applicable for SQL run through the Email Alert Engine, otherwise it returns a -1.

strUserUID – This token is replaced with the UID of the currently logged in user.

strActiveFacilityUID – This token is replaced with the UID of the facility the current user is logged into.

Extended Data

The Extended Data option allows adding data fields that are not already present to specific screens.

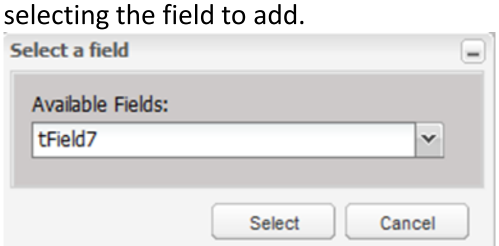


- **Affected Page** – The screen that will be affected by this change. For example, if Asset is selected, the extended data field that is selected from the Defined Fields list will be displayed on Assets Characteristics tab EX Data grid on the Asset screen.
- **Visible** – If checked, the data field is visible on the screen designated by the Affected Page field.
- **Defined Fields** – The list of fields that can be added.
- **Display Name** – The label for the extended data field on the Affected Page screen.
- **Display Type** – The type of field: Numeric, Text, Combo, Date, Currency, Memo, or Boolean.

  Note: *The Display Type and Defined Field type must match. See the* *Display Type and Defined Type* *table.*

- **Lab Type** – The lab affected by the change. System changes all labs.

To add fields to the Defined Fields list, select the “+” button next to this list. The Select a field dialog is displayed for selecting the field to add.



To delete fields from the Defined Fields list, select the “X” Delete button next to this list.

To arrange the list of fields within the Defined Fields list, use the “↑” and “↓”arrows.

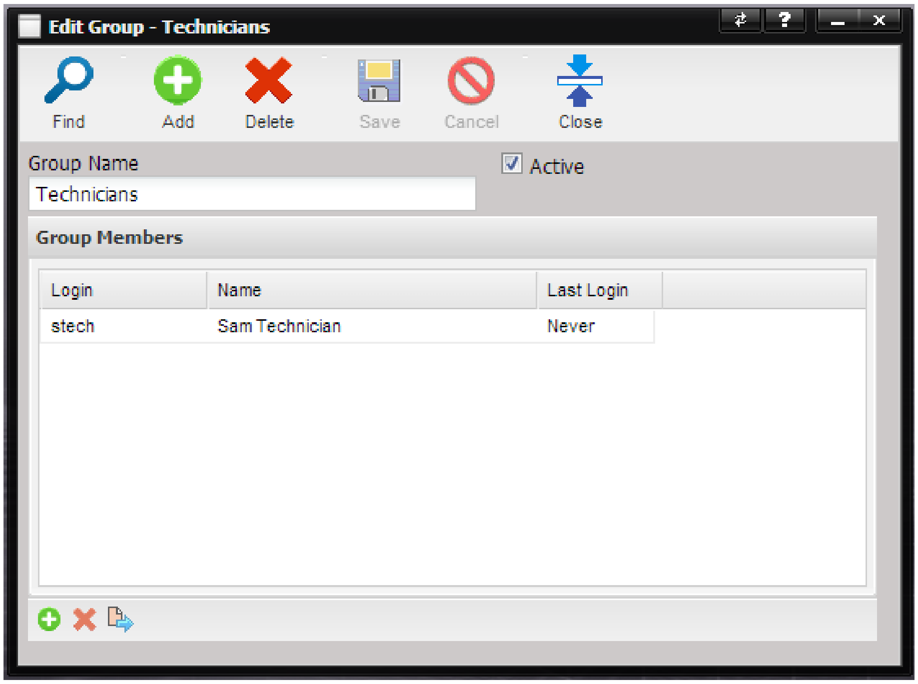
Display Type and Defined Type

Display Type	Function	Field Type
Numeric	Number Input	nField
Text	Text Input	cField
Combo	Drop Down	cField/mField
Date	Date Input	tField

Currency	Currency Input	nField
Memo	Long Text Input	mField
Boolean	Check box Input (Logical)	lField

Groups

The Groups option is for creating user Groups and adding members to the Groups.



- **Group Name** – The name of the Group being displayed.

Note: Be aware that renaming a default group name could cause MET/CAL to not recognize the users permissions properly.

- **Active** – If checked, the Group is visible in the MET/TEAM application.
- **Group Members Grid**– Displays the Users that are assigned to this Group.

Group Members Grid

The Group Members Grid contains the users that belong to this group.

- **Login** – The User's user name that is used to log into the MET/TEAM application.
- **Name** – The User's first and last name.
- **Last Login** – The date the User last logged into the MET/TEAM application.

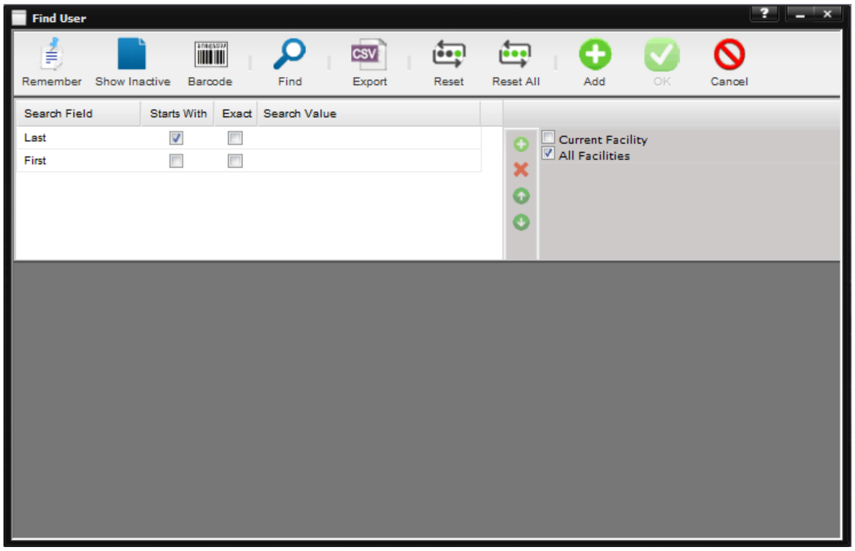
To remove a Member, select the "X" button.

To view or edit the member's user record, select the Quick Link button.

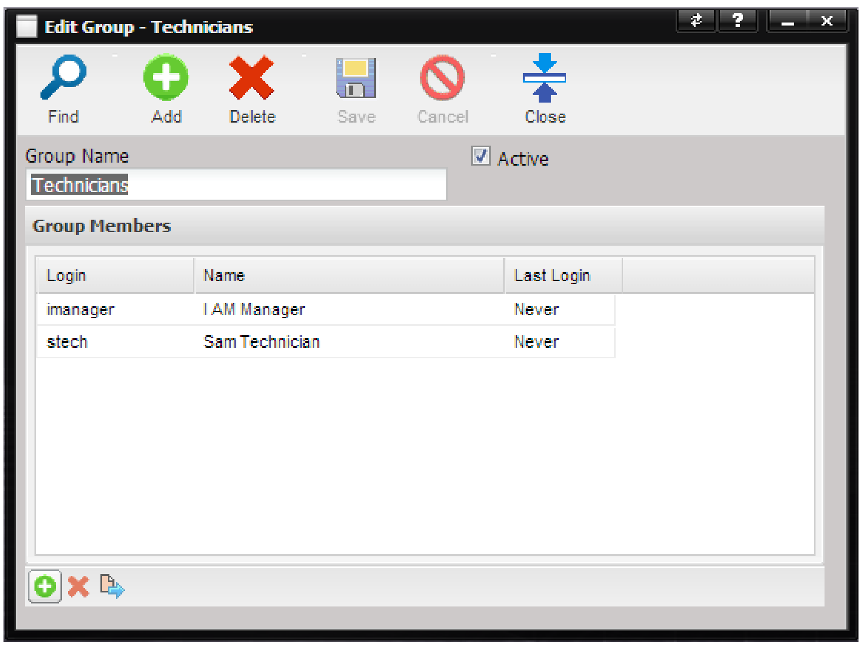
Adding Users to a Group

Users can be added to a Group from the Setup Users menu option or by selecting the "+" button at the bottom of the Group screen.

The Find User screen is displayed. Select the Find button to display a list of Users setup in the MET/TEAM application or narrow down the search criteria using the Starts With and Exact check boxes along with data in the Search Value.



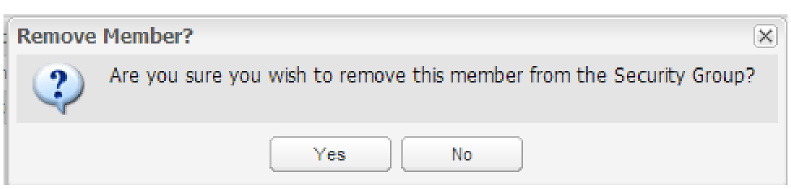
Select the User to Add and press the Ok button. The User is displayed in the Group Members Grid.



Deleting Users from a Group

To delete a User from this particular Group, highlight the row containing the User's Name and select the "X" button at the bottom of the Group Members Grid.

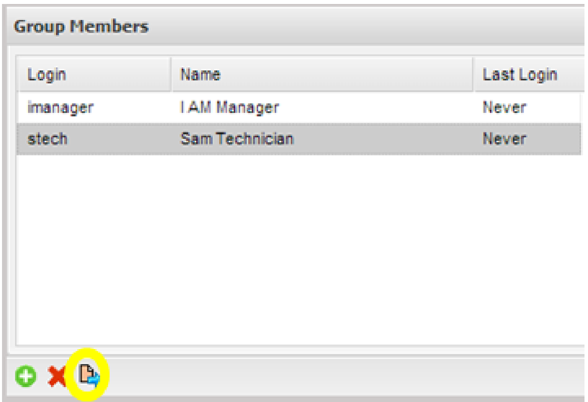
A prompt is displayed asking you to confirm the deletion.



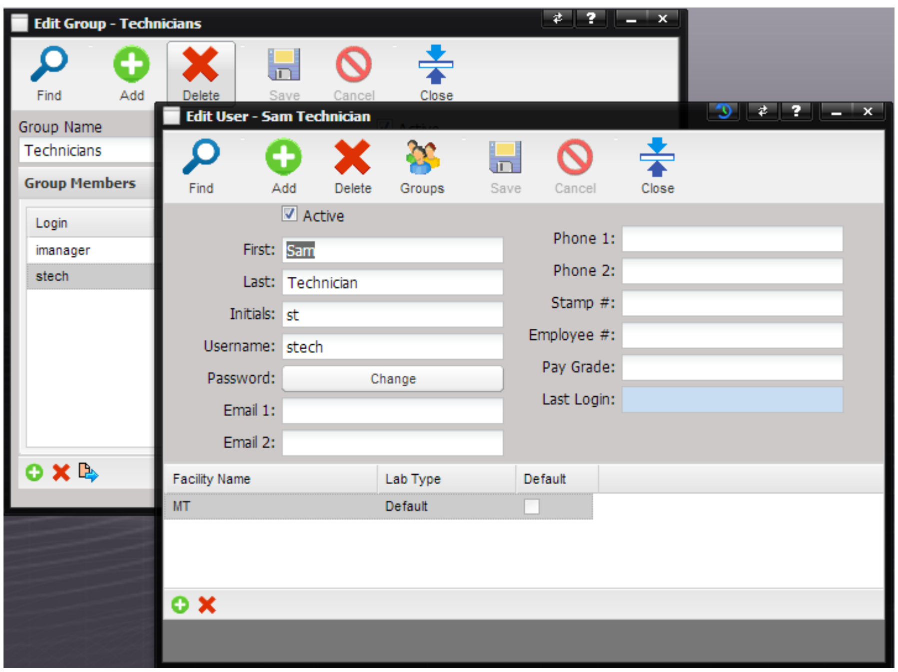
Select 'Yes' to remove this User or No to continue without removing this User.

Viewing User Information

To view the User information, highlight the row containing the User's Name and select the Quick Link button at the bottom of the Group Members Grid.



The Edit User screen is displayed with the User's information displayed.

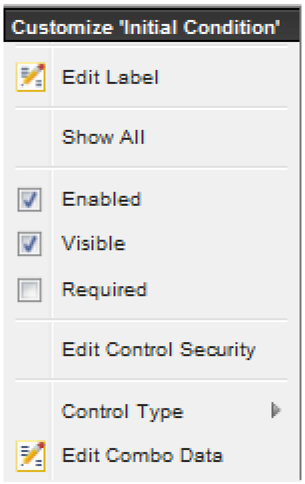


Customizing the User Interface

***Note:** This functionality is only available to administrative users and should be used with caution. Any changes made will affect every user. Refreshing the screen is required to see the change.*

Customizing Labels and Fields

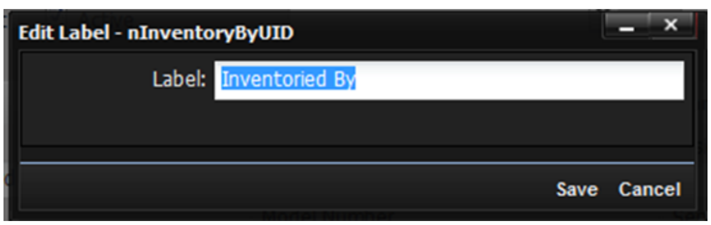
The MET/TEAM user interface can be customized by right clicking on a screen field label. The Customize dialog displayed can be used to configure properties about the field that was selected.



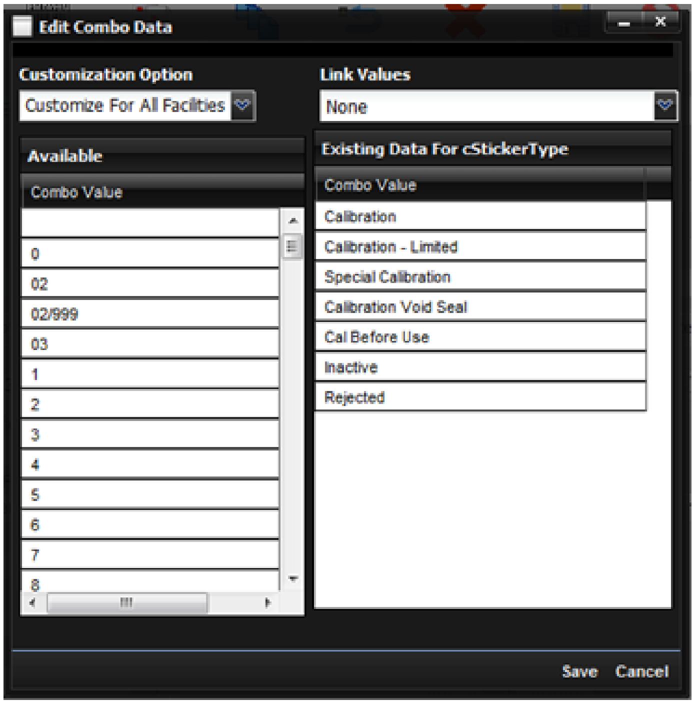
Note: The Enabled, Visible, Required, and Edit Control Security are not enabled for MET/TEAM System required fields. If by chance these are available, they do not have any effect on Read-Only blue fields.

Edit Label – Used to change the data label on the screen. Fill in the Label field on the Edit Label dialog. Press Save and the change is displayed.

Hint: The title of the dialog screen displays the controls *associated data name* which can be used when creating *data checks.*



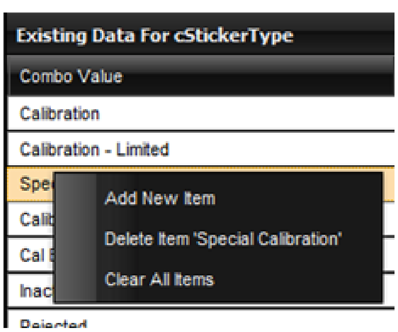
Edit Combo Data – Displays a dialog used for configuring the combo data associated with the selected control. New combo values can be added or removed. Combo boxes can be linked so that multiple screens share the same set of data.



