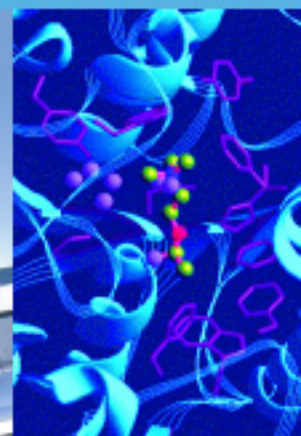
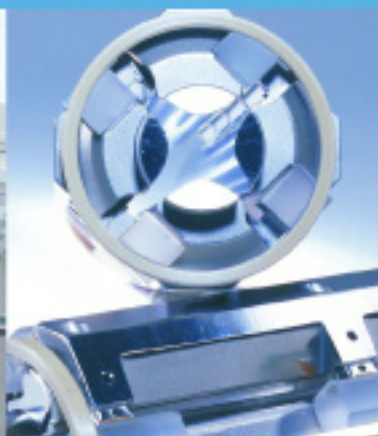


ChromQuest™ 4.2 Chromatography Data System

Administrator's Guide

CHROM-97201 Revision A

April 2005



Analyze • Detect • Measure • Control™

Thermo
ELECTRON CORPORATION

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System Configurations and Specifications supersede all previous information and are subject to change without notice.

Software Version: ChromQuest 4.2

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Preface

About This Guide

Welcome to ChromQuest™4.2. The ChromQuest chromatography data system is a member of the Thermo Electron family of LC data systems.

Whether you are a new ChromQuest user or are upgrading from a previous version of ChromQuest, we think you will find the features of ChromQuest 4.2 both powerful and well organized.

This *ChromQuest Chromatography Data System Administrator's Guide* describes the administrative tasks that you need to perform after you install the ChromQuest data system.

For information on configuring a SpectraSYSTEM LC or a Surveyor Plus LC, refer to the sections at the back of the *ChromQuest Chromatography Data System User's Guide*.

Related Documentation

In addition to this guide, Thermo Electron provides the following documents for the ChromQuest chromatography data system:

- Installation Guide
- User's Guide
- Reference Guide
- QuickStart

Safety and Special Notices

Make sure you follow the precautionary statements presented in this guide. The safety and other special notices appear in boxes.

Safety and special notices include the following:

IMPORTANT Highlights information necessary to avoid damage to software, loss of data, invalid test results, or information critical for optimal performance of the system.

Note Highlights information of general interest.

Tip Helpful information that can make a task easier.

Contacting Us

There are several ways to contact Thermo Electron Corporation.

Assistance

For new product updates, technical support, and ordering information, contact us in one of the following ways:

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Contact Technical Support

Phone: 1-800-685-9535

Fax: 1-561-688-8736

E-mail: techsupport.finnigan@thermo.com

Find software updates and utilities to download at <http://mssupport.thermo.com>

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In the US and Canada for ordering information:

Phone: 1-800-532-4752

Fax: 1-561-688-8731

Web site: www.thermo.com/finnigan

Changes to the Manual and Online Help

To suggest changes to this guide or to the online Help, use either of the following methods:

- Fill out a reader survey online at www.thermo.com/lcms-techpubs
- Send an e-mail message to the Technical Publications Editor at techpubs.finnigan-lcms@thermo.com

Chapter 1 Managing ChromQuest

ChromQuest systems can be installed in a variety of configurations to satisfy the needs of the individual company: single stand-alone data system with instruments attached, multiple stand-alone data systems on a network without a domain controller (non-Windows 2000/XP network), workstations on a Windows 2000/XP network using a domain controller, or in the client/server mode with multiple networked ChromQuest Interfaces and ChromQuest Clients. System Administration functions are available for all configurations to maximize the security and efficiency of the data systems.

This chapter contains the following sections:

- [Windows 2000/XP Environments](#)
- [System Administration Functions](#)
- [Enabling the System Administration Functions](#)

Windows 2000/XP Environments

When ChromQuest systems are networked using a Windows 2000/XP computer as a domain controller, security privileges are granted to users and groups for resources (ChromQuest or otherwise) that are shared on the network through the domain controller. The ChromQuest System Administrator then configures the ChromQuest enterprise, configures instruments, defines projects, and assigns users or groups access privileges to projects and instruments within the enterprise. Project definition and editing, and assignment of user and group access and privileges are accomplished using the ChromQuest System Administration Wizards.

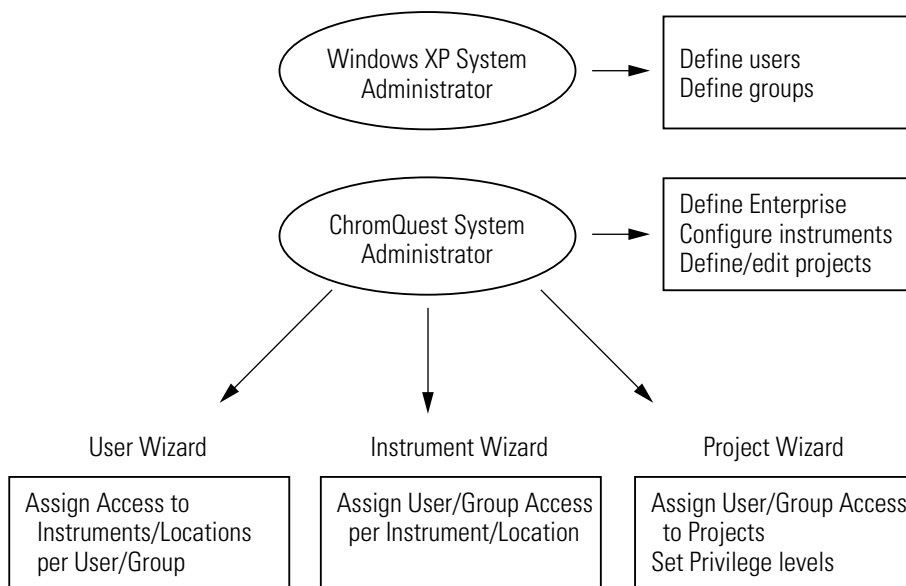


Figure 1. ChromQuest 4.2 Windows 2000/XP environments

System Administration Functions

The System Administration function includes setting up or modifying the system enterprise (locations and laboratories), and adding and configuring instruments. It also involves the following administration functions, which are performed using Wizards.

This section contains the following topics:

- [Enterprise Configuration](#)
- [Enterprise Options](#)
- [System Administration Wizards](#)

Enterprise Configuration

The Enterprise consists of all the ChromQuest Workstation, ChromQuest Interfaces, and ChromQuest Clients in your network. After you install the ChromQuest chromatography data system, you must add the PCs within your network to it. This function is performed from the Main Menu window and is described in detail in **Chapter 5: Configuring Instruments**.

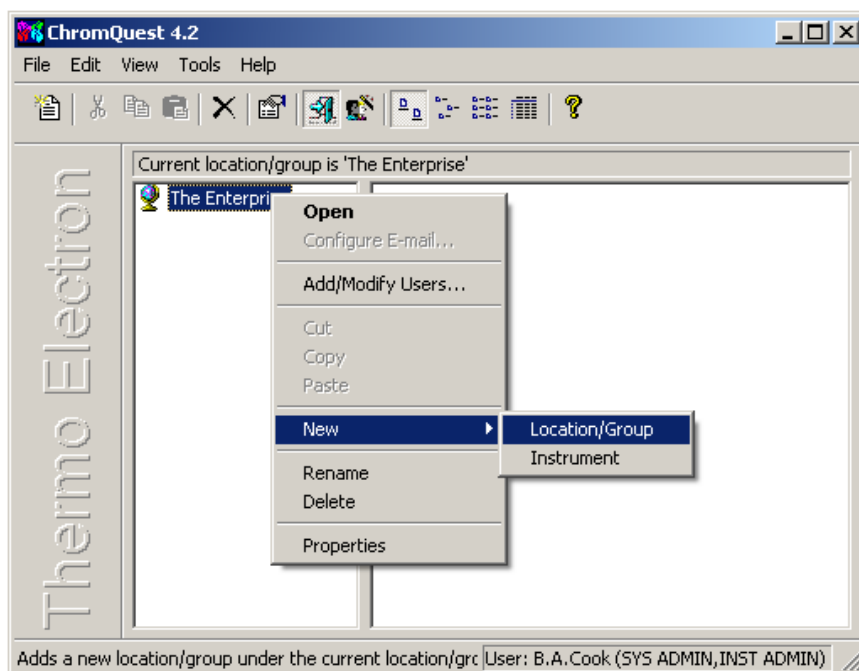


Figure 2. ChromQuest 4.2 - The Enterprise menu

Enterprise Options

Once you have successfully logged onto the Enterprise, you have access to setting the Workstation, Enterprise, General, and E-Mail options.

System Administration Wizards

There are three System Administration Wizards:

- [The User Wizard](#)
- [The Instrument Wizard](#)
- [The Project Wizard](#)

Administrating the Enterprise with these Wizards is described in detail in **Chapter 4: Using the System Administration Wizards**.

The User Wizard

The User Wizard allows you to do the following:

- Assign Administration functions to a user or group, including System Administration and Instrument Administration.
- Select instruments or locations available to a user or group.
- Add or delete users (only for non-domain workstations).

The Instrument Wizard

The Instrument Wizard allows you to do the following:

- Assign users or groups to an instrument on the domain.
- Assign users or groups to a location on the domain, granting access to all instruments in that location.

The Project Wizard

The Project Wizard allows you to do the following:

- Define new projects or editing existing projects. A project is comprised of a name, location, description, and defined locations for data, method, template, and sequence files.
- Select users and groups for a project.
- Set project privileges for each user (access to command functions such as method development or instrument control).
- Remove projects from active use.

System Administration capabilities can be assigned to as many users as required. The System Administration function is set as part of the User Wizard.

Enabling the System Administration Functions

To access the System Administration functions from the ChromQuest Main Menu, you must login to the Enterprise.

To login to the Enterprise



1. Choose **Tools > Enterprise Login**. Alternatively, click on the Enterprise Login or Logout button on the command ribbon.

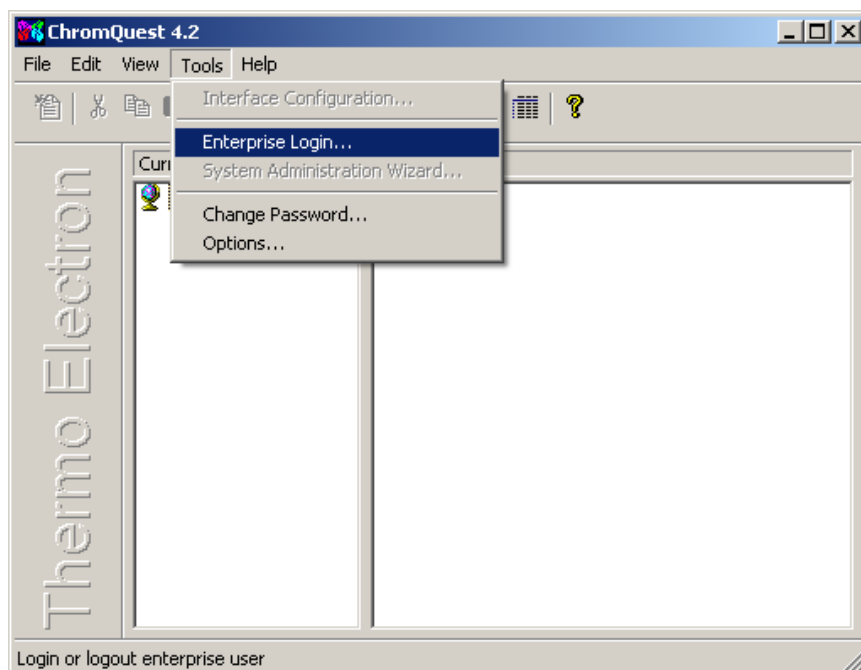


Figure 3. ChromQuest 4.2 - Enterprise Login menu

The Login dialog box appears.

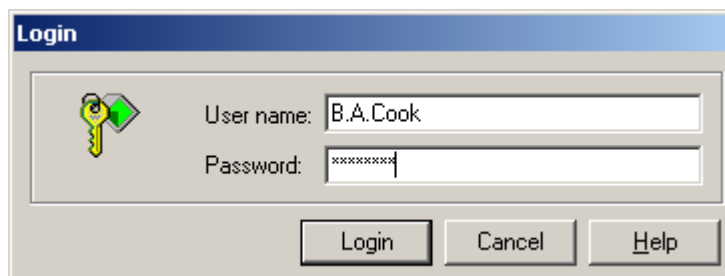


Figure 4. Login dialog box

2. To login, type your assigned user name, followed by your password, and select the Windows 2000/XP domain you are using.

If your system does not use a domain controller, your login screen will not display a “domain” choice.

1 Managing ChromQuest

Enabling the System Administration Functions

Once you have logged-in, the System administration functions and buttons on the menu bar will become active.

The first time you run the software after installation, you will be presented with a dialog where you must designate your System Administrator.

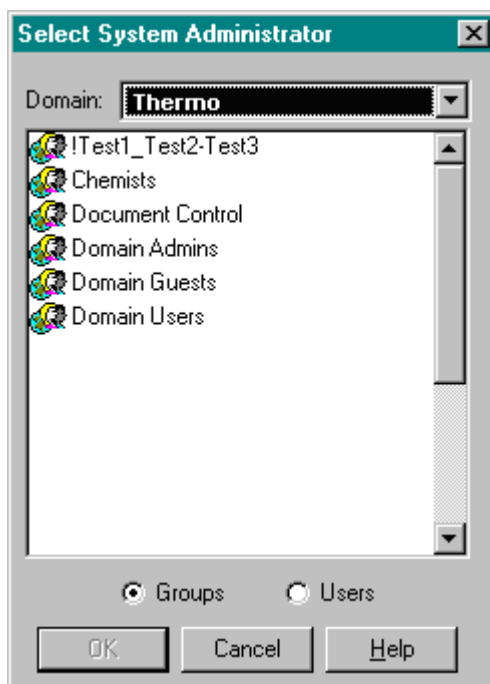


Figure 5. Select System Administrator dialog box

3. To select a single administrator, do the following:
 - a. Select the correct domain, and then select the Users option button to view the users of the domain.
 - b. Select a user from the list, and then click on **OK** to establish this user as the ChromQuest System Administrator.

Note You can give system administration capabilities to additional users through the System Administration User Wizard.

Chapter 2 **Selecting the Enterprise Options**

Once you have enabled System Administration mode, and have successfully logged onto the system, you have access to setting the Workstation, Enterprise, General, and E-Mail options.

To access the Options dialog box, choose **Tools > Options** from the Main Menu bar.

This chapter contains the following sections:

- [Workstation Options](#)
- [Enterprise Options](#)
- [E-Mail Options](#)
- [General Options](#)
- [Enabling the System Activity Log](#)

2 Selecting the Enterprise Options

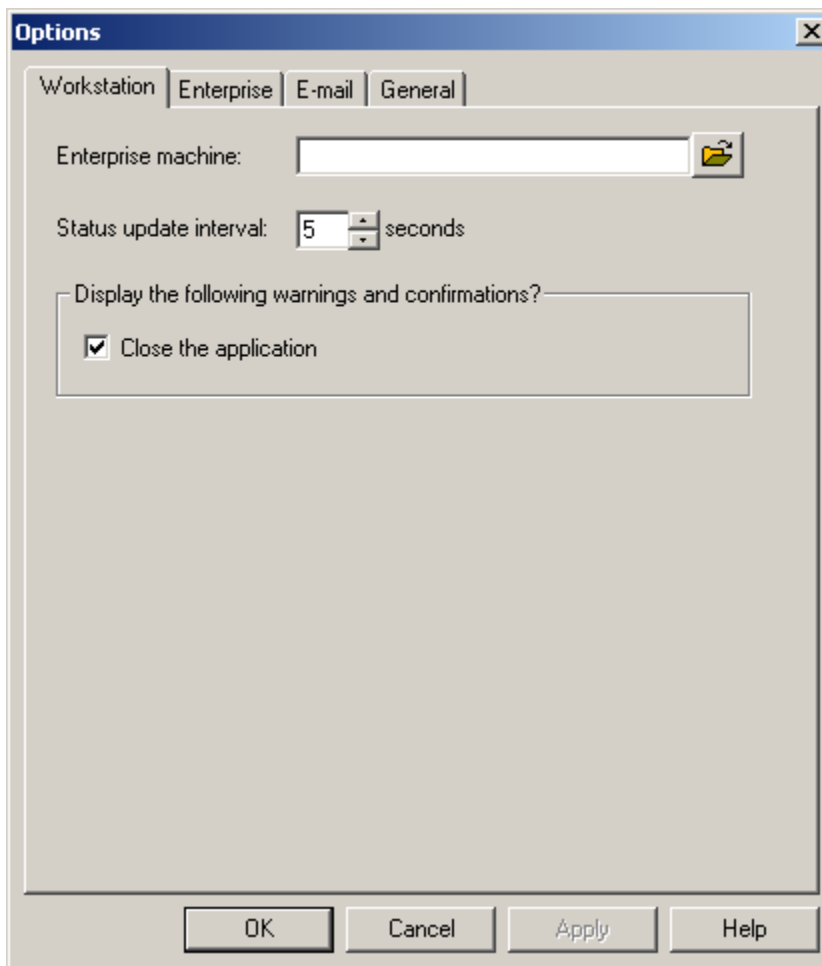


Figure 6. Options - Workstation dialog box

Workstation Options

The Workstation page of the Options dialog box shown on [page 8](#) allows you to set options that apply to your workstation. These include the following:

- [Enterprise Machine](#)
- [Status Update Interval](#)
- [Display the Following Warnings and Confirmations?](#)

Enterprise Machine

If you are using the network domain to supply user lists, you must specify a Windows 2000/XP machine on the network that is also running this application. This machine will supply network information. The enterprise machine selected during installation is displayed by default. You may change the machine by typing its enterprise name in the field, or by selecting it from a list of enterprise machines by clicking on the file open button. The enterprise machine must be the same for all clients and servers in the enterprise.

This option is not available if you have chosen the Obtain user list from Data System selection in the Enterprise Options.

Status Update Interval

When instruments are displayed in the Main Menu with the **View > Details** option, the status of each instrument is shown (for example, Idle, Available, In Use). You can select how often the instrument status display is updated using this text box. Select the number of seconds you wish to have between status updates.

Display the Following Warnings and Confirmations?

If you want to view warnings and confirmations when you close the applications, select this check box.

Enterprise Options

Select the Enterprise tab to view or change the current settings for your Enterprise. The Enterprise page includes the following options:

- [Instrument Control Mode](#)
- [Enable Instrument Login and Project Management](#)

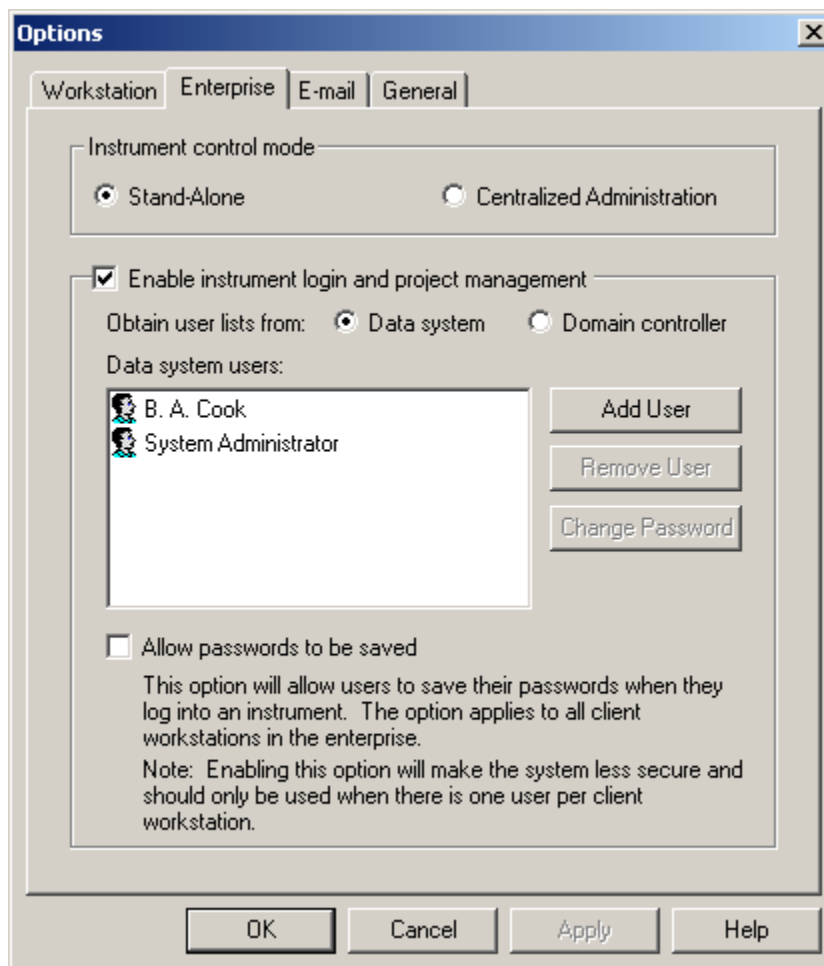


Figure 7. Options - Enterprise dialog box

Instrument Control Mode

Select the Stand Alone option button to do data acquisition and control for instruments connected directly to the ChromQuest data system workstation.

