

TME Tutorial

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The TME Tutorial

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Introduction & Installation

The purpose of this training is to familiarize the calibration technician with all aspects of Agilent Test Management Environment (Agilent TME).

Agilent TME has been designed to meet the requirements of Agilent calibration software. The core of this environment is Agilent's TestExec SL v3.1 test executive.

The full test environment consists of the test executive (TestExec SL), a user interface and the individual DUT or DUT applications. This environment has been named the Agilent Test Management Environment or TME for short.

The training is divided into four sections:

- 1) Introduction & Installation
- 2) Administration
- 3) Using TME
- 4) Managing test data (reports)

Each section can be viewed independently. It is recommended that the technician also browse through the extensive online help system for both TME and the DUT application (Test Plan Help). The TME Help system concentrates on helping the administrator manage the test station, and general test executive functions. The Test Plan Help details all the tests available for a given DUT with graphical connection diagrams and troubleshooting hints for each test (both performance tests and adjustments.)

What is Measurement Uncertainty?

When reporting the result of a measurement of a physical quantity, it is obligatory that some indication of the quality of the result be given so that those who use it can assess its reliability. Without such an indication, measurement results cannot be compared, either among themselves or with reference values given in a specification or standard. It is therefore necessary that there be a readily implemented, easily understood, and generally accepted procedure for characterizing the quality of a result of a measurement, that is, for evaluating and expressing its uncertainty.

The concept of *uncertainty* as a quantifiable attribute is relatively new in the history of measurement, although *error* and *error analysis* have long been a part of the practice of measurement science or metrology. It is now widely recognized that, when all the known or suspected components of error have been evaluated, and the appropriate corrections have been applied, there still remains an uncertainty about the correctness of the stated result, that is, a doubt about how well the result of the measurement represents the value of the quantity being measured.

International bodies of scientists have specified the way these measurement uncertainties shall be kept under control for some time. This research has culminated in different standards. In the United States ANSI Z540 and MILSTD 45662A (established in 1994) were employed. Internationally ISO 17025 (released in 1999) is used and has become a primary measuring stick internationally. The standards contain the requirements that testing and calibration laboratories must meet if they wish to demonstrate that they operate a quality system, are technically competent, and are able to generate technically valid results.

Accreditation bodies that recognize the competence of testing and calibration laboratories use the International Standards as the basis for their accreditation. A laboratory has to meet the criteria in order to demonstrate that it has sound management and in order to demonstrate technical competence for the type of tests and/or calibrations it undertakes.

The TME software has been designed to conform to these stringent requirements by presenting the calculated measurement uncertainty for all testing.

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Some History of TME

There are two significant generations of the test environment for **TME**. The first is TME revision C.01.00. In this revision the test executive is bundled with the individual applications for the Device Under Test (DUT), and they are installed at the same time. During the installation the test environment will be updated if necessary. This revision of TME has no facility for uninstalling, or removing the application.

***NOTE:** There are older revisions of TME that will not be discussed in detail here. The first TME was shipped with the early versions of the Dragonfly (Digital Receiver) test software; now obsolete. Another TME revision still available is the 8511A/B and Antenna System Test software. The Antenna System Test software (testing models 8511A/B, and 85301B/C) is not compatible with the current revisions of TME, and must not be installed on a computer with TME applications.*

With TME revision E.01.00 the test executive and user interfaces were separated from the DUT application. This has resulted in a smaller distribution package, installing faster and more efficiently. This revision of TME is backward compatible with existing DUT applications of revision C.xx.xx or greater, and is protected by a license key. This license key is issued to customers at time of purchase, and is unique to the DUT serial and model number. The license key must be present on the computer to use the application (*even older versions of the applications that were initially bundled with TME revision C.*)

The DUT applications also fall into two categories;

- 1) revision D.xx.xx or older
- 2) revision E.01.00 or later

The first revisions can not be uninstalled (*the application directory can be deleted, but all registry entries remain*). The installation package includes a revision of the test executive.

The second revision can be uninstalled completely using the MS Windows Add/Remove Programs wizard found in the Windows Control Panel. The applications do not install the test executive (TME) but requires that TME E.01.00 or later be installed prior to installation of the individual calibration software.

With either version of TME, if you need to uninstall TME completely, you **MUST** remove all DUT applications first; then remove TME components, and then uninstall HP TestExec SL (Agilent Test Management Executive Component).

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Minimum computer requirements

Below is the minimum configuration for a PC intended for running TME. Also listed is the recommended configuration for optimum performance; this is noted in square brackets []. There is nothing more frustrating than a computer that takes forever to complete a task!

Pentium III, 450 MHz [**Pentium 4, 2.0 GHz**]

Hard disk – 200 Mb of free space per application [**20 Gb**]

RAM – 128 Mb [**512 Mb**]

GPIB interface

Agilent GPIB 82350A, [**82350B**]

Agilent USB-GPIB 82357A

National Instrument AT-GPIB/TNT [**GPIB-PCI**]

National Instruments PCMCIA for laptop

VISA library

Agilent I/O library ver. M.01.01 [**Suite 14.2**]

NI VISA library ver. 2.5 [**3.2**]

Operating system

Windows 2000 (sp3)

[**Windows XP (sp2)**]

Internet browser

Internet Explorer v5.5 [**6.0**]

Netscape Navigator v7.0 [**8.1**]

Agilent Test Management Environment (TME) E.01.02 [**E.02.03**]

DUT applications currently available for TME

Wireless One-Box Tester

E6601A

PNA – Performance Network Analyzer

E8356A, E8357A, E8358A

E8361A, E8362A, E8363A, E8364A

E8362B, E8363B, E8364B

E8801A, E8802A, E8803A

N3381A, N3382A, N3383A

N5230A (L-Series)

Dispersion Analyzer

E9427A

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CSA – Compact Spectrum Analyzer

N1996A

PSA – Performance Spectrum Analyzer

E4440A, E4443A, E4445A, E4446A, E4447A, E4448A

ESA – Spectrum Analyzer

E4401B, E4402B, E4403B, E4404B,
E4405B, E4407B, E4408B, E4411B

EMC Analyzer

E7401A, E7402A, E7403A, E7404A, E7405A

PSG – Performance Signal Generator

E8241A, E8244A (L-Series)
E8251A, E8254A (A-Series)
E8247C, E8257C, E8267C (C-series)
E8257D and E8267D (D-series)

E8663 – Synthesized Source

E8663B

ESG – Vector Signal Generator

E4438C – Digital
E4428C – Analog

VSA – Transmitter Tester

E4406A

P-series Power Meter

N1911A, N1912A

NFA – Noise Figure Analyzer

N8972A, N8973A, N8974A, N8975A

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Installation

NOTE: The revision E.01.00 and later of calibration software application requires TME revision E.01.02 or later and a license key.

There are two different installation options; **local or network.**

In a local installation all ETE available to a facility must be entered into the local database of each computer so that it is available to the test environment for use.

In a network installation all the ETE available for testing needs only be entered once into the database of the server.

The network installation also allows split testing. The technician may perform all tests with available ETE at a specific client computer, and then change test location to complete the testing at another station. After completing the testing, all the data is integrated into a single report for the customer.

Downloading of the software should be done through the CalSoft download site – <http://calsw.tm.agilent.com/>

After downloading the software (TME and any applications you desire), use Windows Explorer (file manager) to navigate to the download folder.

