medTester Overview

The WebTMA medTester Link module provides an interface used to transfer periodic safety check information directly to the medTester 5000® Model C. The medTester manufacturer also has Module 10 software that must be installed before transfer can take place.

After the Module 10 software is installed on the medTester unit and the WebTMA interface software is installed on your computer, you can transfer information to and from WebTMA and the medTester unit.

You can download PM checklists to the medTester and upload completed checks back to WebTMA. Even if you use mobileTMA, PMs designated as medTester are not transferred to the hand-held device. All medTester PMs are downloaded to the medTester.

Work Orders for medTester are limited to batch generated PM work orders. Manually created work orders do not accept medTester data.

The completed checks update the generated PM Work Orders with the results. WebTMA automatically writes a labor line to the Work Order including Technician's hours and then closes the completed PM Work Orders.

See the **Important** medTester User Settings for **critical details** about User and Technician record settings.

All test results become part of the PM Work Order history for Equipment or Biomed Equipment.

You can also ping the medTester unit to test communication.

NOTE: The WebTMA *medTester Link* module supports Model C of the medTester 5000 with Module 10 software installed on the medTester unit.

medTester User Settings - Important

Path: *Admin > User Management > Records / API Roles*

Make sure you have the *Platform API* role and the MedTester Interface Permissions added for your User in *Admin > User Management > Records / API Roles*.

In addition, the Tech ID must be limited to three (3) characters. This rule is set by the medTester device itself.

WebTMA Setup

Before you can use the medTester with WebTMA, records are required in several WebTMA modules. Following is a checklist to assure all settings are correct. Be certain you have:

- Device Types added (*Organization > Lookups*).
- ECRI data imported (if applicable).
- Biomed Repair Center configured in WebTMA (*Organization > Repair Centers > Records / Identity*).
- Biomed set as the Repair Center for all Biomed Technicians. If the Technician's Repair Center does not reflect the correct Biomed Repair Center, he or she will not have access to the *Biomed Equipment* window. In addition, the Technician ID has a maximum of three characters.

Once you have established the types and repair center, you can set up medTester Tasks, Checklists, Biomed Equipment, and PM schedules. Batch generated PM Work Orders are the only type of Work Order available to handle medTester results, i.e., no Work Orders can be created manually to accept medTester information.

PM schedules can be established from the *PMs* Tab of either an item record or the Task record. All these must be in place before you can use the medTester interface successfully. The following topics provide information for each of these types of WebTMA required records.

Check Types for medTester

Path: *Organization > Lookups > Check Types*

The WebTMA System Administrator sets up the Check Types in *Organization > Lookups*. The Check Types are used to group your check items when you create a checklist. In addition to general check items, administrators create the following Checks that are specific to medTester:

- MedTest - to reference the medTester remote and pause commands.

- Step - to prompt the Technician to check an Equipment condition or to perform a procedural task.

Other Check Types include: Test, Inspect, Manual, Physical.

Task Types for medTester

Path: *Organization > Lookups > Task Types*

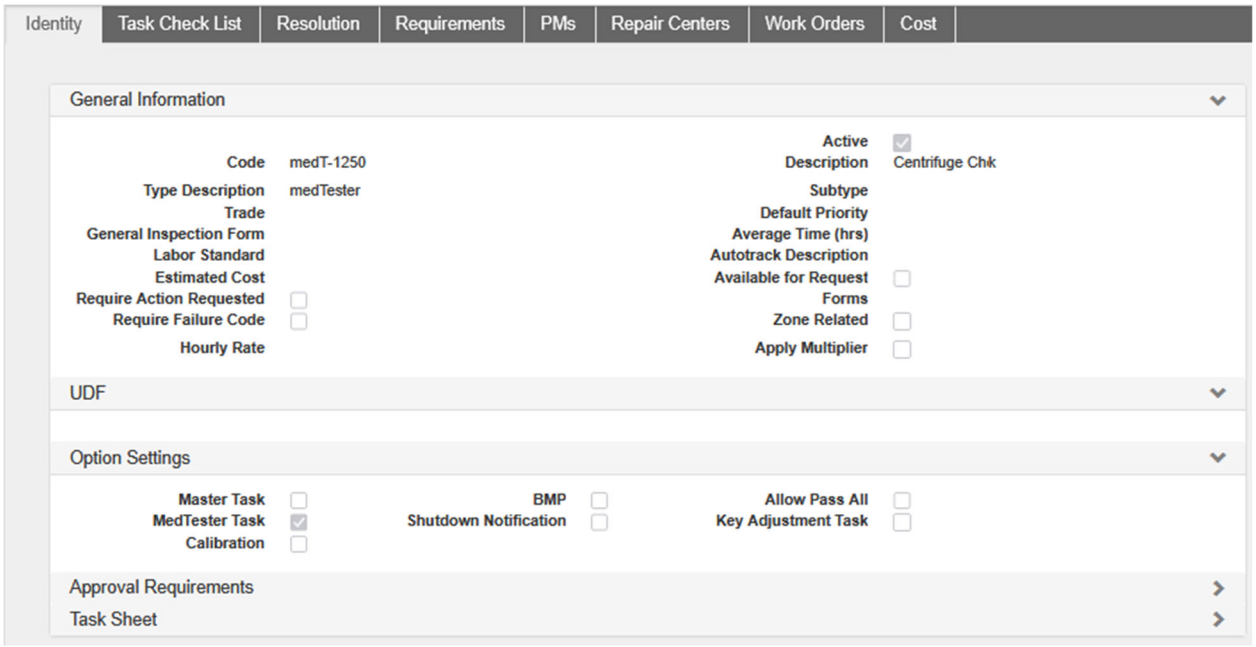
The WebTMA System Administrator adds Task Types that identify the Biomed Tasks for your facility. Be sure to include a Task named *medTester PM* in the Task Types.

If you use WebTMA on a mobile device, remember that the medTester PM is not transferred to the device. All medTester PMs are downloaded to the medTester.