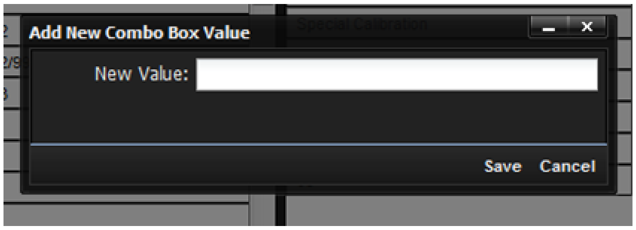
- Customization Option – The customization can be for All Facilities or just for This Facility.
  - Select All Facilities to have the customization take affect for every Facility in the MET/TEAM application.
  - Select This Facility to have the customization take affect only for the Facility that you are currently logged into.
- **Link Values** – Select this drop down to associate the selected control with another drop down box that has already been configured. Both lists will share the same set of data.
- **Available** –List the existing values that have been previously used. Drag a value from this grid over into the "Existing Data" grid and the value will now be used in the drop down.
- **Existing Data** – List the currently assigned combo box values.

To modify values, simply drag and drop between the two grids.

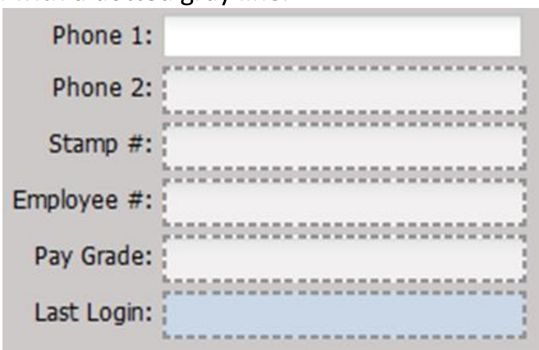
To remove a combo box value, right click any item in either grid and select "Delete Item".



To add a new drop down item, right click either grid and select the Add New Item option. Enter the new value in the dialog.



Show All – When selected, any hidden fields are revealed to allow further editing. Any field that is set as hidden is outlined with a dotted gray line.



Enabled – If checked, the control is enabled. If unchecked, the control is disabled and cannot be used. An error message is displayed when trying to make the control disabled if the control has already been marked as “Required”.

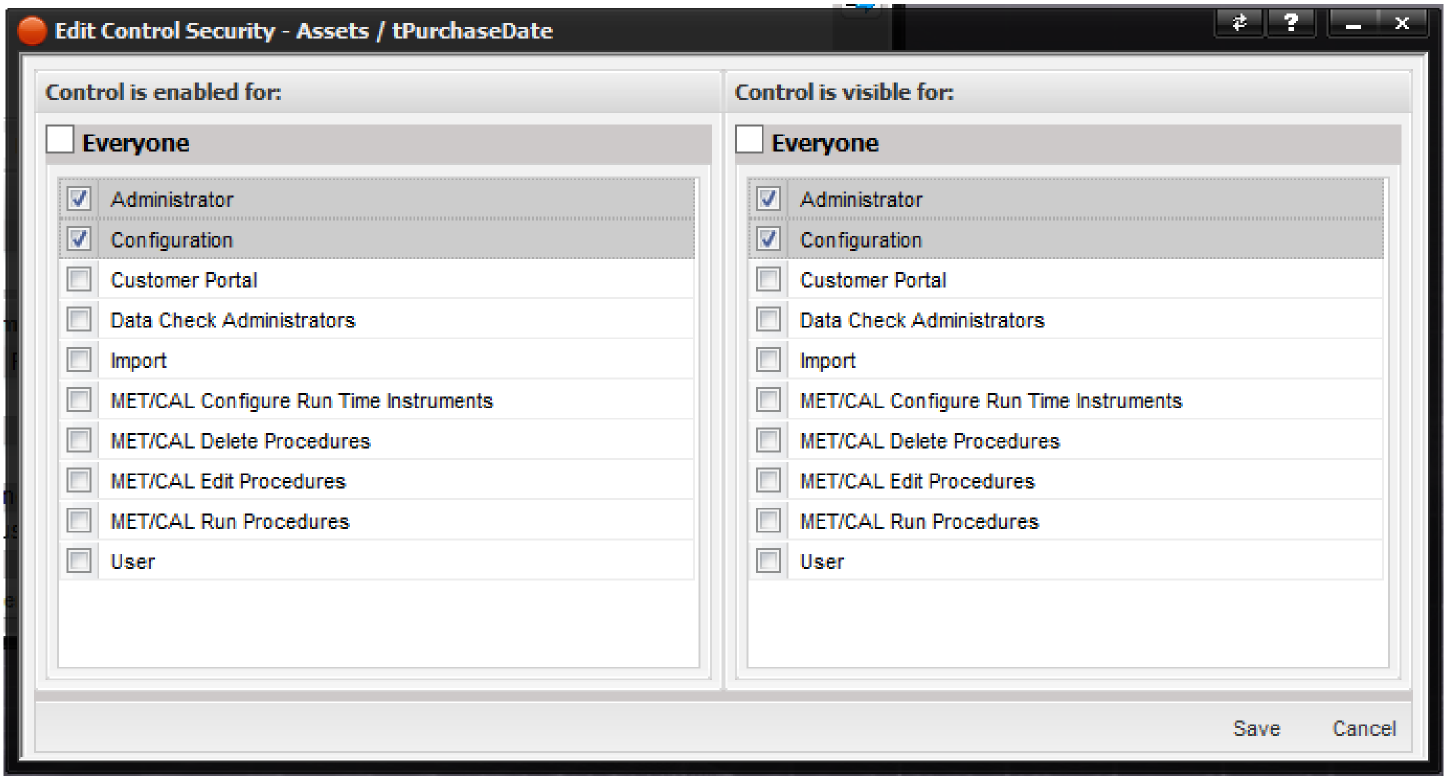
Note: Quick Link buttons are enabled or disabled independently from the control.

Visible – If checked, the control is visible. If unchecked, the control is not visible. An error message is displayed when trying to make the control invisible if the control has already been marked as “Required”.

Required – If checked, the control is required to have a non-empty value every time the screen is saved. If unchecked, the standard behavior will apply. An error message is displayed when trying to make the control required if the control has already been marked as disabled or not visible.

Note: Required is not enabled for checkboxes.

Edit Control Security – Allows for editing the user groups that the control is enabled for and visible for. Select the appropriate groups and push the Save button.



Control Type – Allows for changing the type of the control: Text box or Drop-down list.

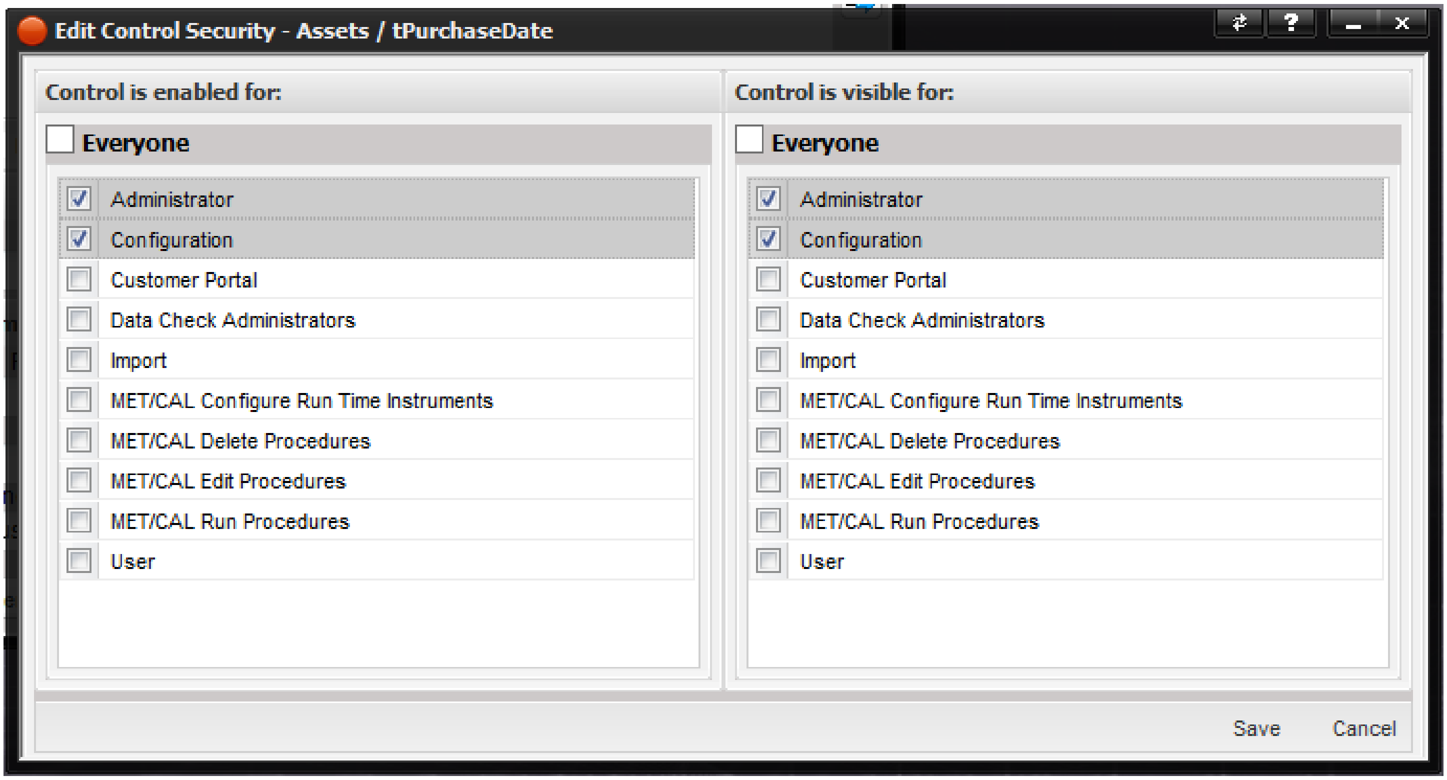
Securing Buttons

The buttons used on the MET/TEAM user interface can be secured by right clicking on the specific button. This customization requires users to log off to see the effect of any changes. Administrators or Configurators should make sure users are logged off prior to making

***Note**: Buttons cannot be made invisible. They can only be disabled.*

The Edit Control Security screen is displayed. Only the 'Control is enabled for:' is available for use.

Edit Control Security – Allows for editing the user groups that the control is enabled for. Select the appropriate groups and push the Save button.



Checkboxes that Cannot be Customized

The following list of check boxes cannot be customized because each is associated with field functionality on a screen.

Screen	Fields	Customize	Notes
Shipment	Shipped (checkbox)	No	Functionality associated with this field is tied to the Date Shipped. Therefore the field does not have the right-click customization menu.
Work Order - Labor	No Charge (checkbox)	No	Functionality associated with this field is tied to the Cost. Therefore the field does not have the right-click customization menu.
Facility	Customer (checkbox)	No	Functionality associated with this field is tied to No Tax. Therefore the field does not have the right-click customization menu.
Facility	Lab (checkbox)	No	Functionality associated with this field is tied to Inspect All. Therefore the field does not have the right-click customization menu.
Facility	No Tax (checkbox)	No	Functionality associated with this field is tied to Tax Rate. Therefore

			the field does not have the right-click customization menu.

Data Information

MET/TEAM Field Descriptions

MET/TEAM field descriptions can be found here.

[METTEAM Field Descriptions.pdf]

MET/TRACK to MET/TEAM Field Map

A field mapping of MET/TRACK to MET/TEAM fields can be found here.

[METTRACK to METTEAM Field Map.pdf]

Data Diagram

The Data Diagram can be found here.

[METTEAM Data Diagram.pdf]

Sub Contracting Best Practices

This section explains our recommended process for doing Sub Contracting using the MET/TEAM application.

Note: *The process described below assumes these Work Order statuses have been added by the System Administrator:*

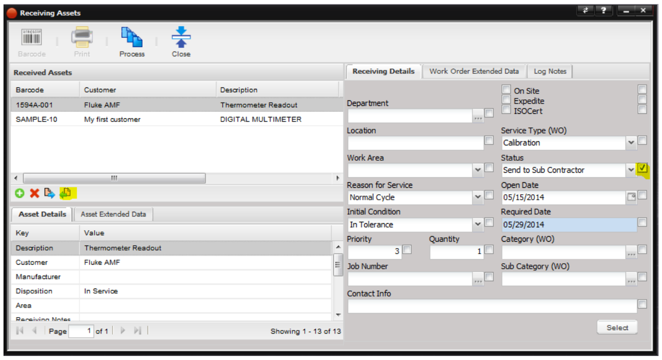
"Send to Sub Contractor"

"Sent to Sub Contractor"

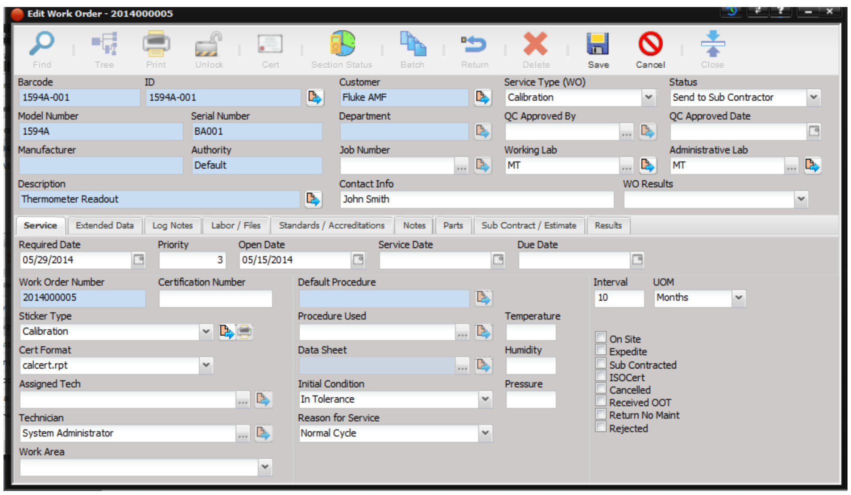
"Returned from Sub Contractor"

1. On the Type that is associated with the Asset that is being sub contracted, create a Procedure (for example: "Sub Contractor – Fluke", "Sub Contractor – Agilent").
2. Create a Work Order by selecting the Workflow menu Receiving sub menu.

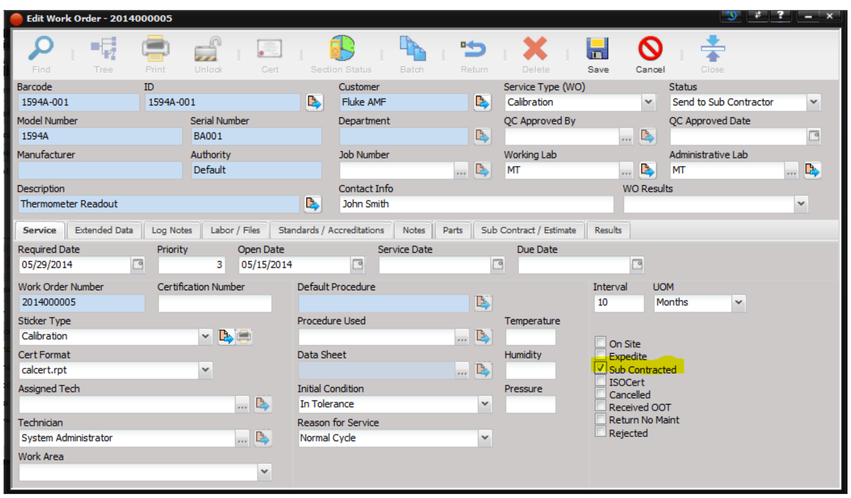
3. From the Receiving screen complete the receiving details and all information pertaining to this asset. Select the status "Send to Sub Contractor" and then the Process button and the asset will be processed.



4. After the Process button is selected, the *Edit Work Order* button is enabled. (Notice the yellow highlighted button in the screen shot above.) Select the Edit Work Order button and the Work Order is opened.
5. The Work Order is opened.