For a local installation:

Click [Start][Run]

Type: <path>\STEYATE-TME-E0204.exe /i local /d "C:\Program Files\Agilent TME"

Click [Ok]

For a network installation:

Click [Start][Run]

Type: <path>\STEYATE-TME-E0204.exe /i network /d "C:\Program Files\Agilent TME Server"

Click [Ok]

Note: The "/d" option MUST be used with the network installation to ensure the correct path is used.

TME will now be installed. It takes about 5 minutes, and is an unattended installation.

To install TME on a client in a network installation, you first must share the "Agilent TME Server" directory on the server.

Once this is done, move to the client PC, and "Map" this as a drive letter (**S:** for example). Open Windows Explorer and go to the "Install" directory on drive **S:**. Execute the TME client setup file in that directory and follow the instructions.

Install the desired applications as follows:

For local install...

Download the desired application to the local PC using TSPM and execute the installation package.

For network install...

On the server

Installation of the application on the server is done the same way as for a local installation.

On the client

When TME is started the operator will be shown which applications are available and given the choice to install them on the client.

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Documentation

There is a large amount of on-line documentation available for TME. The first that should be read is the Read Me file available at the download site. This will guide you through the installation process and detail the hardware requirements needed to install and execute TME.

After the installation process has been successfully completed, you should read through the TME Help system. The help system can be accessed from the [Help] menu within TME, or can be under [Start][Programs][Agilent Test Management Environment] within the Windows environment.

Similarly you can access application specific help from within TME – **(Select the “RUN Test” page and click on the “Test Plan Help” button.)** This help is only available after you open an order for that specific Device Under Test (DUT). Any application help file is also available from the Agilent Test Management Environment program group ([Start][Programs][Agilent Test Management Environment]).

How do I find out what recommended test equipment (ETE) I need in order to test a specific model number (DUT)?

All ETE required to test a specific DUT is listed in the “Test Plan Help” for that device. Usually you will find that multiple generations of test equipment are supported for testing the DUT.

Administration

Administration of the TME is a very important part of the setup, installation, and maintenance of this tool. The area is password protected to prevent unauthorized changes to the system. The administrator first must login; select **[Administration][Login]** from the menu bar. The password field is initially empty (i.e., nothing need be entered) after installation. The user name is always 'Admin'. The password can be changed by clicking on the **[Change Password]** button.

Once logged in as administrator you will note that the ability to 'Run' a test or manage 'Orders' is no longer available to you. [This is done to separate the two tasks and ensure that tests are not interrupted!](#) You can now access the **[Configure Test Stations]**, and **[Data Management]** menu selections.

[For a Server/Client installation, logging in as administrator sets a server based lock to prevent other clients from running tests while changes to test stations are being made.](#)

Configure Test Stations

The Test Station is a collection of ETE, cables, and adapters for use at a specific location.

The first step after installation of the software is to add a new test station. Click on the **[Add Station]** button, and enter a unique name for a station (for example: MyStation, RO1234, etc.).

Since this is the first time setting up a station there is no ETE assigned to or available for use in testing. To enter ETE, first select a station. Then select the **"Test Plan"** of interest (Performance Test, Adjustments, etc.). Leave the "Equipment Type" set to ALL.

Now we are ready to add the equipment. Click on **[Add/Map]** equipment. You will note, in the dialog box that pops up, all of the equipment types listed are highlighted in red. The color indicates that there are no model numbers assigned to this equipment type.

- Select the equipment type you will define
- Select a model number from the drop down list
- Enter the serial number
- Optionally any unique identifier such as asset number
- When finished, click the **[Add/Map]** button

***NOTE:** A word of caution, do not click on the **[Done]** button until you have mapped all of the ETE for this station; **[Done]** will exit this routine.*

- Click **[Ok]** to accept the entry
- Repeat this process for all of the equipment types

***NOTE:** It is recommended that you enter all model numbers and / or serial numbers of all ETE you have available in your facility for each equipment type. If you do this, then making equipment substitution later is simplified. The 'primary' model / serial for any equipment type will always be the last item entered/selected during the 'Add/Map' process (**Last In, First Out**). All other models and serials entered are available for selection before running a test under the 'Run Test' tab.*

When you are done with the 'Add/Map' process, click the **[Done]** button.

You have now entered ETE for a single test plan. Select the next test plan and again click on the **[Add/Map]** button. Note that all the equipment types are highlighted in red, even though you have entered a model for that exact item previously. Select an equipment type that you know has a model number entered for it. Click on the drop down for model number and select the device you have available. Click on the drop down for serial numbers; all the serials for that model that where previously entered are there. Select the one you want and click **[Add/Map]**; click **[Ok]**.

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Here's a quicker way to accomplish the same task as above; click on [**Auto Map Equipment**]. Note most of the red highlights are gone. What happened?

The [**Auto Map Equipment**] function has gone through the list of required equipment types and mapped your previous entries. **The selection criterion is not perfect.** When there are similar equipment types (two type 'N' to 'BNC' adapters for instance) the 'auto' function will map the same adapter (same unique identifier) to each. You will need to manually select an alternate adapter in this case.

Now, select any equipment types that are still highlighted in red, and add the available model number, and identifier for each.

Click [**Done**] when you have finished mapping all available ETE.

Device Management

Now that you have all the equipment added and mapped you will need to confirm or enter some equipment attributes. On the left side of the admin screen you now see a collection of icons. These represent all of the ETE, adapters, cables, etc. that you have just mapped. Select an instrument that requires a GPIB address (source, power meter, etc.) The icon color is probably red.

Red - indicates that the 'Cal Due' date has expired (the default is 1 Jan 1970)

Green - indicates that the ETE is in its calibration period

Yellow - indicates that the ETE is due for calibration within 30 days

For general ETE click in the 'Cal Due' date area, and enter the correct date

The icon will now turn green.

Next, indicate the proper interface type, GPIB, VXI, LAN or Serial.

If needed, enter the correct GPIB address for this device (factory addresses are there by default.)

Enter any undetectable options (older products do not identify which options are installed).

For devices that require calibration data (power sensors, noise sources and step attenuators), you will need to edit the cal data, due date and trace number in a different manner.