In order to select a medical Task code within WebTMA, you must first select the appropriate Task Type.

You can reduce data entry time and increase productivity if the default Trade and Repair Center are also specified on this window.

medTester Tasks



Path: *Organization* > *Task* > *Records*

Detailed maintenance Tasks and PM procedures are stored with Task records. Each record has a unique *Code*, *Description*, PM procedure, or checklist (depending on whether it is a PM type Task). The record also includes the estimated time required to complete a Task.

Use the *Task* window to create a Task for each type of Equipment that will be monitored with the medTester.

How to Add medTester Tasks

Path: *Organization* > *Task* > *Records*

From the *Task* window in *Add* mode:

1. Enter a *Code*. This is a unique numeric identifier. medTester requirements direct that the code cannot exceed four digits or 9999; however, the code can be alphanumeric. medTester **does not recognize** these illegal characters: tilde (~), comma (,), pound sign (#), and quotation marks (").
2. Select *Type Description*. For medTester Tasks, group all the Tasks. Use a type such as medTester PM or medTester Check.

3. Enter a short *Type Description*. The names should closely relate to the Equipment for which you are building a Task checklist. For example, Centrifuge or Centr Safety Ck. This requires some creativity because **medTester limits the description to sixteen characters**.
4. Mark the *medTester Task* check box in the *Option Settings* section to designate this as a medTester Task. Unless this is done, the software will not associate a given Task with the medTester link module.
5. Complete other fields as needed.
6. Click the *Repair Center* Tab and add authorized centers.
7. Choose *Save* on the WebTMA toolbar.

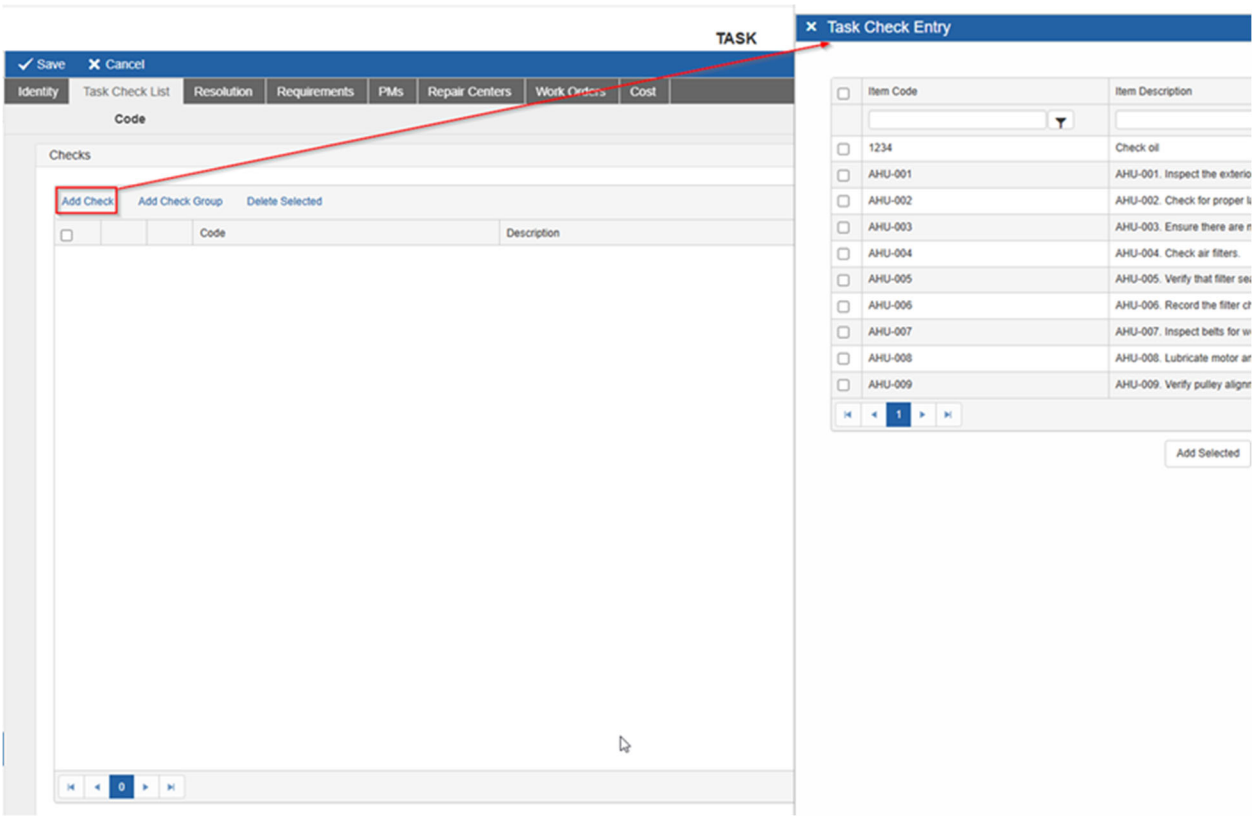
Other fields on this window are the same as regular Tasks and are described in Task Identity Tab Fields.

medTester Task Check List

Path: *Organization > Task > Records / Check List Tab*

The medTester does not support free-form text procedures; therefore, medTester procedures are built using the *Master Check* window. The *Task Check List* Tab is used to create check lists for both medical and non-medical devices.

How to Create a medTester Checklist



Path: *Organization > Task > Records / Task Check List Tab*

NOTE: Before you create a checklist, be certain to **create check items** in *Organization > Task > Master Check*.

From the *Task Check List* Tab of the desired medTester Task in *Edit* mode:

1. Choose the *Add Check* link at the top of the grid to open the *Task Check Entry* flyout.
2. Mark the check boxes of the needed Tasks on the window.
3. Click the *Add Selected* button on the flyout.
4. Select *Save* on the WebTMA toolbar.