Select the Centralized Administration option button if you want Enhanced File Access Security. Access to the contents of the Enterprise path will be restricted so that unauthorized users cannot use Windows Explorer or other programs to access files in the Enterprise Path.

Enable Instrument Login and Project Management

Select this check box to turn on the security functions for login and project management. If this check box is not selected, you will not be required to log in when accessing instrument or administration functions. Normally, this check box is selected, except in single-user labs or where instrument or project access security is not an issue.

After you select this check box, the following options become available:

- [Obtain User List From: Data System](#)
- [Obtain User List From: Domain Controller](#)
- [Allow passwords to be saved](#)

Obtain User List From: Data System

Select the Data System option button if you are running a stand-alone data system (not networked) or you are not using a domain controller for your network.

If you are not using a domain controller to obtain user lists, a list of currently defined users for your workstation will be displayed. To add a user, click on **Add User**, and complete the User Information dialog box. To delete a user, select the user name from the list, and click on **Delete User**.

The User Information dialog box allows you to define a new user name and password for access to your data system that is not using a domain controller.

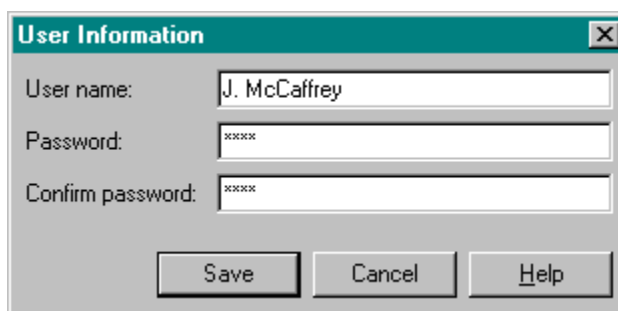


Figure 8. User Information dialog box

- User Name

Type the name of the new user, as it will be entered (including capitals and punctuation).

- Password

Enter the password for this user. The password will be required whenever the user logs into the system.

2 Selecting the Enterprise Options

Enterprise Options

- Confirm password

Confirm the password by typing it again. Click on Save to save the name in the list of enterprise users.

Obtain User List From: Domain Controller

Select the Domain Controller option button if you are connected to a Windows 2000/XP network with a domain controller.

Select domains to be scanned

Select on the check box(es) next to the domain(s) you wish to scan for users/groups. Click on **Add Domain** to delete a domain from the list after highlighting it with the mouse. Click on **Refresh** to updates the list of current domains.

If you are not using a domain controller to obtain user lists, a list of currently defined users for your workstation will be displayed.

Lockout setup

Click on this button to open the Login Lockout dialog box and view the options for setting up login lockout.

The Login Lockout dialog box is where a system administrator can set up the parameters for locking out specific users or locking users out after a given number of login attempts. The parameters in this dialog box affects only ChromQuest user accounts, and does not affect Windows 2000/XP access.

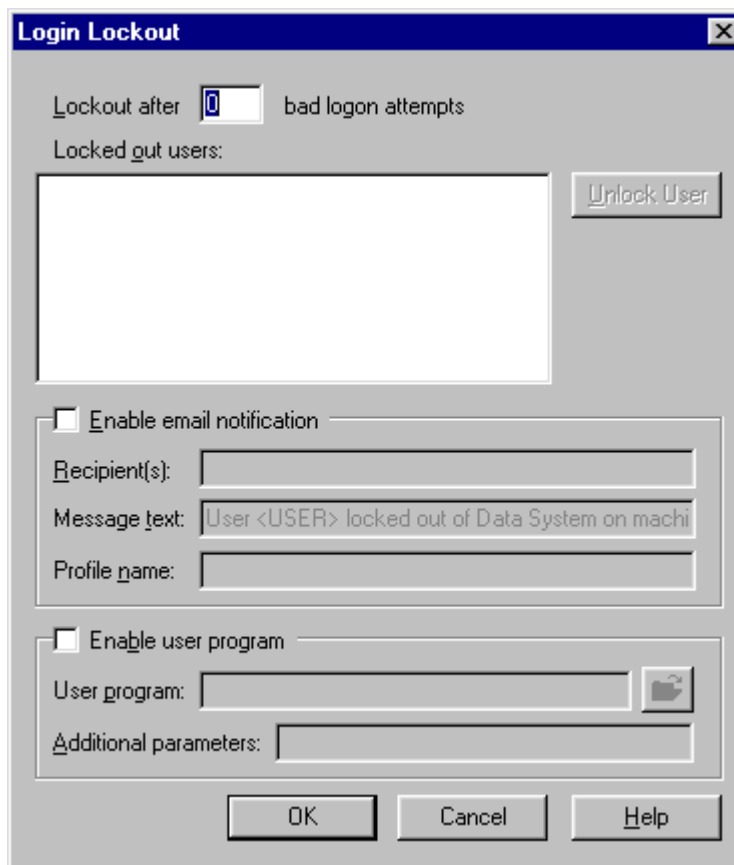


Figure 9. Login Lockout dialog box

- Lockout After Bad Logon Attempts

Enter a number in the field. After this number of failed attempts to logon (bad password, etc.) the user attempting to logon will be locked out of the system. When this occurs, the user cannot access the system until the system administrator has unlocked his/her user account. Processes already started by the user (such as sequence acquisition) will not be affected. Entries will be made in system logs when a user is locked out.

- Locked Out Users

Locked out users are listed in this area. To unlock a user, select the user or users, and then click on **Unlock User**.

- Enable email notification

When this is selected, an email message will be sent to the designated addresses whenever a user is locked out. In order for the email notification to work, a MAPI-compatible email must be installed on the server.

- Recipients

Enter the email address(s) for email notification. You can enter multiple email addresses by separating them with a semicolon.

- Message text

The default message for email notification is "User <USER> locked out of Data System on machine <MACHINE> due to failed login." This string is also used for the subject line of the email generated. The subject line cannot be modified.

- Profile name

A MAPI-compatible email must be installed on the server to support email notification. A profile will need to be set up on that machine. This profile needs to be set up to "not prompt for a password". The profile name can then be entered into the Login Lockout dialog.

- Enable user program

Select this check box if you want to launch a user program whenever a login lockout occurs. When "enable user programs" is checked in the Login-Lockout dialog box, the path must be a network path. This dialog box is accessed by choosing **Tools > Options > Enterprise**, and then clicking on the Lockout Setup button in the Domain Controller mode. The application launched must be in a shared folder. The application will run on the enterprise machine.

- User program

Enter the name (including path) for the user program to be launched.

- Additional parameters

Enter any additional parameters required by the program here.

Allow passwords to be saved

When this check box is selected, the user's password will be saved when the user logs into the system. Subsequent logins will not require the user to enter their password. This option is designed for systems where only one user will be using a client workstation. Because the passwords are saved, system security is decreased.

Enable Single User Login Mode

Select this check box to allow users to login to all the instruments in the Enterprise simultaneously. To open a different instrument in the Enterprise, users need only select a project from the Select Project dialog box.

E-Mail Options

The E-mail options page allows you to set up your e-mail protocol. To enable the selections on this page, select the Enable check box. When the Enable check box is not selected, controls are disabled and previously- configured notifications are not sent by instruments.

The E-Mail Page

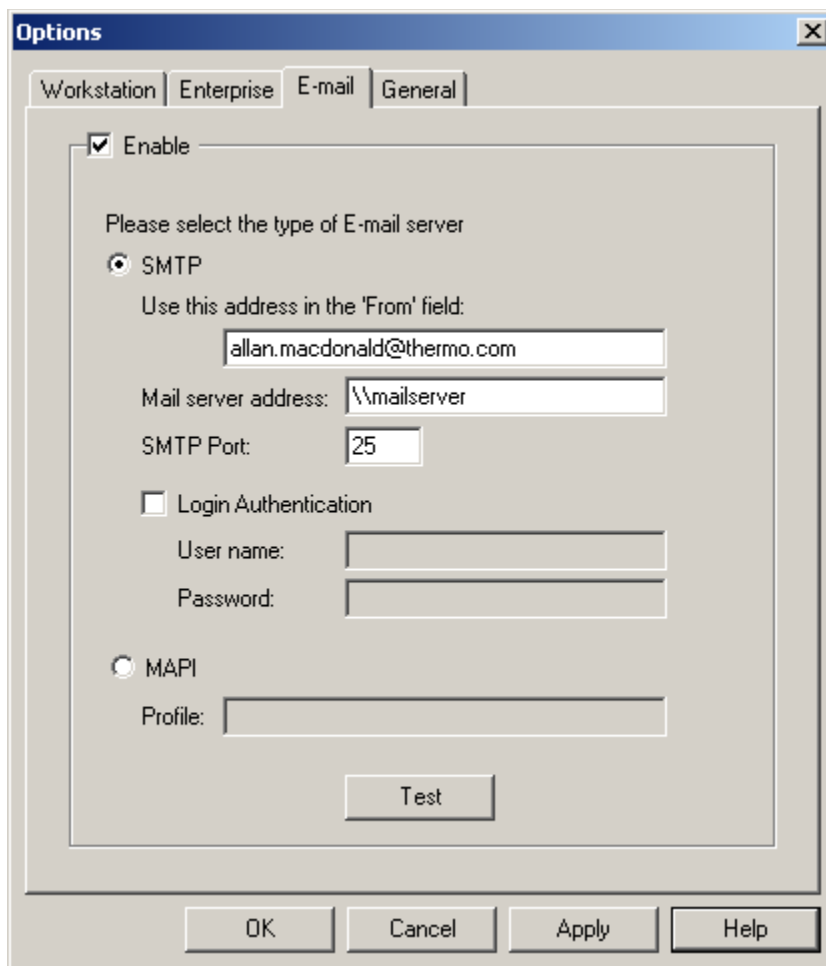


Figure 10. Options - Email dialog box

SMTP (Simple Mail Transfer Protocol)

SMTP is an acronym for Simple Mail Transfer Protocol. An SMTP server is a server that sits on a network port and receives connections. An SMTP session involves the identification of the client (usually a machine running an email program), and the transmission of email headers and content. When a session ends, the SMTP server starts the process of sending the mail over the network.

Select the SMTP option button if SMTP is to be used for e-mail.

- Use this address in the 'From' field

Enter an e-mail address of a valid user.

- Mail server address

This text box is used to specify the SMTP compliant E-mail address of the local mail server to whom the e-mail notification should be sent. This field can be a valid TCP/IP address or a URL name understood by the network.

- SMTP Port

This field is used to specify the TCP/IP port number used for SMTP mail.

- Login Authentication

Select this check box to enable login authentication. Enter your user name and password for login authentication.

MAPI (Messaging Application Programming Interface)

MAPI is an acronym for Messaging Application Programming Interface. It is a system built into Microsoft Windows that enables different e-mail applications to work together to distribute mail. As long as both applications are MAPI-enabled, they can share mail messages with each other.

Select the MAPI option button if MAPI is to be used for e-mail.

The profile text box is used to specify the MAPI Profile to be used for sending e-mail.

Test

Clicking this button will cause the system to attempt to connect to the e-mail server and test the port (for SMTP) or will check if the profile exists on the server (for MAPI). This function will display a message box indicating the success or failure of the connection attempt.

Setting up Email Notification in ChromQuest

Email notifications from ChromQuest (version 4.0 or higher) are done through a Messaging Application Programming Interface (MAPI) on the Enterprise Machine. To set this up, you will first need information on how to install email software and connect to the appropriate network server for the organization. The specific settings are different for all organizations so it is generally necessary to consult with a network administrator.

1. Verify or install email software that supports the Messaging Application Programming Interface (MAPI). Windows Messaging Mail and Microsoft Outlook support MAPI but Microsoft Outlook Express does not. If you use Microsoft Outlook, it must be configured for "Corporate or Workgroup". The "Internet only" configuration does not support MAPI.

For Windows 2000, a separate MAPI-compatible email program must be installed, as one is not included with the operating system.

2. Send email directly from the email program on the Enterprise Machine and verify it is received as expected. If this is not working, ChromQuest will not be able to send email.
3. From the Windows Control Panel, double-click Mail and identify the profile name. This name will be entered in the administration for ChromQuest.

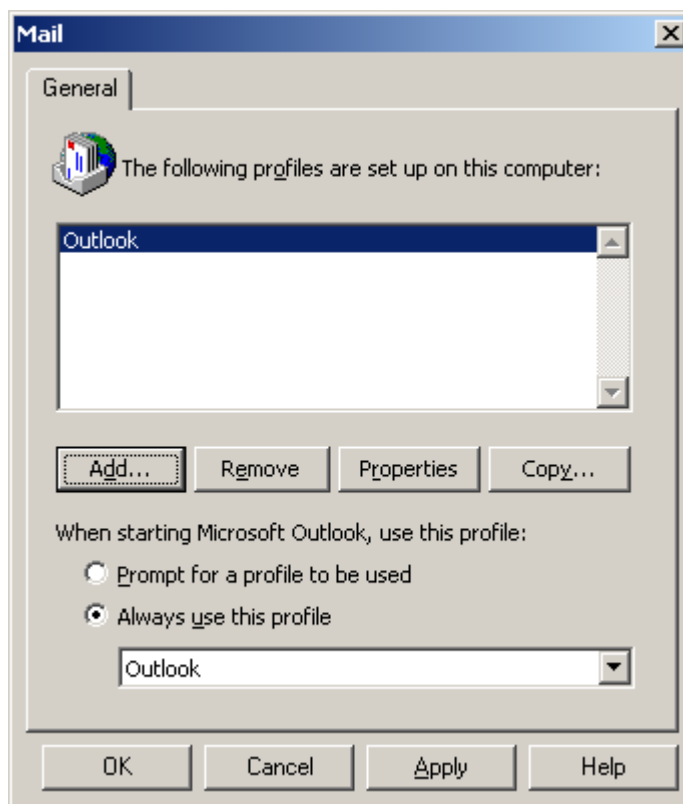


Figure 11. Mail window

2 Selecting the Enterprise Options

E-Mail Options

4. On the Login Lockout window (**Tools > Options > Enterprise** page with the Domain Controller option selected) in ChromQuest, enter the profile name as shown below:

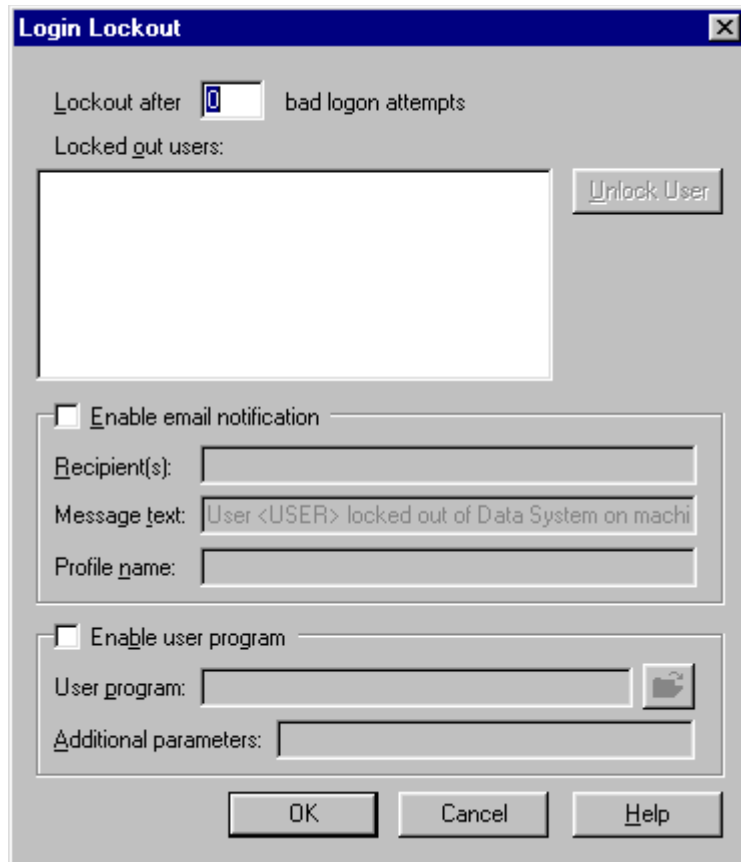


Figure 12. Login Lockout dialog box

Note Be sure the email software is set up so there is no password or other response required to send email.

General Options

Use this tab to turn on general enterprise options.

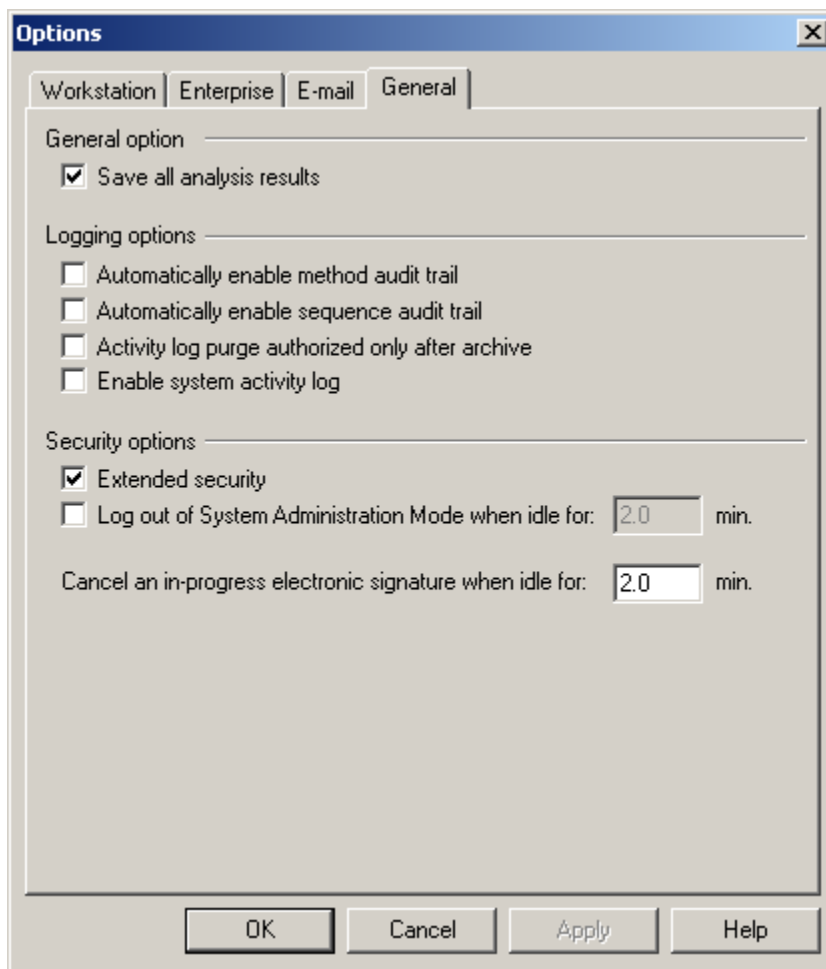


Figure 13. Options - General dialog box

Save all analysis results

When this check box is selected, every time an analysis is made on a data file, the results will be saved in the data file. If this box is not selected, only the original and most recent results will be saved in the file. If this box is selected, the results will be tagged with the user name and date of analysis. This makes it possible to open a specific result from the Open Data dialog, using the Open with Results option.

Logging Options

These options control how audit trail and activity logs are handled.

- Automatically enable method audit trail

When this check box is selected, the method audit trail will be enabled whenever a method is saved.

- Automatically enable sequence audit trail

When this check box is selected, the sequence audit trail will be enabled whenever a sequence is saved.

- Activity log purge authorized only after archive

When this check box is selected, the instrument activity log must be archived before it can be purged.

- Enable system activity log

When this check box is selected, the system activity log will be enabled. Once this is enabled, it cannot be turned off.

Security options

- Extended Security

When this check box is selected, a checksum is calculated whenever a data file is closed. When the file is subsequently opened, its checksum is verified first. If the check fails (the calculated checksum for the file does not match the one previously calculated for the file) the file cannot be opened, and an error is posted in the instrument activity log. Checksum verification is enterprise-wide.

Note Extended security does not affect Windows 2000/XP security settings in non-networked environments (Stand-alone).

In addition, the Extended Security function provides additional security to the enterprise in the following ways:

- All system administrators have full access to everything.
- All non-system administrators will have read/execute rights to project directories for which they have rights.
- All non-system administrators will have read/write/execute rights to project subfolders for which they have rights. This means that users in the project without system administrator rights will not be able to create subdirectories or files under the project directory, and they will not be able to rename or delete files under the project subfolders. Directories can still be created in project subfolders, but only through ChromQuest.