Select the icon for the device, and click [**Edit Cal Data**]. You will see the following application:

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Calibration Data Editor

Save Export Import Clear Defaults

Model: 8482A Serial: Ref2

Trace Number: Cal Due Date: 1/ 1/1971

Ref Cal Factor (%)
100

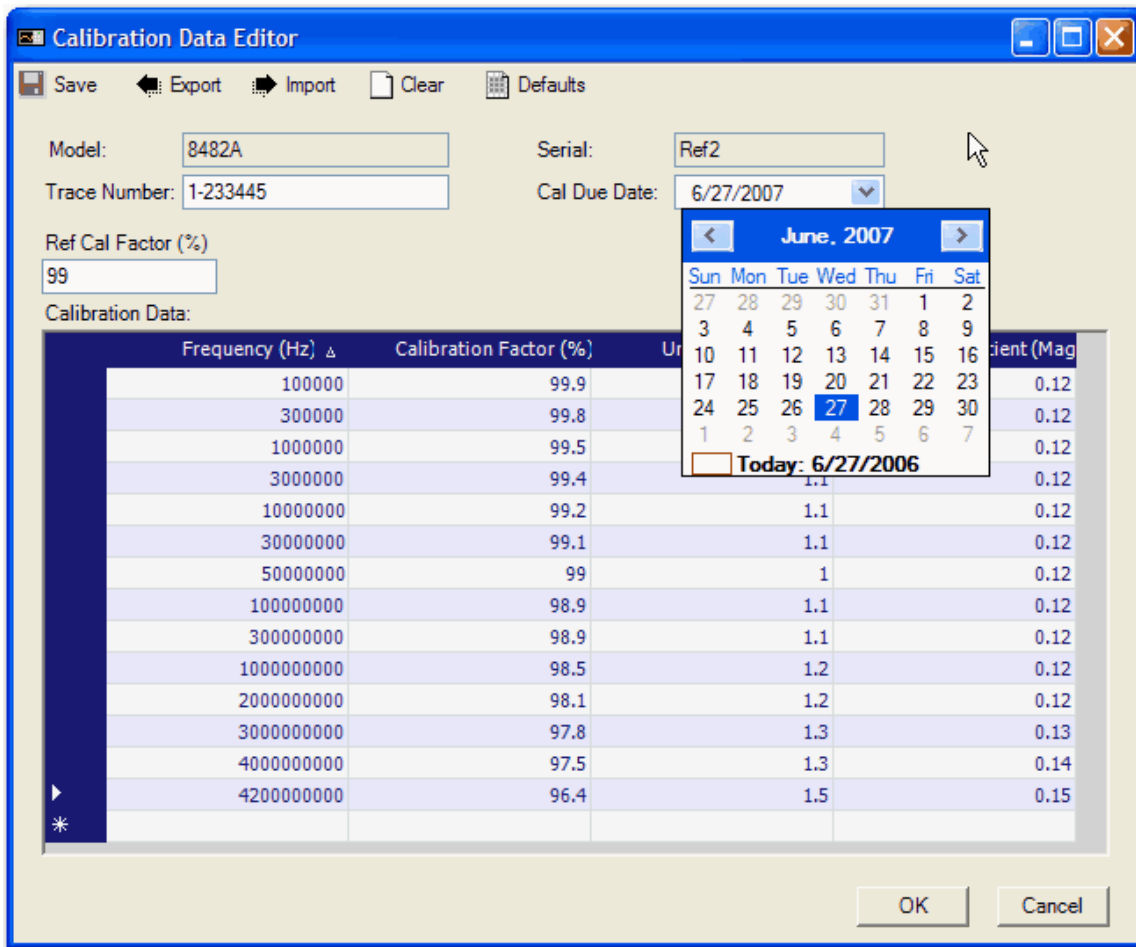
Calibration Data:

Frequency (Hz) Δ	Calibration Factor (%)	Uncertainty (+/- %)	Reflection Coefficient (Mag)
100000	100	0	0
300000	100	0	0
1000000	100	0	0
3000000	100	0	0
10000000	100	0	0
30000000	100	0	0
50000000	100	0	0
100000000	100	0	0
300000000	100	0	0
1000000000	100	0	0
2000000000	100	0	0
3000000000	100	0	0
4000000000	100	0	0
4200000000	100	0	0

OK Cancel

The initial values will be set to their defaults. The table is similar in operation to an MS Excel spreadsheet. Enter the correct values as indicated by the column headings. To insert a new frequency point scroll to the bottom enter the new data. The table will automatically sort when you have finished with the new row. Enter the appropriate trace number and then select the next calibration due date.

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When you have finished entering the data, click [Save] to save the data. You can also export the data to an XML format file. This data can then be imported into another TME application.

For power sensors you also need to enter the Reference Cal Factor. The parameters required for each type of calibrated device changes. The following information will guide you through the process for each type of device.

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Devices That Require Calibration Data

Power sensors—

The default frequency points are automatically entered for you. You can add or delete a frequency as required. In order to add a frequency, you must scroll to the bottom of the page, and enter the frequency, cal factor and measurement uncertainty. When done click on the **[Sort Records]** button.

Cal factors are entered as percent.

Uncertainty (%) is entered as a floating point number. A value for uncertainty must be entered or a test warning will be generated each time you try to use the device.

Your calibration report should also have values for reflection coefficient (ρ), enter this data also.

Step attenuators—

Step attenuator calibration data is similar to cal factor data for adding or deleting a frequency point. Click on **[Sort Records]** when done adding or deleting.

The attenuator calibration data received with the calibration report can be either **'relative'** (a number indicating the difference from the expected step value) or **'absolute'** (the actual step value). You will need to enter the **'absolute'** attenuation value for each step into this table. Also enter the MU, and reflection (magnitude or size & angle). Do not leave any blank entries especially the 0 dB point. If you do not know the information, enter a small value (0.001 for example).

Noise sources—

Noise source calibration data is similar to that entered for power sensors.

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Calibration Data Validation Checks

To ensure data integrity for measurements carried out with TME (Test Management Environment), the following verification checks are carried out at the beginning of each test run. The checks are only performed on devices that require calibration data which directly affects the test results. The following table lists the standard checks performed by default:

Device	Parameter Name and Description	Limits	A Failure Affects:
Noise Source	NoiseRatio(dB) The extended noise ratio, in dB	Must be > 0 and ≤ 30 at all points	All test runs
Power Sensor	CalFactor(%) The calibration factor, as a percentage	Must be ≥ 10% and ≤ 150% at all points Must not be 100% (the default) at all points	All test runs
	Uncertainty(%) The uncertainty of the calibration factor, as a percentage	Must be > 0 and ≤ 10% at all points	Test runs guard banded by measurement uncertainty only
	ReflectCoeff(Mag) The magnitude of the reflection coefficient	Must be > 0 and < 0.5 at all points	Test runs guard banded by measurement uncertainty only
Power Sensor (Wide Band)	LowBandCalFactor(%) The calibration factor, as a percentage, for the low band	Same tests as for CalFactor(%) on a one-range power sensor	All test runs
	HighBandCalFactor(%) The calibration factor, as a percentage, for the high band	Same tests as for LowBandCalFactor(%)	All test runs
	LowBandUncertainty(%) The uncertainty of the calibration factor, as a percentage, for the low band	Same tests as for Uncertainty(%) on a one-range power sensor	Test runs guard banded by measurement uncertainty only
	HighBandUncertainty(%) The uncertainty of the calibration factor, as a percentage, for the high band	Same tests as for LowBandUncertainty(%)	Test runs guard banded by measurement uncertainty only
	ReflectCoeff(Mag) The magnitude of the reflection coefficient	Same tests as for ReflectCoeff(Mag) on a one-range power sensor	Test runs guard banded by measurement uncertainty only
Step Attenuator	Atten(dB) The attenuation, in dB	Must be within 1 dB of the nominal attenuation. Must not all be exactly equal to the nominal attenuation (the default) at all points except zero, zero step is the reference and must be zero	All test runs
	Uncert(dB) The uncertainty of the attenuation, in dB	Must be > 0 and ≤ 0.1 dB at all points except zero, zero step is the reference and must be zero	Test runs guard banded by measurement uncertainty only
	ReflSize The reflection coefficient magnitude	Must be > 0 and < 0.5 at all points	Test runs guard banded by measurement uncertainty only

Note: Failure to comply with the CalFactor(%) or Atten(dB) will result in test data being labeled *Invalid* in both the TME interface and in any report format produced from the data.