Be certain you have the checks in the proper order based on medTester requirements. The checks are performed in the sequence shown on this window. If needed, select one check at a time and click the *Add Selected* button to assure the proper order.

This checklist is sent to the medTester when medTester PMs are generated.

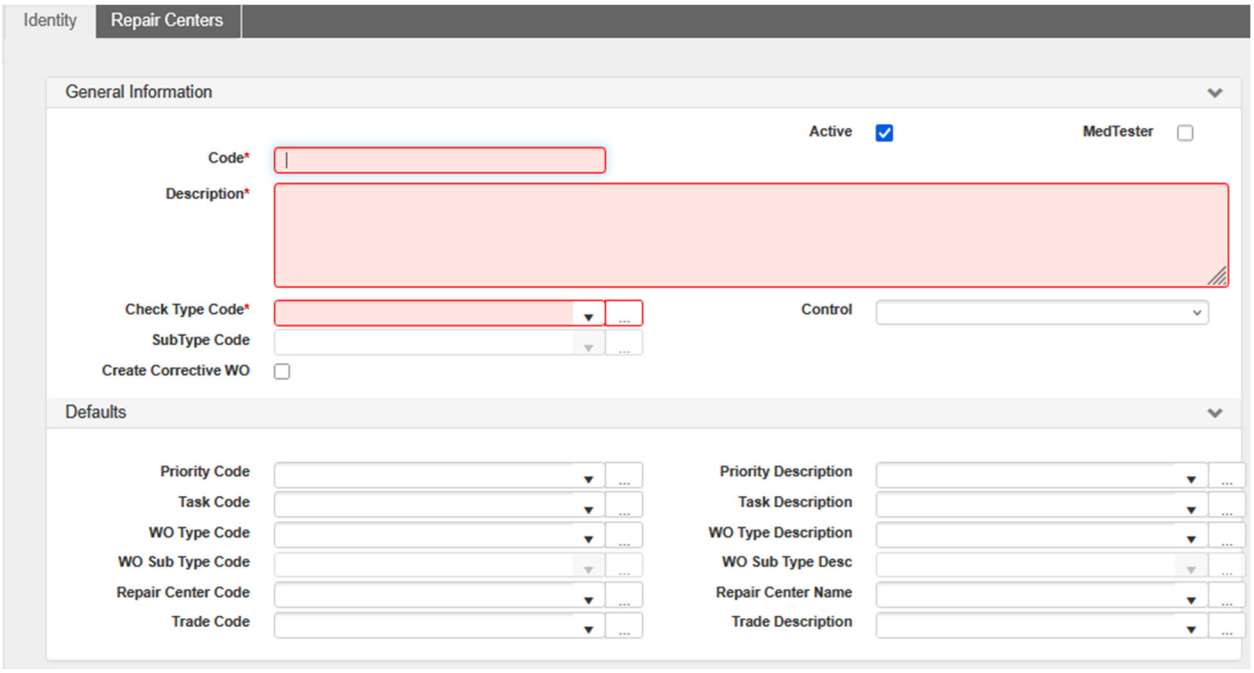
medTester Master Checks

Path: *Organization > Task > Master Check*

The lists of checks recorded on this window are combined to test specific Equipment items from *Organization > Task > Records*. Both medTester and non-medTester Master Checks can be created.

NOTE: The medTester places limitations on code lengths and includes special control codes not available with non-medical Equipment. For example, the code is limited to **four numeric digits**.

How to Add medTester Master Checks



ALERT: Please read medTester Field Definitions for Master Check List before adding check lines. Initial decisions can have serious and far-reaching consequences.

Path: *Organization > Task > Master Check*

Most fields are required for medTester applications.

On the *Master Check* window in *Add* mode:

1. Enter the *Code* number.
2. Type the *Description*.
3. Select the *Type*.
4. Mark the *medTester* check box.
5. Select the appropriate *Control Code**.
6. Click the Repair Center Tab and select all that apply.
7. Choose *Save* on the WebTMA toolbar.

* See medTester Field Definitions for Master Check List for explanations of each control.

medTester Field Definitions for Master Check List

To help you understand medTester requirements, a detailed explanation of each field on *the Master Checks* window follows.

Please review these explanations carefully, because medTester restrictions are more stringent than for other WebTMA records.

Code - This is a unique numeric code that has the following limitations:

- limited to numbers only
- cannot exceed four digits or 9999

The four-digit restriction is a limitation imposed by medTester.

Check Description - the directions to be executed by either the Technician or the medTester. Limited to forty characters on the medTester. You can type more than forty characters in WebTMA, but medTester will only display the first forty .

Check Type - These are Types set up in *Organization > Lookups / Check Types*. WebTMA can accommodate the medTester .cas files that contain personal autosequence data. When the .cas files are stored in the MT subdirectory, they can be loaded into the medTester unit.

Control - A total of five codes are available. The first three, P, I, and B, call for the Technician to type a response. The other two, A and M, refer to medTester autosequence or remote commands. Each code is defined below:

P (Pass or Fail). This typically pertains to a measurement, condition, or performance check. When the required step is completed, medTester prompts the Technician to press the applicable pass or fail function key to indicate the results. For example, if the Technician were prompted by the medTester to check the condition of the chassis and housing, the Technician would input the appropriate pass or fail response. The 'measure leakage current' instruction also produces a pass/fail prompt.

I (Input). This instructs the Technician to perform an inspection or to make an adjustment and then input a comment or other information into the medTester. For example, a measurement reading is an Input check item, and the input is the reading.

B (Both Pass/Fail and Input). The Technician responds to the check item with a pass/fail or with some relevant information such as a measurement reading.

The following control codes indicate commands that the medTester automatically executes. Any input requests or prompts to the Technician are those that are embedded in the autosequence. For example, the autosequence may prompt the Technician to set up the Equipment for a test measurement.

MedTester Autosequence. This indicates a medTester autosequence check item. When you create these check items, type the autosequence number only in the *Check Description* field. For example, the correct format for the A10 check is *Autosequence A10*, that is, the word 'Autosequence' followed by a space and the autosequence number.