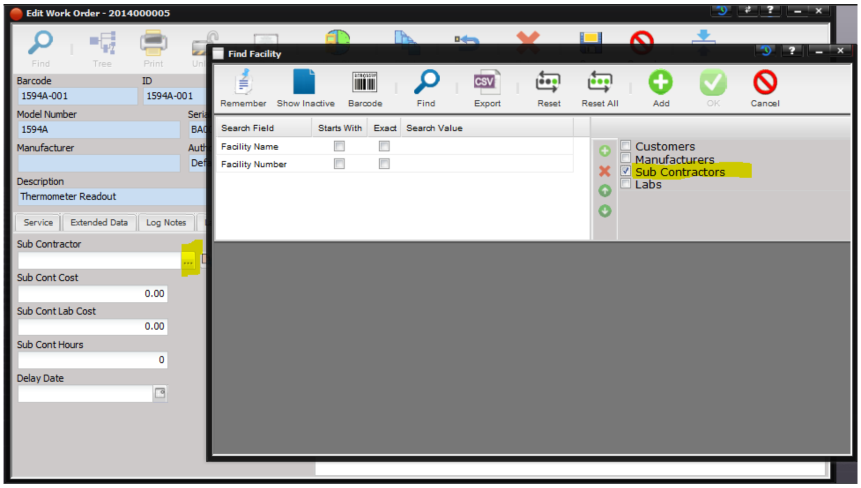


6. Check the Sub Contractor check box.

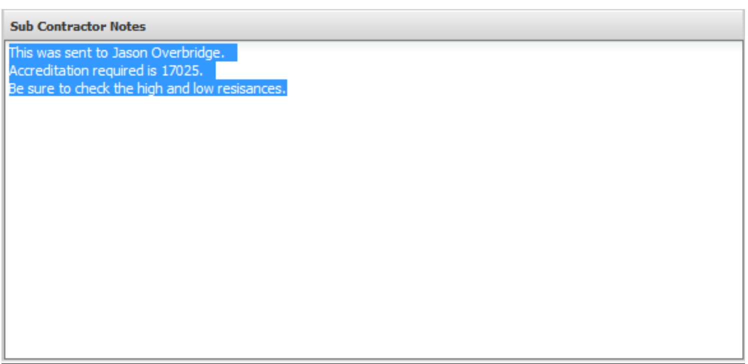


7. Select the Sub Contractor /Estimate tab and the Facility that is the Sub Contractor. The Sub Contractor is selected by pressing the "…" button next to the Sub Contractor field. This Facility must be setup ahead of time. The Find Facility

screen is displayed. If the Sub Contractor check box is not selected, select this check box so you are choosing only from the Facilities that have been designated as approved Sub Contractors.



8. Enter any notes in the Notes field. Notes may include; who the asset was sent to, how the asset was sent (UPS, FedEx), the shipment number or tracking number, any notes related to the process, type of accreditation, possibly expected return date, quote back or fixed price.



9. Enter the date you expect to receive the instrument back or enter the date the instrument was sent to the Sub Contracting Facility in the Delay Date field
10. If known, enter the price that you are charging the customer in the Sub Cont Cost field.
11. Using the Log Notes tab, add a Log Note and change the status to “Sent to Sub Contractor”.
12. Save the Work Order.
13. Wait for the return of the asset from the Sub Contractor and update the Notes field on the Sub Contractor / Estimate tab as necessary.
14. When Asset is returned from the Sub Contractor, open the Work Order and add a Log Note changing the Status to “Returned from Sub Contractor”.
15. Select the Sub Contractor tab and complete the information:
    a. Sub Cont Cost – the amount the lab is charging the customer
    b. Sub Cont Lab Cost – the amount the lab paid Sub Contractor
    c. Sub Cont Hours – if you will be tracking internally the hours related to this Sub Contracting event enter them here
16. Select the Service tab.
    a. Select the Procedure Used if necessary.

b. The Data Sheet will typically be blank.
c. Attach the Report returned from Sub Contractor using the Labor/Files tab. This file should be not marked "Private". Therefore, in Customer Portal, the Customer will be able to view and print the certificate.
d. If the customer has been invoiced, use the Labor/Files tab and attach the Invoice marking this file as private. This invoice is from the Sub Contractor stating the amount due for the work they performed.
e. Continue filling in the all information on the Service tab making sure to complete the Service Date and Due Date.
f. If you are outsourcing your own equipment, the Sub Cont Lab Cost may not be applicable.

17. Follow your standard metrology practices filling in the data on the remaining tabs. The Notes field on the Notes tab can be utilized for ISO accredited or anything specific to this Asset.
18. Save the Work Order.
19. When you are ready to Return the asset, enter a Log Note changing the Status to Complete.
20. Use the Return button to return the Asset which is now ready for Shipping.
21. If not already invoiced, follow normal business process to Invoice the customer.

Customer Portal

The Customer Portal add-on is for the Servicing Facility to allow their customers to track Assets, status of work, recalls and to view and print certificates. The Customer Portal has the same look and feel as MET/TEAM except the information is mostly view only and limited for customers.

To login to the Customer Portal, a user must be associated with a contact. Refer to the Setup Menu Contacts submenu.

Customer Portal and Windows Authentication

The use of Windows Authentication with Customer Portal is driven by the System Default *Login – Use Windows Authentication*. Refer to the section MET/TEAM and Windows Authentication to understand how your system must be setup to work with Windows Authentication.

- If the System Default *Login – Use Windows Authentication* is active and the System Default Value is set to 2, Customer Portal uses Windows Authentication. The user logging in must be associated with a Contact and the user's MET/TEAM username must match their Windows username.
- When Windows Authentication is **not active**, the MET/TEAM Customer Portal Log-In screen is displayed when the MET/TEAM Customer Portal icon is selected from the user's desktop or the URL is entered into a Web browser.
- When Windows Authentication is **active**, the MET/TEAM Customer Portal Log-In screen is ***not*** displayed when the MET/TEAM Customer Portal icon is selected from the user's desktop or the URL is entered into a Web browser. The Customer Portal main screen is displayed.

Replacing the Fluke Calibration logo on the Customer Portal Login screen

Out of the box, the Customer Portal web site includes the Fluke Calibration logo on the login screen. This logo may be changed to your company's logo following the instructions below.

1. Create a file with your own company's logo. This file must be a GIF file 205 pixels wide by 85 pixels high.
2. Name the file **customer_portal_logo_205w_x_85h.gif**.
3. Copy this file into the Customer Portal web site's folder. **%IIS_ROOT%\CustomerPortal\Content\images**, replacing the existing file. By default, the **%IIS_ROOT%** folder is typically **C:\inetpub\wwwroot**. If the installation of Customer Portal was customized the folder may be different.

Using Group Security in Customer Portal

The MET/TEAM Customer Portal application can be customized such that fields and check boxes are visible in MET/TEAM but not in MET/TEAM Customer Portal.

Each field contains a property called **Visible** which is set by right clicking on the label of the field. The **Visible** property causes the field to be visible or invisible in both views.

The security of each field and checkbox can be assigned based on Groups. A field and checkbox can be hidden by selecting whether or not it is visible through **Control Security**. **Control Security** is set by right clicking on the label of the field or checkbox. To hide fields and checkboxes only in Customer Portal, assign each Customer Portal user to a specific group and then use **Control Security** to block the use of certain fields.

The MET/TEAM application ships with a group that can be used for Customer Portal. The name of the group is "Customer Portal".

Steps for Customizing Customer Portal

To customize Customer Portal, perform the following steps.

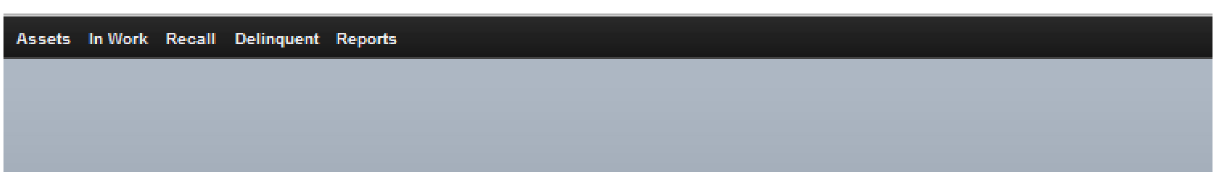
1. Log into the MET/TEAM application as a user that belongs to the Administrator Group.
2. You can either use the group "Customer Portal" that exists in MET/TEAM or create your own Customer Portal group.
    a. To create a group:
        i. Select the Groups menu option from the Configure menu.
        ii. On the Find screen, select the "+" button to display the New Security Group screen.
        iii. Type in a Group Name (i.e. My Portal Group)
        iv. Select the Save button.
        v. Select the Close button to exit the Edit Group screen.
3. Create or edit a User for each for Customer Portal.
4. Associate the new Group or the standard "Customer Portal" Group to the User.
5. Create a Contact and associate it to the corresponding User.
6. For all fields or checkboxes that need to be secured, right click on a field label or checkbox text and select the Edit Control Security option.
7. On the Edit Control Security screen check all Groups except for the Customer Portal group that you assigned to the User.
8. Select the Save button.

You are now ready to login to Customer Portal. Login into the MET/TEAM Customer Portal as this User. Go to the screen with the secured fields and notice the field is not visible.

For complete details on Customizing the MET/TEAM User Interface, refer to the section "Customizing the User Interface".

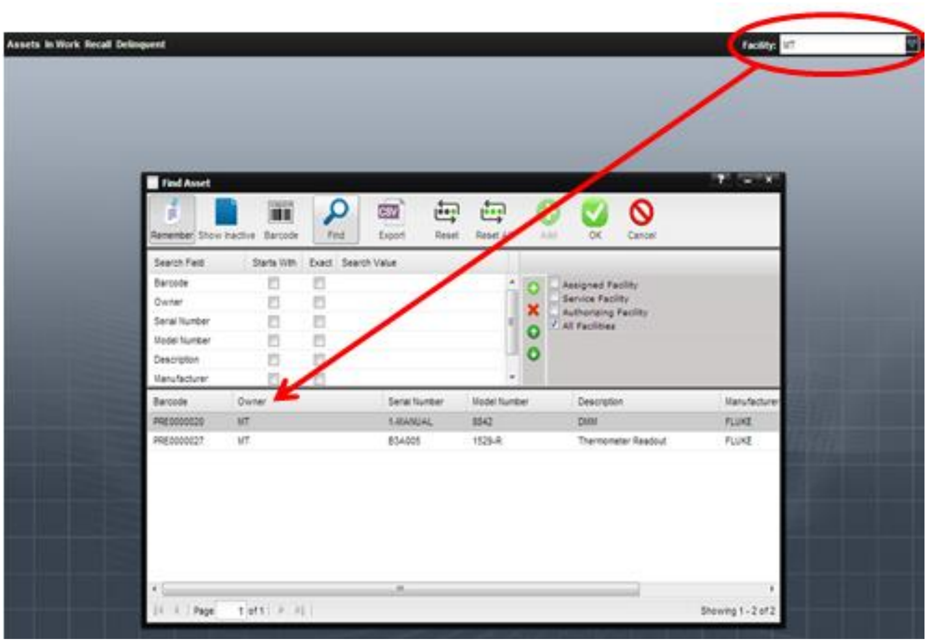
Customer Portal Menu

The Customer Portal menu contains options for viewing Assets, viewing Work Orders that are "in work", viewing the recall and delinquent list, and viewing Reports.

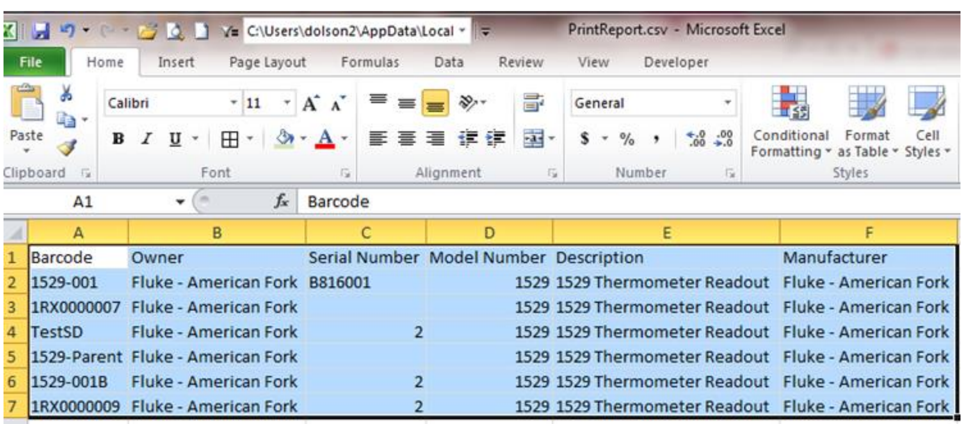


Customer Portal Assets

The Assets menu option begins by displaying the Find Asset screen for selecting the Asset that the user wants to view. The Assets displayed are only those that are *owned by the Facility displayed in the Facility dropdown in the top right corner of the application*.



To "export" a list of your Assets, select the Print button. A file in .CSV format is created and can be opened. For optimal compatibility, a tab character is used as the delimiter in the .CSV file.



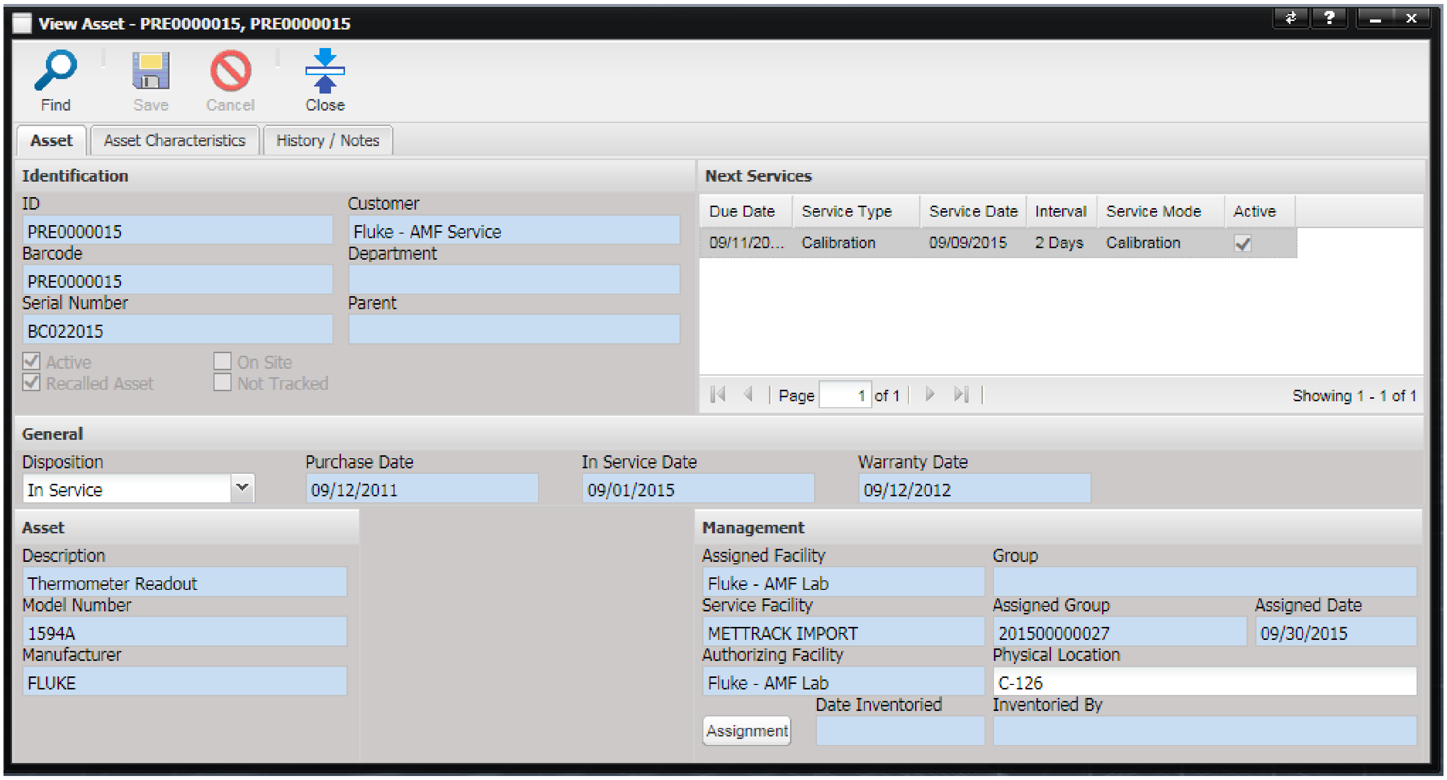
Barcode	Owner	Serial Number	Model Number	Description	Manufacturer
1529-001	Fluke - American Fork	B816001	1529	1529 Thermometer Readout	Fluke - American Fork
1RX0000007	Fluke - American Fork		1529	1529 Thermometer Readout	Fluke - American Fork
TestSD	Fluke - American Fork	2	1529	1529 Thermometer Readout	Fluke - American Fork
1529-Parent	Fluke - American Fork		1529	1529 Thermometer Readout	Fluke - American Fork
1529-001B	Fluke - American Fork	2	1529	1529 Thermometer Readout	Fluke - American Fork
1RX0000009	Fluke - American Fork	2	1529	1529 Thermometer Readout	Fluke - American Fork

Select the Find button, highlight the Asset you are interested in and select the OK button to view information about the Asset.