Remove equipment

This selection allows you to remove equipment type from the list of available ETE.

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Configuration Tool

After you have entered all of the ETE information into the Administration area your next step is to set up the TME default configuration. First logout of the Administration area; then close TME.

Under Windows **[Start] [Programs] [Agilent Test Management Environment]** select the “Configuration Tool”. This tool allows you to pre-configure many different items that are common to testing. These items include:

1. Troubleshooting tool
2. Calibration site
3. Site address
4. User information
5. Environmental data
 - a. Temp
 - b. Humidity
 - c. Line freq

There is also a function called “**Reset Admin Login Flag**”. This function allows you to unlock a TME database if you receive the error “**Database has Administrative Lock set or is in use by another user**”, and you are sure that an administrator is not logged in. This error can occur if a computer is shut down while the user is logged into the administrative area. In a network installation, be sure that another user is not logged in as administrator on another PC. If you reset the admin login flag when someone is actually logged in you can corrupt the database.

Troubleshooting tool

This is for use by a factory support engineer. If you are having a problem with the software and contact the factory for help, you may be directed to use this tool.

Calibration site

Enter your entity name here and it will show up as the default in the work order.

Site data

Enter your entity address here.

User data

Enter the name of the technician or tech number primarily using this test station.

Environmental data

Enter the default values for; Temperature, Humidity, and Mains freq

Data, Order Management

Data Management is an Administrative function. You need to be logged in to have access to this function (except licenses). The data manager allows the administrator to delete:

1. **Order**
2. **Session**
3. **Test Run Data**
4. **License (customer license only)**
 - a. **In TME**
 - b. **In Instrument**

Order Management is a non-administrative task accessed from the [File] drop down menu. This allows the operator to enter a new order, find an existing order to use, or edit an existing order.

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New Order

Entering – fill in the data requested **(Add illustrations and discuss “Detect Model” dialog)**

Existing Order

Find (wildcards ok)

Edit (current order)

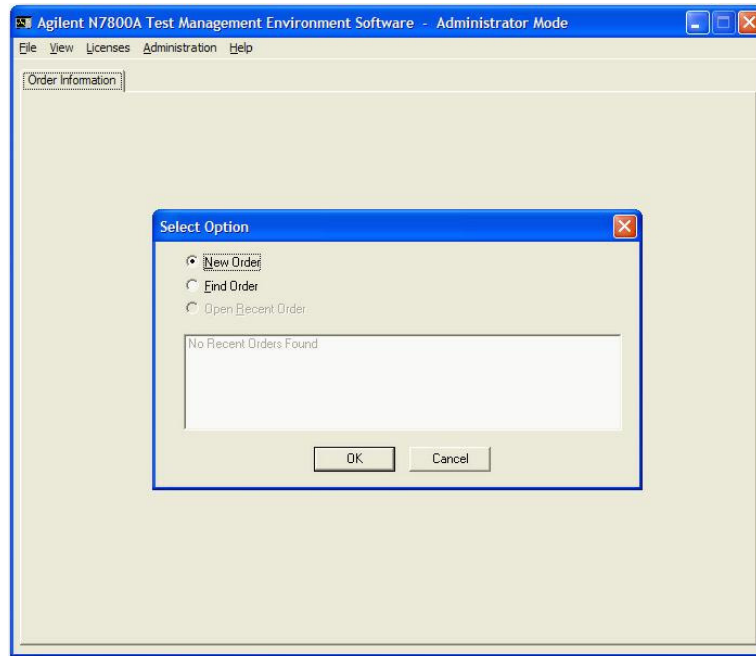
The “Session Status” area indicates any DUT options that were auto detected when the order was created and a session was defined. If current detected options do not match the DUT then the current session will be locked and no further testing can be started. To continue with testing a new session is required.

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Using TME

Order Information

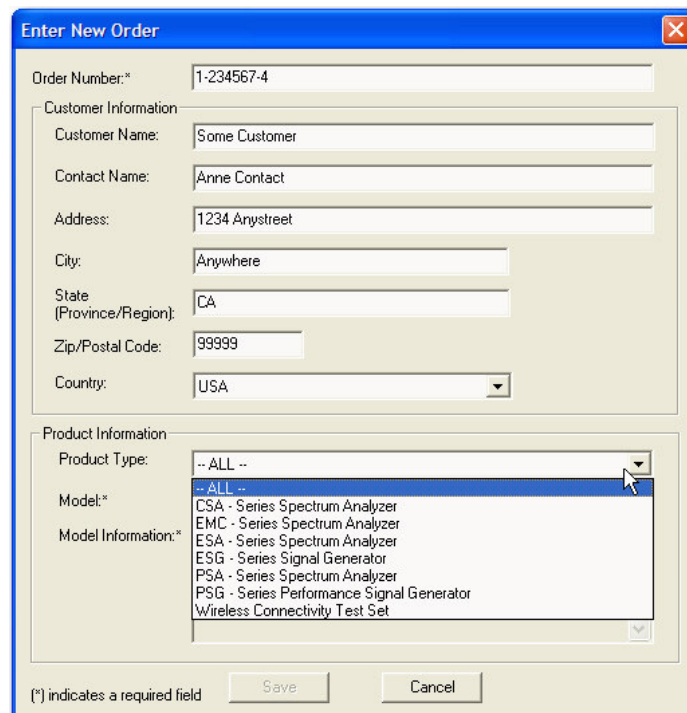
When starting TME the first screen presented is the “Select Option” screen. If you have not entered an order previously the option to select is “New Order”.



Click Ok, and start entering in the customer information.

New Order Form

After entering the customer information select the DUT product family.



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Then select the DUT Model number.

Enter New Order

Order Number:* 1-234567-4

Customer Information:

Customer Name: Some Customer

Contact Name: Anne Contact

Address: 1234 Anystreet

City: Anywhere

State (Province/Region): CA

Zip/Postal Code: 99999

Country: USA

Product Information:

Product Type: -- ALL --

Model:*

Model Information:* E4411B
E4428C
E4438C
E4440A
E4443A
E4445A
E4446A
E4447A
E4448A
E7401A
E7402A
E7402B

(*) indicates a required field

After you have select the model number, click on the [Model Info] button, and then click [Detect].

UUT Setup - Serial Number & Options Detection

Model: E4402B

Communication Properties:

CommType: GPIB

Board: 0

Address: 18

Restore Defaults

Detect >> Cancel

NOTE: Be sure that the DUT has been connect to the GPIB cable and is turned on. This function will automatically find the DUT and query it for serial number and installed options.

After the DUT has been detected and its option information retrieved, you will be returned to the order entry form and the [Save] button will no longer be inactive (grayed). Now click on [Save] to complete the order entry.

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Completed Order Form

The completed order information is now shown in the test executive, under the “Order Information” tab. There will also be tabs for running tests and viewing reports. The “Session Status” box will be empty until you have selected the session status from the Run Test area. Now you are ready to run a test sequence.