An autosequence is a pre-programmed test sequence. It is a collection of tests that execute as a group. Ten safety autosequences ship with the medTester 5000C base model. Each of these can be customized by the operator. Prompts in the autosequence ask for information that aids in the test reporting.

When the medTester executes checks and comes to an autosequence check, it executes the pre-programmed test sequence and then returns to the next check.

MedTester Remote. Remote check items must be valid medTester commands. See your medTester manual.

medTester Check - This check box is used to distinguish between medTester and other checks. When selected, it indicates that the check is one that is used by a medTester device.

Repair Center - Since each Repair Center has a unique set of Master Checks, they can be separated using Repair Center classification codes. This is used when you have more than one Repair Center that works on Biomed Equipment.

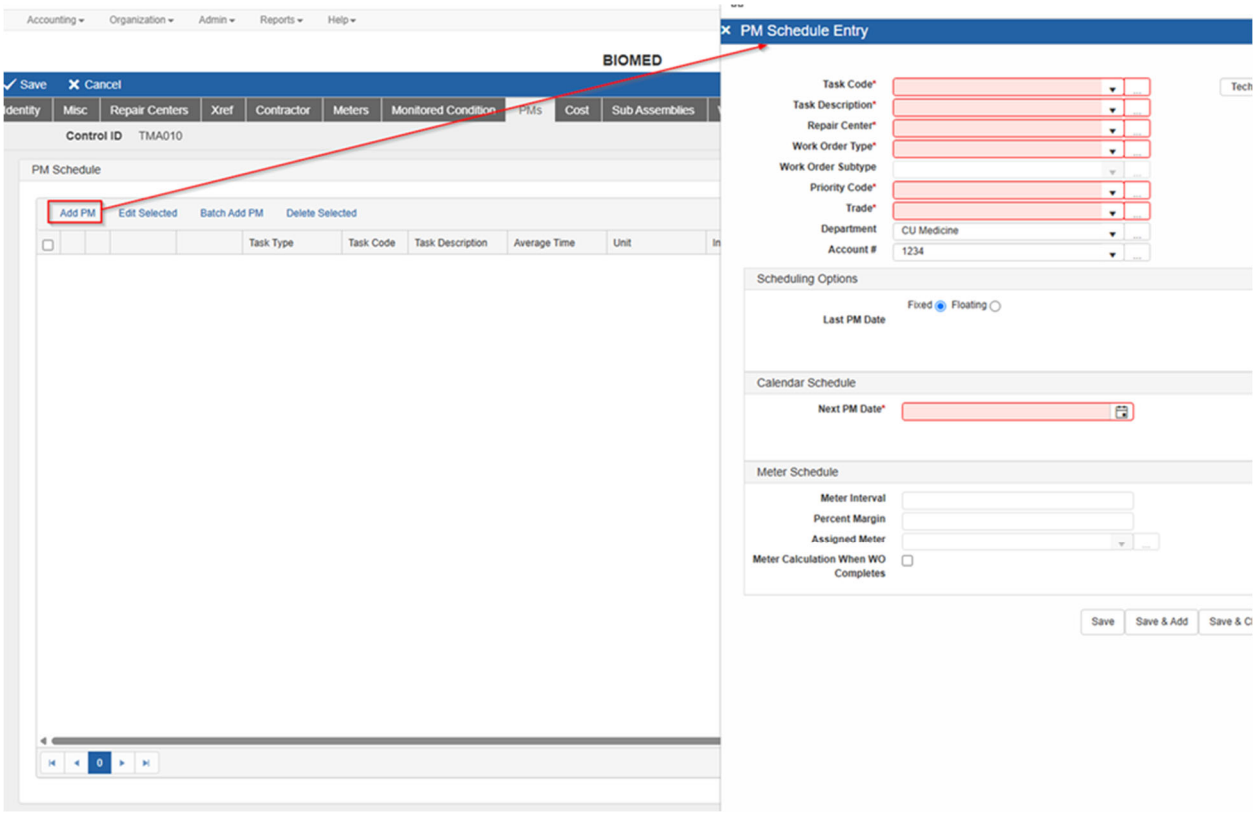
medTester and Biomed Equipment

Before using the *medTester Link* module, all Biomed Equipment records and PM schedules must be created.

The *Organization > Tasks > Master Check* and *Organization > Task > Records* must have the *medTester* check box selected in order for the records to be eligible for transfer to the medTester unit.

NOTE: The medTester unit cannot accommodate more than one medTester checklist on the PMs window. Additional lists for a piece of Equipment are ignored, and an error message alerts you after checklist transfer.