The View Asset screen is displayed.

Asset Tab

The Asset tab contains general information about the Asset.



There are two editable fields on the Asset tab: Disposition and Asset Physical Location. By default, Customer Portal users can change the values of these fields for their own assets. After changing a value, select the Save button to save the change, or select the Cancel button to cancel the change.

Identification Section

- **ID** – An identifier that can be used to find the Asset.
- **Barcode** – The unique identifier for the Asset. No two Assets can have the same barcode.
- **Serial Number** – The manufacturer's serial number.
- **Customer** – The company or entity that owns the Asset.
- **Department** – The department where this Asset belongs.
- **Parent** – If not empty, indicates this Asset is part of a system or a child of another Asset.
- **Active** – If checked, the Asset is actively being used. Some Assets may be recalled but are not currently in the actively used Asset list.
- **Recalled Asset** – If checked, the Asset is included on the recall reports.
- **On Site** – If checked, the Asset maintenance is performed on site.
- **Not Tracked** – If checked, the Asset is not tracked as a part of MET/TEAM. This Asset would not show up on recall reports. The Asset would just exist in the system but not be accounted for. This usually pertains to expendable items such as screws, nuts/bolts, rubber gloves or un-serialized Assets such as desks, chairs, file cabinets, etc.

General Section

- **Disposition** – The current status of the Asset. This field is editable and can be updated by Customer Portal users.
- **Purchase Date** – The date the Asset was purchased.
- **In Service Date** – The date the Asset was made active and placed into service.
- **Warranty Date** – The date the warranty for this Asset expires.

Next Services Section

- **Due Date** – The date the Asset is due for maintenance.
- **Service Type** – The service that is expected to be performed on or before the Due Date.
- **Service Date** – The date the service was last performed.
- **Interval** – Indicates the service interval.
- **Service Mode** – The service type to be performed.
- **Active –** Indicates if service is active.

Asset Section

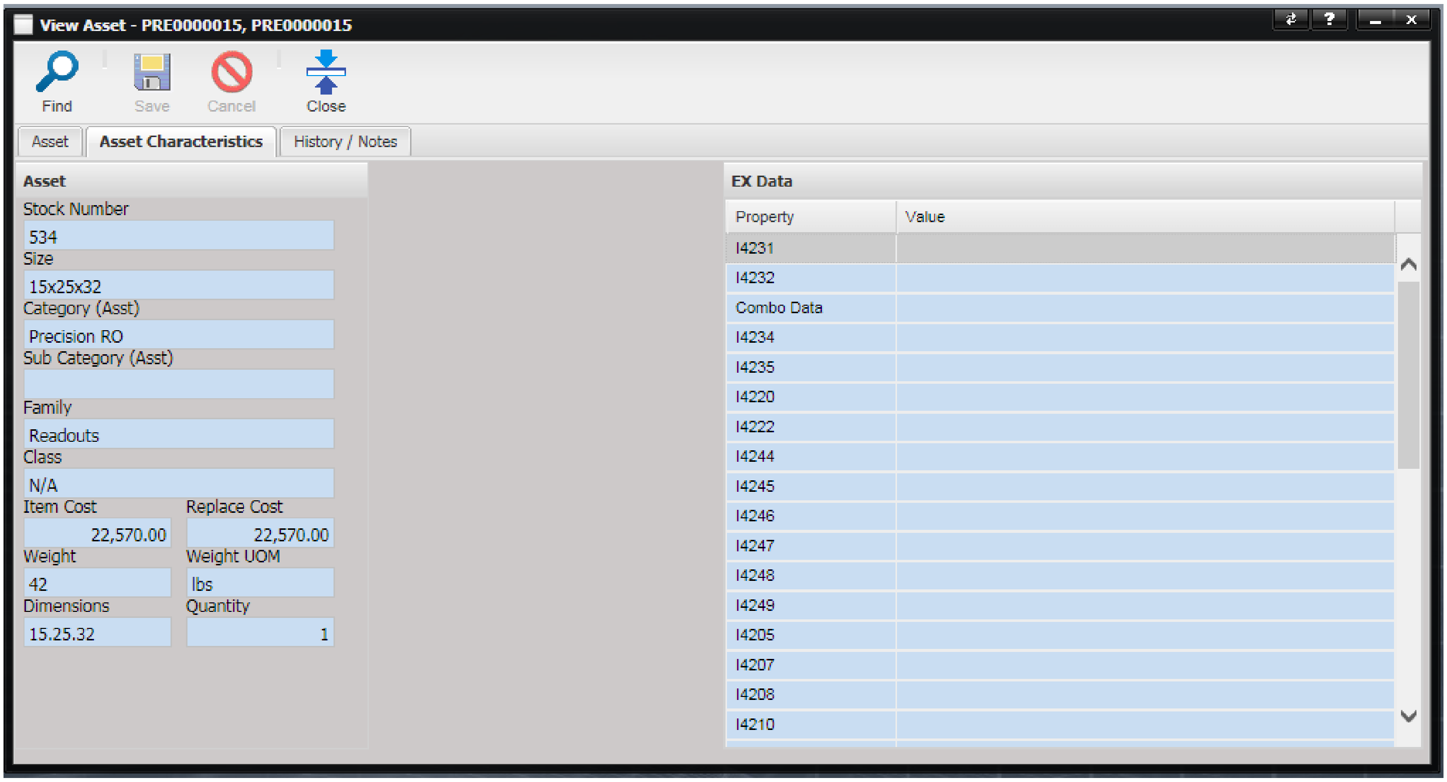
- **Asset Description** – The description of the Asset.
- **Model Number** – The manufacturer's model designation of the Asset's characteristics and capabilities.
- **Manufacturer** – The company that created the Asset.

Management

- **Assigned Facility** – The facility that assigns the Assets work. This facility would schedule this Asset as a part of the work load for itself or another facility.
- **Service Facility** – The facility that performs the service.
- **Authorized Facility** – The facility that authorized the funding for the work to be done on this Asset.
- **Group** – Used for reporting purposes and allows this Asset to be grouped with other Assets.
- **Assigned Group** – The name of the group this Asset is assigned to.
- **Assigned Date** – The date the Asset was added to the Assigned Group.
- **Asset Physical Location** –The last known physical location of the Asset. This field is editable and can be updated by Customer Portal users.
- **Date Inventoried** – Date the Asset was last inventoried.
- **Inventoried By** – Indicates person who last inventoried this Asset.

Asset Characteristics Tab

The Asset Characteristics tab displays additional information that can be collected for the Asset.

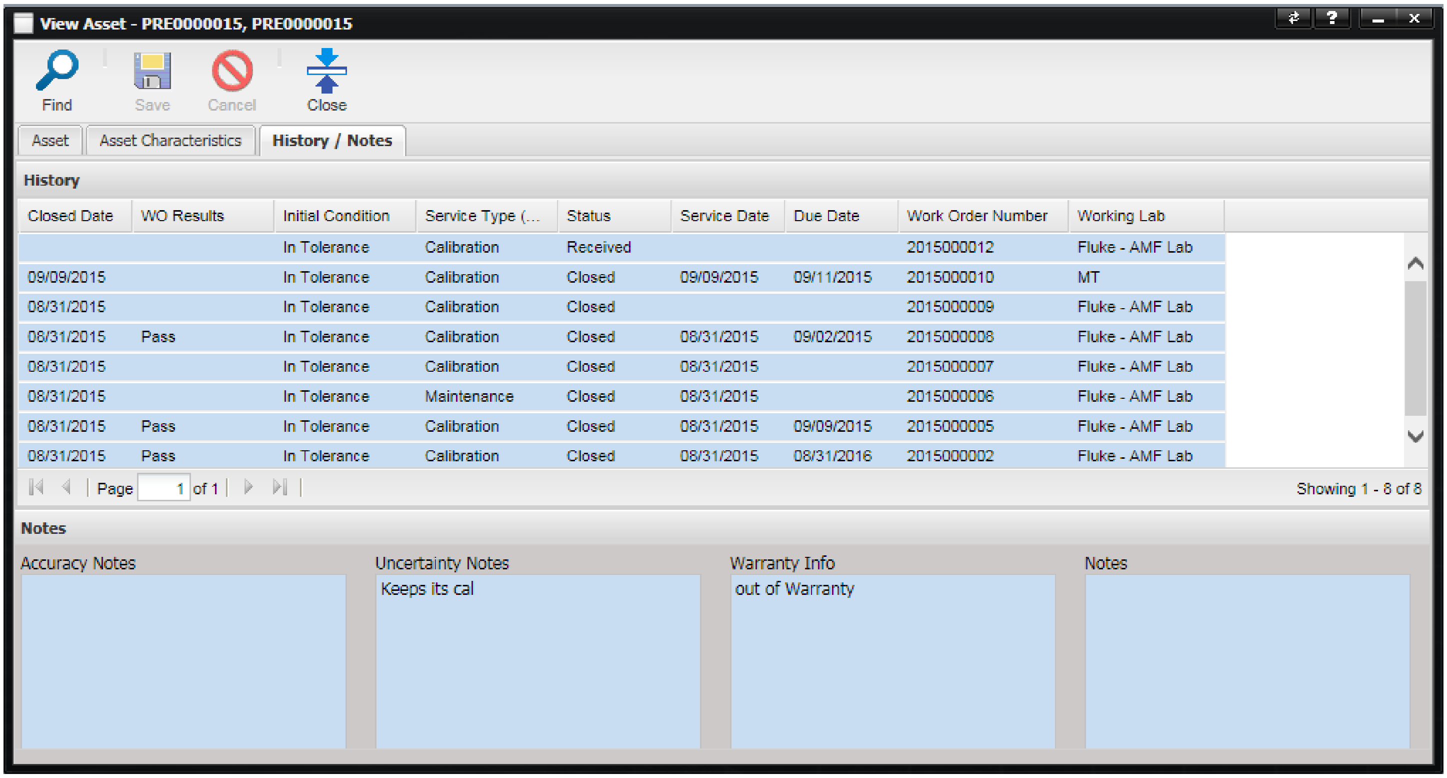


Asset Characteristics and Extended Data is viewable from this tab.

- **Stock Number** - The stock number of the Asset.
- **Size** - The size of the Asset.
- **Category (Asst)** – The general category of the Asset.
- **Sub Category (Asst)** – The sub category of the category for this Asset.
- **Family** – Specifies like data for one or more Assets.
- **Class** - Another field to specify like data for one or more Assets.
- **Item Cost** – The purchase price of the Asset at the time of purchase.
- **Replace Cost** – The cost required to replace the Asset.
- **Weight** – The physical weight of the Asset.
- **Weight UOM** – Unit of measurement for the weight.
- **Quantity** – The quantity of items contained in this Asset. Allows for grouping Assets in a set.
- **Dimension** – The physical dimension of the Asset.
- **EX Data** – Extended data associated with the Asset.

History / Notes Tab

The History / Notes tab displays the service history and notes associated with the Asset.



History Section

This grid shows all service events (Work Orders) recorded against this Asset. To view the event, double click the selected history event and the associated Work Order is opened. All history events are read only and cannot be changed by the user. See the “In Work (Customer Portal)” section of this manual for details regarding information on the page that opens, because they are the same.

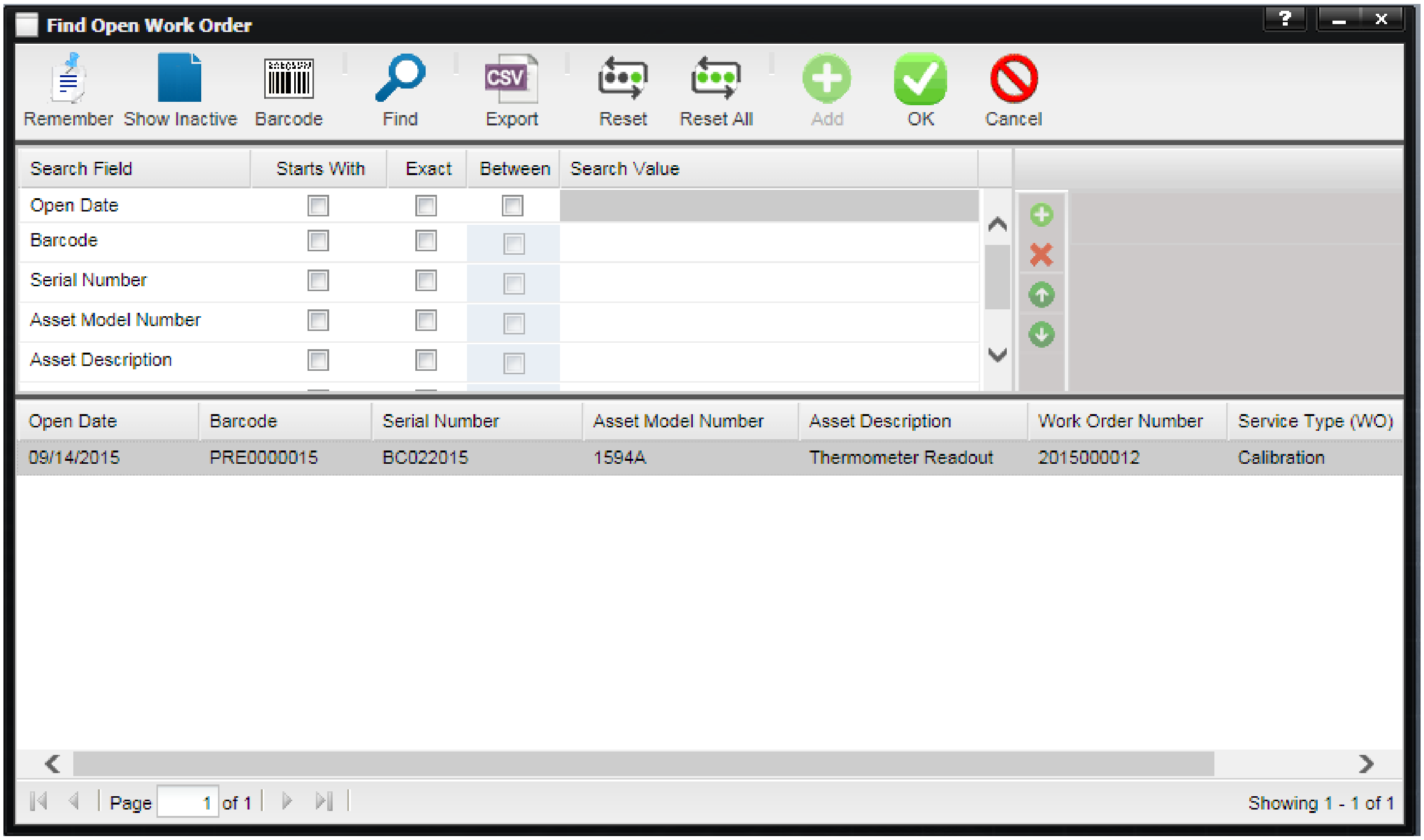
Notes

The Notes section contains information related to accuracy, uncertainty, warranty, and general notes.

- **Accuracy Notes** – Notes specific to instrument accuracy.
- **Uncertainty Notes** – Notes specific to instrument uncertainty.
- **Warranty Info** – Warranty information for this Asset.
- **Notes** – These are general notes for this Asset.

