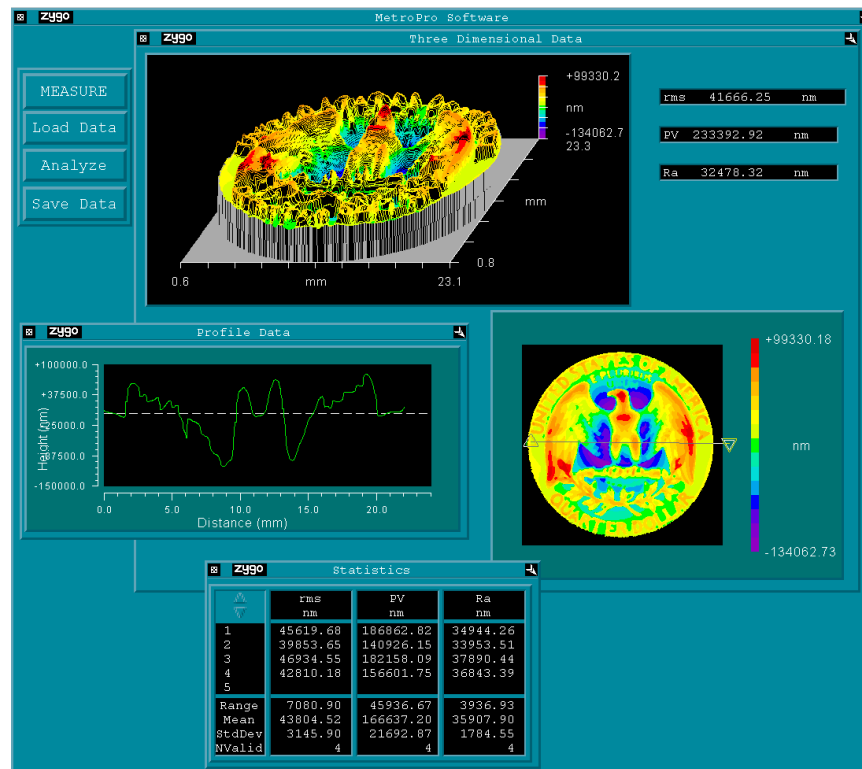


## What is MetroPro?

MetroPro transforms data from Zygo's instruments into measurement results. Data is converted into graphic displays and numeric results, and displayed on the MetroPro screen. MetroPro provides full-featured, precision measurement software that includes standard applications to get you started quickly, and the tools to make your own special applications. Once you learn the basic operation of the mouse, menus, and windows, it is easy to get the results you want.



## Minimum System Requirements

- Microsoft® Windows XP Professional, Service Pack 1 or above
- Dell Computer, 2 GHz or faster (Contact ZYGO for specific model compatibility)
- Color Monitor capable of displaying true color (32 bit) at 1280 x 1024 resolution
- 512 MB RAM
- 2 GB of free hard-disk space
- CD-ROM Drive
- 1.44 MB Floppy Drive

## MetroPro Media

MetroPro software is supplied on CD. A separate floppy disk is also supplied that contains calibration, camera, and system files, which are unique for one particular instrument. This floppy should not be used with other ZYGO instruments. The floppy disk is serialized to match a corresponding instrument.

MetroPro is factory installed. The CD serves as backup. In the default configuration, there is a "C:\MetroPro" directory, which contains MetroPro files, and a "zygo" user account.

## The Quick Start Overview



It is *not* necessary to install MetroPro; it is factory installed.  
For information on Windows administrator and user account functions refer to Microsoft Windows documentation and help files.

1. Turn on the computer and instrument.
2. Log on as the “administrator,” with “zygo” as the password.
3. Open MetroPro, select the Edit/View Licenses command, and enter licensing codes. These values are provided by ZYGO and are linked to the computer.
4. If necessary, create Windows user accounts. (See note under MetroPro User Setup.)
5. Run the MetroPro User Setup program to copy "master" MetroPro application files to the each Windows user account.
6. Log off as the administrator.