How to Set Biomed PMs for medTester



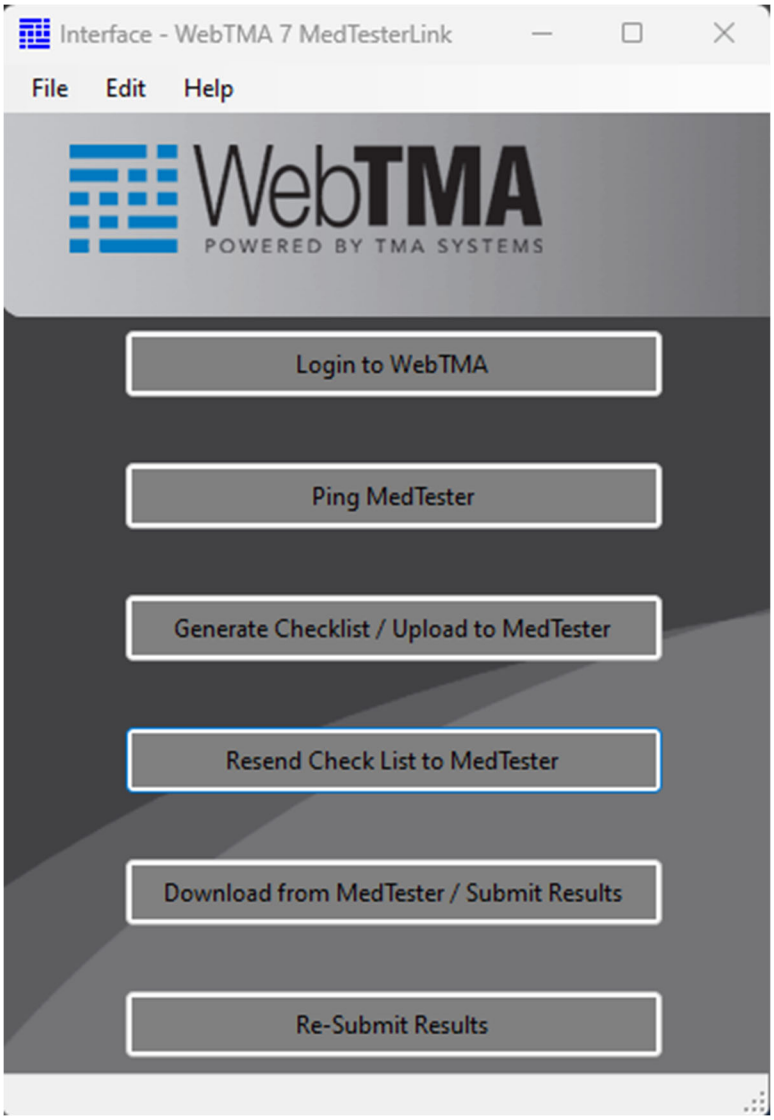
Path: *Organization > Biomed > Records / PMs*

Select a Biomed Equipment record related to medTester.

In *Edit* mode:

1. Select the *Add PM* link to open the *PM Schedule Entry* flyout.
2. Choose the medTester *Task Code*.
3. Complete other required fields.
4. Click *Save* on the *PM Schedule Entry* flyout.
5. Select *Save* (big Save) on the WebTMA toolbar.

medTester Link Interface

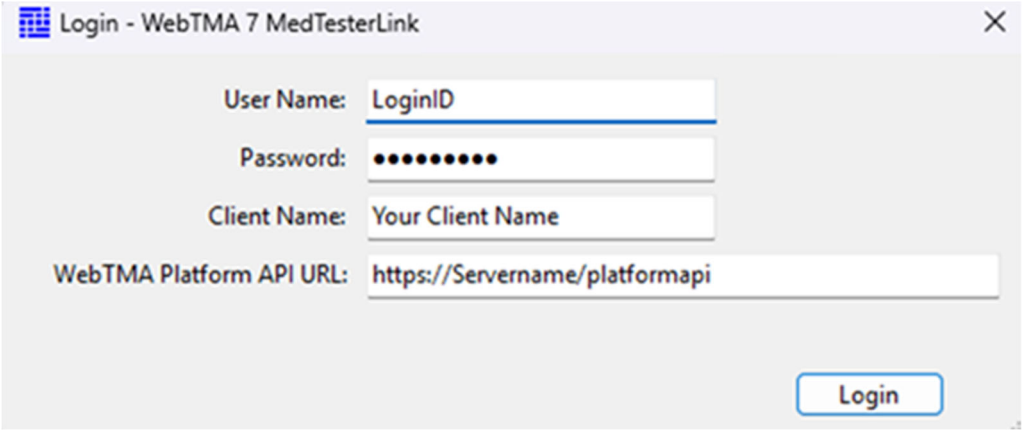


To download the MedTester Link for WebTMA 7, please visit our Knowledge Base site (https://knowledgebase.tmasystems.net/hc/en-us/articles/37172605725069-WebTMA-7x-MedTester-Interface-Installer).

Communication procedures include:

- transferring checklist procedures to the medTester
- receiving test records from the medTester