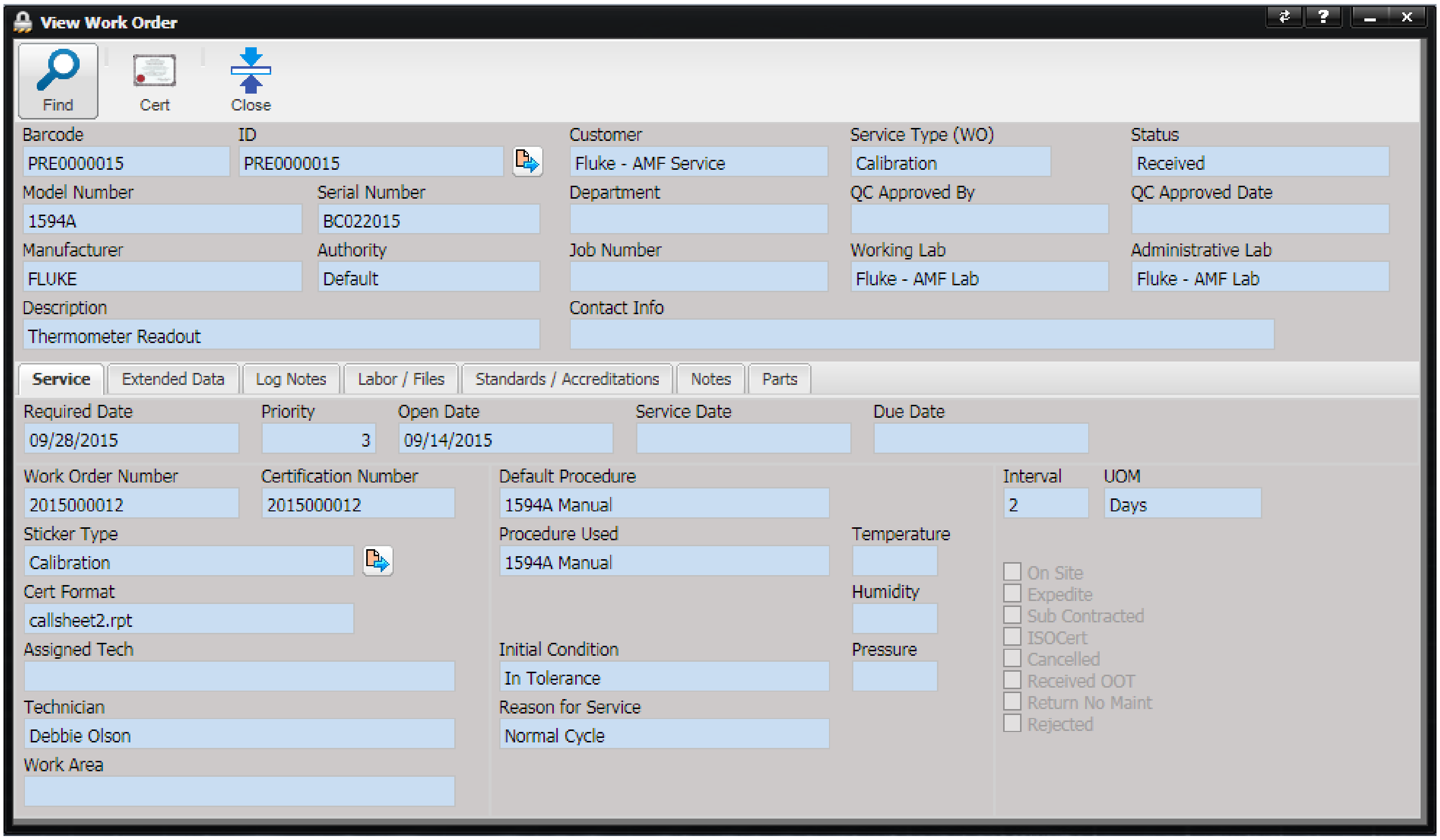
Customer Portal In Work

The In Work menu option begins by displaying the Find Work Order dialog for selecting the Work Order that the user wants to view. The Work Orders displayed are based on the Customer.



Select the Find button, highlight the Asset you are interested in and select the OK button.

The View Work Order dialog is displayed.



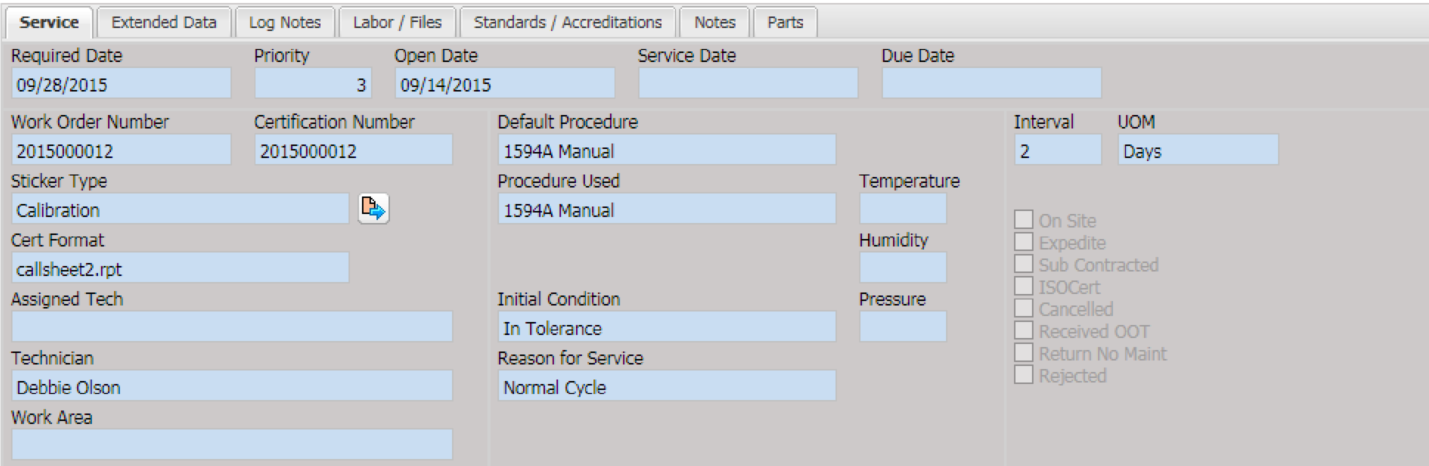
Asset Data

The Asset Data is all the information pertaining to the Asset itself.

- **Barcode** – The *unique* identifier for this Asset. No two Assets have the same barcode.
- **ID** – An identifier that can be used to find the Asset.
    - The Asset can be viewed by selecting the Quick Link button.
- **Model Number** – The manufacturer's model designation of the Asset's characteristics and capabilities.
- **Serial Number** – The manufacturer's serial number for this Asset.
- **Manufacturer** – The Company that created the Asset.
- **Authority** – Describes the source (ownership) of this type allowing for more than one data authority to exist.
- **Description** – The description of the Asset.
- **Customer –** Indicates the owner of the Asset when the Work Order was processed.
- **Service Type (WO)** – Shows the service performed which affects which validations run when saving and closing a Work Order.
- **Status** – Displays the current status of the Work Order.
- **Department** – Indicates the department of the Asset when Work Order was processed.
- **QC Approved By** – The QA person who reviewed and approved this service event.
- **QC Approved Date** - The date the QA person reviewed this service event.
- **Job Number** – The job number that all expenses are charged to.
- **Working Lab** – The lab that performed the work.
- **Administrative Lab** – The lab administratively responsible for the Work Order.
- **Contact Info -** Additional information for the Work Order that may not be on the facility record or may be a one-time piece of information.

Service Tab

The Service Tab displays all the information related to the service that was performed and the procedure used.

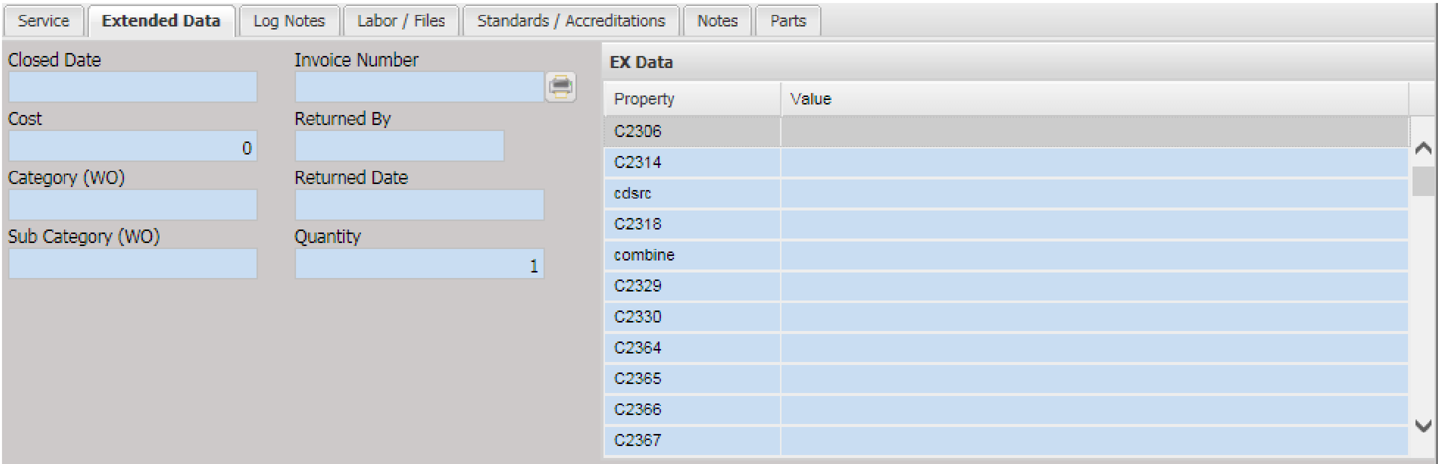


- **Required Date** – Date the customer requested the Asset to be back.
- **Priority** - The priority of the Asset in service.
- **Open Date** – Date the Work Order was opened.
- **Service Date** – Date the maintenance was completed.
- **Due Date** – Date the Asset is next due for this type of service.
- **Work Order Number** – The system generated number for this Work Order. This number is unique throughout the data and is used to track all information about this Work Order.
- **Certification Number** – The certificate number for the calibration.
  - To print a certificate of calibration, use the "Cert" button on the toolbar.
- **Sticker Type** – The type of sticker placed on the Asset after the service is complete.
  - To print the sticker, select the Print button.
- **Cert Format** – Can contain the report file name for this calibration.
- **Assigned Tech** – The technician assigned to do the service.
- **Technician** –The technician of record for this service event.
- **Work Area** – The area of the lab where the service is being performed.
- **Default Procedure** – The name the procedure recommended for this type of service.
- **Procedure Used** - The name of the procedure the technician used for this Work Order.
- **Initial Condition**-The condition the Asset was in when received.
- **Reason for Service**-The reason the Asset is in for service.
- **Temperature** – The atmospheric temperature at the time the service was performed.
- **Humidity** – The atmospheric humidity at the time the service was performed.
- **Pressure** – The barometric pressure at the time the service was performed.
- **Interval** – The interval of when the next service should be performed.
- **UOM** – The unit of measure for the interval.
- **On Site** – Indicates the service was done or needs to be done on site.
- **Expedite** – Indicates the Asset needs to be expedited through the service process.
- **Sub Contracted** – Indicates this service should be subcontracted.
- **ISOCert** – Indicates the Asset requires an ISO or Accredited certificate.
- **Cancelled** – The Service Facility cancelled this Work Order.
- **Received OOT** – Indicates that an Out of Tolerance condition exists with this Asset.

- **Return No Maint** – Indicates the Asset owner requested the Service facility to close the Work Order and have the Asset *returned with no maintenance* being performed.
- **Rejected** – Indicates that as a result of this Work Order, the Asset was rejected.

Extended Data Tab

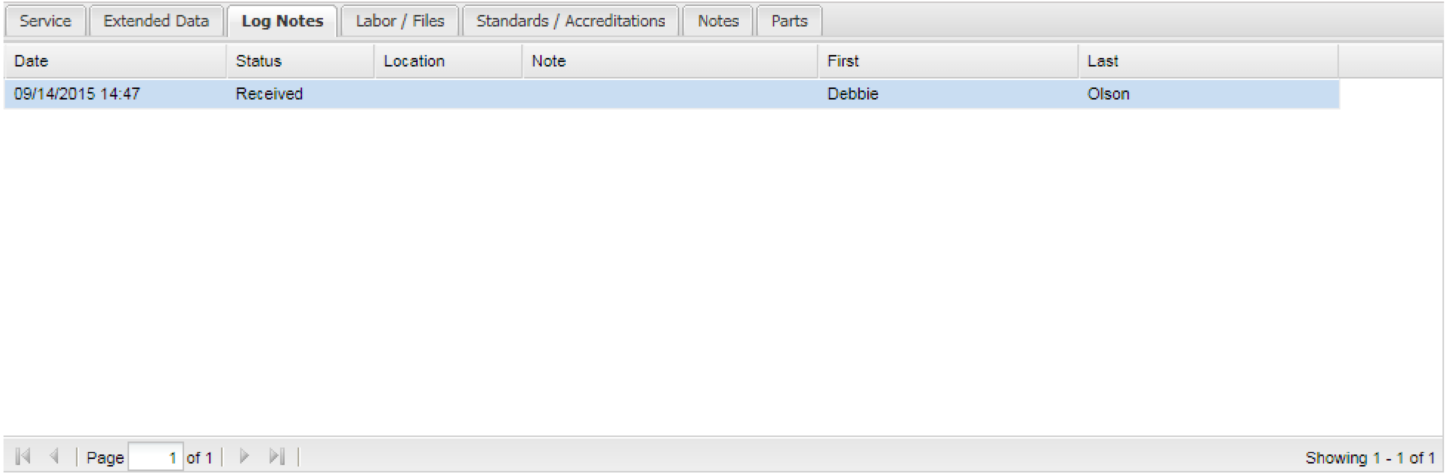
The Extended Data tab displays the extended data elements for Work Order.



- **Closed Date** – Date the Work Order was closed.
- **Invoice Number** –Displays the Invoice number this Work Order was billed on.
  - Use the print button to print the invoice.
- **Cost** – Cost of the service.
- **Returned By** – Displays the name of the person who performed the return process.
- **Returned Date** - Displays the date the Asset was returned to the customer.
- **Category (WO)** –The category of the labor.
- **Sub Category (WO)** – The subcategory of the labor.
- **Quantity** – The quantity of items being serviced in the Work Order.
- **EX Data** - The data elements that are added by the user.

Log Notes Tab

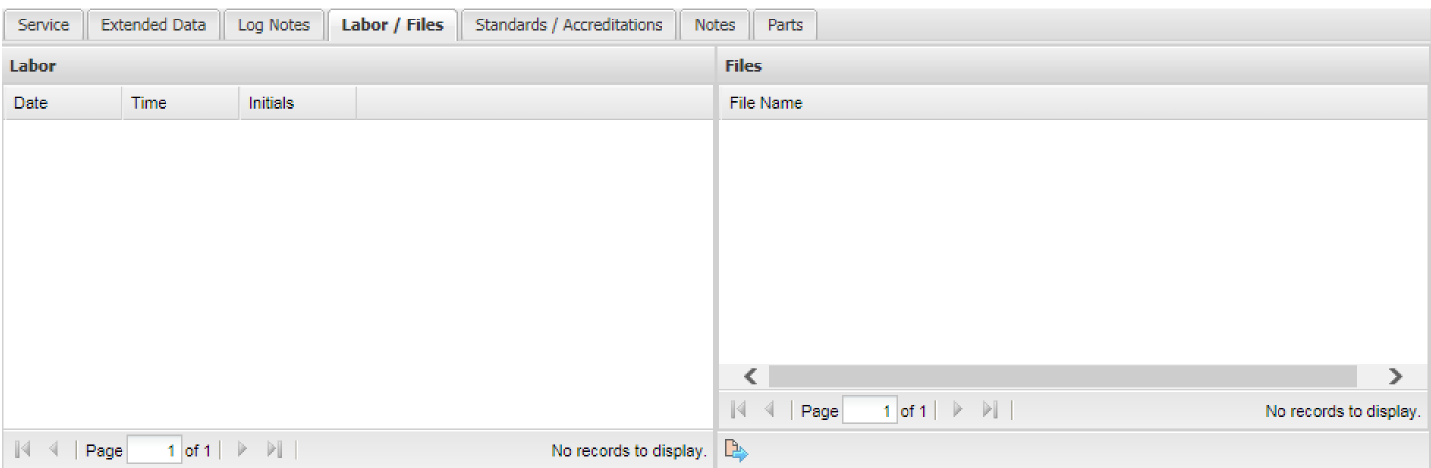
The Log Notes tab displays all the activity logged against an Asset. The log is read from top to bottom with the newest event being at the top.