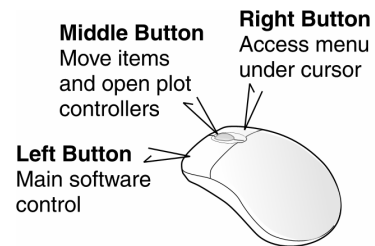
## Using the Mouse

User interaction with MetroPro is with a three-button mouse and the keyboard.

The *left* button is used primarily to activate screen buttons and controls.

The *middle* mouse button is used to move items and to open control panels for plots (plot controllers).

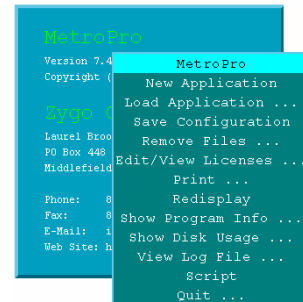
The *right* mouse button is used primarily to display menus and choose commands from them.



## Accessing Menus

MetroPro uses pop-up menus instead of a menu bar. To access an item’s menu, position the cursor over the item (window, control, plot, result, or button) and press the right mouse button.

This menu is accessed at the top level MetroPro Window. Select the Load Application command to load applications into the MetroPro “base” window.



## The “Administrator”



ZYGO recommends that one person should take the role of the “administrator”. This person is responsible for controlling the use of MetroPro. The “administrator” manages the workstation’s overall configuration and has complete control over the read and write access of directories. Improper use of administrative functions can cause system difficulties and failures.

### Administrator Log On

In the Log On to Windows dialog box, enter “administrator” as the username, with “zygo” as the password.



Details on the administrator’s role and how to manage users and passwords are found in Microsoft Windows documentation and help files. The administrator may want to change their password from “zygo” to one of their own choice.

## Licensing MetroPro

It is necessary to license MetroPro to make measurements, load existing data, and use specialized applications. MetroPro and separate licensable applications are licensed by entering dates and key codes in the MetroPro Edit/View Licenses window. These values are provided by ZYGO and are linked to the serial number of a hardware key, Ethernet ID, or computer processor serial number.

1. Connect the hardware key to the computer's USB port or parallel port. If you want to use the Ethernet ID or the processor serial number, refer to the next procedure before continuing.
2. Turn on the instrument and computer.
3. Log on to Windows as the "administrator" and open MetroPro.
4. Press the *right* mouse to access the MetroPro Window menu and choose Edit/View Licenses.
5. For each applicable option, a Start Date, End Date, and Key must be entered. To enter a value, click on the item with the *left* mouse button, type in the date or key and press Enter. Dates and key codes are supplied by ZYGO. When completed, click the Done button to close the window.



There must be entries under the ID column before dates and key codes can be entered. If there are no numbers in this column, contact Zygo Customer Support.

### Entering Licensing Values in the Edit/View Licenses Window

For each applicable option, a Start Date, End Date, and Key must be entered. To enter a value, click on the Date or Key with the left mouse button, type in the value and then press <Enter>. Codes are supplied by Zygo. Click the Done button to close the window.

ID	Option	Start Date	End Date	Key
1 6680800044	MetroPro 7.4.2	080-01-1990	080-01-2000	0000-0000-0000-0000
2 6680800044	AB3 Geometry	080-01-1990	080-01-2010	0000-0000-0000-0000
3 6680800044	Advanced Scan	080-01-1990	080-01-2010	0000-0000-0000-0000
4 6680800044	Advanced Plot	080-01-1990	080-01-2010	0000-0000-0000-0000
14 6680800044	Wall Angle	080-01-1990	080-01-2010	0000-0000-0000-0000

Annotations:

- An ID number will appear only if a proper hardware key or other system identifier is found.
- Clicks entry with no changes
- Click to close window
- sample window only

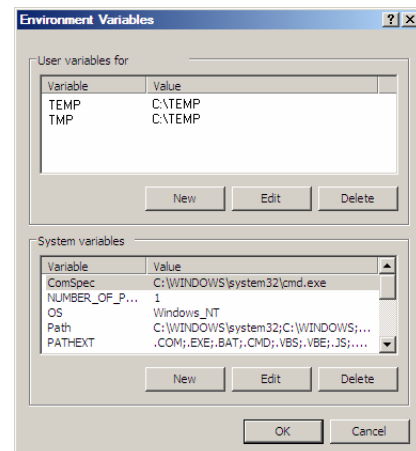
## Using the Ethernet ID or Processor Serial Number for Licensing

MetroPro supports two additional forms of system identification for the purpose of generating license codes- the Ethernet ID or the Processor Serial Number. To use these forms, an environment variable must be added to the system.