The screenshot shows the Agilent N7800A Test Management Environment Software in Administrator Mode. The interface includes a menu bar (File, View, Licenses, Administration, Help) and three tabs: Order Information (selected), Run Tests, and Test Reports. The Order Information tab displays the following data:

Order Number:	Dig Mod PLA	Date Created:	02/06/2006 02:51:06 PM
Customer:		Cal Site:	CSS-SoCo 1400 Fointaingrove Pkwy Santa Rosa CA 95403 USA
Product Type:	ESG - Series Signal Generator	Serial Number:	MY45091345
Model:	E4438C	Unique Identifier:	

Options: 003; 005; 417; 506; 602; UN7; UNB; UNJ

License	Expires	Status
Agilent-Internal	01/01/2007	VALID

Session Status:

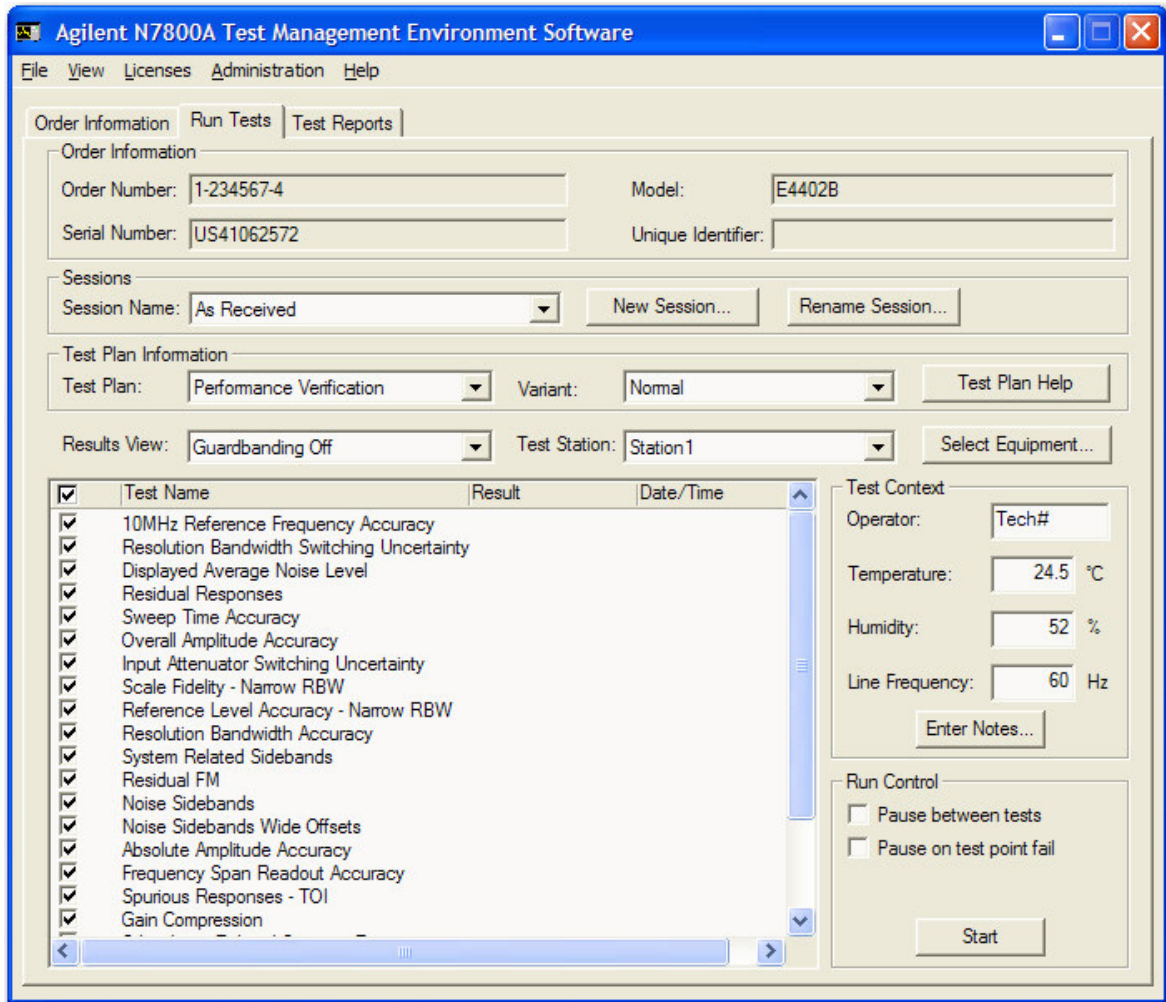
Name	Session Options	Status
As Received	003; 005; 417; 506; 602; UN7; UNB; UNJ	OPEN

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Run Tests

Congratulations! You have now fully configured your TME installation and are ready to take the next step; Run a test plan.

Before we begin lets look over the “Run Test” screen.



Session Name

The session name defines the testing you are about to perform. “As Received” can be used for incoming testing to identify any potential problems. “As Shipped” can be used for the final testing for getting a Cal Cert. You can rename any session to improve the status information.

Click on the [**New Session**] button. One of the following session names will be entered:

“As Received”

“As Shipped”

Click on [**Rename Session**] if you desire a different name for the session such as:

“As Completed”

“As Repaired”

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Test Plan

Selecting a test plan defines your test intent. Is this a:

Performance test (i.e., Calibration)

Adjustment (i.e., Repair)

Functional Verification without a full calibration (i.e., Performance Verification)

Variant

Typically the variant will always be “Normal”. There will, however, be instances when you will select something else. What is a test variant? It is as the name implies anything that varies from normal testing. Such as changing:

Test frequency range

Tested number of points

Test Plan Help

[Test Plan Help] provides the operator with specific help for the DUT being tested.

The help shows:

- Test procedure details
- Test specifications
- Equipment required
- Test connections
- Troubleshooting hints.

Results View

TME provides a complete measurement uncertainty for all tests. This information is available for the test reports.

Basic report – NO uncertainties shown

Z540 report – Uncertainties shown

ISO 17025 report – Uncertainties shown and applied to data

Guardbanding ON allows the comparison of test results against test specifications plus uncertainties.

Applying guardbanding to the test data provides a quick assessment of whether the test results fall into that gray area where the test data is within specification but is so close that uncertainty causes the actual results to be in question or indeterminate.

The definition of indeterminate is:

Measurement data falls within specified limits, but adding uncertainties to the unsigned (absolute) value of the measured data causes the result to fall outside the specified limits for the test.

i.e., $\text{unsigned}(\text{Result}) + \text{uncertainty} \geq \text{unsigned}(\text{specified limit})$

Test Station

A test station is a collection of test equipment and accessories. This does not need to be a physical test platform, though in practice it usually will coincide with an actual location in a service facility. All stations are defined in the administrative configuration area. Select a station from the drop down box.

The **[Select Equipment]** button is available here to allow temporary ETE substitution. Clicking on this button reveals a dialog box similar to the one used to enter (map) equipment. On the left is all the icons representing each equipment type (ETE, cables, adapters, etc.) The color of the icon (either red, green, or yellow) indicates the status of each.

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Red –

- The device is missing (no serial or model number shown)
- The device calibration date has expired

Green –

- The device is mapped and calibration is valid

Yellow –

- The device calibration is due within 30 days

The primary use for this area is to allow the selection of alternate ETE for testing. The drop down boxes for model and serial number will reveal all mapped ETE available for substitution. Select the device you will be using, and verify the cal due date, and GPIB address (if any). Click on [Ok] to exit.