- Log out of System Administration Mode when idle for:

When this checkbox is selected, enter a number of minutes. If no mouse or keyboard activity is detected during the specified number of minutes in system administration mode, the system will:

- Cancel any open dialog boxes
- Cancel any Wizard in progress
- Log out of Administrative Mode

- Cancel an in-progress electronic signature when idle for:

If an electronic signature is in progress, it will be cancelled if there is no input for the specified number of minutes.

Enabling the System Activity Log

To enable the system activity log, go to the Main menu and choose **Tools > Options > General tab**. Then, select the Enable System Activity Log check box. Once the system activity log is enabled, it cannot be disabled.

Once the system activity log is enabled, the system activity log menu will be enabled in the Main menu. To access the menu, choose **File > System Activity Log** from the Main menu.

To archive the system activity log, choose **File > System Activity Log > Archive** from the Main menu. A dialog will appear where you can select the location for the archive file. A default name is assigned, with the .logarc extension. This file can be viewed using the Archived Log Viewer that can be run from the Chromatography program group in Windows.

Chapter 3 Setting Up E-Mail

The ChromQuest data system includes the ability to automatically send e-mail notifications when system events occur. E-Mail notifications can be global or instrument specific.

Note If you are unfamiliar with the e-mail configuration of your network, consult your network administrator to complete this setup.

This chapter contains the following topics:

- [Setting Up the E-Mail Option](#)
- [Setting Up Automatic Notifications](#)
- [Setting Up Specific Notifications](#)

Setting Up the E-Mail Option

To set up the e-mail notification feature

1. Launch ChromQuest and log on as a user with system administration privileges.
2. From the Main Menu, choose **Tools > Options** to open the Options dialog box.
3. Click on the E-Mail tab to open the E-Mail page.
4. In the E-Mail page, select the e-mail interface that is supported by your network: SMTP or MAPI. Then, enter the appropriate parameters. For more information, refer to the ChromQuest online Help.
5. Click on the **Test** button.

This will cause the system to attempt to connect to the e-mail server and test the port (for SMTP) or will check if the profile exists on the server (for MAPI). This function will display a message box indicating the success or failure of the connection attempt.

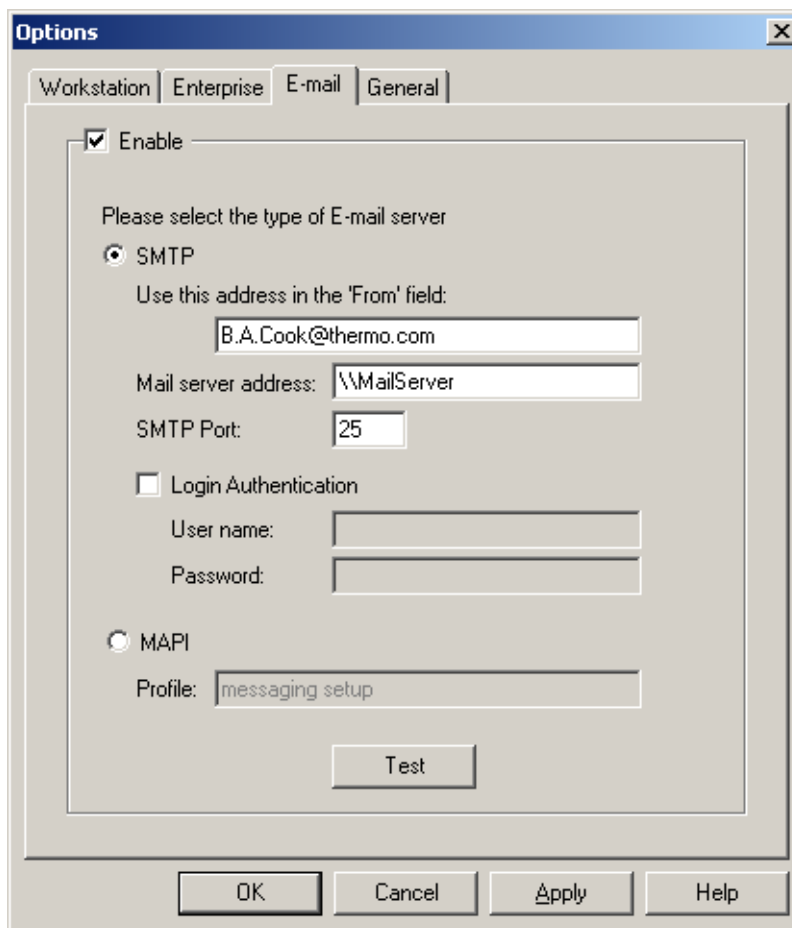


Figure 14. Options - Email dialog box

Setting Up Automatic Notifications

Automatic Notifications are e-mail messages that are sent every time a specific event occurs. Automatic notifications are setup by a data system user with system administration privileges. They can be setup for an individual instrument, for location/groups, or for the entire Enterprise.

Note Automatic notifications for an instrument are inherited from the group and Enterprise of which it is a member. For example, if you create an automatic notification for hardware error for the Enterprise, that event will automatically appear in the spreadsheet for every instrument in the Enterprise.

To set up automatic notifications

1. Decide if the event is global to The Enterprise or specific to an instrument in The Enterprise:
 - If the event is global, from the Main Menu window, select **File > Configure > E-mail** to open the Send E-Mail For the Following Events From The Enterprise.
 - If the event is specific to an instrument in The Enterprise, right-click on an instrument icon in the Main Menu window to open a shortcut menu. From the shortcut menu, choose **Configure > E-Mail** to open the Send E-Mail For the Following Events From The Enterprise\Instrument dialog box.

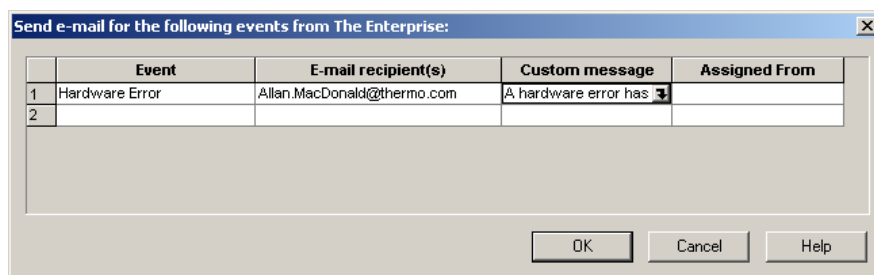


Figure 15. Send E-Mail For the Following Events From The Enterprise dialog box

2. Fill in a row of the spreadsheet for each notification you want to occur.
 - Select the event from the Event list box. If this event occurs during a run, the custom e-mail message will be sent to the recipient(s) designated.
 - Specify a recipient in the E-Mail Recipient(s) text box.

The recipients will be listed in the “To” field of the message. This must be an SMTP compliant e-mail address of a valid user. You can add multiple addresses separated by a semi-colon.

3 Setting Up E-Mail

Setting Up Automatic Notifications

- Click on the down arrow to enter an optional custom text message for this event. Enter a custom text message to be sent with an event e-mail.

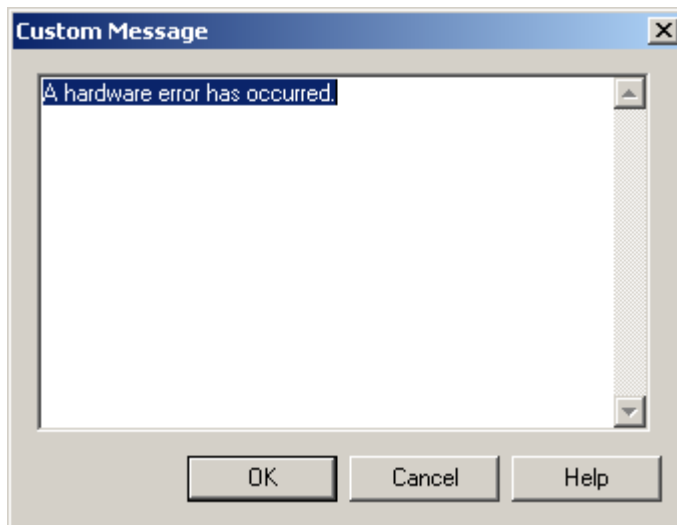


Figure 16. Custom Message window

- In the Assigned text box, enter the origin of the event. Depending on the enterprise configuration, the origin of the event can be the Enterprise or the name of a location/group. If you are using ChromQuest in the stand-alone mode, leave this text box blank.
3. Click on **OK** to accept the settings and close the dialog box.

Setting Up Specific Notifications

Specific Notifications are one-time events that can be setup by any user of the ChromQuest data system. An example of this type of event is a notification that an individual sequence has completed.

A user activates a specific notification within the Instrument window by filling in the information for that event in the dialog box initiating that action.

In the Run Sequence dialog box shown below, the entries specify that B.A.Cook will be notified by e-mail when the sequence pauses due to an error or stops.

Figure 17. Run Sequence dialog box

Chapter 4 Using the System Administration Wizards

To start the System Administration Wizard, do one of the following:

- Click the System Administration Wizard button on the toolbar of the Main Menu
- Choose **Tools > System Administration Wizard**.

The following dialog box appears.

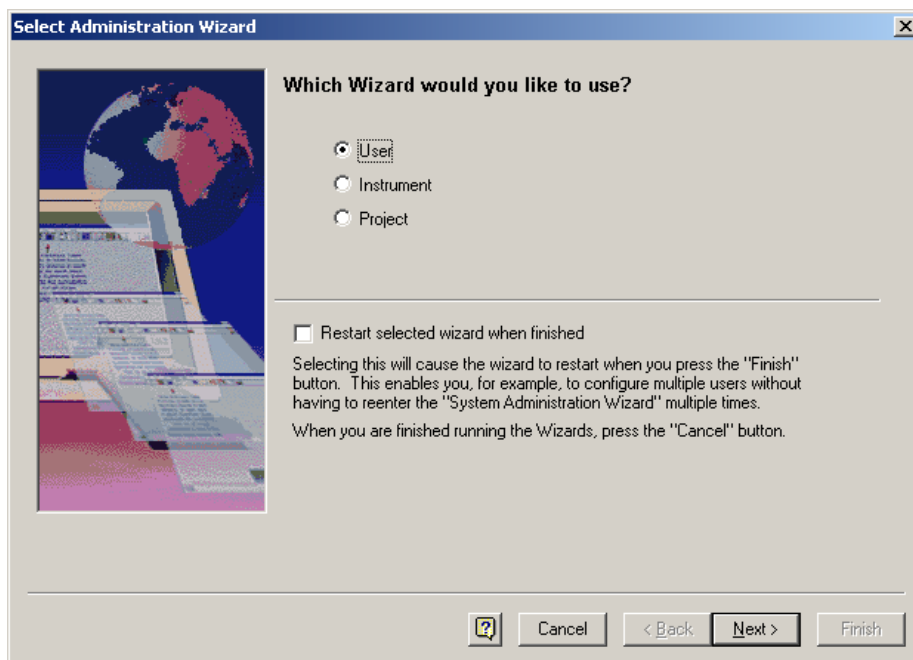


Figure 18. System Administration Wizard dialog box

Select the Restart Selected Wizard When Finished check box if you want to continue using the selected wizard after completing the current definition. For example, selecting this box allows set up of multiple new projects without re-starting the Project Wizard.

4 Using the System Administration Wizards

This chapter contains the following sections:

- [User Wizard](#)
- [Instrument Wizard](#)
- [Project Wizard](#)

User Wizard

The User Wizard is used to modify system access for users and groups.

Select the Restart Selected Wizard When Finished check box if you want to add or edit more than one user or group. When this check box is selected, the User Wizard will re-start whenever you click on **Finish**, allowing you to add or edit additional users or groups.

Note Users are defined through the Microsoft Windows 2000/XP domain controller administration. See your network administrator or Microsoft Windows 2000/XP documentation for details.

Select the User Wizard option button. Then, click on **Next** to continue the User Wizard.

Select User

The options in the Select User dialog box depend on whether you enable logins from a domain controller or the data system. Logins are enabled by selecting the Enable Instrument Logins and Project Management check box on the **Tools > Options > Enterprise** page.

If you enabled logins from a domain controller, the following dialog box appears:

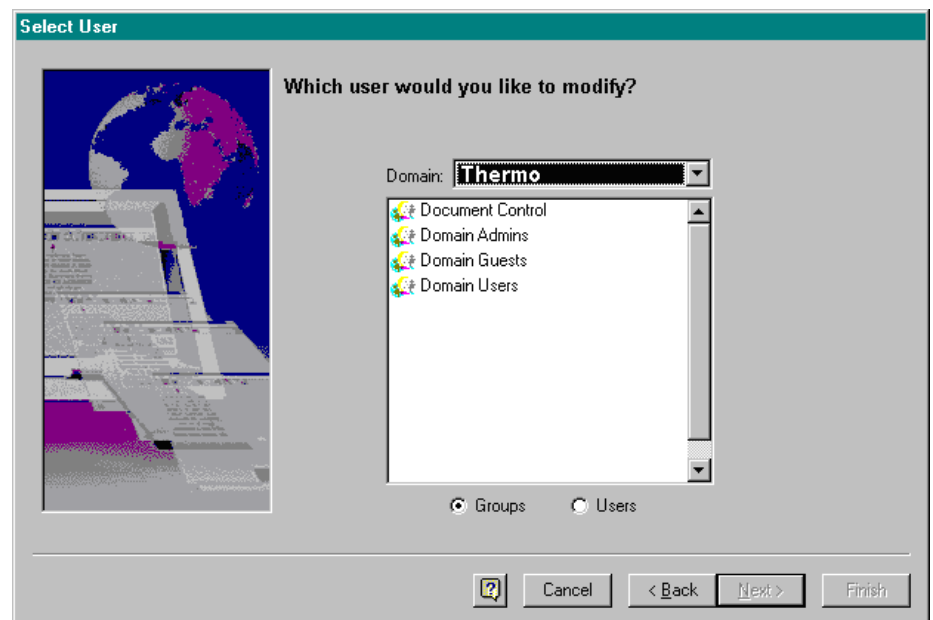


Figure 19. Select User dialog box

Select a Domain from the drop-down list of domains available. (A domain is a functional portion of the network that has been set up by the Windows 2000/XP Domain Controller.) Once you have selected a domain, a list of defined groups

4 Using the System Administration Wizards

User Wizard

within that domain appears. Select a group by highlighting the name with the mouse. To select a user, select the Users option button to view a list of defined users within the domain.

Note If you plan to assign the same administration privileges, instrument privileges, and project privileges to all users in a group, it is faster to perform this function based on a **Group** selection, rather than assigning each user individually.

If you enabled logins from the data system, the following dialog box appears.

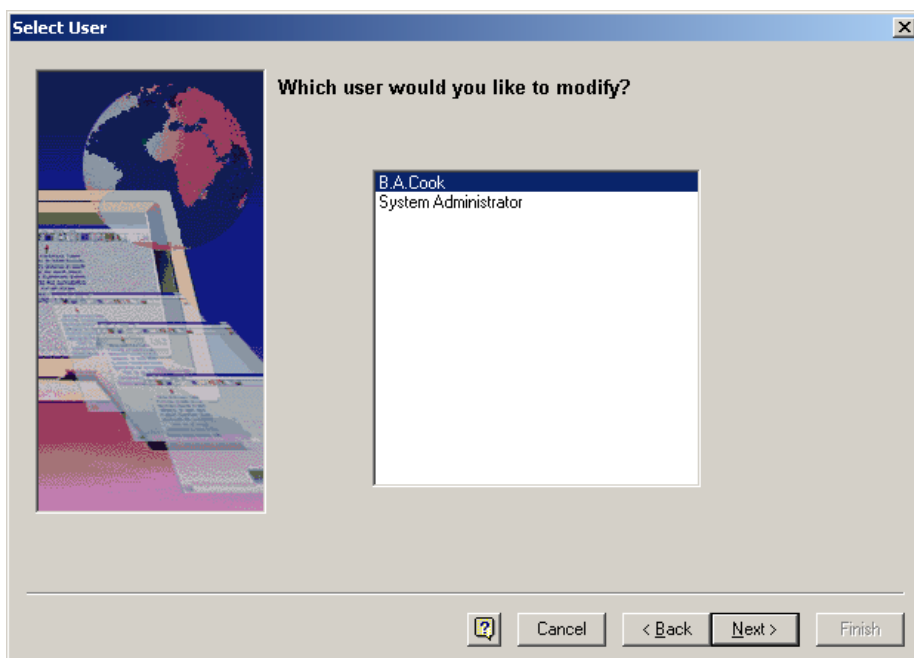


Figure 20. Select User dialog box

Select a User or a group. Then, click on **Next** to continue with setting ChromQuest administrative privileges for this user or group.

Administrative Privileges

The Administrative Privileges dialog box allows you to assign System Administration, Instrument Administration, or both privileges to users.

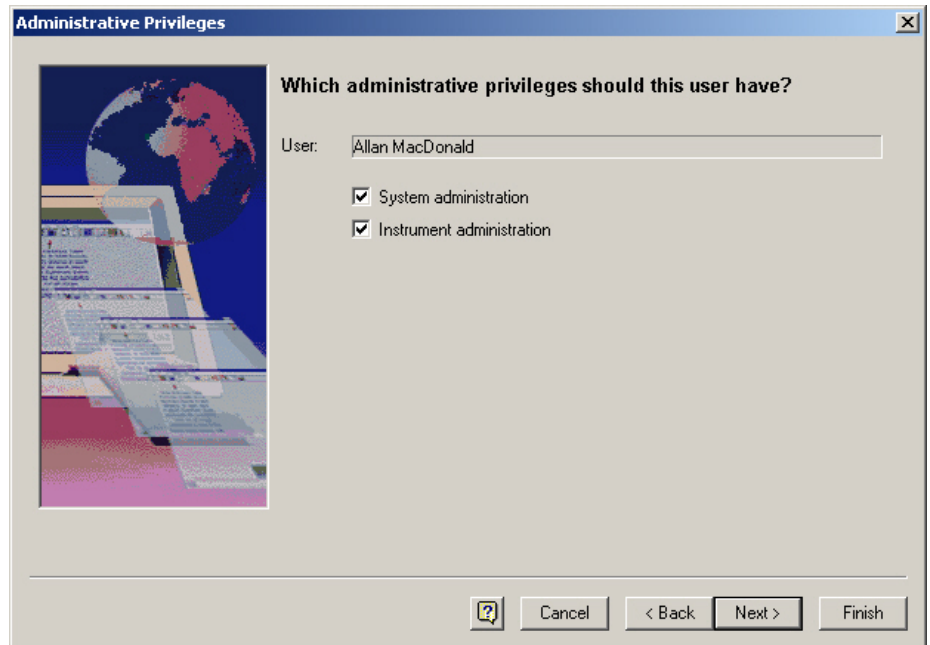


Figure 21. Administrative Privileges dialog box

Select the System Administration check box to allow this user to have access to System Administration functions. These include access to user wizard, instrument wizard, and project wizard.

Select the Instrument Administration check box to allow this user to have access to Instrument Administration functions. When this box is selected, the user will have access to adding, deleting, and configuring instruments.

If neither check box is selected, the user will have no access to system administration functions or instrument administration functions.

Click on **Next** to continue with Instrument Selection.

Select Instruments

The Select Instruments dialog box allows you to select the Instruments that users or groups can access.

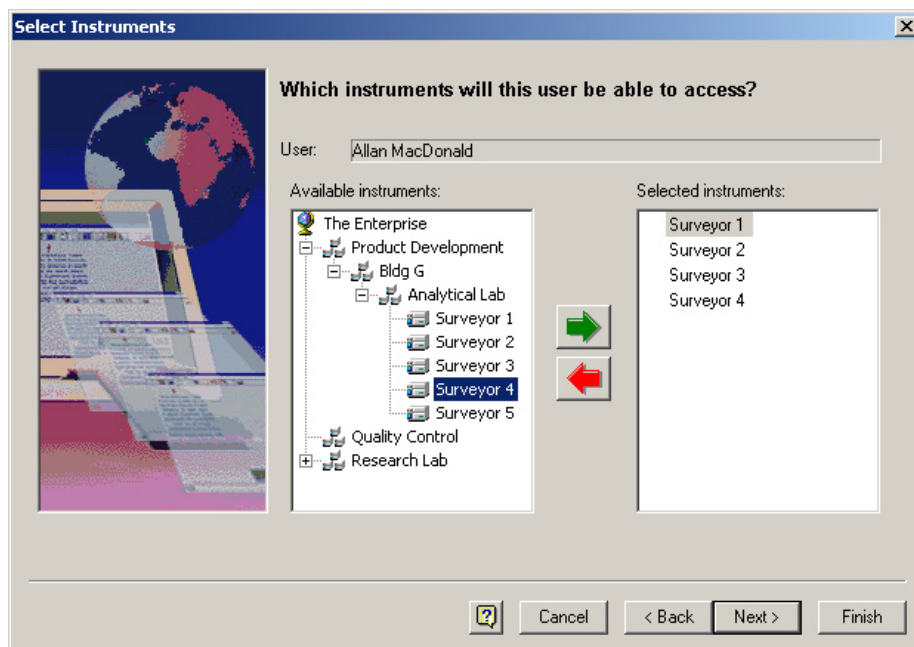


Figure 22. Select Instruments dialog box

From the list displayed in the Available Instruments box, select the instruments for this user (or group) by double-clicking on the instrument or by clicking once to highlight the instrument followed by clicking the green arrow. The list of instruments to be accessed by this user (or group) will be displayed in the Selected Instruments window. If no instruments appear in the Available Instruments window, expand the enterprise by double-clicking locations until the desired instruments appear.