1. Point to the Windows Start button and select Settings → Control Panel.
2. Open the System icon, select the Advanced tab and click the Environment Variables button.
3. Under System variables click the New button.
4. For Variable name type MPHL.
5. For Variable value type either ETHERNET or PROCESSOR to use the corresponding identification. Then click OK



To use Processor, the computer must have a Pentium III or higher processor. Additionally, the serial number feature for the processor may need to be enabled using the BIOS or some other utility.



6. Click OK on the series of open Dialog boxes.

## MetroPro User Setup



The MetroPro User Setup program copies the licensed MetroPro application files and makes working directories so individual users can modify and create custom applications without changing the original files.



MetroPro user setups can only be made for existing Windows user accounts.

Be sure to license MetroPro and your applications before running setup.

1. Log on to Windows as the “administrator.”
2. If necessary, create Windows user accounts.



It is highly recommended that Windows user accounts are used. If the computer is connected to your company domain it is not necessary to create Windows user accounts; user accounts are created and maintained by your system administrator. If the computer is *not* part of a domain, open Users and Passwords in the Control Panel to create Windows user accounts. A user account must exist for a person to log on to Windows. Note that the computer is factory-configured with a “zygo” user account.

3. Click the Windows Start button and open Metropro User Setup.
4. Follow the on-screen instructions.
5. Repeat steps 3 and 4 for each applicable Windows user account.

## Starting MetroPro

1. Turn on the computer and instrument.  
When the log on message appears, press CTRL+ALT+DEL to log on.
2. Type a User name and Password. If you do not have a user name, enter “zygo”. Do not enter a password. Press <Enter> or click OK.
3. Open MetroPro by:  
Double-click the MetroPro program desktop shortcut; or  
Click the Windows Start button and select MetroPro; or  
Use Windows Explorer to navigate to the MetroPro\bin directory and double-click MpX\_X\_X.exe.



For normal everyday use, do not log on as “administrator,” use “zygo” or other user names. Zygo can be used as a username because during the factory installation, a “zygo” user account is created. Additional user accounts should be created within Microsoft Windows by the administrator.

### Log On to Windows



**MetroPro Icon**  
click to open MetroPro



Metropro X\_X\_X

## Quitting MetroPro

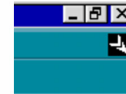


Use the Save Application command or the Re-save Application command to preserve any changes to the application before closing it.

Application Closebox



1. To close open applications, click the closebox in the upper *left* corner of each opened application window.
2. To quit MetroPro, click the closebox on the *right* side of the MetroPro Window title bar.



MetroPro Titlebar Closebox

An alternate technique is to select Quit from the MetroPro Window menu.



Quit Command

## A Quick Look at Applications

You should become familiar with the parts that make up a MetroPro application. This terminology is used throughout the documentation. An application consists of one or more windows, boxes, and buttons. The particular combination of items represent one use of the instrument. Most items have their own unique menus, accessed with the right mouse button.