Select test(s)

Selecting tests to be run is as easy as checking or un-checking the box provided. All tests can be selected or de-selected by use of the box at the top of the column in the banner.

Previously run tests are indicated with a status and run time after the test name.

The optimum test order is shown when the area is first entered. A new test order can be defined by simply dragging the tests up or down in the list.

Test Content

Fill in your operator ID in the box provided. Testing cannot continue until there is an entry in this field.

You will need to enter the necessary environmental parameters before running your tests. If the parameters are missing or incorrect simply click in the box and type in the correct value. Leaving this information blank will cause a delay in testing as the test executive will alert you that the data is missing when each test executes.

Test notes allow you to note any additional information that needs to be noted on the test report. This could be the physical condition of the product upon receipt (scratched, bent, dented, etc.)

Run Control

During test execution you can select to “Pause a test” either between tests, or on fail of a data point. This allows the operator to choose whether to continue, retry, or abort testing.

Test Reports

How to generate, view and print reports.

As you can see, the Order Number, Model, Serial Number, and Unique Identifier are selected automatically by the current order you have open. Your task now is to select from the other report traits available to you.

They are:

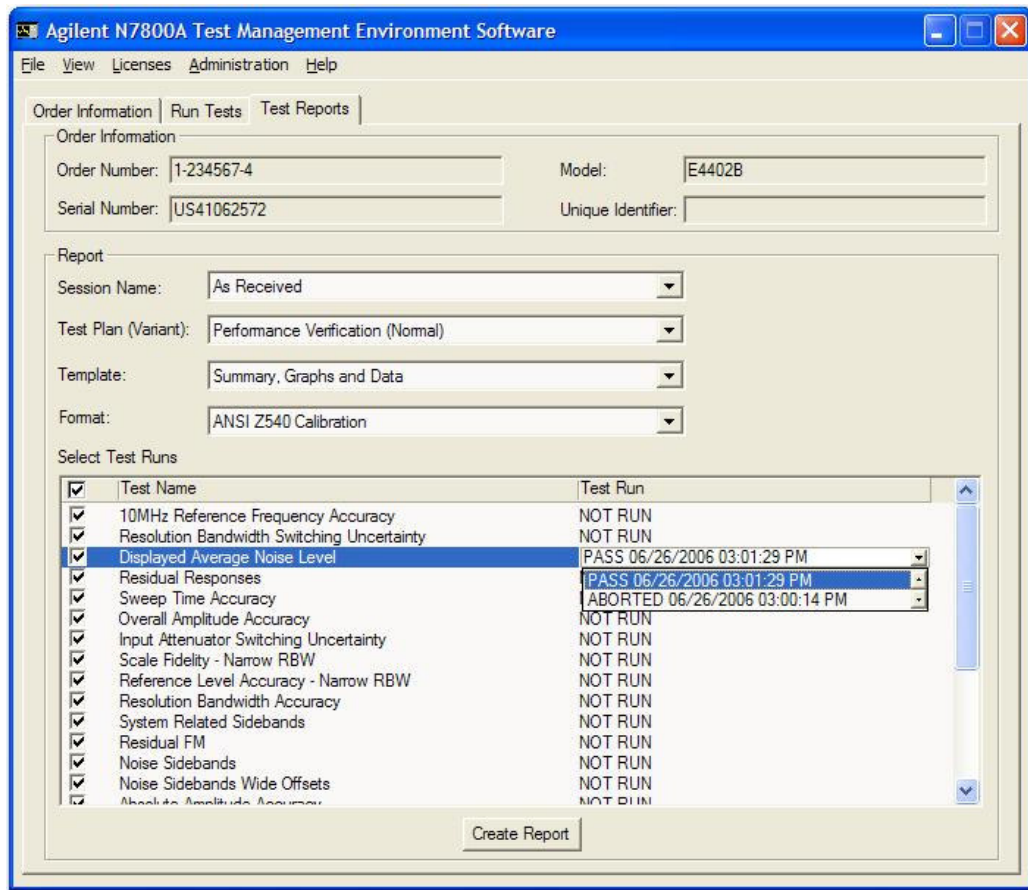
- Session Name
- Test Plan (Variant)
- Template
- Format...
 - ANSI Z540
 - ISO 17025
 - Basic Calibration

Select Test Runs...

Choose the test run results you wish to report. Select from;

Passed, Failed, Aborted, or date of testing

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[Create Report]

Click on this button to generate and view a test report. From the resulting screen you can view all the data and graphs, print the data to a local or network printer, or generate a PDF file for saving and printing.

For printing the report, use a local or network printer

Single sided printing only

[Export]

Click on this button to export the calibration data:
To a format for later use by another application—

- Adobe acrobat (pdf)
- Crystal reports (rpt)
- MS Excel (xls)
- MS Word (doc)
- Rich text (rtf)
- Separated value (csv)
- Text (txt)

To an application—

MS Word, Excel, Text, etc.