How to Log In to WebTMA for medTester

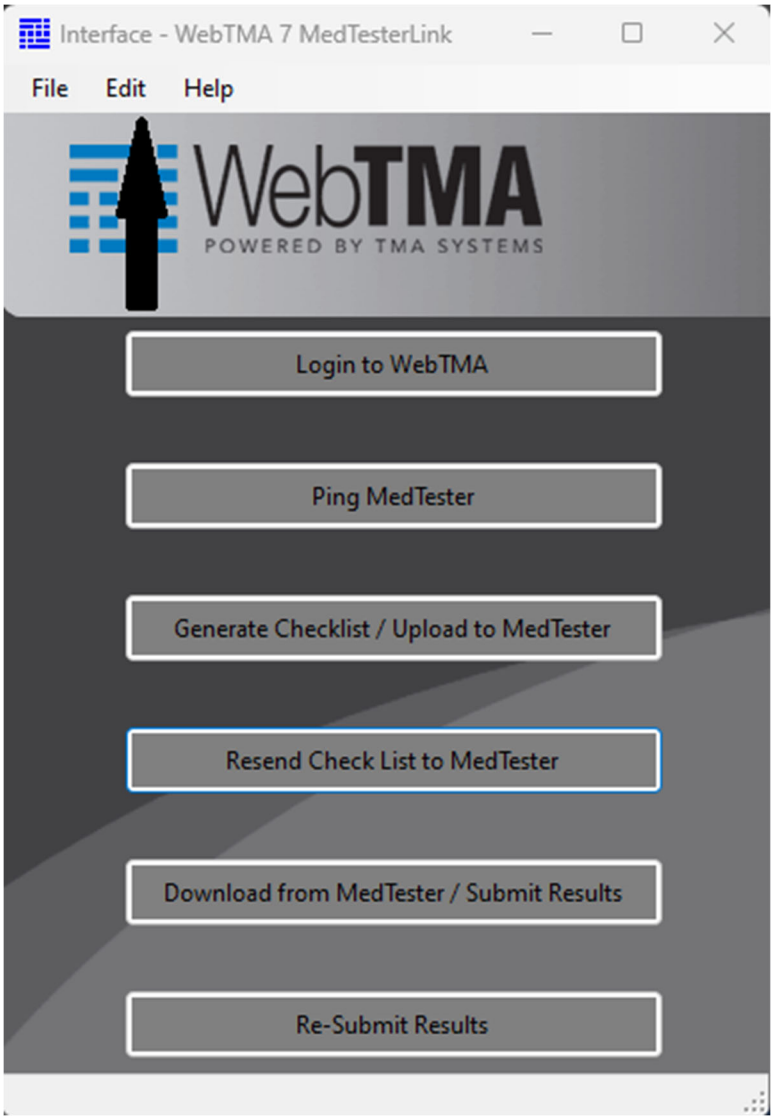


1. Click *Login to WebTMA* on the Interface Link.
2. Enter your WebTMA *User Name*, *Password*, and *Client Name*.
3. Enter the *Web Platform API URL*.
4. Click the *Login* button.

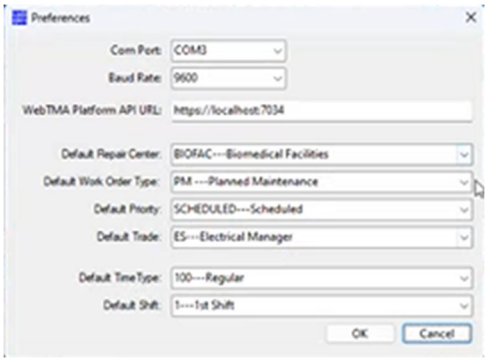
The medTester Function Commands on page 16 describe how to use the interface window. Of primary importance is the *Ping MedTester* button. This assures you have a connection to the medTester unit.

On-Premise Note: On-premise clients, please add /WebTMA7 after your server name in the WebTMA Platform API URL. As an example, https://Servername/WebTMA7/PlatformAPI

medTester Preferences



From the WebTMA 7 medTesterLink window, click *File* > *Preferences* to open the Preferences window.



Make any needed changes on this window. The following topics provide information about some of the settings.

Baud Rate and ComPort Settings

The default medTester Baud Rate and ComPort settings are acceptable to most organizations.

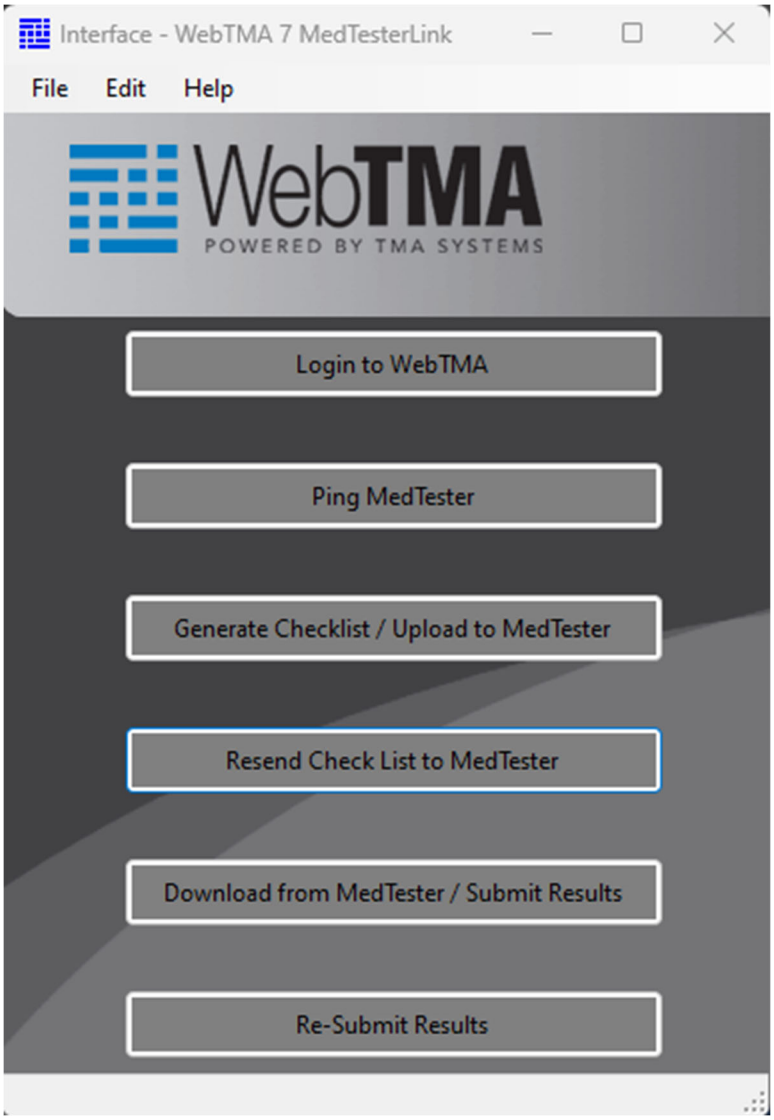
The default settings are:

- BaudRate = 9200
- ComPort = 1

medTester/WebTMA Connections

Connect the medTester 5000 to a COM port on your PC with the connector provided. The medTester supports COM1 or COM2.

medTester Function Commands



Use the buttons on the Interface - *WebTMA 7 medTester Link* window to perform the following functions:

- **Login to WebTMA** - described in How to Log In to WebTMA for medTester
- **Ping MedTester** - test the communication between WebTMA and the medTester unit. This returns the device internal number. (If -66 error occurs, please unplug and re-plug in the device.)

- **Generate Checklist / Upload to medTester** - this generates the MedTester Checklist for the Biomed Records and Uploads it to the MedTester device.
- **Resend Check List to medTester** - this resends the checklist without having to resync with WebTMA 7.
- **Download from medTester / Submit Results** - download check results from the medTester Device, write them as a file, read the file, and submit to WebTMA, i.e., transfer the information from medTester to the computer so it can upload to WebTMA.
- **Re-Submit Results** - transfer the test results to WebTMA from medTester, i.e., push the .MUP file to WebTMA 7 instead of using the medTester device. Reminder: The medTester unit cannot accommodate more than one checklist on the *PMs* window. Additional lists for a piece of Equipment are ignored, and an error message alerts you after checklist transfer.