### Application Window

a specific configuration of windows, controls, and results

### Buttons

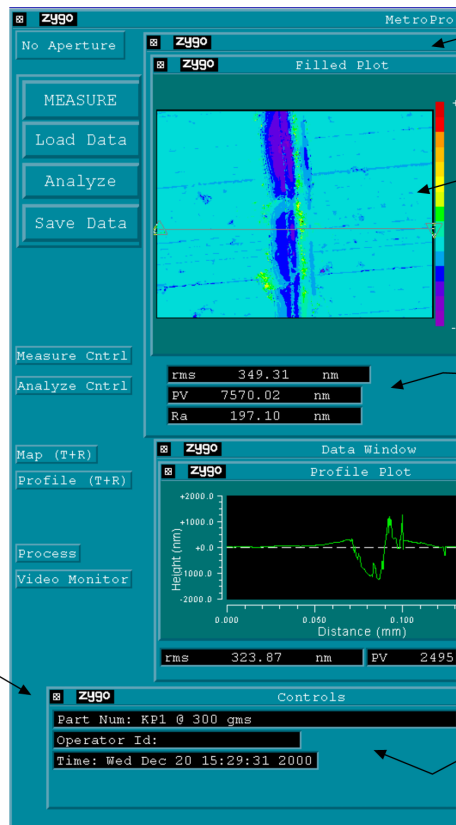
perform an action when clicked

### Icons

represent closed windows

### Control Window

contains functional items that determine how the instrument or software operates



### Data Window

contain results and plots

### Plot Window

display graphic results

### Result Boxes

display numeric results

### Control or Attribute Boxes

control analysis or show attributes

## Upgrading MetroPro



### An Important Note About Upgrading

Refer to the Minimum System Requirements on page 1.

To work properly, you must install the MetroPro upgrade into the original installation directory location.

Before beginning, make backup copies of user files. Upgrading MetroPro over-writes existing files that have the same names as the original file names. Files in user accounts and user-created files with unique names are *not* over-written or deleted.



### Information You Need to Know Before You Upgrade

Know the amount of RAM in your computer. To find out the amount of RAM, point to the Windows Start button and select Settings → Control Panel, and open the System icon; at the General tab the amount of RAM is listed.

If you have a MESA or MicroLUPI, you must know the interface bus type of the instrument board. To identify the interface bus, look at the back panel of the board; PCI interface bus type boards are labeled, ISA type boards are not.

## Upgrade Procedure

1. Shutdown all programs and reboot the system. Log on to Windows as the “administrator.”
2. Make backup copies of any original MetroPro files that have been modified for your own use. This may include application files (.app), mask files (.mas), and script files (.scr). Make copies of files in the default MetroPro directory and user files created with the User Setup Program in the user directory.
3. Uninstall the previous version of MetroPro. This can be done by pointing to the Windows Start button and selecting Settings → Control Panel → Add or Remove Programs.
4. Insert the MetroPro CD into the CD-ROM drive.
5. Run the MetroPro installer program Setup.exe. Follow the on-screen instructions. Use the information under “Upgrade Hints” (below) to help select the proper selections during this process.
6. Restart the computer when prompted. Log on to Windows as the “administrator.”
7. Open MetroPro. Select the Edit/View Licenses command from the MetroPro window menu. Enter the key and dates for the new version; these values are supplied by ZYGO. Click the Done button.
8. If you made backup copies of files in step 2, copy the files back to the appropriate directory.
9. Each user who wants to use the new version of MetroPro will need to run the MetroPro User Setup program to update their files.
10. If you try to use existing application, pattern, or settings files, and MetroPro says the file requires updating, run the applicable conversion utility program. See “Converting MetroPro Files.”

### Upgrade Hints



#### Choose Destination Location

This selection must match the original MetroPro install location.  
C:\Metropro is the original default directory.



#### Select Instrument Files Location

These files are read during installation.  
C:\Metropro\cfg is the default location.  
These files are also provided on a floppy disk with the original instrument.



#### Install Selection

Instrument Type... *do not change.*  
Interface Bus Type... see "Information You Need to Know Before You Begin."  
Camera Type... *do not change.*  
Frame Grabber... *do not change.*  
Amount of RAM... enter amount of RAM in the computer as determined beforehand.

## Converting MetroPro Files

Often, when a new version of MetroPro is released, existing user-created files may require conversion so they are compatible with the new software. MetroPro will inform you that a file requires updating when you try to load it; if this is the case, you must convert your files as described here.



It is not necessary to convert user-created files unless MetroPro provides a message that the file is not compatible.

The utilities to perform the conversion are supplied with MetroPro in the MetroPro\bin directory. In general, once you convert your files, they cannot be opened with an older version of MetroPro.

<i>AppConvert</i>	Converts user-created application files.
<i>PatConvert</i>	Converts user-created pattern files, which control instruments with motorized stages.
<i>SetConvert</i>	Converts settings files, which are used as application control presets.