To a location—

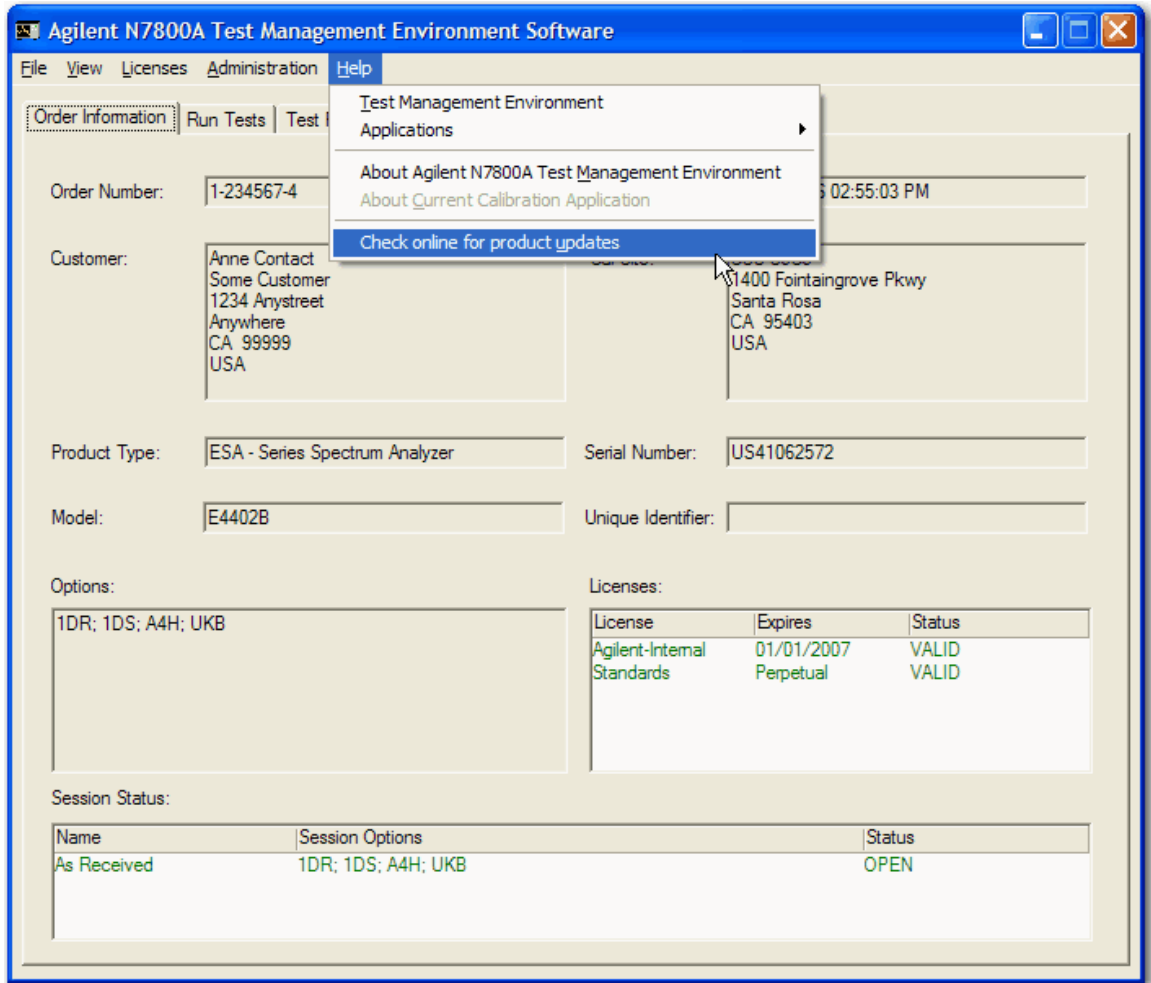
Disk

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Live Update

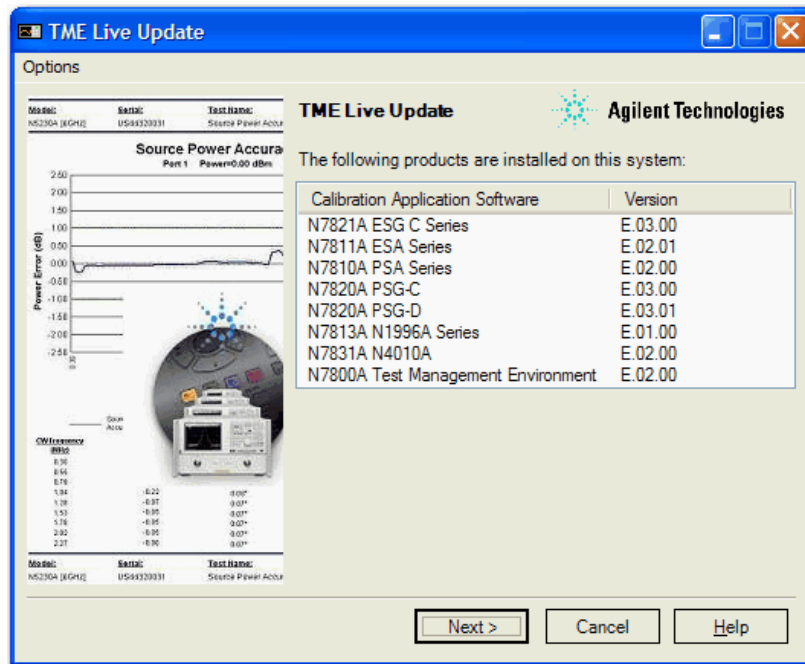
How to update software from the web.

Select the [Help] drop down menu, and click on “Check online for product updates”.

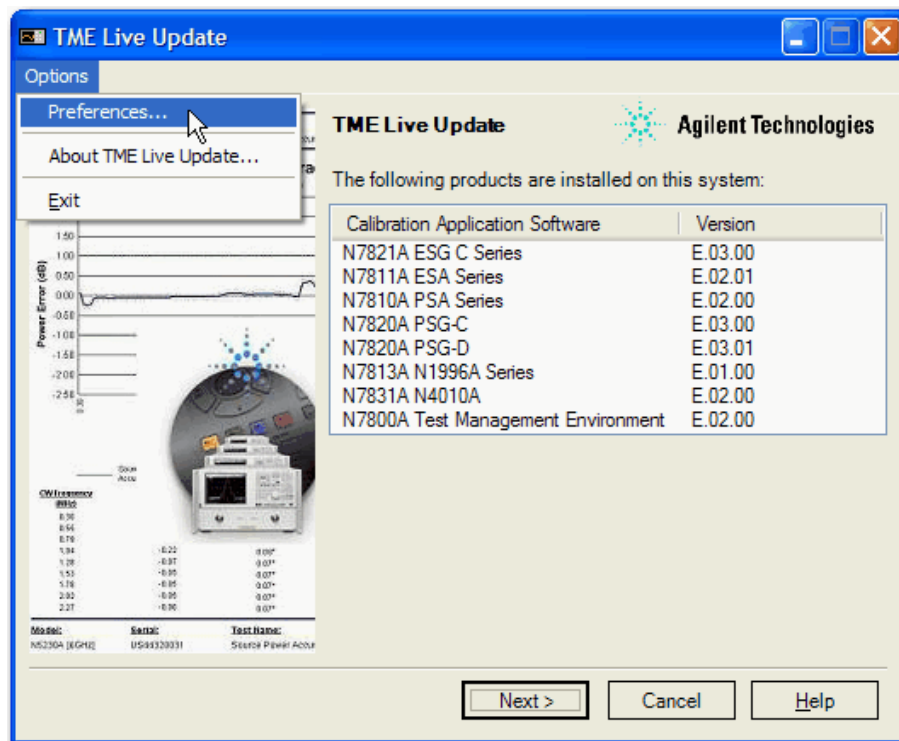


The TME Tutorial

The TME Live Update application will launch and show you the products and the revisions installed on this PC.

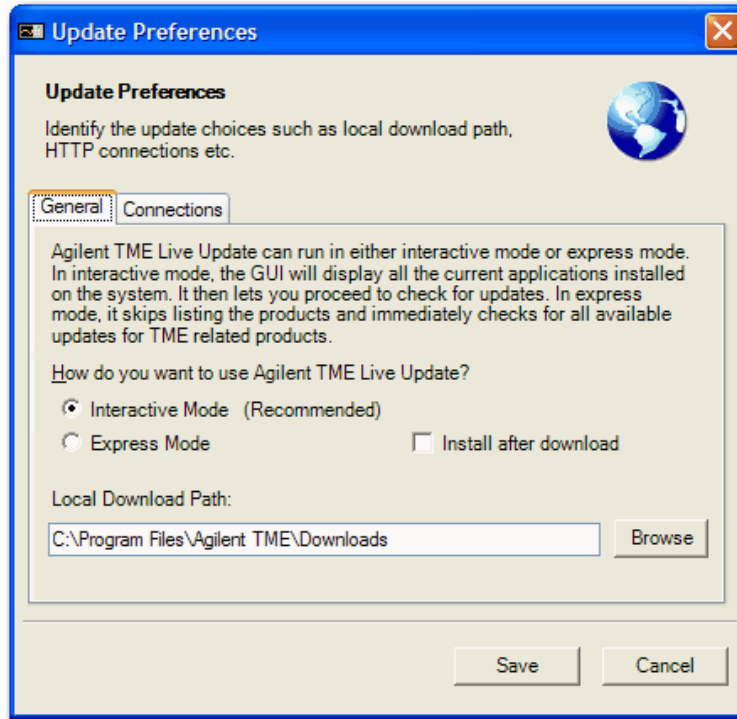


If this is the first time using TME Live Update, first select “Preferences” as shown in the image below