You can also assign all instruments within a laboratory or location to a user/group by selecting the entire location from the Available Instruments window. When a location (for example, QC Lab) appears in the Selected Instruments window, this means that all instruments in that location are selected.

When finished selecting instruments, click on **Next** to select projects.

Select Projects

The Select Projects dialog box allows you to select the projects to which the current user/group will have access. From the Available Projects window, select a project by double-clicking it with the mouse, or by clicking once, to highlight, followed by clicking the green arrow. The list of Selected Projects will be the projects the current user/group will be able to access.

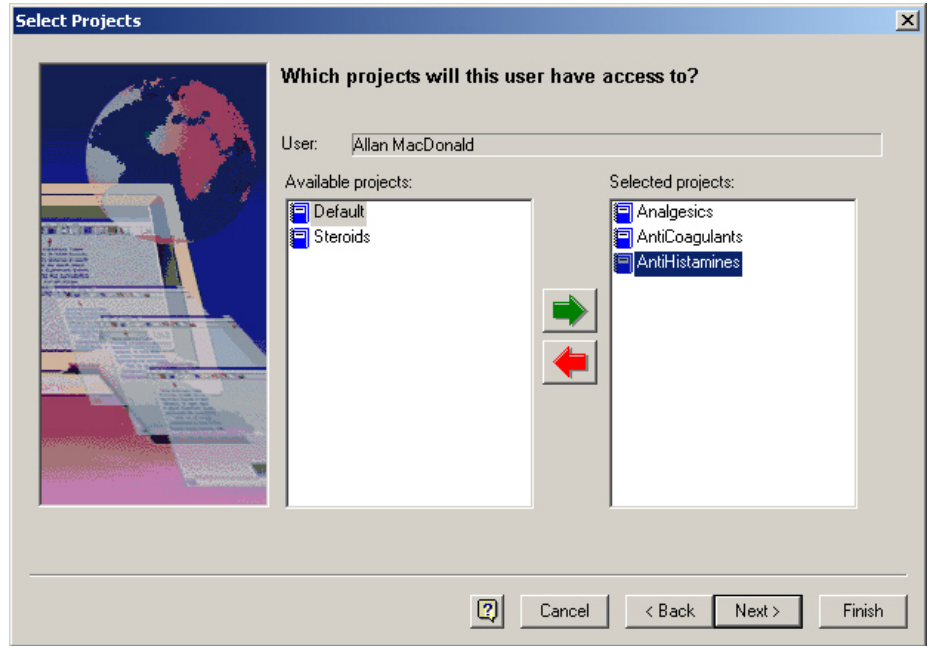


Figure 23. Select Projects dialog box

When you have completed assigning projects, click on **Next**.

Set User Privileges

For each selected project, assign privileges by highlighting the privileges in the “Unassigned privileges” box, then click the green arrow to move them to the “Assigned privileges” box. You can also double-click on the privileges to quickly assign them.

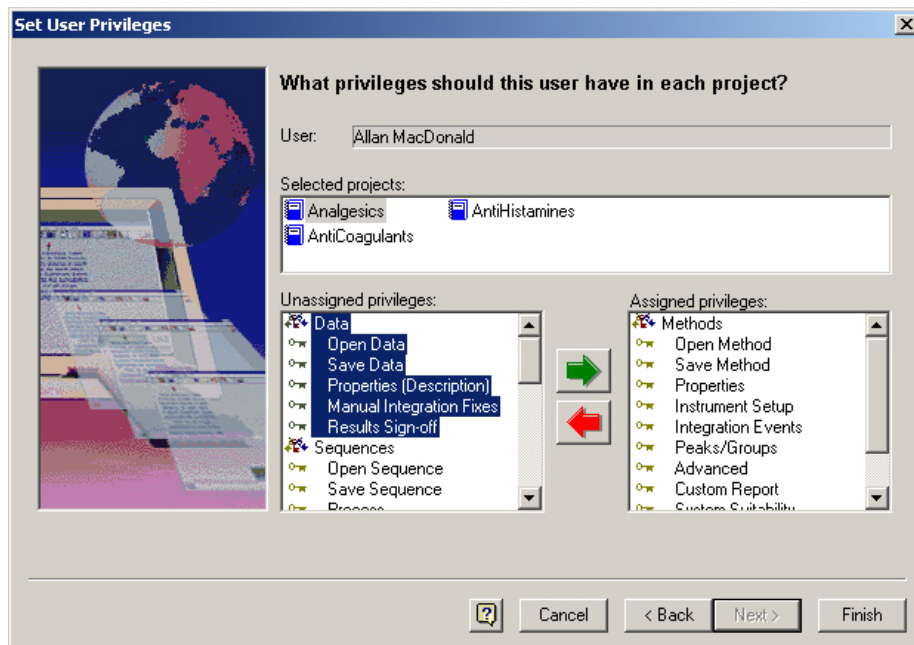


Figure 24. Set User Privileges dialog box

When you have completed assigning privileges for desired projects, click on **Next**.

Note The “Calibrate” privilege enables the user to run a calibration sample to update the method calibration. In order to create or modify the calibration parameters in a method, the user must have the “Save Method” privilege assigned.

Set User Electronic Signature Role

Select the electronic signature roles for the each project that the user has privileges to.

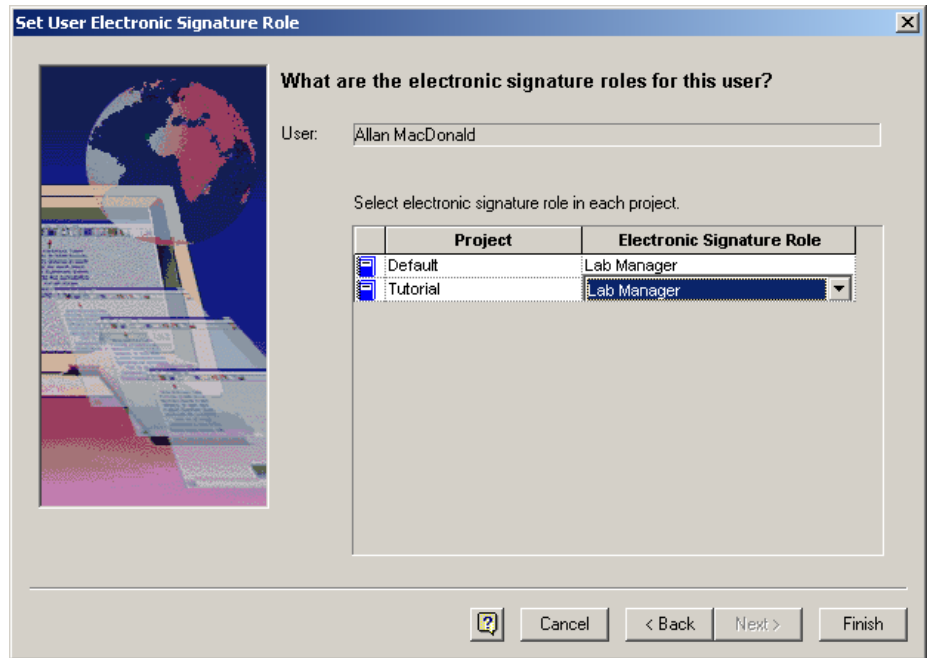


Figure 25. Set User Electronic Signature Role dialog box

When you are finished, click on **Finish**.

Instrument Wizard

The Instrument Wizard allows you to assign Users/Groups to an instrument or to all instruments in a given Enterprise location.

Select Instrument

From the Select Instrument dialog box, you can select an individual instrument or a location containing multiple instruments. To view individual instruments within a location, double-click on the location until the instrument names appear.

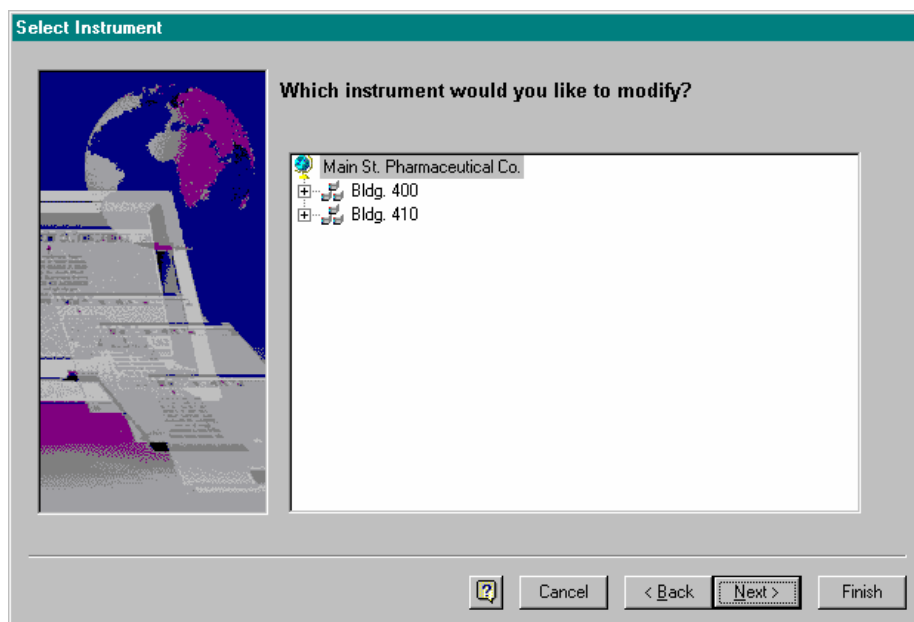


Figure 26. Select Instrument dialog box

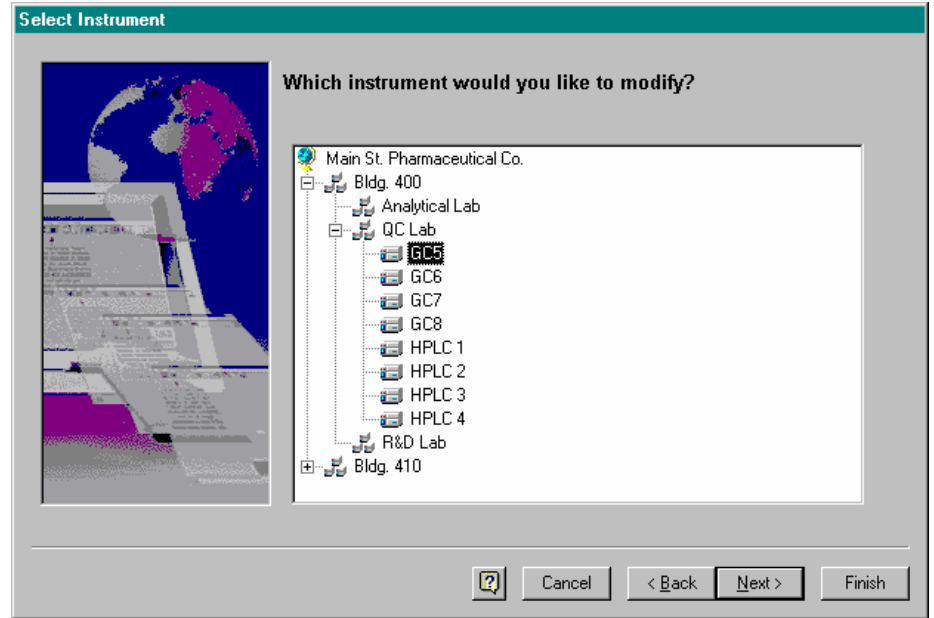


Figure 27. Select Instrument dialog box

Select the instrument or location to which you want to assign a user or group, and then click on **Next**.

Select Users

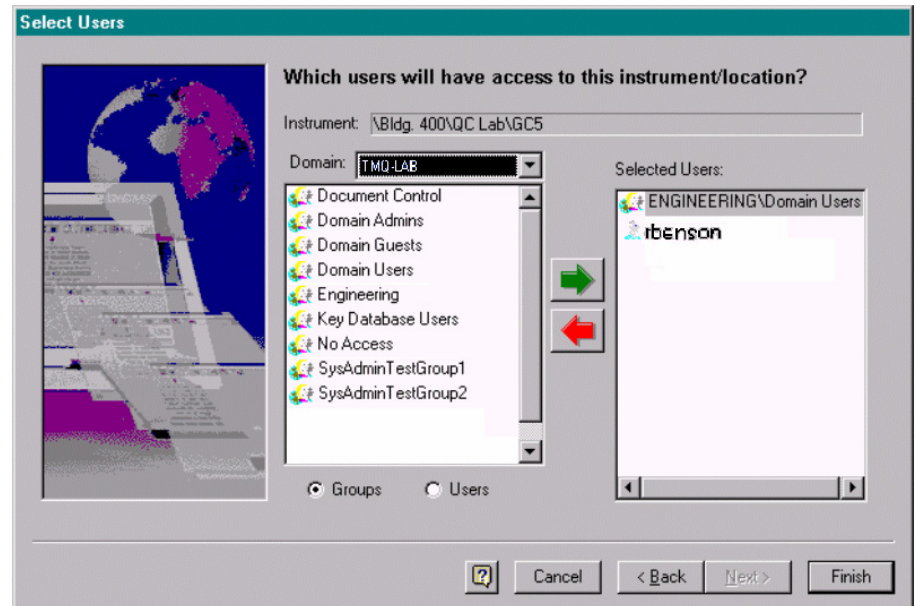


Figure 28. Select Users dialog box

4 Using the System Administration Wizards

Instrument Wizard

For the instrument or location selected, choose the Groups/Users who will have access. First, select the Windows 2000/XP domain from the drop-down list. Then select either the groups or users (radio button controlled) from the list displayed. Double-click a user or group to add it to the list. Alternatively, select multiple users or groups, and then click on the green arrow. (Highlight one entry, followed by Shift-click to highlight all selections between, or use Ctrl-click to highlight multiple non-contiguous entries.) Use the red arrow to remove entries from the selected list.

When you have completed the list of Users for this instrument/location, click on **Finish**.

Project Wizard

The Project Wizard allows you to define, edit, or delete system projects, and assign users and groups to projects. A project is comprised of a set of directories for storage of Methods, Data, Sequences, and Templates, along with a project description. Using Projects facilitates data management by ensuring related data are stored in designated directories that are consistent for all users.

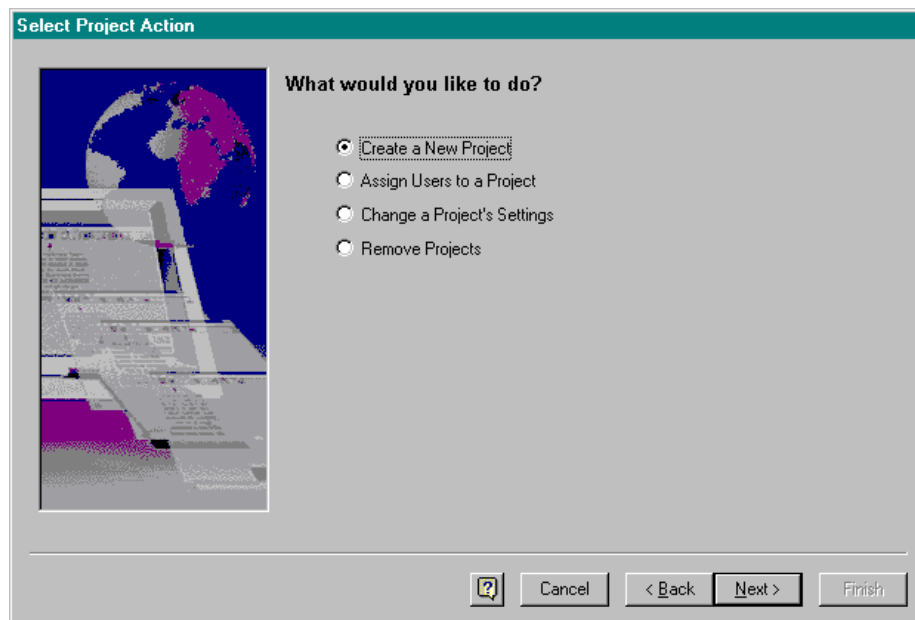


Figure 29. Select Project Action dialog box

The Select Project Action page shown below allows you to select the project-related action for which you want to use the wizard:

- To define a new project on your system, select the Create A New Project option button.
- To assign users or groups to existing projects in the system, select the Assign Users to a Project option button.
- To edit or modify an existing project in the system, select the Change a Project's Settings option button.
- To remove a project from the system, select the Remove Projects option button. When a project is removed using the wizard, access to the specified directories is removed. The actual data directories defined for the project are not deleted. Removal of data directories must be done by the Windows 2000/XP Administrator (if desired) after proper backup has been performed.

Create a New Project

Select the Create a new project option button. Then, click on **Next** to open the next page of the wizard and complete the project definition.

General Project Settings

This dialog box is used to define the project settings.

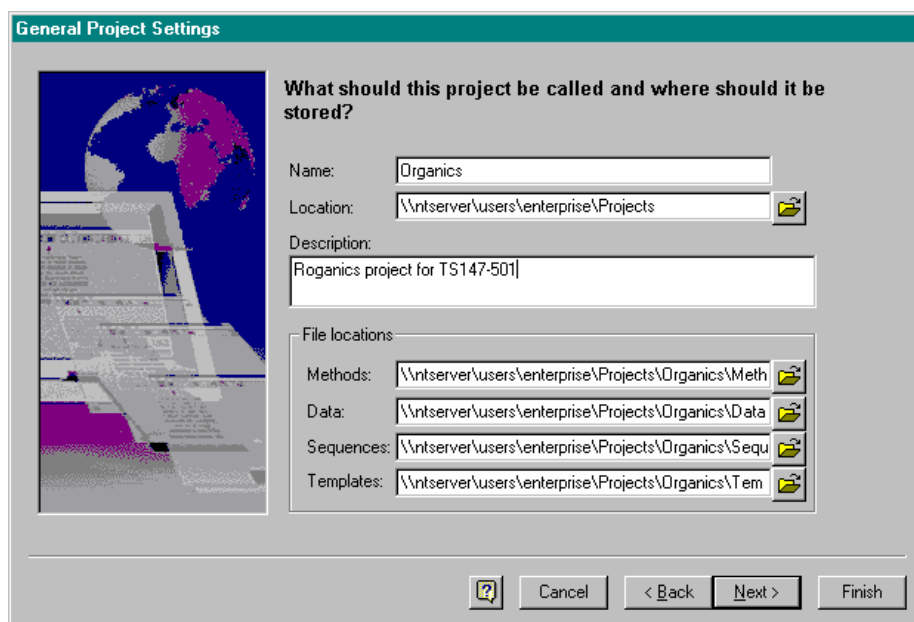


Figure 30. General Project Settings dialog box

Make the following entries in the General Project Settings dialog box:

- Enter a name for the project in name text box.
- Enter the location for the project definition. This should be selected from available directories by clicking the file open button. The location entered in this field sets up default directories for the project Method, Data, Sequences, and Templates directories.
- Enter a text description of the project.
- File locations for your project are automatically created for you based on your entry for the Location field. If you wish to change any of these, you may type in the new location, or select it from available directories by clicking the file open button.

When you have completed the project settings, click on **Next** to continue.

General Project Settings - Audit Trail

This dialog box allows you to select the auditing options for the project.