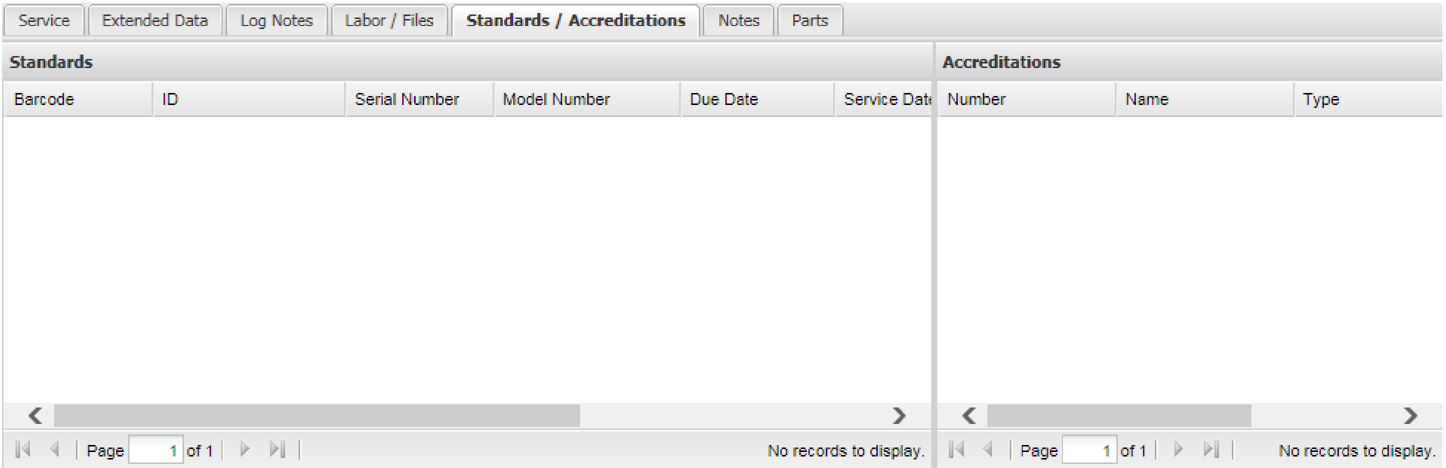
Labor/Files Tab

***Note**: Labor records are not displayed in Customer Portal. Only File records are displayed.*

The Labor / Files tab is for recording labor expended on the Work Order (left side of the tab) and for attaching files related to the Work Order.
To open the file in its native application, highlight or double click the File and select the Quick Link button at the bottom of the screen.

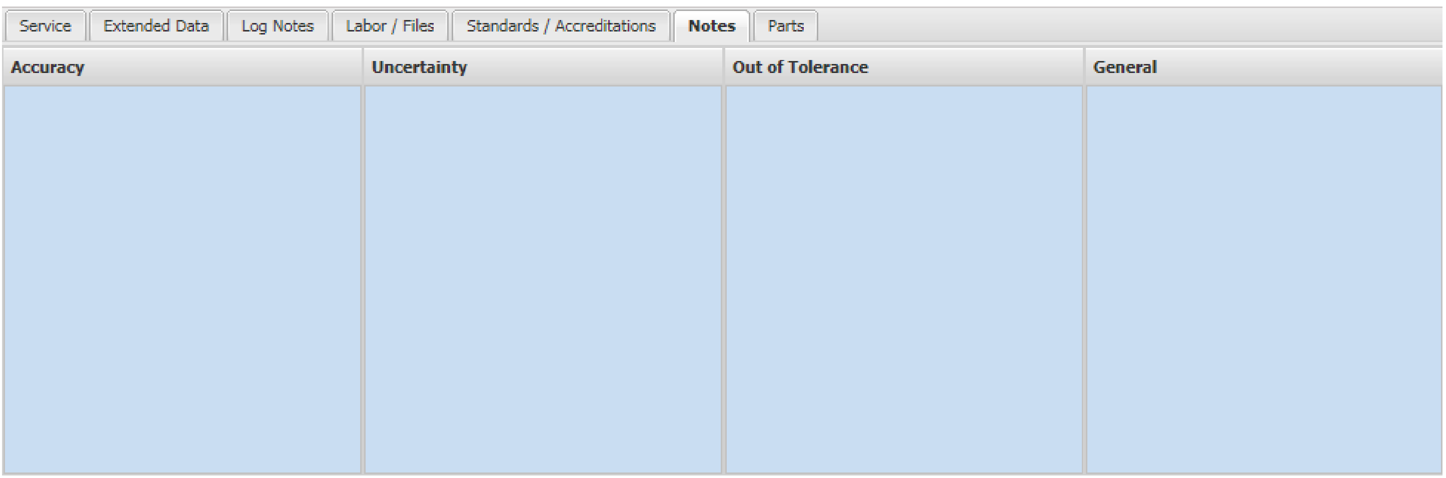


Standards / Accreditations Tab
The Standards/ Accreditations tab is for recording standards and accreditations associated with the Work Order.



Notes Tab

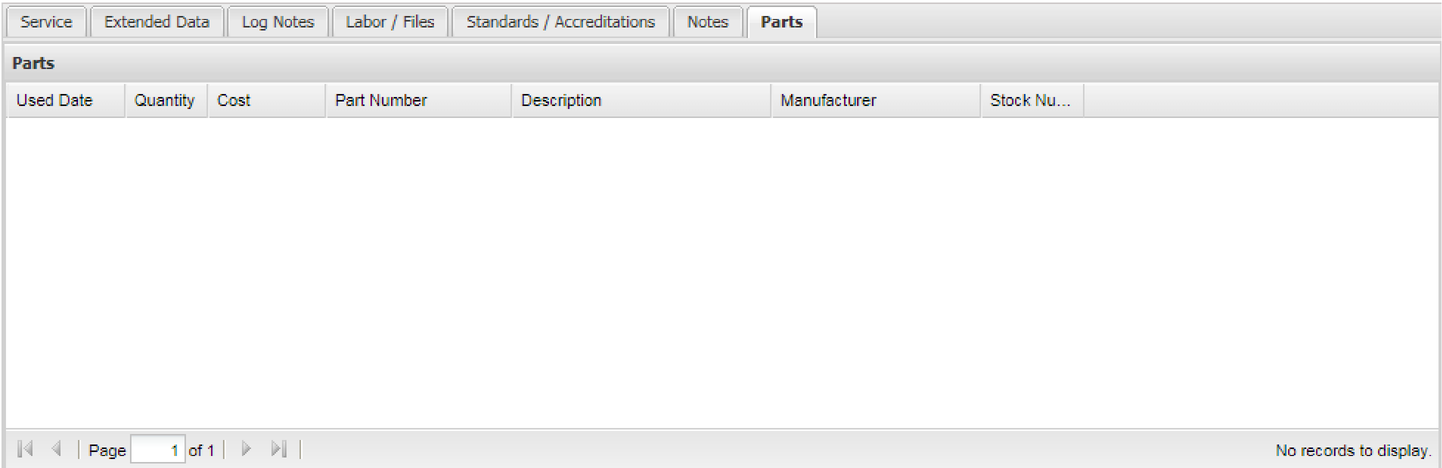
The Notes tab allows selecting predefined blocks of text to be inserted for Accuracy, Uncertainty, Out of Tolerance, and General notes.



Accuracy Notes – The accuracy statement for this service event. By default, this information is displayed on the certificate of calibration.
Uncertainty Notes – The uncertainty notes for the particular Work Order.
Out of Tolerance Notes – The out of tolerance conditions that may have existed during this service event. If a Data Sheet is used, MET/TEAM automatically records the out of tolerance information and stores the text of the event in this area. This information is used to produce an out of tolerance report to the customer. If an out of tolerance condition exists, this data must exist before an out of tolerance report prints.
General Notes – Provides the technician with an area to record notes for this service event.

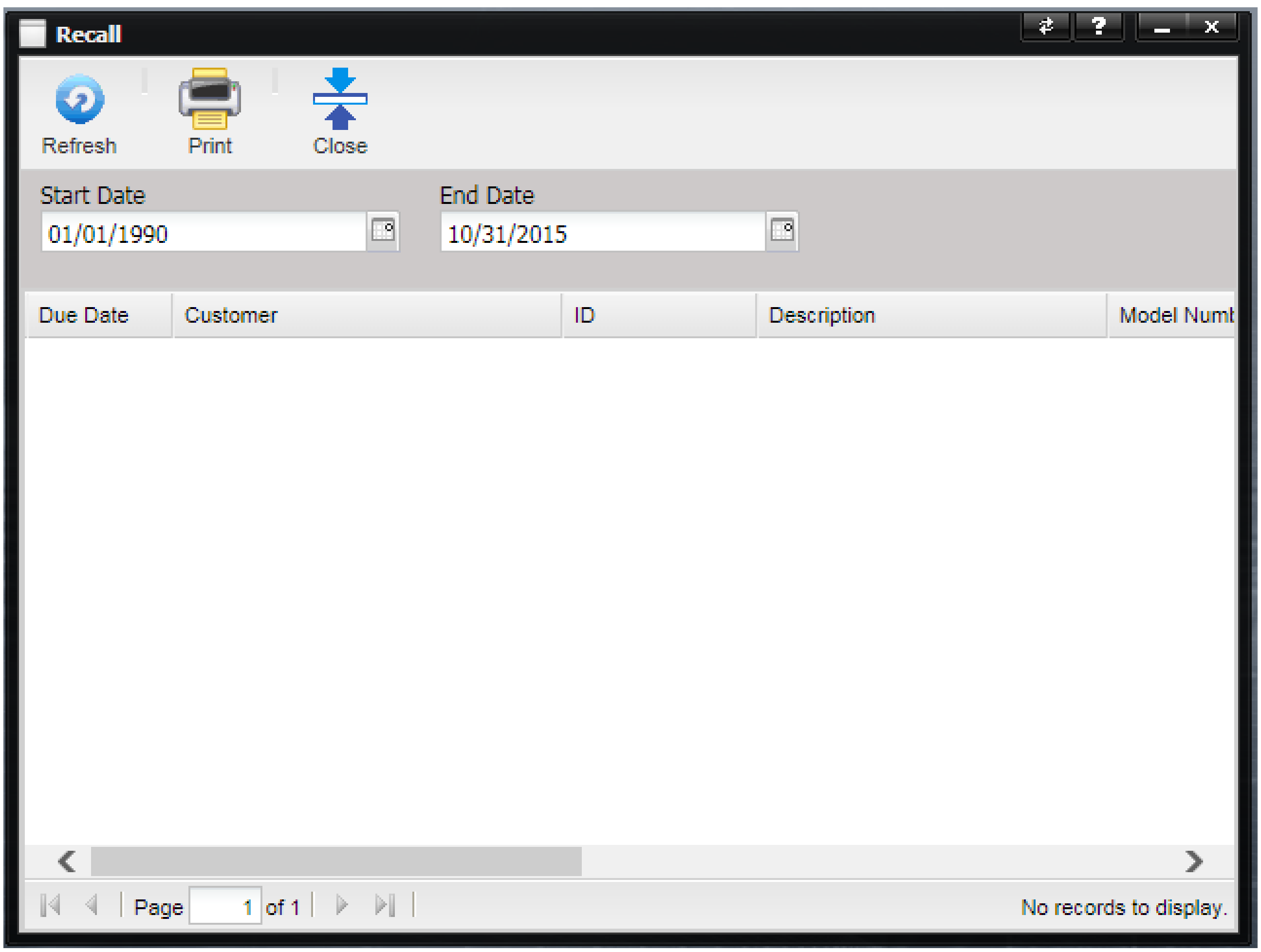
Parts Tab

The Parts tab is for tracking parts used during the service performed on this Work Order.



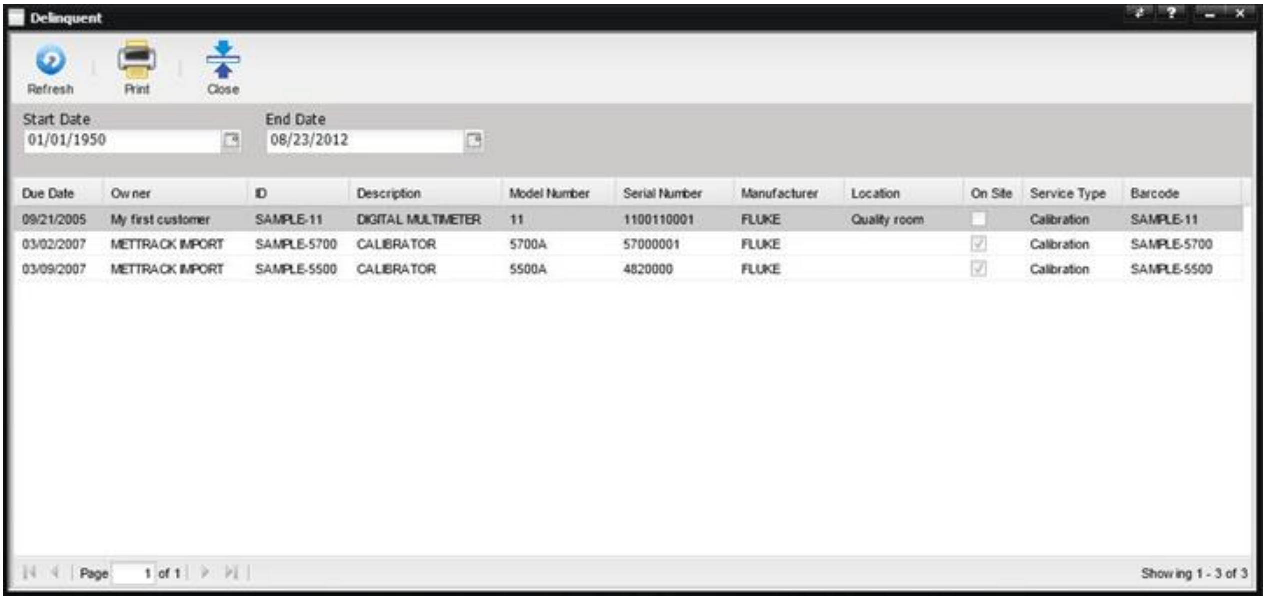
Customer Portal Recall

Recall is used to review and produce customer recall reports. Recall reports can be printed, emailed, or published on the web based on a date range.



Customer Portal Delinquent

Delinquent is used to review and produce customer delinquent reports. Delinquent reports can be printed, emailed, or published on the web based on a date range.



Customer Portal Reports

The *Reports* menu provides access to a number of printable reports with information of interest to customers using the Customer Portal application. The available reports are displayed on the screen. When a report is printed, the report opens in a new browser tab or new window. Depending on which browser you use, the title may be different. In all instances, the browser attempts to assign a title based either on the report name or the MET/TEAM URL that was invoked to generate the report.

Customer Portal Reports Directory

Reports printed directly from a screen in Customer Portal are referred to as system reports. These are located in the reports system directory set up in system defaults.