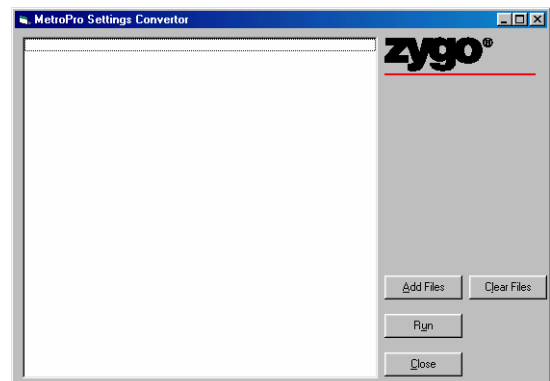
### Using AppConvert or PatConvert

1. Open a Command Prompt window.
2. Change to the directory containing the files requiring conversion.  
For example, after the command prompt type: `cd C:\users\MyLogin`  
“C:\users\” is the default MetroPro users directory. “MyLogin” refers to the name of the user directory where your files are located.
3. To convert application files, after the prompt type: `C:\MetroPro\bin\AppConvert myapp.app`  
Where “myapp.app” is the name of the application you want to convert. Additional names may be listed using a space between each name. Note that using “\*.app” will convert all application files within the directory specified in step 2.
4. To convert pattern files, after the prompt type: `C:\MetroPro\bin\PatConvert mypattern.pat`  
Where “mypattern.pat” is the name of the pattern file you want to convert. Additional file names may be listed using a space between each name. Note that using “\*.pat” will convert all pattern files within the directory specified in step 2.
5. After the conversion is over, the successfully converted files are listed. Click the OK button to close the Convert window. To quit the process, close the Command Prompt window.

### Using SetConvert

1. Open the SetConvert program. It is located in the MetroPro\bin directory.
2. Click the AddFiles button. Using the Select Files dialog box, select the files you want to convert. Multiple files can be selected and converted.
3. Click the Run button to convert the files. After the conversion is complete, the program lists the results.
4. When complete, click the Close button to quit the SetConvert program.

The SetConvert Program Screen





## Finding Information

ZYGO product information may be provided as separate manuals as listed below, or grouped together in a “System Manual.” Instrument or hardware information is found in the applicable operation manual. Software information is documented in logical groups as described below.

### Documentation for Zygo’s Products

<i>MetroPro Quick-Start Guide</i>	OMP-0469	Starting, licensing, and updating MetroPro software.
<i>Instrument Operation Manual</i>	various OMP’s	Provides general description for your ZYGO instrument, including operational controls, installation, safety, and maintenance.
<i>Application Booklets</i>	various OMP’s	Details on MetroPro applications specific to your instrument.
<i>MetroPro Reference Guide</i>	OMP-0347	The resource for information on MetroPro. Explains controls, results, windows, and other features of the software.
<i>MetroScript Programming Language</i>	OMP-0399	A guide to using MetroScript, MetroPro’s scripting language. MetroScript is used to automate and customize MetroPro.
<i>MetroPro Remote Access</i>	OMP-0476 OMP-0496	Describes controlling multiple ZYGO instruments through a local area network.
<i>MetroPro User Notes</i>	OMP-0470	Interim MetroPro documentation that describes new and changed features specific to a particular software version.



Manuals are available in electronic pdf form on CD or in paper form; contact your ZYGO representative for details. Electronic versions are also available online at [www.zygo.com](http://www.zygo.com).

## Customer Support

For help within North America, please use the contacts listed below. For help in other countries, please contact your local Zygo Corporation representative. Before contacting us, please have the instrument model, serial number, and the software version.



**PHONE** Monday - Friday, 8 a.m. - 8 p.m. (Eastern Standard Time)  
(800) ZYGO NOW (800) 994-6669 or (860) 704-5191



**FAX** (860) 346-4188



**INTERNET** [www.zygo.com](http://www.zygo.com)  
[support@zygo.com](mailto:support@zygo.com)

This document pertains to MetroPro version 8.0.0 and above.

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