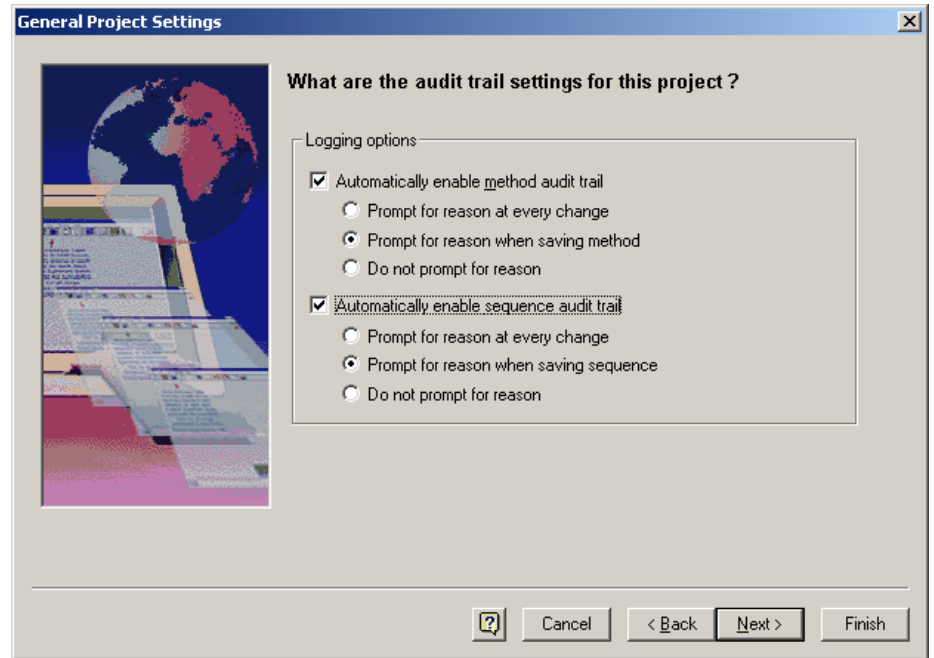


Figure 31. General Project Settings dialog box

In this General Project Settings dialog box, make the following selections:

- Select the Automatically Enable Method Audit Trail check box to enable the auditing of methods. Then, select one of the method auditing options.

You can view the Method Audit Trail from the Instrument window. To view the Method Audit Trail, choose **File > Method > Audit Trail**.

- Select the Automatically Enable Sequence Audit Trail check box to enable the auditing of sequences. Then, select one of the sequence auditing options.

You can view the Sequence Audit Trail from the Instrument window. To view the Sequence Audit Trail, choose **File > Sequence > Audit Trail**.

Click on **Next** to continue selecting the Project options.

Define Electronic Signature Roles

Define the electronic signature roles for this project. You add up to five signature roles to each project. You can change the names of the roles and you can change the reasons for the signatures.

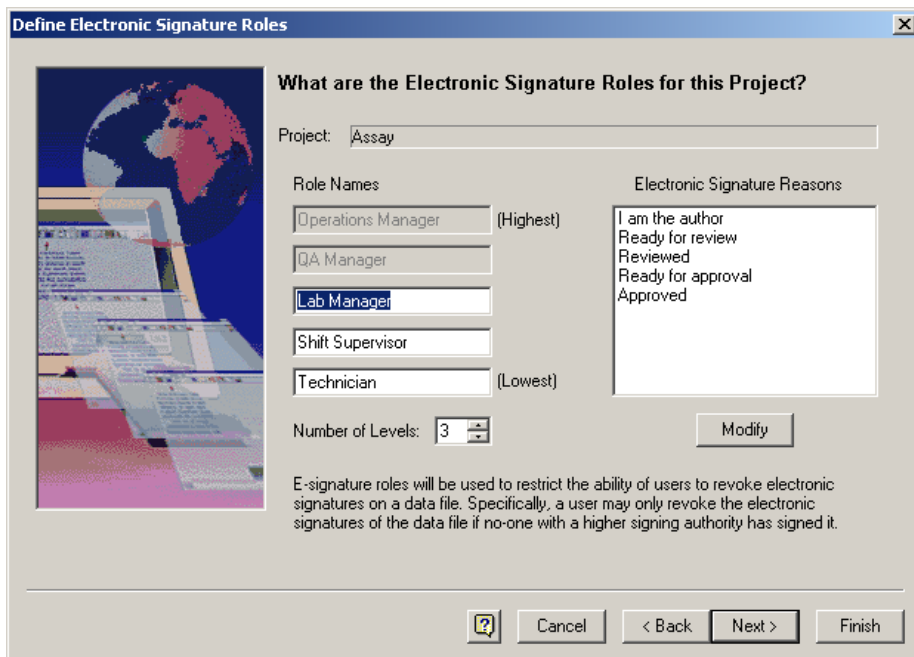


Figure 32. Define Electronic Signature Roles dialog box

To change the signature reasons, click on **Modify** to open the Modify Electronic Signature Reasons dialog box.

You can add to or modify the List of Reasons box.

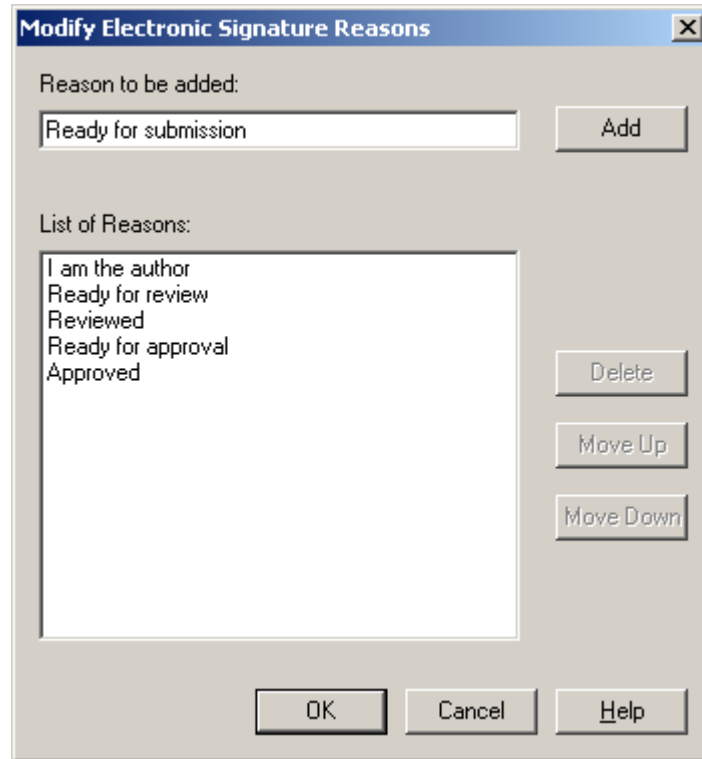


Figure 33. Modify Electronic Signature Reasons dialog box

Select Project Users

Use this dialog box to select the users/groups that will have access to the new project.

To allow users access to this project

1. Select the Windows 2000/XP domain from the drop-down list. Then, select either the groups or users (radio button controlled) from the list displayed.
2. Double-click a user or group to add it to the list. Alternatively, select multiple users or groups, and then click on the green arrow. (Highlight one entry, followed by Shift-click to highlight all selections between, or use Ctrl-click to highlight multiple non-contiguous entries.) Use the red arrow to remove entries from the selected list.

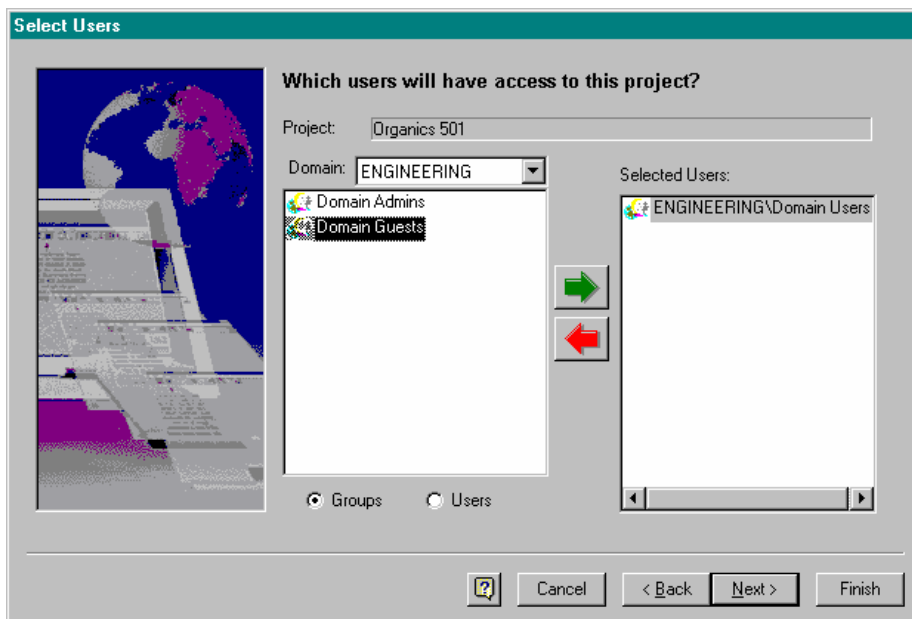


Figure 34. Select Users dialog box

Click on **Next** to continue.

Set Project User Privileges

This dialog box allows you to assign software command access for the selected users/groups with access to this project. Once you have set the user privileges for a given project, the user/group will have access only to the functional commands assigned for the defined project. You may grant full functional privileges (including method development and data acquisition control), or you may grant a sub-set of the ChromQuest software commands to a given user/group.

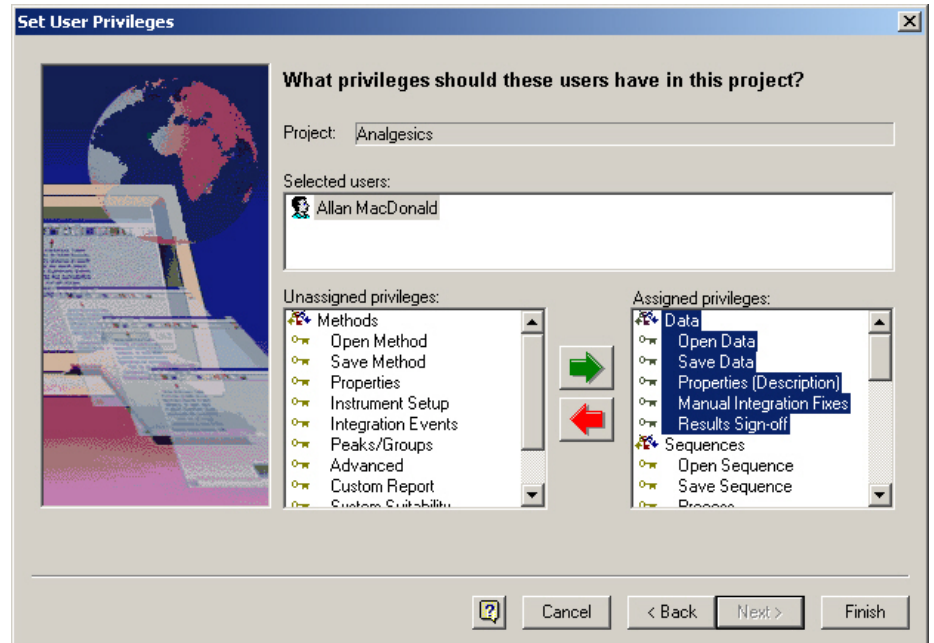


Figure 35. Set User Privileges dialog box

To assign a privilege

- Highlight a privilege with the mouse, and then click on the green arrow.
- To assign a complete group of related privileges (such as Data commands), double-click on the main privilege type (Methods, Data, Sequences). This automatically selects all available commands for that functional area.

Note The “Calibrate” privilege enables the user to run a calibration sample to update the method calibration. In order to create or modify the calibration parameters in a method, the user must have the “Save Method” privilege assigned.

Set Electronic Signature Role

Assign the electronic signature roles for the user.

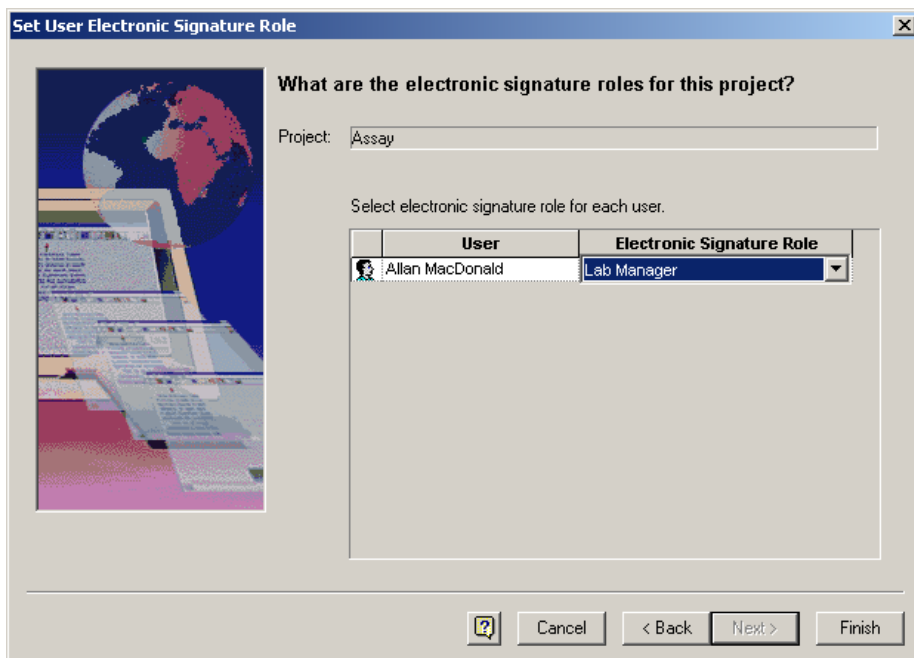


Figure 36. Set User Electronic Signature Role dialog box

When you have completed selection of project privileges, click on **Finish** to complete the project definition.

Assign Users/Groups to a Project

Once you have one or more projects defined for your system, you can add or change the assigned users/groups using this option.

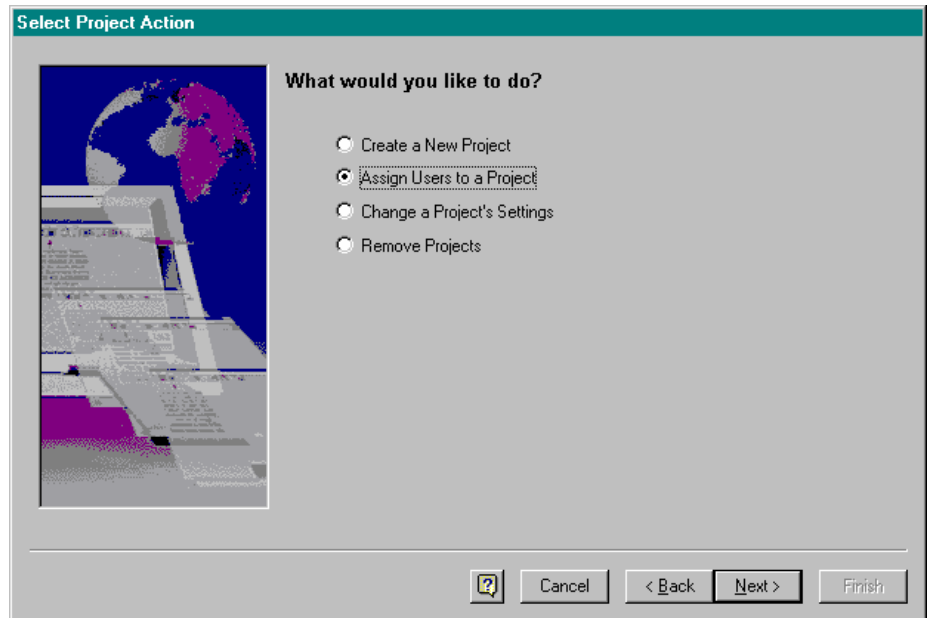


Figure 37. Select Project Action dialog box

Select the Assign Users to a Project option button, then click on **Next** to continue.

Select Project Select the project to work with, and then click on **Next**.

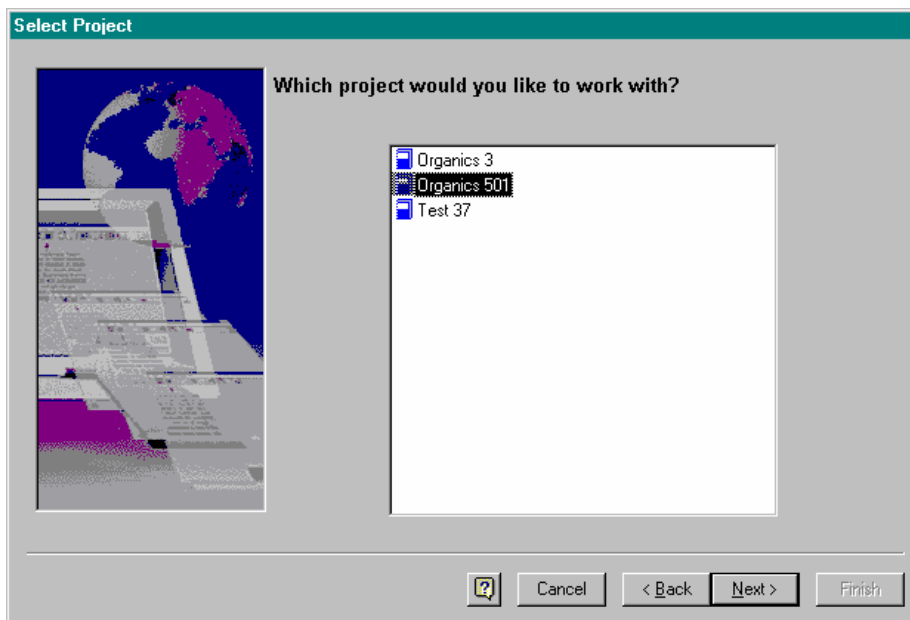


Figure 38. Select Project dialog box

Define Electronic Signature Roles

Define the electronic signature roles for this project. Click on **Next**.

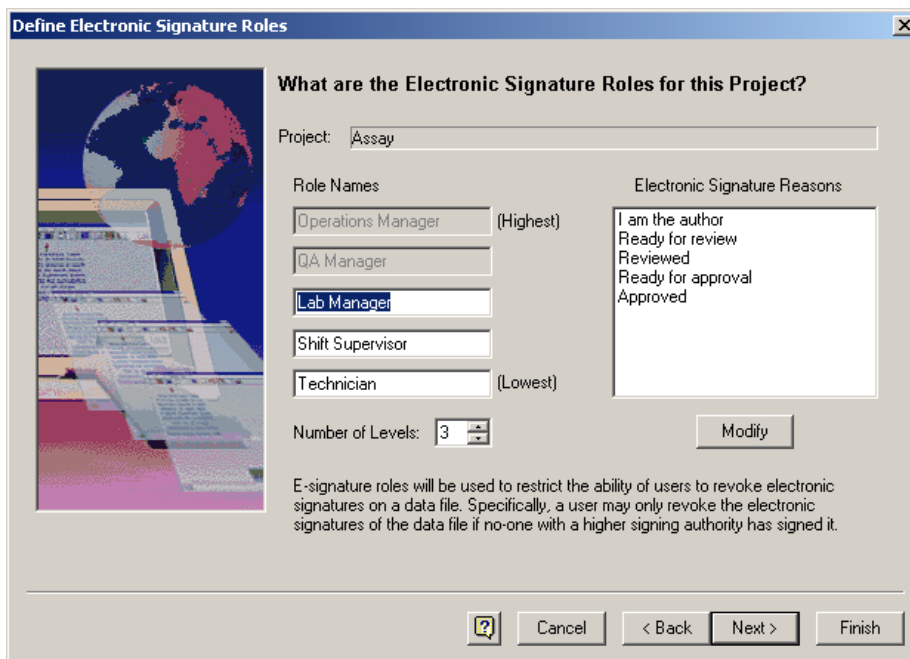


Figure 39. Define Electronic Signature Roles dialog box

Select Users

For the selected project, choose a Windows 2000/XP domain from the drop-down list, and then select the users/groups you want to have access to this project from the available users/groups displayed. When a user/group is selected, it will appear in the Selected Users list on the right. Select a user/group by double-clicking it with the mouse, or perform a multiple selection using Shift-click (to select contiguous users/groups) or Ctrl-click (to select multiple, non-contiguous users/groups) to highlight, and then click on the Green Arrow. When you have completed your selection, click on **Next** to continue or **Finish** if you are done.

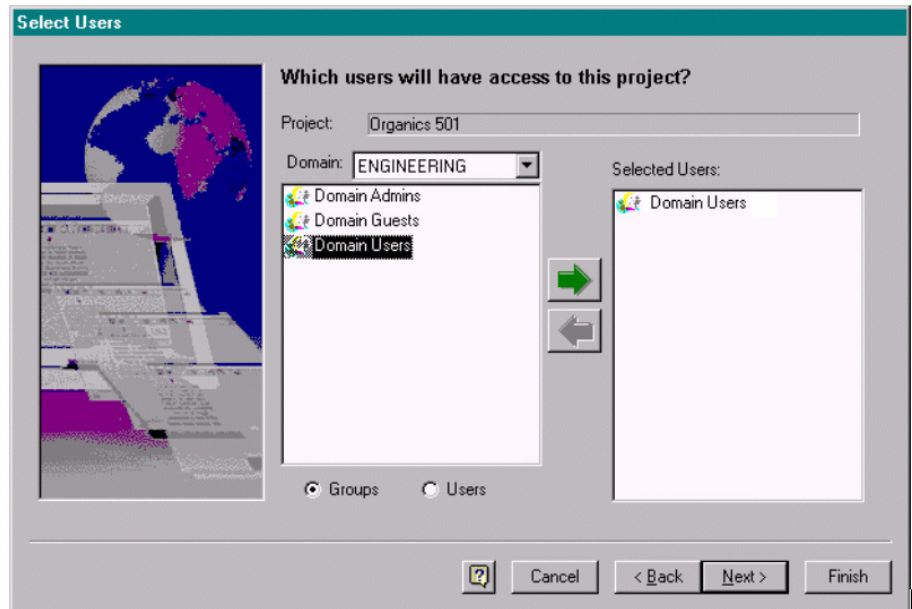


Figure 40. Select Users dialog box

Set User Privileges

This dialog box allows you to assign software command access for the selected users/groups with access to this project. Once you have set the user privileges for a given project, the user/group will have access only to the functional commands assigned for the defined project. You may grant full functional privileges (including method development and data acquisition control), or you may grant a sub-set of the ChromQuest software commands to a given user/group.