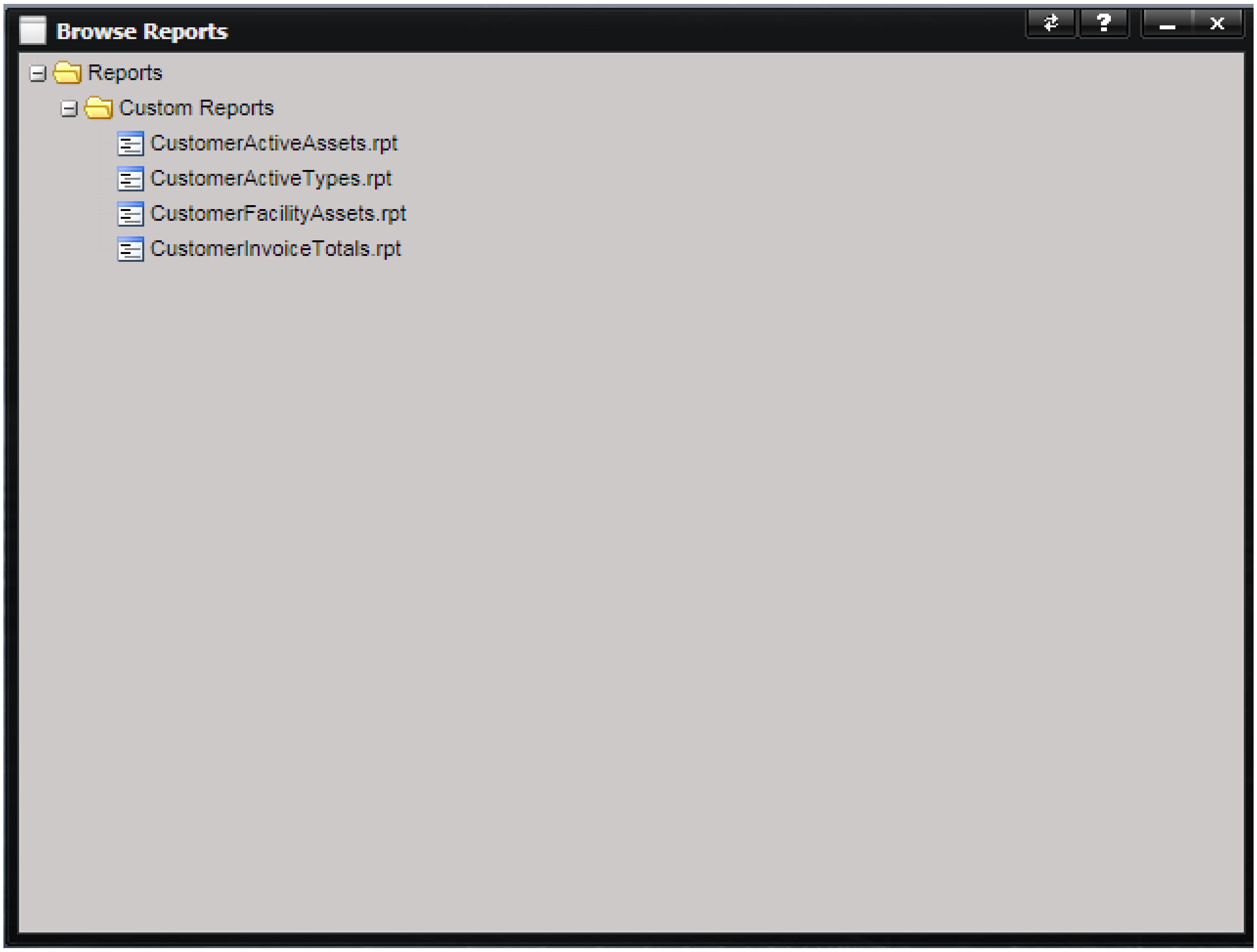
Note: *These reports should never be moved to the Reporting\Customer Portal directory.*

System Default Setting	Reports Path
Reports - Default System directory	C:\inetpub\wwwroot\CustomerPortal\Reporting\System\

Reports accessible from the Customer Portal *Reports* menu item are located in the reports directory set up in system defaults:

System Default Setting	Reports Path
Reports - Default Reports directory	C:\inetpub\wwwroot\CustomerPortal\Reporting\Customer Portal\

If you want Customer Portal users to be able to print additional reports, simply copy the Crystal Report file to the directory indicated by the “Reports – Customer Portal reports directory” system default setting on the server that is hosting the Customer Portal web site.

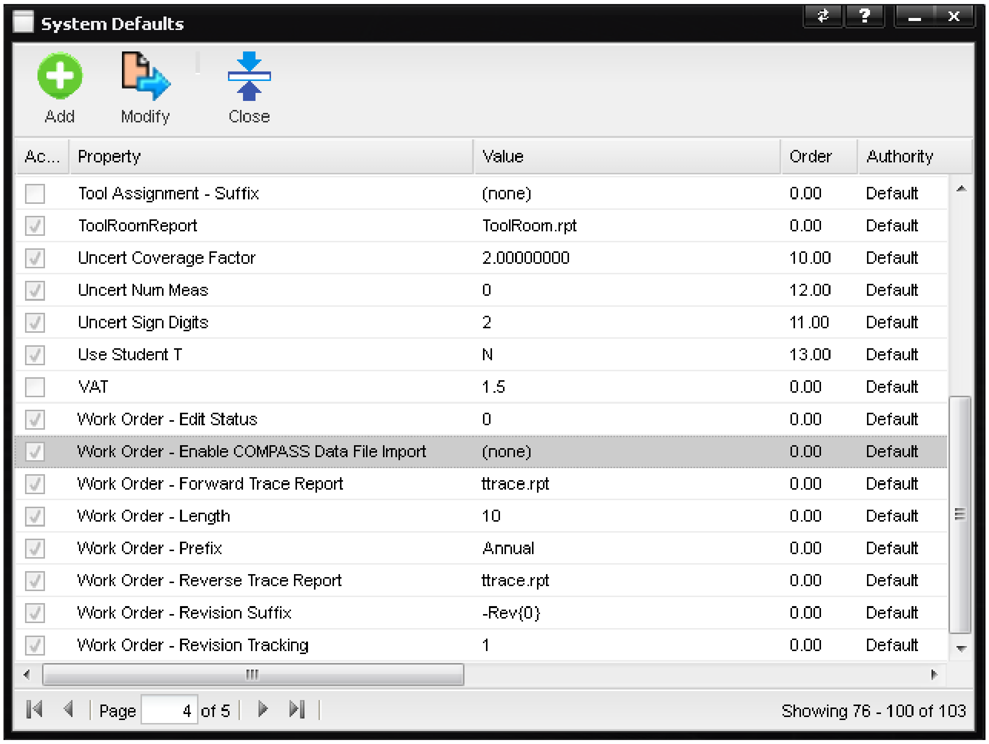


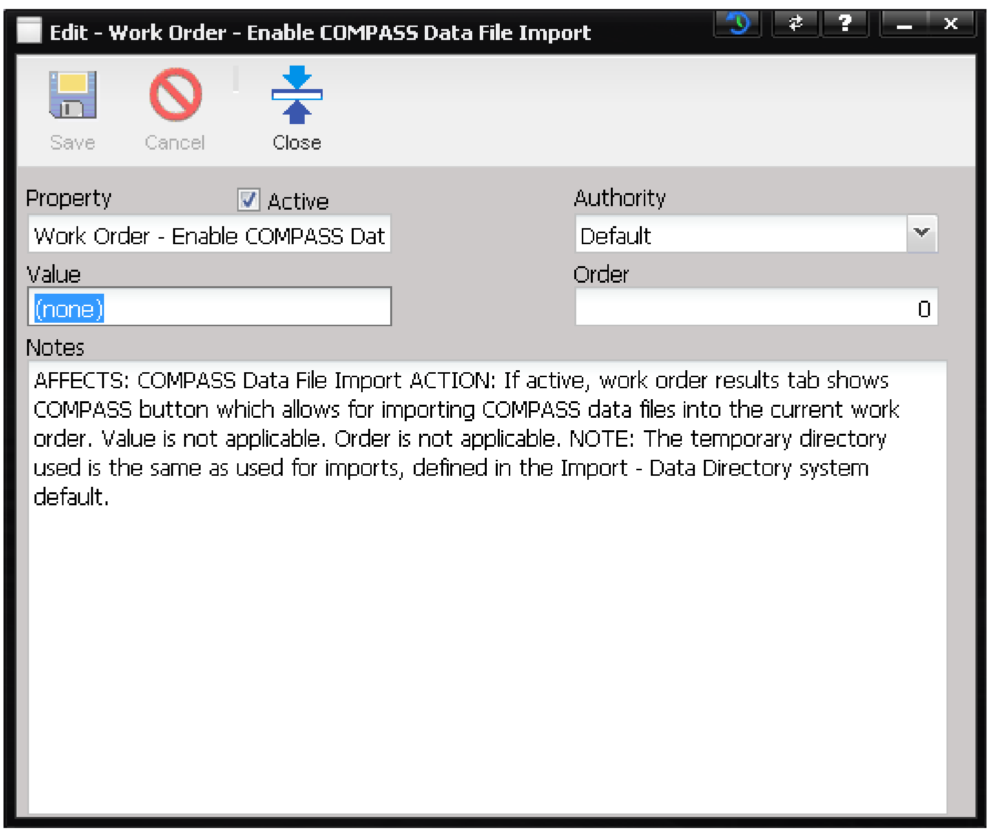
COMPASS Data File Import

The COMPASS Data File import option is provided to allow MET/TEAM users to import data collected by COMPASS for Pressure or COMPASS for Flow directly into a MET/TEAM Work Order. COMPASS does not interact with MET/TEAM at any point in the process. Only the resultant data is imported. To properly link COMPASS devices with MET/TEAM assets, the COMPASS user should ensure that the DUT and Reference Identification fields in COMPASS correspond to the barcode field of active MET/TEAM assets. When the fields differ, a warning is displayed during the import process. Other than ensuring that this common identifying field is the same, there are no other special operations required of the COMPASS operator.

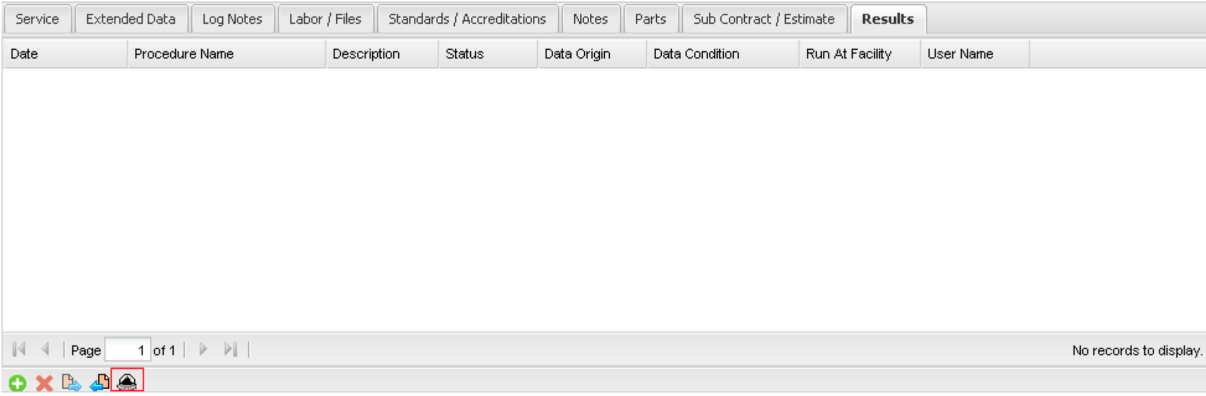
The imported data file generates a new set of Work Order Results that can be viewed using the MET/TEAM Results viewer. Any references or support devices in the COMPASS data file that have valid MET/TEAM barcodes are automatically added as standards associated with the Work Order.

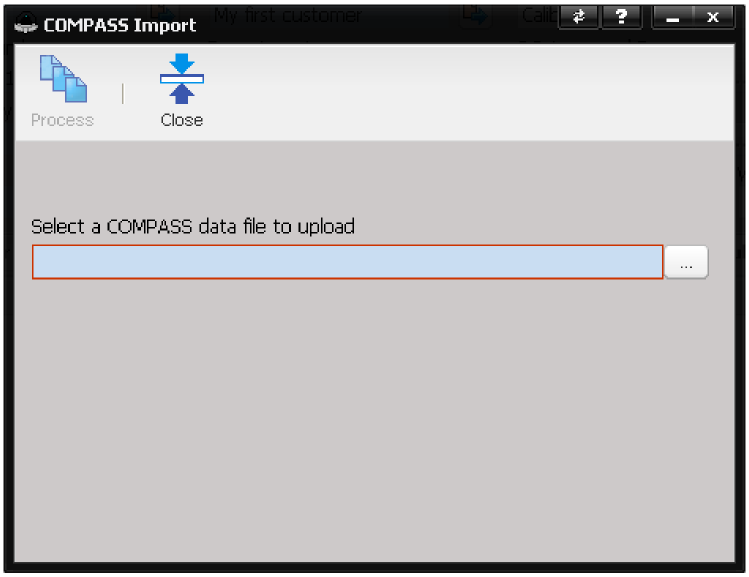
The COMPASS import is available on the Results tab of MET/TEAM Work Orders. As a result an asset must be received and a Work Order must exist before the import can be used. The System Default, Work Order - Enable COMPASS Data File Import must also be active to enable the option. The value field associated with the System Default does not apply.



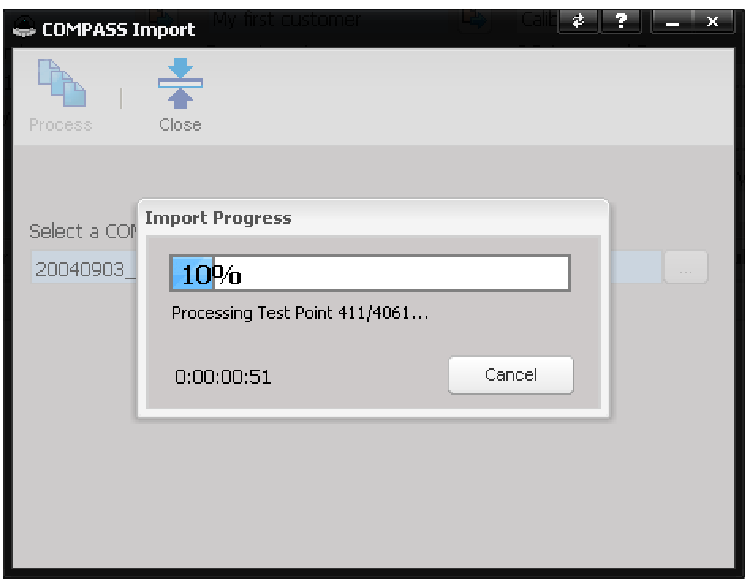


To import data press the COMPASS button on the bottom of the Results tab. A prompt is displayed to allow the data file to be selected. Press the ellipsis button and navigate to the desired COMPASS data file.

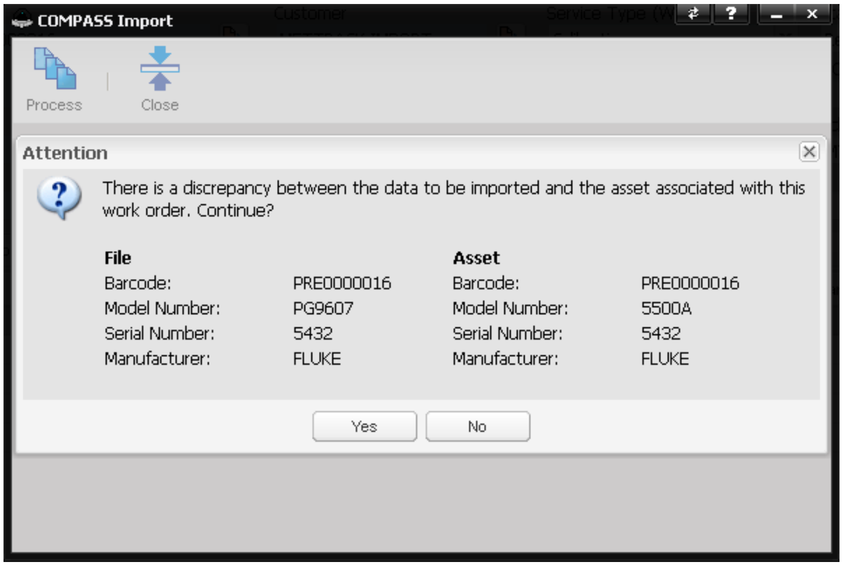




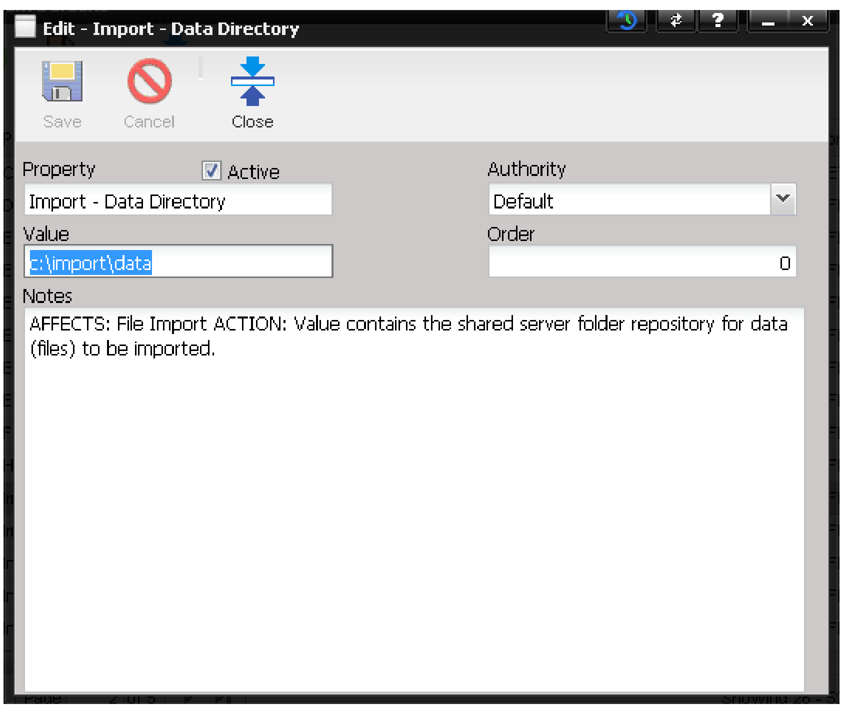
Press the Process button to import the selected file. A progress bar is displayed to show the current state of the import. Data files that have hundreds to test points may take a couple of minutes to process.