Pinging the medTester

Always test the communication between WebTMA and the medTester unit before you transfer data. This assures that the medTester port is not in use by another device and the connection is solid.

The industry term for this test is 'ping,' and it means that a signal is sent from one device to another. If the connection is working, the receiving device sends a reply.

How to Ping the medTester

1. Set the medTester to the main menu (Menu 1). This is the only medTester setting that accepts communication from WebTMA.
2. Launch the WebTMA medTester application
3. Log in to the WebTMA medTester application.
4. Click *Ping medTester* to test the connection.

When you click the *Ping medTester* button, a dialog box appears in the upper right corner of the window and shows that the ping command is executing.

A successful ping is indicated by an audible beep from the medTester unit (if sound is enabled on the unit) and a dialog box on the PC that shows the version number of the medTester software.

Troubleshooting medTester Ping

If the ping is not successful, the system displays an error message. Following are some steps to troubleshoot the problem.

- Recheck the cabling connections.
- Check the port and baud rate settings in both WebTMA and medTester to assure they are identical.
- Disable any conflicting software that uses the same port.

Generate Checklist/Upload to medTester

WebTMA prepares a set of three transfer files.

- mtexport.itm - itemized Master Check items
- mtexport.idn - a list of all control codes and Task numbers
- mtexport.lst - a Task code, name of Task, and order of Tasks

When you click the *Generate Checklist / Upload to medTester* button, WebTMA instructs the medTester Link module to send these files to the medTester unit. A beep from the medTester informs you of the transfer progress. A message is also shown in the upper right corner of the computer monitor.

NOTE: These files are overwritten in the MT directory each time you select either Send button.

How to Upload Checklists to medTester

Use the *Generate Checklist / Upload to medTester* button to filter or send all the medTester equipment checklists to the unit. If you change the Tasks or add new equipment, you can send again.

If you have a small number of equipment records, you can send all checklists and store the records in the medTester memory.

1. Login to the WebTMA medTester software.
2. Set the medTester unit to Menu 1, and, if necessary, ping the medTester as outlined in Pinging the medTester. The test must be successful before you can transfer checklists.
3. Click the *Generate Checklist / Upload to MedTester* button.
4. Select the Facility, Building, or Area option.
5. Choose the Item whose checks are sent to the medTester.

When the command is issued, the control IDs are transferred to the medTester unit along with all appropriate checklists and Tasks in the following manner:

- WebTMA software prepares a set of three transfer files. See Generate Checklist/Upload to medTester for definitions of the files.
- The software notifies the WebTMA medTester link to send the files.
- Progress information messages appear in the upper right corner of the computer monitor and on the medTester unit screen.
- The medTester unit beeps when each file is received (if sound is enabled on the unit).
- If the send process is interrupted for any reason, you can send these files again. See medTester Function Commands.

Resend Check List to medTester

If medTester is not ready when you click *Generate Checklist / Upload to MedTester*, you can send the same files again using the following steps.

1. Launch the WebTMA medTester application.
2. Set the medTester unit to Menu 1. This is the only medTester menu setting that accepts communication from WebTMA.
3. Click the *Resend Check List to medTester* button.

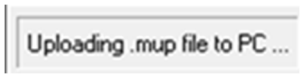
Download from medTester / Submit Results

Once the tests are performed and the results of each test are saved to the MedTester memory, you can transfer the test results to WebTMA.

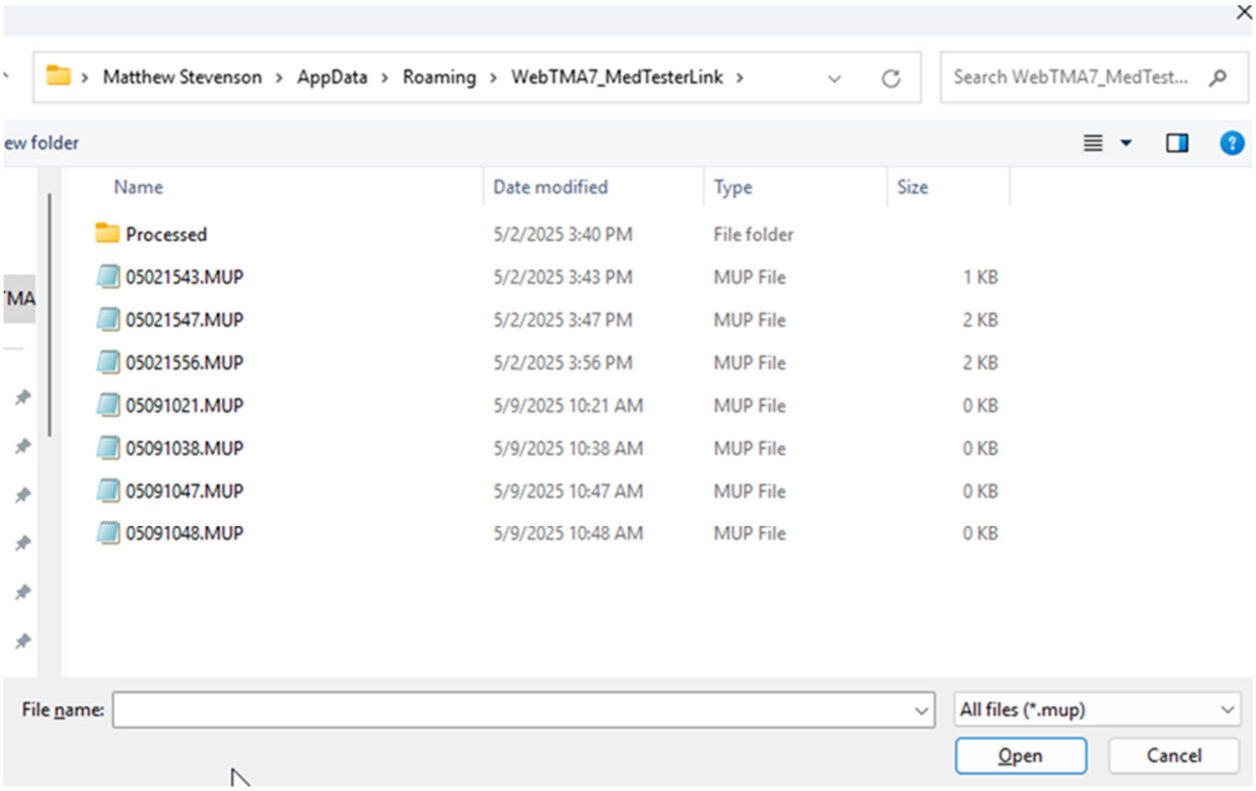
When the files are received, the work orders are updated with current test information; labor lines are completed; and the work order is closed.