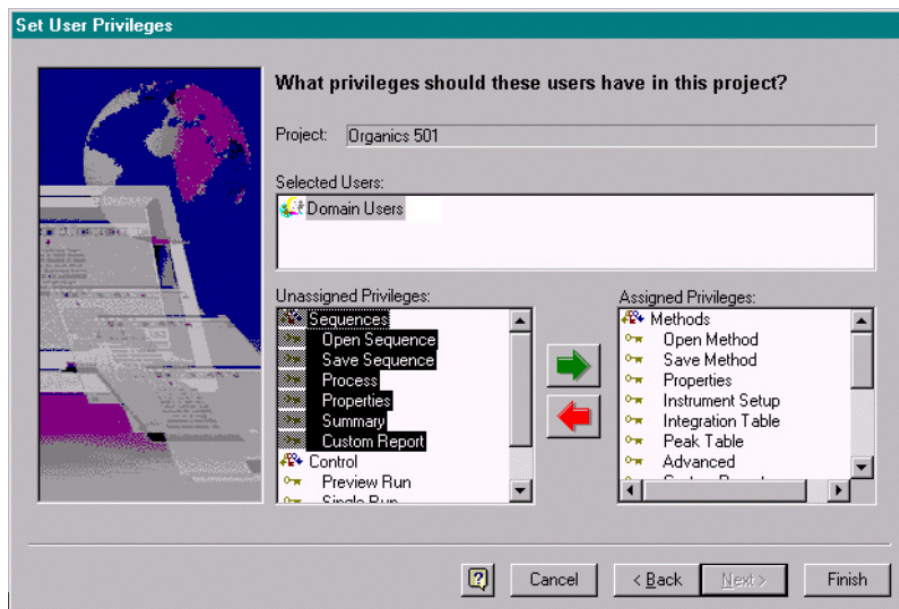


Figure 41. Set User Privileges dialog box

To assign a privilege, highlight it with the mouse, and then click the green arrow. To assign a complete group of related privileges (such as Data commands), double-click on the main privilege type (Methods, Data, Sequences). This automatically selects all available commands for that functional area.

Note The “Calibrate” privilege enables the user to run a calibration sample to update the method calibration. In order to create or modify the calibration parameters in a method, the user must have the “Save Method” privilege assigned.

Set User Electronic Signature Role

Assign the electronic signature roles for the user or group.

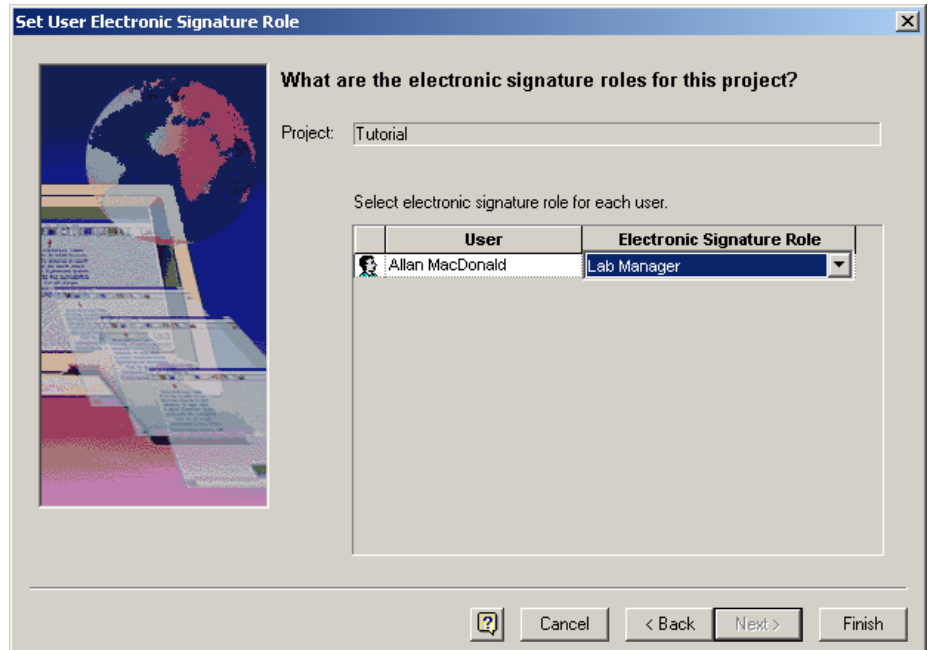


Figure 42. Set User Electronic Signature Role dialog box

When you have finished, click on **Finish**.

Change a Project's Settings

Use this option to change the definition of an existing project in your enterprise. You can change the project description, user/groups assignment, and privilege assignments. You cannot change a project's location after it has been created, however.

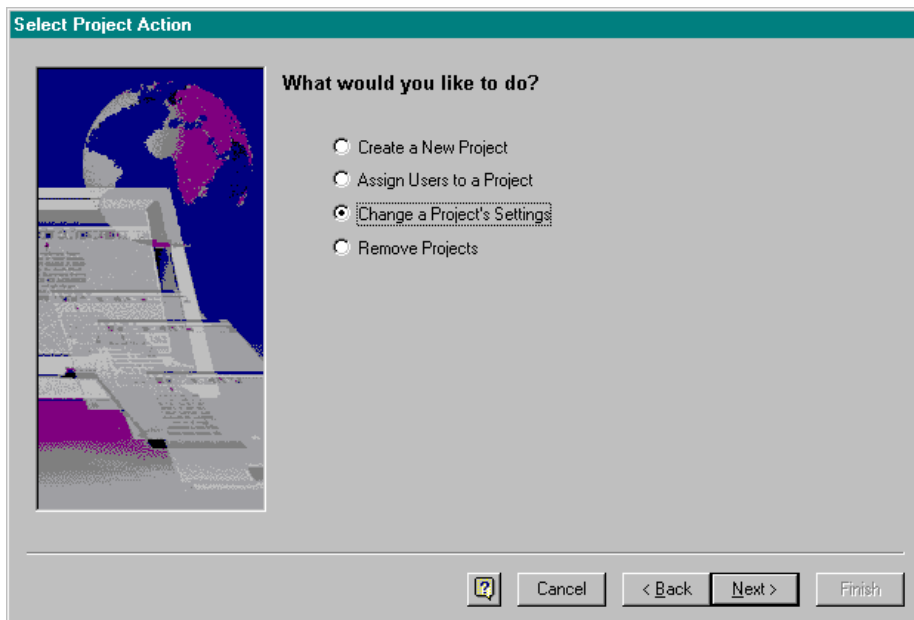


Figure 43. Select Project Action dialog box

Once you have selected this option, you will be allowed to change all the project parameters defined when you create a new project except for the project locations. Click on **Next** to continue.

Select Project Select the project to work with, and then click on **Next**.

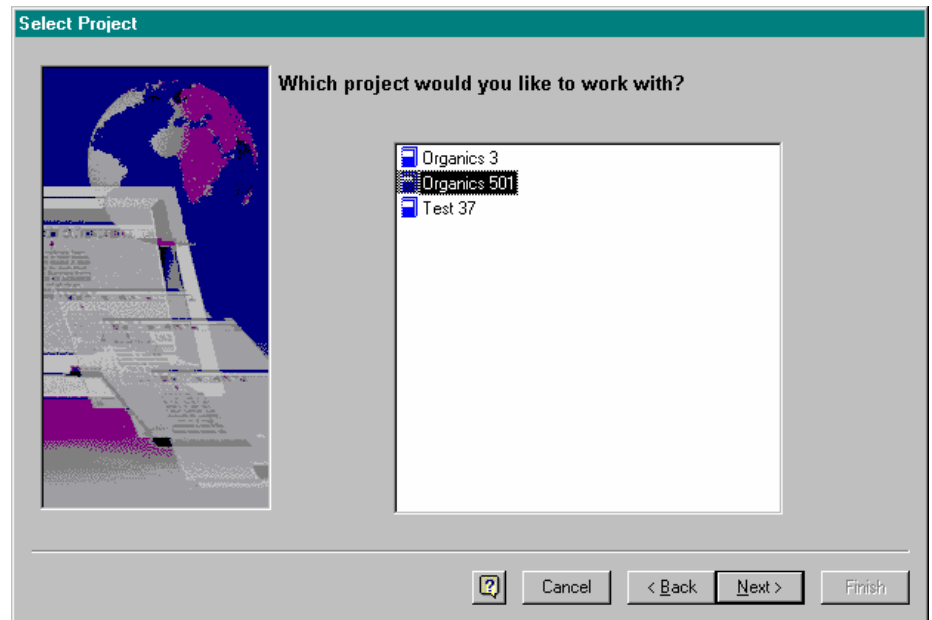


Figure 44. Select project dialog box

General Project Settings Changes

This dialog box is used to review the current project settings and change the project description, if desired.

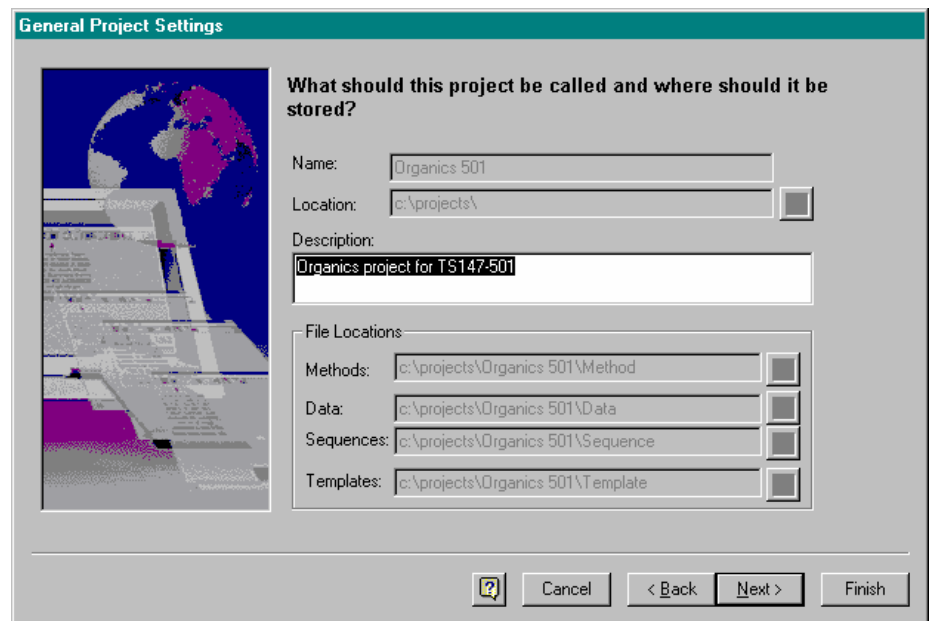


Figure 45. General Project Settings dialog box

- Description

Enter a text description of the project. This can be as detailed as you wish.

When you have completed the project setting changes, click on **Next** to continue, or **Finish** if done.

Define the Electronic Signature Roles

Define the electronic signature roles for this project. Click on **Next** or **Finish** if done.

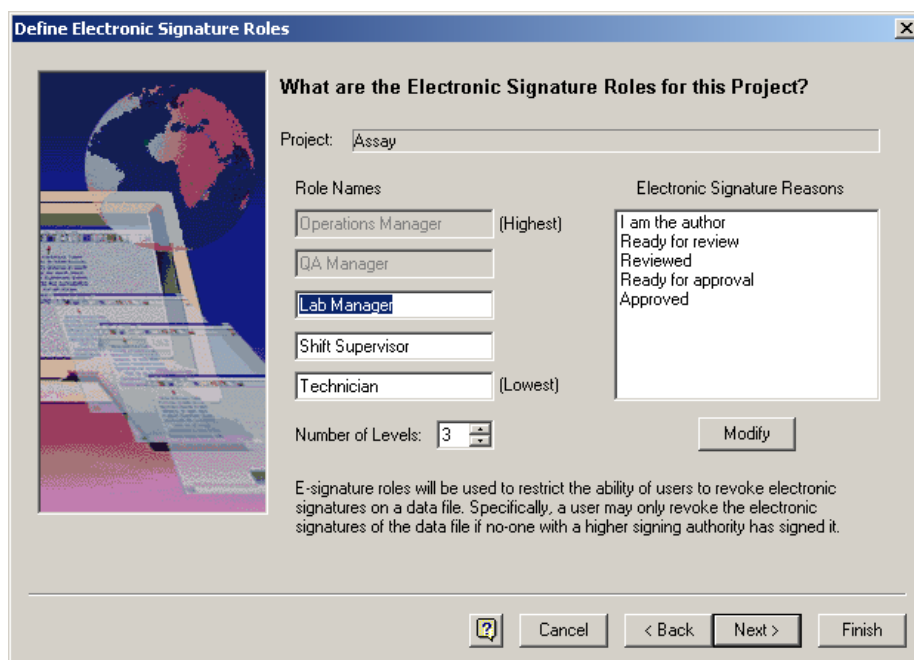


Figure 46. Define the Electronic Signature Roles dialog box

Select Users

Use this dialog box to change the users/groups that will have access to the project. First, select the Windows 2000/XP domain from the drop-down list. Then select either the groups or users (radio button controlled) from the list displayed. Double-click a user or group to add it to the list. Alternatively, select multiple users or groups, and then click on the green arrow. (Highlight one entry, followed by Shift-click to highlight all selections between, or use Ctrl-click to highlight multiple non-contiguous entries.) Use the red arrow to remove entries from the selected list.

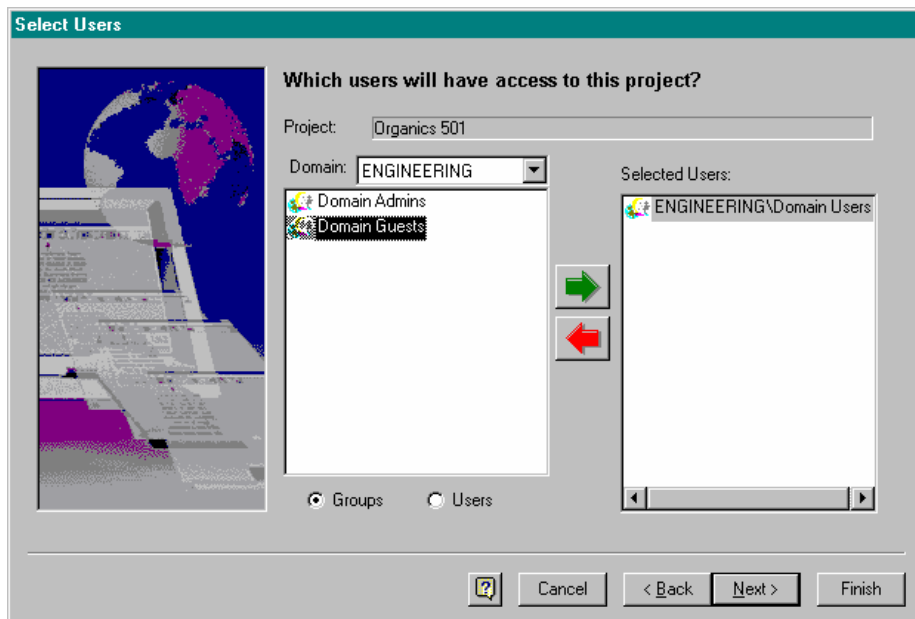


Figure 47. Select Users dialog box

Click on **Next** to continue, or **Finish** if done.

Set User Privileges

This dialog box allows you to change the assigned software command access for the selected users/groups with access to this project. Once you have set the user privileges for a given project, the user/group will have access only to the functional commands assigned for the defined project. You may grant full functional privileges (including method development and data acquisition control), or you may grant a sub-set of the ChromQuest software commands to a given user/group.

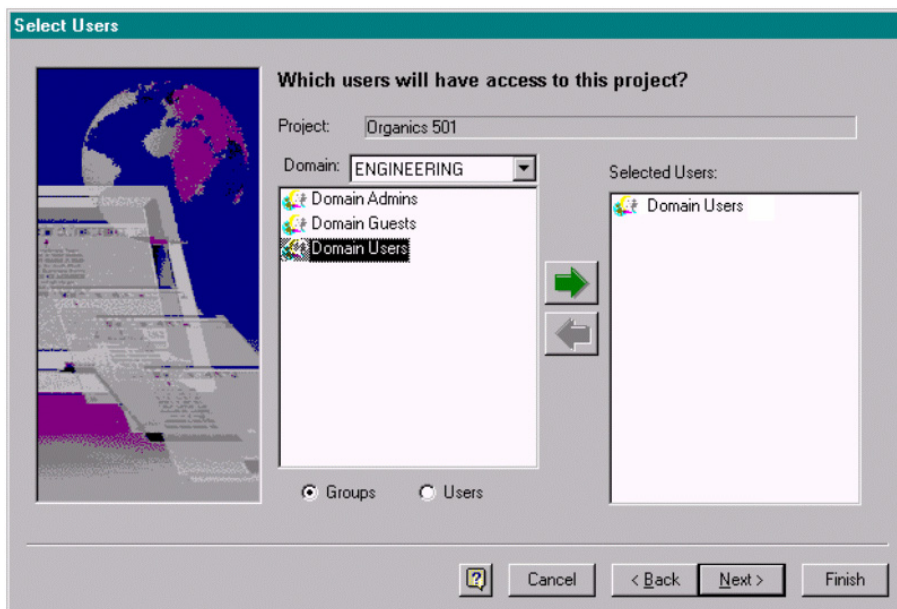


Figure 48. Select Users dialog box

Set User Electronic Signature Role

Assign the electronic signature roles for the user or group.

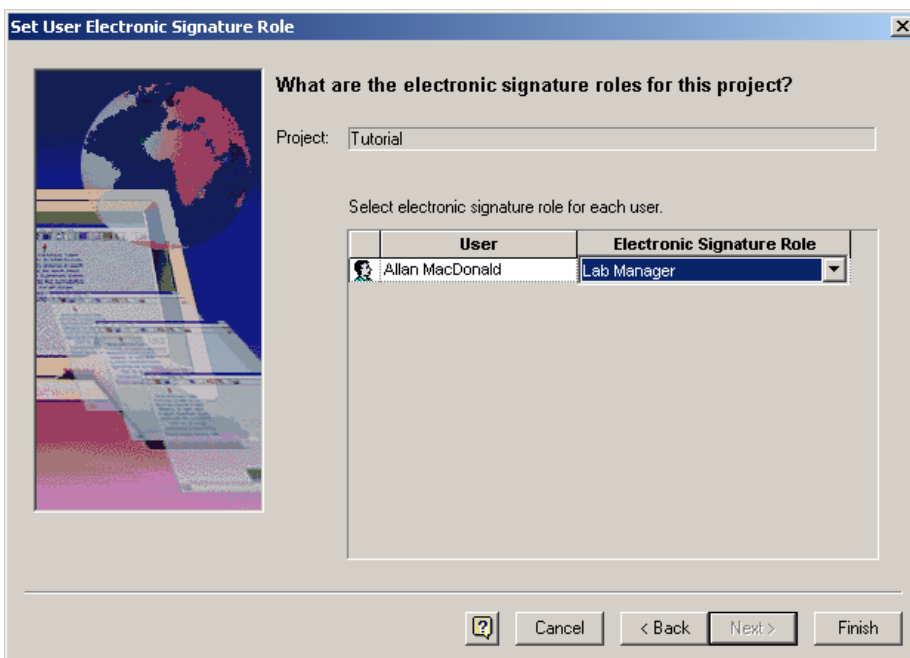


Figure 49. Set User Electronic Signature Role dialog box

When you have completed selection of project privileges, click on **Finish** to complete the project definition changes.

Note The “Calibrate” privilege enables the user to run a calibration sample to update the method calibration. In order to create or modify the calibration parameters in a method, the user must have the “Save Method” privilege assigned.

Remove a Project

Use this option to remove a project from active use. The directories will remain on the Windows 2000/XP system; however, access to the project from within ChromQuest will no longer be possible.