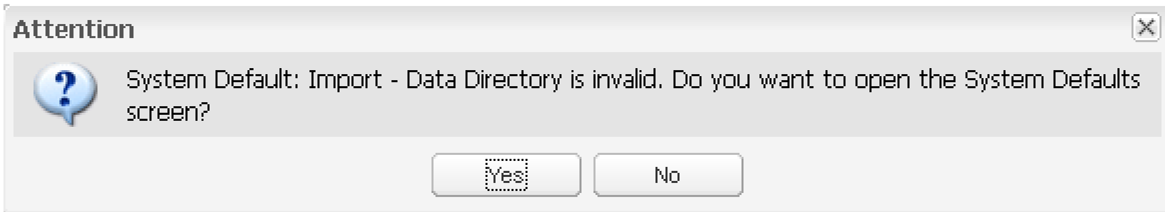
If there is a discrepancy between the data in the file and the asset associated with the current work order, a confirmation message is displayed. Review the discrepancy and press No to abort and choose a separate data file or press Yes to continue ignoring the discrepancy.



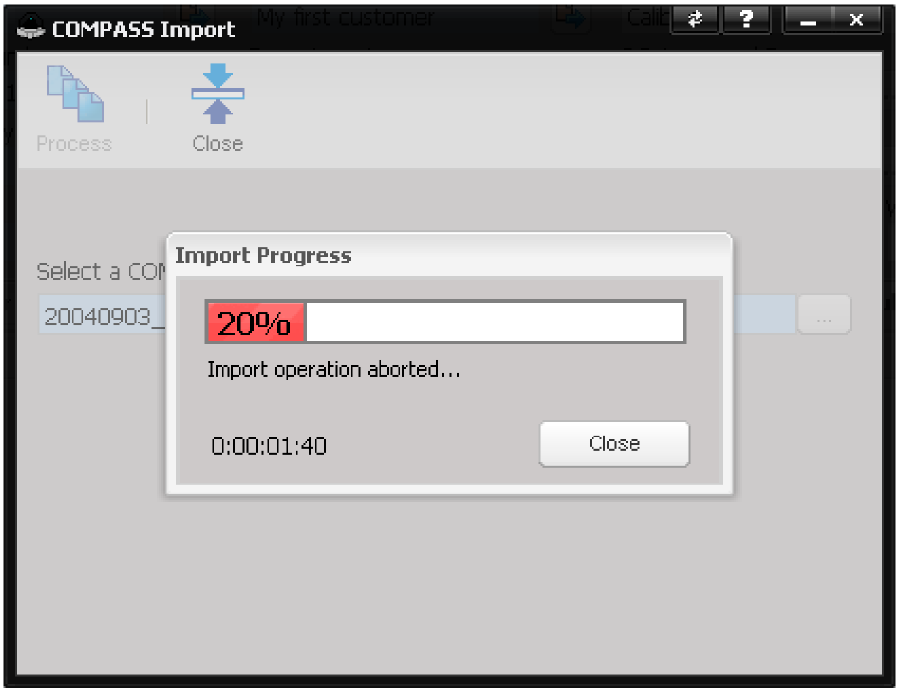
The file to be processed is uploaded to the server, into the same directory used for MET/TEAM imports, which is defined in system defaults.

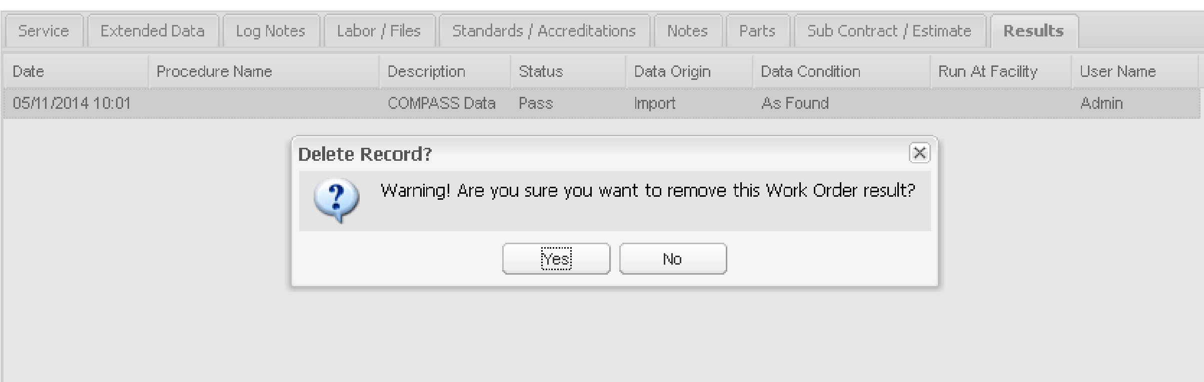


If the directory is not valid, a prompt to open system defaults is displayed.



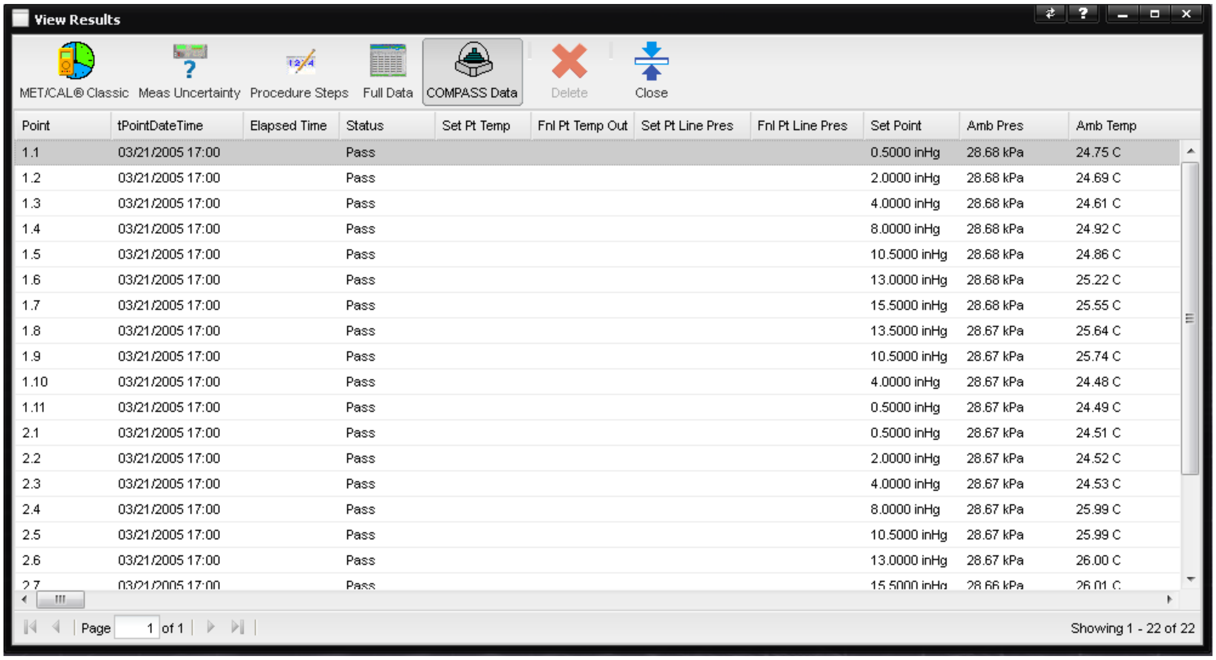
If the import is canceled, the points processed up to that point are present in the database. They can be removed by deleting the work order result that was created for this import.





Viewing COMPASS Results

The COMPASS results are best viewed using the COMPASS Data results view on the MET/TEAM Results Viewer.



Point	tPointDateTime	Elapsed Time	Status	Set Pt Temp	Fnl Pt Temp Out	Set Pt Line Pres	Fnl Pt Line Pres	Set Point	Amb Pres	Amb Temp
1.1	03/21/2005 17:00		Pass					0.5000 inHg	28.68 kPa	24.75 C
1.2	03/21/2005 17:00		Pass					2.0000 inHg	28.68 kPa	24.69 C
1.3	03/21/2005 17:00		Pass					4.0000 inHg	28.68 kPa	24.61 C
1.4	03/21/2005 17:00		Pass					8.0000 inHg	28.68 kPa	24.92 C
1.5	03/21/2005 17:00		Pass					10.5000 inHg	28.68 kPa	24.86 C
1.6	03/21/2005 17:00		Pass					13.0000 inHg	28.68 kPa	25.22 C
1.7	03/21/2005 17:00		Pass					15.5000 inHg	28.68 kPa	25.55 C
1.8	03/21/2005 17:00		Pass					13.5000 inHg	28.67 kPa	25.64 C
1.9	03/21/2005 17:00		Pass					10.5000 inHg	28.67 kPa	25.74 C
1.10	03/21/2005 17:00		Pass					4.0000 inHg	28.67 kPa	24.48 C
1.11	03/21/2005 17:00		Pass					0.5000 inHg	28.67 kPa	24.49 C
2.1	03/21/2005 17:00		Pass					0.5000 inHg	28.67 kPa	24.51 C
2.2	03/21/2005 17:00		Pass					2.0000 inHg	28.67 kPa	24.52 C
2.3	03/21/2005 17:00		Pass					4.0000 inHg	28.67 kPa	24.53 C
2.4	03/21/2005 17:00		Pass					8.0000 inHg	28.67 kPa	25.99 C
2.5	03/21/2005 17:00		Pass					10.5000 inHg	28.67 kPa	25.99 C
2.6	03/21/2005 17:00		Pass					13.0000 inHg	28.67 kPa	26.00 C
2.7	03/21/2005 17:00		Pass					15.5000 inHg	28.66 kPa	26.01 C

COMPASS Data File to MET/TEAM Mappings

The following table below describes the mappings from the COMPASS data files into the MET/TEAM database. The MET/TEAM table column represents the MET/TEAM database and field. The Origin/Value column represents the COMPASS data file element or a fixed value that is written to the MET/team database field. The Remarks column identifies any special rules associated with the particular data element.

MET/TEAM Table	Origin / Value	Remarks
CallSheetResults		
CallSheetResults.lRun	-1	
CallSheetResults.cDescription	**TestHeader.Label**	
CallSheetResults.cWorkstationName	**GeneralHeader.StationID**	
CallSheetResults.cDataOrigin	Import	
CallSheetResults.cStatus	<calculated>	pass/fail
CallSheetResults.cCallSheetResultType	As Found	
CallSheetResults.nRunAtFacilityUID	Null	
CallSheetResults.nProcedureUID	COMPASS Import	
CallSheetResults.nTechnicianUID	**GeneralHeader.UserID**	
CallSheetResults.nCallSheetResultOrdinal	<calculated>	row count
CallSheetResultEx		
CallSheetResultEx.cField001	**DUT.Identification**	
CallSheetResultEx.cField002	**DUTRaw1.Identification**	
CallSheetResultEx.cField003	**DUTRaw2.Identification**	

CallSheetResultEx.cField004	**DUTRaw3.Identification**	
CallSheetResultEx.cField005	**Ref.Identification**	
CallSheetResultEx.cField006	**RefRaw1.Identification**	
CallSheetResultEx.cField007	**RefRaw2.Identification**	
CallSheetResultEx.cField008	**RefRaw3.Identification**	
CallSheetResultEx.cField009	**AmbPres.Identification**	
CallSheetResultEx.cField010	**AmbTemp.Identification**	
CallSheetResultEx.cField011	**AmbRH.Identification**	
CallSheetResultEx.cField012	**GeneralHeader.UserID**	technician
CallSheetResultEx.cField013	**ID000501**	test label
CallSheetResultEx.cField014	**ID001003**	customer id
CallSheetResultEx.cField015	**DUT.CalibrationCoefficient1**	
CallSheetResultEx.cField016	**DUT.CalibrationCoefficient2**	
CallSheetResultEx.cField017	**DUT.CalibrationCoefficient3**	
CallSheetResultEx.cField018	**DUT.CalibrationCoefficient4**	
CallSheetResultEx.cField019	**DUT.CalibrationCoefficient5**	
CallSheetResultEx.cField020	**DUT.CalibrationCoefficient6**	
CallSheetResultEx.mField003	100001=Point|100002=Date |100003=...	headers
CallSheetStandardLink		
CallSheetStandardLink.nAssetUID	**DUTRaw1.Identification**	
CallSheetStandardLink.nAssetUID	**DUTRaw2.Identification**	
CallSheetStandardLink.nAssetUID	**DUTRaw3.Identification**	
CallSheetStandardLink.nAssetUID	**Ref.Identification**	
CallSheetStandardLink.nAssetUID	**RefRaw1.Identification**	
CallSheetStandardLink.nAssetUID	**RefRaw2.Identification**	
CallSheetStandardLink.nAssetUID	**RefRaw3.Identification**	
CallSheetStandardLink.nAssetUID	**AmbPres.Identification**	
CallSheetStandardLink.nAssetUID	**AmbTemp.Identification**	
CallSheetStandardLink.nAssetUID	**AmbRH.Identification**	
Points		
Points.nPointOrdinal	<calculated>	row count
Points.cPointDescription	**ID100010**	cardinal point

Points.tPointDateTime	**ID100002 + ' ' + ID100003**	point date/time
Points.nCardinalPoint	**ID100010**	cardinal point
Points.nReference	**ID200002**	reference
Points.nUUT	**ID300002**	dut
Points.cPointPassFailStatus	<calculated>	from ID100005
Points.nUUTRange	**ID300004-ID300003**	max-min
Points.cPointLabel	Numeric	
PointAmbients		
PointAmbients.nAmbientPressure	**ID100011**	ambient pressure
PointAmbients.nAmbientTemperature	**ID100012**	ambient temperature
PointAmbients.nAmbientHumidity	**ID100013**	ambient humidity
PointExStrings		
PointExStrings.cField009	**ID100001**	test point
PointExStrings.cField021	**ID100006**	SetPointTemperature
PointExStrings.cField022	**ID100007**	Final Temp Out
PointExStrings.cField023	**ID100008**	SetPointLinePressure
PointExStrings.cField024	**ID100009**	Final Line Pressure
PointExNumerics		
PointExNumerics.nField006	**ID300002-ID200002**	deviation (dut-ref)
PointExNumerics.nField010	**ID200002**	reference
PointExNumerics.nField027	**ID300007**	DUT Raw Output 1
PointExNumerics.nField029	**ID300002**	dut
PointTolerances		
PointTolerances.cToleranceReference	**ID200015**	ref tol
PointTolerances.nError	**ID301002**	error
PointTolerances.nReadingErrorPercent	**ID301003**	rel err
PointTolerances.nTolerance	**ID301004**	tolerance
PointTolerances.nToleranceNegative	**ID300002-ID301004**	dut-tol
PointTolerances.nTolerancePositive	**ID300002+ID301004**	dut+tol
PointStatistics		

PointStatistics.nNumberOfSamplesUUT	**ID300005**	number of measurements
PointStatistics.nUUTStandardDeviation	**ID300006**	standard deviation
PointStatistics.lNoisy	<calculated>	from ID100005
PointStatistics.lReliable	<calculated>	from ID100005
PointExLogicals		
PointExLogicals.lField001	0	corr flag
PointExLogicals.lField002	-1	measurement flag
PointUncertainties		
PointUncertainties.nLowerLimit	**ID200002-ID301004**	ref-tol
PointUncertainties.nUpperLimit	**ID200002+ID301004**	ref+tol