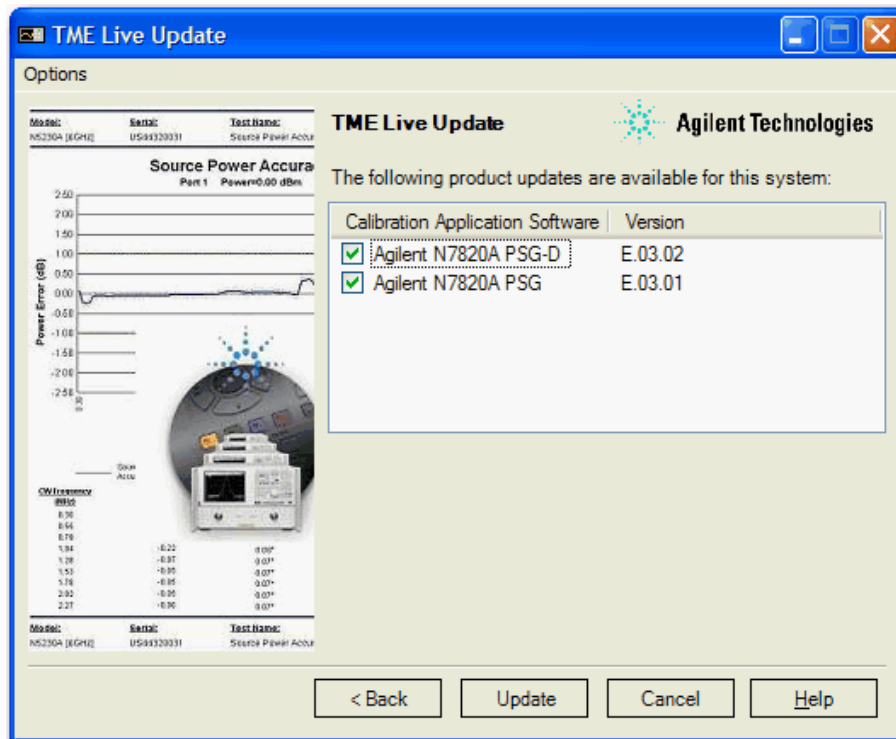


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Next enter the complete path where you want your downloads stored (default shown).



Save the changes and Click on [Next]. TME Live Update will check for updates and show you any available. Click the check box for those you wish to download.



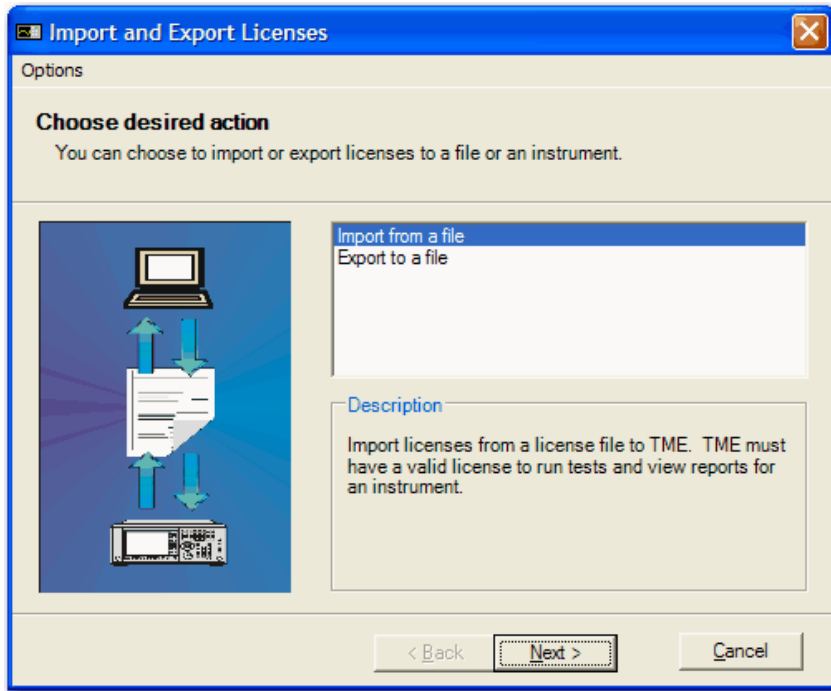
After the applications are downloaded, exit TME Live Update and TME. Using Windows explorer navigate to the download folder you set above, and install the package updates.

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Licensing

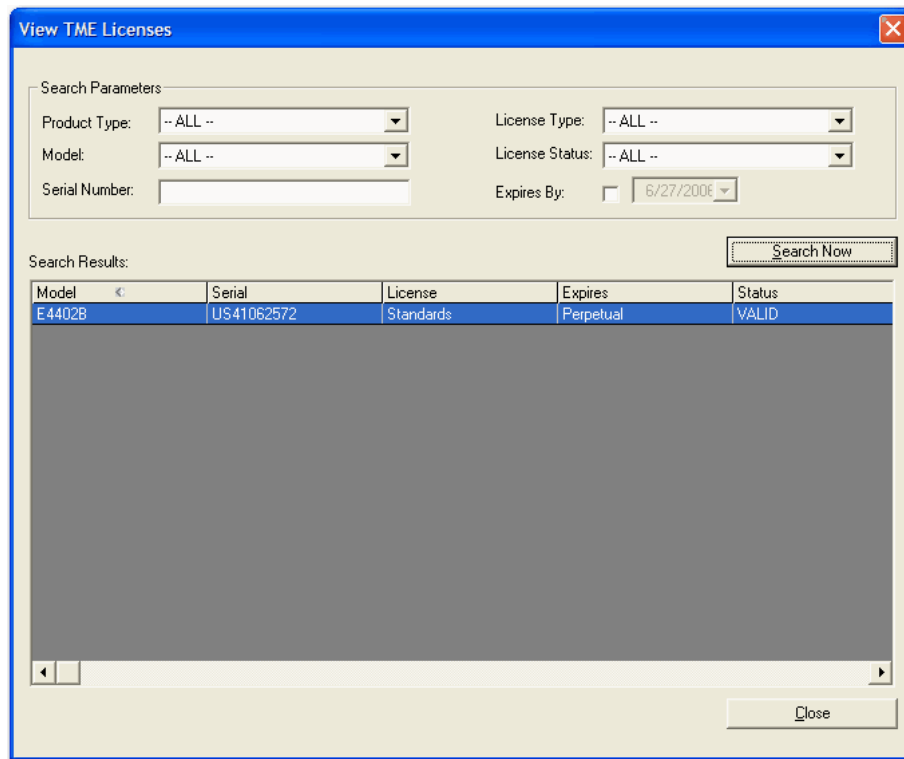
Import and Export Licenses...

A license can be imported from a file or an instrument. You can also export existing licenses to a file or an instrument. Click [File][Import Export Licenses...] on the TME menu bar, and the following dialog will pop up.



View Licenses

Licenses can be viewed at any time (with or without an active order) using the TME [License] drop down menu.



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Delete Licenses

Licenses can be deleted in TME or an Instrument by clicking [Administration][Data Management][Delete Licenses...] from the TME menu bar