1. Launch the WebTMA medTester application.
2. Set the medTester unit to Menu 1. This is the only medTester menu setting that accepts communication from WebTMA.
3. Click the *Download from medTester / Submit Results* button.

The following messages display at the upper right of the screen:



Once the upload is completed and the .MUP file has been pushed to the computer, the file export window opens.



Choose the. MUP file you want to push to WebTMA 7.

The WebTMA MedTester Link module sends a command to the MedTester unit to transfer a .MUP file to the MT directory, and the *Select Import File* window opens before the file transfer is completed.

Wait until all files are transferred.

Watch the upper right corner of the monitor for a progress message. The MedTester unit will beep when the transfer is concluded.

The .MUP file name is numeric (e.g., 08101312.mup), and the format follows this convention:

- Month (08)
- Date (10)
- Time in hours and minutes (1312)

Note that the hours are expressed in military or 24-hour time.

Re-Submit Results to medTester

This option allows you to resubmit the results of a .MUP file without having to download it from medTester:

1. Launch the WebTMA medTester application.
2. Set the medTester unit to Menu 1, and, if necessary, ping the medTester. See Pinging the medTester. The test must be successful before you can send the checklists.
3. Click *Re-Submit Results* on the WebTMA medTester interface.

You can select the .MUP file to be uploaded to WebTMA 7.

medTester Data in WebTMA

Once the tests are performed and the results of each test are saved to the medTester memory, you can transfer the test results to WebTMA. When the files are received, the automatically generated PM Work Orders are updated with current test information; labor lines are completed; and the PM Work Order is closed.

How to Update Data to WebTMA

1. Launch the WebTMA medTester application.
2. Set the medTester unit to Menu 1, and, if necessary, ping the medTester. For instructions, see Pinging the medTester. The test must be successful before you can send the test results.
3. Click *Download from medTester / Submit Results*. You are reminded to check the connection with the prompt: "Is your medTester device connected to a COM port and ready?"
4. Click *Yes* if you have checked the connections, i.e., pinged the medTester.

The WebTMA medTester Link module sends a command to the medTester unit to transfer a .MUP file to the MT directory, and the *Select import file* window opens before the file transfer is completed. **Wait until all files are transferred.**

Watch the upper right corner of the monitor for a progress message.

The system returns a message when the transfer is concluded. The message includes the number of errors, if any. Log in to WebTMA to see error information at *Admin > medTester Exception*. See medTester Exceptions.

The .MUP file name is numeric (e.g., 08101312.MUP), and the format follows this convention:

Month (08), date (10), and time in hours and minutes (1312)

Note that the hours are expressed in military or 24-hour time.

How to Process .MUP Files shows how the uploaded information is handled.

How to Process .MUP Files

Wait for confirmation that the file has transferred (see How to Update Data to WebTMA), then:

1. Navigate to the MT folder.
2. Locate the most recent .MUP file. Reminder: The .MUP file name format is mmddhrmin.mup.
3. Refresh the view if the file is not visible.
4. Double-click the file name to open the *Create New Work Order* window.
5. Complete the *Repair Center*, *Work Order Type*, and *Priority* fields.
6. Click *OK* on the *Create New Work Order* window.

The *Post MedTester Labor* window opens.

1. Verify the correct *Time Type*. This is the default type set for the Repair Center record.
2. Verify the *Shift*. This defaults to the shift assigned to the Technician.
3. Click *OK* on the post labor window.

If more than one Work Order is needed, the *Create New Work Order* window re-opens, and you can repeat the previous steps. When all Work Orders are created, an information message tells you that "All records from medTester are uploaded to WebTMA Systems. Click *OK* to close the window."

WebTMA updates and closes the Work Order record including the labor line on the *Work Order > Labor Cost* window.

NOTE: If multiple checks exist on the same Equipment item, all checks are included in one Work Order where the labor hours are totaled.

medTester Exceptions

Path: *Admin > medTester Exception*

This window shows you, in read-only mode, the types of Error messages, Technician comments, and results of the upload to WebTMA 7 from the .MUP file.

When results from medTester (MUP files) are submitted to WebTMA and the entire dataset is processed without any errors or exceptions, the file is automatically moved to a Processed subfolder.

If the dataset generates errors or exceptions, the file remains where it is and a *medTester Exception* record is generated that can be seen in WebTMA (*Admin > medTester Exception*). Exception records cannot be added, edited, or deleted.

Exception records are resolved by re-submitting the results after correcting any issues. For example, missing Biomed Equipment (usually missing related to data access) or invalid data in WebTMA (wrong Tech ID, invalid task, etc.). To correct the data before resubmitting, update in either medTester or WebTMA records, depending on the source.

Once you resubmit data and it processes successfully, the medTester Exception record is updated as 'Resolved' and the *Is Valid* flag is cleared.