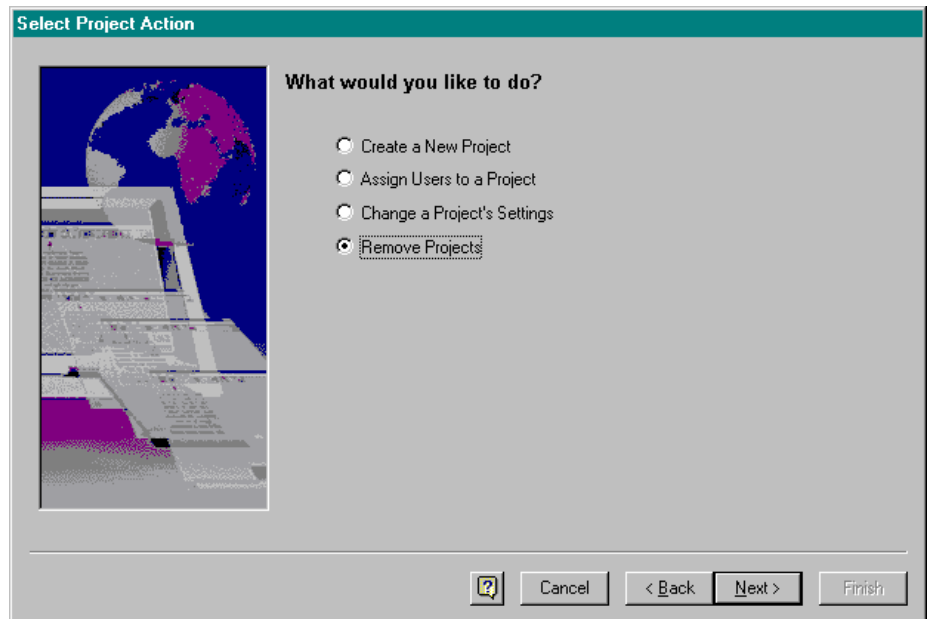


Figure 50. Select Project Action dialog box

Click on **Next** to continue with selection of project(s) to be removed.

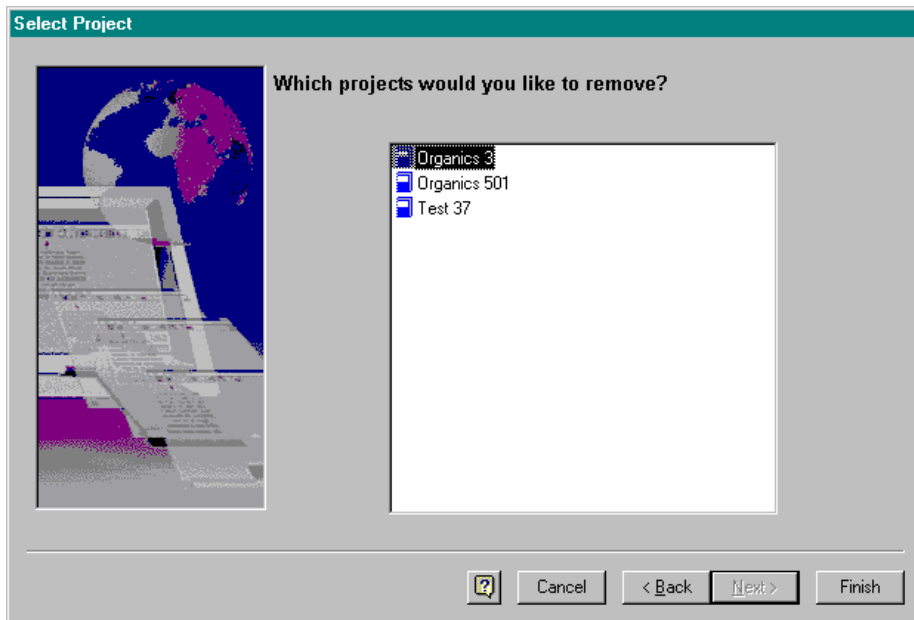


Figure 51. Select Project dialog box

Select the project(s) you wish to remove as active projects. Then click on **Finish**. The following message will remind you that you must manually remove the projects from your database if desired.

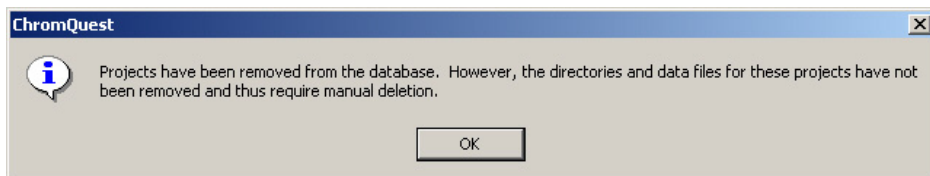


Figure 52. ChromQuest message window

Chapter 5 Configuring Instruments

This chapter gives you information about configuring instruments in the Enterprise, and contains the following sections:

- [Configuring the Enterprise, Instruments, and Detectors](#)
- [Interface Configuration](#)
- [HP LAS Loop Controller Configuration](#)
- [Configuring Instruments and Detectors](#)
- [Printer Configuration](#)
- [Verification of Analog Connections](#)

For specific information about configuring the SpectraSYSTEM LC and Surveyor Plus LC modules, refer to the sections at the back of the *ChromQuest Chromatography Data System User's Guide*.

Configuring the Enterprise, Instruments, and Detectors

Configuration of ChromQuest is the process of defining the system and its hardware. There are three main areas for configuration:

- **Enterprise Configuration.** This involves defining the ChromQuest enterprise locations and instruments.
- **Interface Configuration.** This is where you set up your system hardware, such as A/D boards, pump control boards, and BCD boards. Interface configuration is accessed through the Tools command on the ChromQuest Main Menu.
- **Instrument Configuration.** Each instrument to be used on the system must be configured. This is done from the ChromQuest Main Menu, and involves defining the modules used in the instrument and their configuration parameters

Main Menu

The ChromQuest Main Menu is the first window that appears when you start the datasystem. From this window, you can view the entire ChromQuest “Enterprise” including any locations and instruments that have been configured on the system.

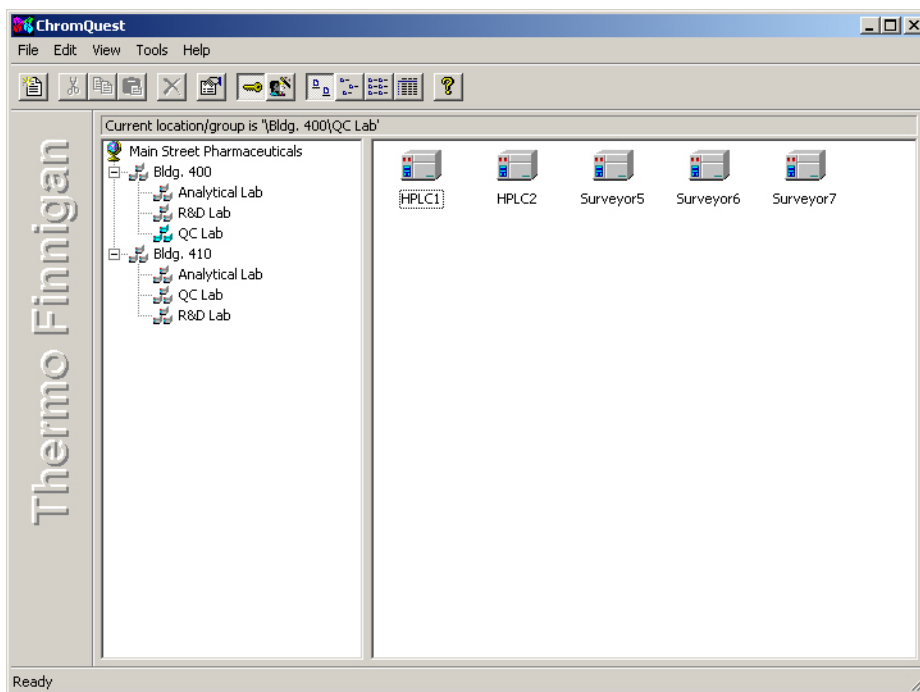


Figure 53. ChromQuest main window

By default, the left side of the Main Menu displays the defined system enterprise locations. The enterprise is displayed as a hierarchy, where each location is displayed as a “folder” containing locations or instruments configured within it.

Click on a location on the left side of the window to display its contents on the right. Click on the plus signs (+) to display more locations. To change the size of either side of the window, drag the bar that separates the two sides. To quickly open a location and display its contents, double-click on the location on the left side of the window.

Instrument Access

To access an instrument for method development, sequence generation and data acquisition; double-click on the icon of the instrument you wish to access.

Changing the View

By default, instruments configured on the system are displayed as icons. You can change how the Main Menu appears using the commands located in the **View** menu. These commands allow you to turn on and off the toolbar and status bar, change the size of the icons, or arrange the icons. Options for changing the icon sizes or viewing details are also available as buttons on the command ribbon.

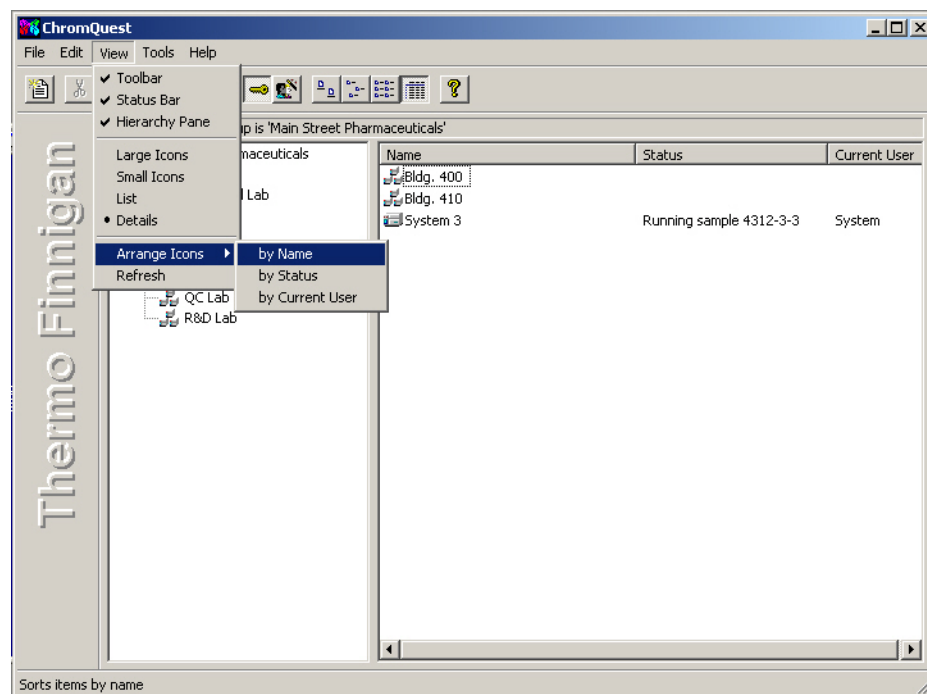


Figure 54. Chromquest - Tools menu

You can view status details of instruments configured on the system from the Main Menu. To view status, choose the **View > Details** command from the menu bar, or click on the **Details** button. Instruments for the current location will be displayed with status information.



5 Configuring Instruments

Configuring the Enterprise, Instruments, and Detectors

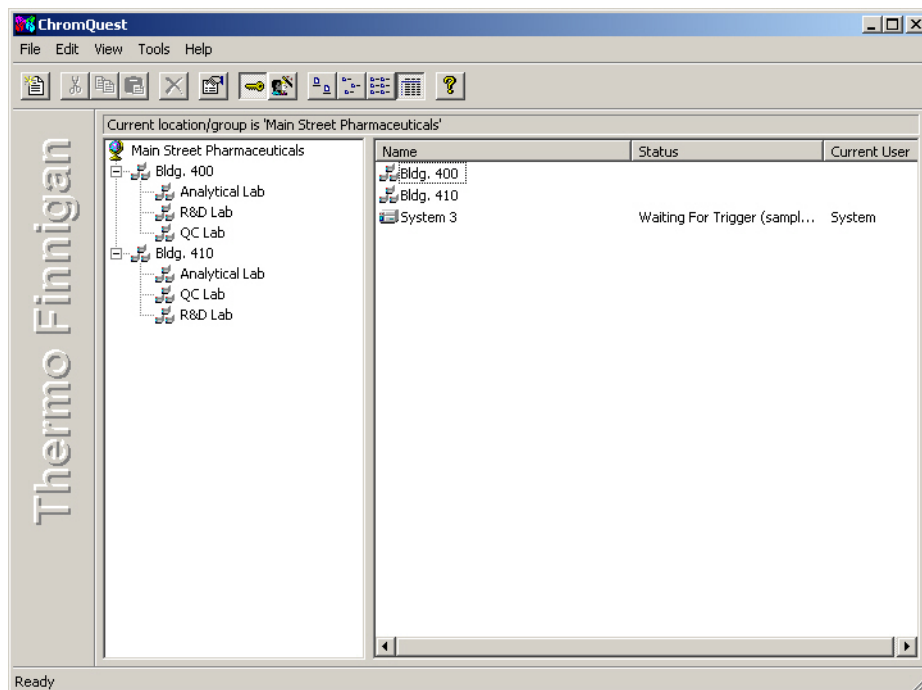


Figure 55. ChromQuest window

When you view a location in “details” mode, the right side of the dialog box will display the instrument name, current instrument status (available, idle, running), and the current user of that instrument. The status is updated periodically, as defined by the Status Update Interval set in the **Tools > Options > Workstation** tab.

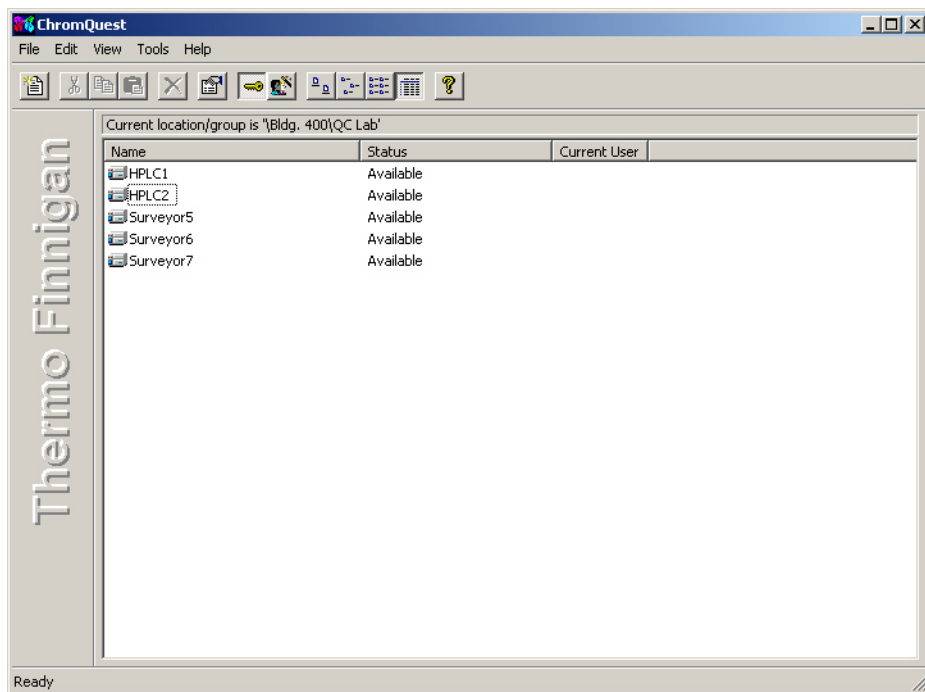


Figure 56. ChromQuest window

You can also view the Main Menu without the entire enterprise displayed. To remove the enterprise, or hierarchy, pane, choose **View > Hierarchy Pane**. If this selection is not checked, the enterprise will not be displayed.

5 Configuring Instruments

Configuring the Enterprise, Instruments, and Detectors

Item Properties

You can view details of an instrument by clicking on the right-hand mouse button on the instrument icon, and then choosing the **Properties** command. An information box will appear with current instrument information.

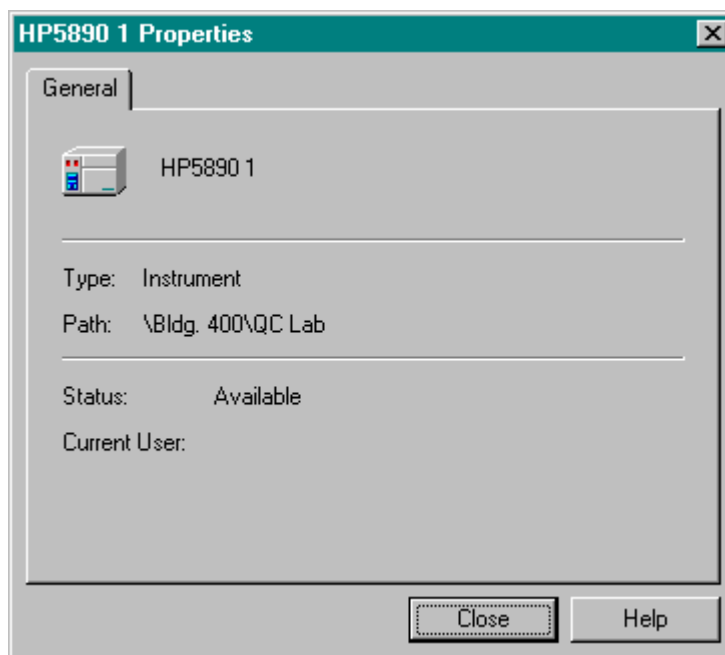


Figure 57. Instrument Properties window

Enterprise Configuration

When ChromQuest is first started, the Main Menu has no “enterprise” defined. The ChromQuest system administrator must define the enterprise before instruments can be configured and used.

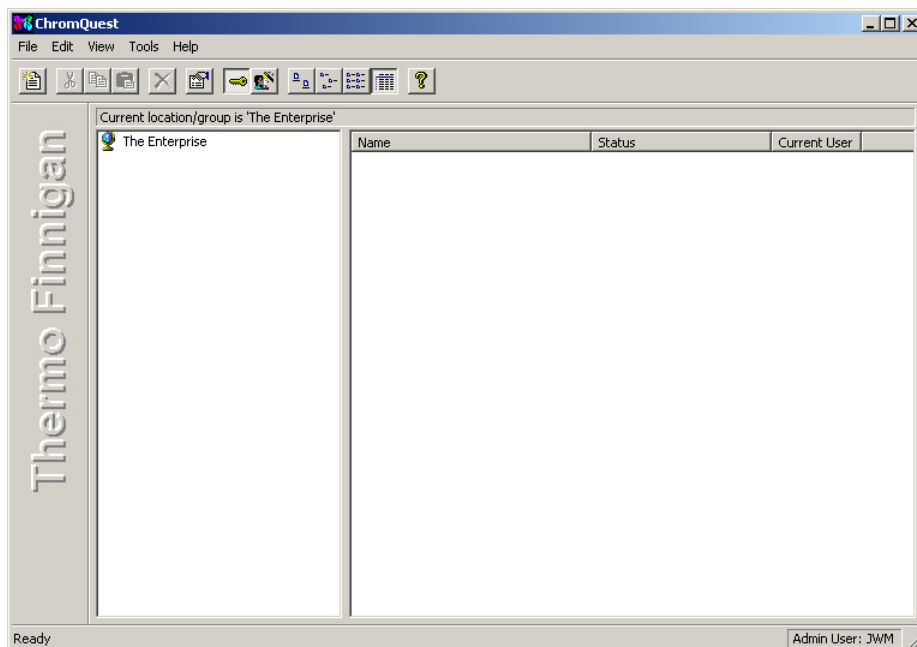


Figure 58. ChromQuest window

You can re-name the enterprise by clicking on the right-hand mouse button on the enterprise name, then choose **Rename**, and type the new enterprise name.

5 Configuring Instruments

Configuring the Enterprise, Instruments, and Detectors

Adding an Enterprise Location

To add a location to your enterprise, click on the right hand mouse button in the enterprise window, and choose **New > Location Group**.

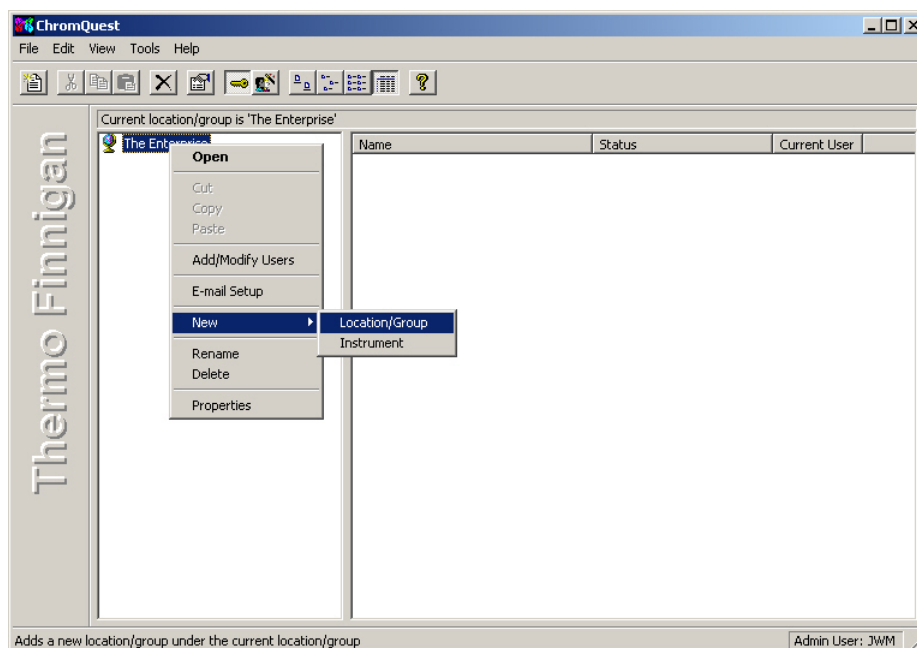


Figure 59. ChromQuest - The Enterprise menu

A new entry will appear below the enterprise. You can give the new location or group a name. Continue adding locations or groups to the enterprise until the enterprise configuration matches that of your company or group.

Adding an Instrument to the Enterprise

Before you can configure an instrument, you must add it to the enterprise definition. To add an instrument, select the location where the instrument is found. Then click on the right-hand mouse button, followed by **New > Instrument**. An icon for the new instrument will appear in the right window, and you can give it a name.

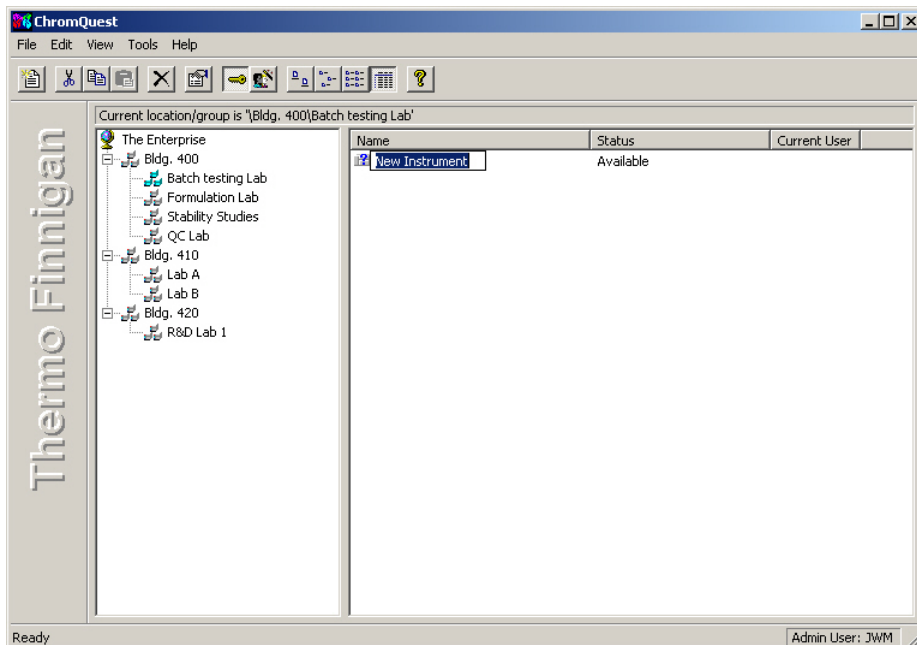


Figure 60. ChromQuest window

Continue to add locations and instruments until the system enterprise matches your company/laboratory configuration. Then go on to configure each of the instruments as described in **“Configuring Instruments and Detectors” on page 77**. You must also configure any A/D interfaces you will be using on your system, as described in **“Interface Configuration” on page 71**. Your completed enterprise can be as simple as one lab with multiple instruments, or a complex list of buildings, laboratories, and instruments.

5 Configuring Instruments

Configuring the Enterprise, Instruments, and Detectors

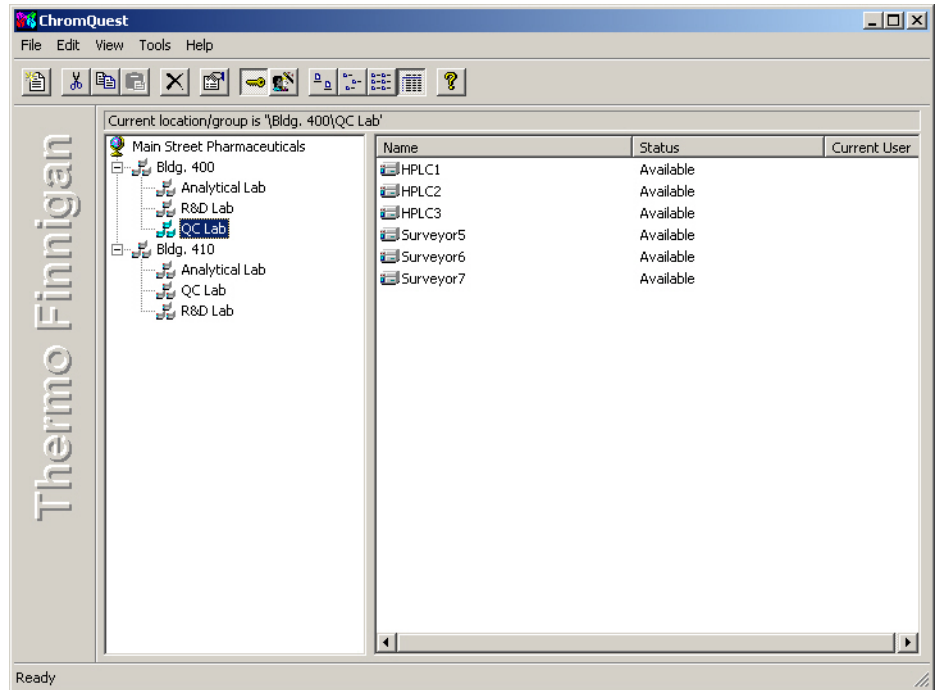


Figure 61. ChromQuest window

Interface Configuration

Interface Configuration involves configuring the hardware boards used in ChromQuest for data acquisition. You must configure your data acquisition interface before you can acquire data using the data system.

Note It is only necessary to perform Interface Configuration on workstations where the interface board is actually installed.

Choose the **Tools > Interface Configuration** command from the ChromQuest Main Menu. A box will appear with possible interface boards displayed. To configure a board, click on the icon to select it, and then click on **Properties**.

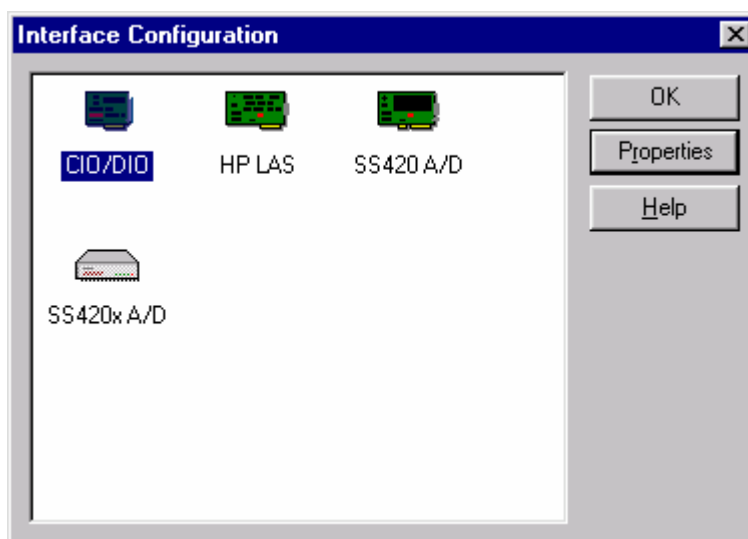


Figure 62. Interface Configuration window

SS420 A/D Board Configuration

If you are using an SS420 A/D Board to acquire data from your detectors, click on the SS420 A/D icon then click on **Properties**. A dialog box will appear where you configure the board.

Note It is only necessary to perform Interface Configuration on workstations where the interface board is actually installed.

Board

Select the board number you wish to configure. If you only have one board, leave the selection at 1.

- Board Setting

This area is where you set the parameters for the SS420 Board selected.

– Base Address (Hex)

Default value is 360. The address entered here must match the address set on your board. You may change this if it conflicts with another board you have installed. Each board takes 4 addresses. Therefore, if you have more than one SS420 board, the next board address must be set at least to the first address plus 4. (For example, board 1 = 360, board 2 = 364.) Make sure the base address is set to zero for boards not installed. (Check this by clicking on each unused board number displayed at the top of the dialog box.)

– Interrupt Level

Default is IRQ11. The interrupt level entered here must match the interrupt level set on the board. Each SS420 board must have a unique interrupt level. Default is IRQ11. The interrupt level entered here must match the interrupt level set on the board. Each SS420 board must have a unique interrupt level assignment. If you change the interrupt level, you must set the interrupt jumper on the SS420 board to reflect the correct interrupt level.

– Base Frequency

The default setting for the SS420 is 10 Hz, which gives optimal signal to noise, and can be used in countries using either 50Hz or 60Hz. If you choose a higher base frequency, you must select a base frequency which can be evenly divided into your line frequency (i.e. 30 for 60Hz countries and 25 for 50Hz countries). If selected incorrectly, you may see line frequency noise on your chromatogram. For best performance, select a base frequency close to the maximum sampling frequency you will be using to acquire data.

Sampling frequencies available in the Acquisition Setup portion of the method will reflect the Base Frequency selected.

– Range

For each channel used, select the button next to the signal range for the detector connected to that channel.

• Board Information

This area is for information only. It contains manufacturing information about the board that may be required in service situations. If this information is blank, your board is not being recognized. This may be due to a conflict of Address. If multiple SS420 boards are installed, when one board is not recognized, none of the other boards will be recognized until the conflict is corrected.

Note You must close and restart Windows 2000/XP before the SS420(s) will be recognized.

CIO/DIO Boards

If you are using one or more of the ComputerBoard, Inc. CIO/DIO Boards to control external events, click on the CIO/DIO icon, then click on **Properties**. A dialog box will appear where you configure the board.

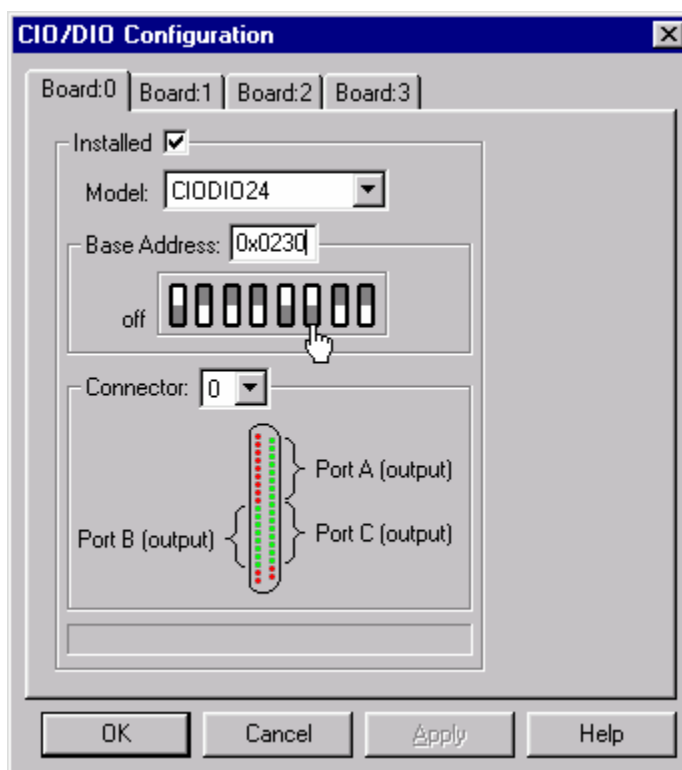


Figure 63. CIO/DIO Configuration dialog box

You can configure up to four CIO/DIO boards. For each board installed, click on the corresponding tab, then configure the board as follows.

- **Installed**
Check this box if the board is installed and you want to configure it.
- **Model**
Select the correct model for the board you have installed from the drop-down list.

5 Configuring Instruments

Interface Configuration

- Base Address

Enter the base address for the board by entering the number in the numeric field, or by moving the switch settings to match your board.

- Connector

Select the appropriate connector for the board from the drop-down list. The diagram of the connector for your selected model will be displayed.

When you have completed the configuration, click on **OK**. You should reboot your computer whenever you change board configuration.

HP LAS Loop Controller Configuration

After the Loop Controller board has been installed, it must be configured to communicate with the software. From the Main Menu, choose **Tools > Interface Configuration**.

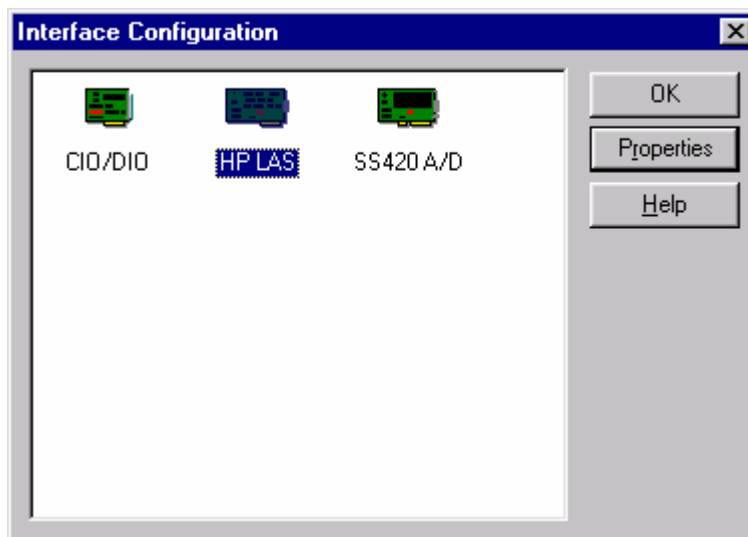


Figure 64. Interface Configuration window

Select the **HPLAS** icon, and click on **Properties** to access the HP LAS board configuration dialog.

HP LAS Board Configuration

Select the **Installed** box to enable the fields for configuration of the board.

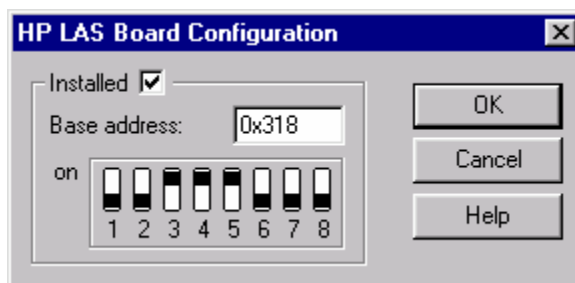


Figure 65. HP LAS Board Configuration dialog box

Enter the base address of the board, or change the switches on the diagram to match the address setting on the board. The base address is determined by the DIP switches located on the loop controller board. Click on **OK** when finished.

HP LAS Detector Configuration

In order to use the HP LAS interface for acquisition, it must be configured for the instrument. From Detector Configuration, select *HP LAS A/D* for **Acquisition Source**.

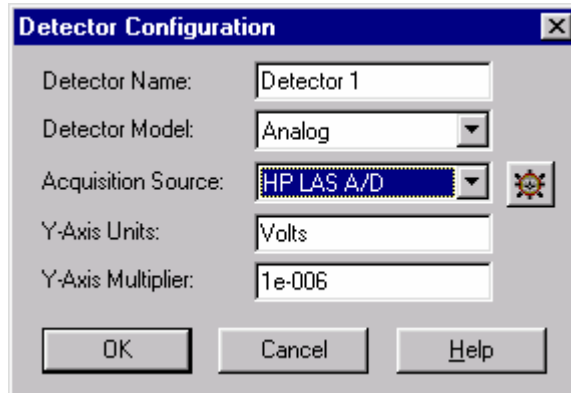


Figure 66. Detector Configuration dialog box

Click on the configuration button adjacent to the Acquisition Source field and complete the dialog for configuration of the detector.

HP LAS Configuration

Complete the dialog for configuration of HP LAS.

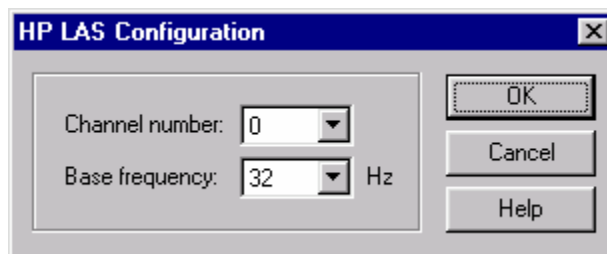


Figure 67. HP LAS Configuration dialog box

- Channel number

Select the channel number of the HP multichannel interface to be used for acquisition. This must match the channel number (DIP switch setting) on the back of the multichannel interface.

- Base Frequency

Select the Base frequency. This must match the base frequency set on the back of the multichannel interface (DIP switch setting).

Configuring Instruments and Detectors

Configuration of instruments and detectors is done from the Main Menu of ChromQuest. To access instrument configuration, either select an instrument by clicking on it to highlight it, and then select the **File > Configure > Instrument** command. Alternatively, click on the instrument with the right-hand mouse button and choose **Configure** from the popup menu.

Note You must have instrument administration privileges in order to configure instruments.

Instrument Configuration

Enter an identification name for the instrument in the **Instrument Name** field. This name will appear adjacent to the instrument icon in the Main Menu, and at the top of this instrument's application window, as well as in other areas of the software that refer to this specific instrument (such as System Administration Wizards).

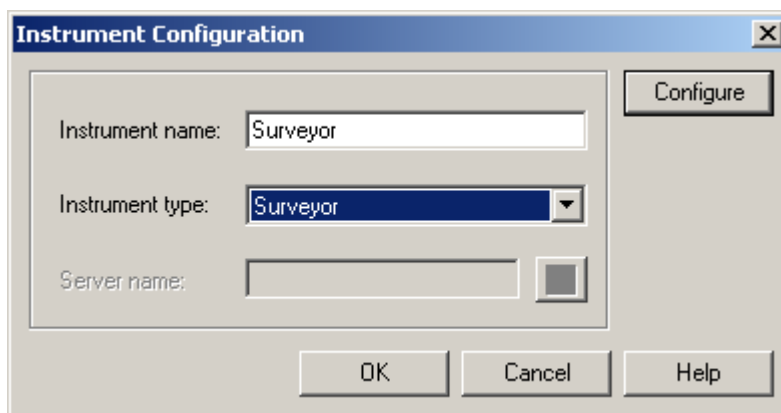


Figure 68. Instrument Configuration dialog box

Select the **Instrument Type** from the drop-down list

Note If you are using an HP5890 with or without an HP7673 autosampler, and want to use instrument and/or autosampler control features of ChromQuest, you must select the **HP5890 + HP7673** type for the instrument. Details on how to configure HP instruments and how to control them are located in a separate control manual that comes with the instrument control option software.

- Server name.

This text box is available only in the client/server mode.

Click on **Configure** to complete the instrument configuration by defining detectors and external events for the instrument.

Extract Configuration From Data File

The Extract From Data File command allows you to extract an instrument configuration from a stored data file. Right-click on your instrument to open the shortcut menu. Then choose **Configure > Extract From Data File**.

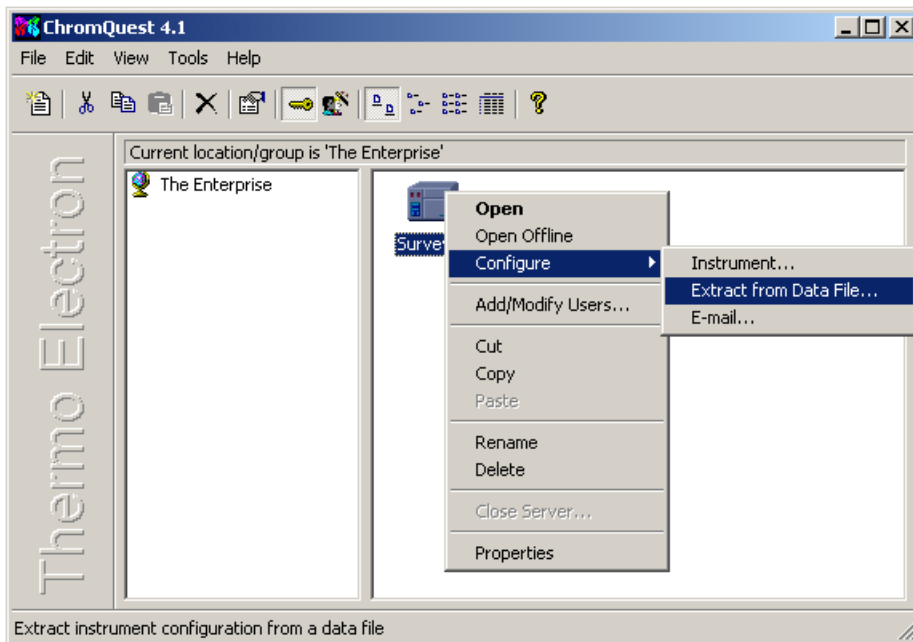


Figure 69. ChromQuest window

ChromQuest displays the following warning.

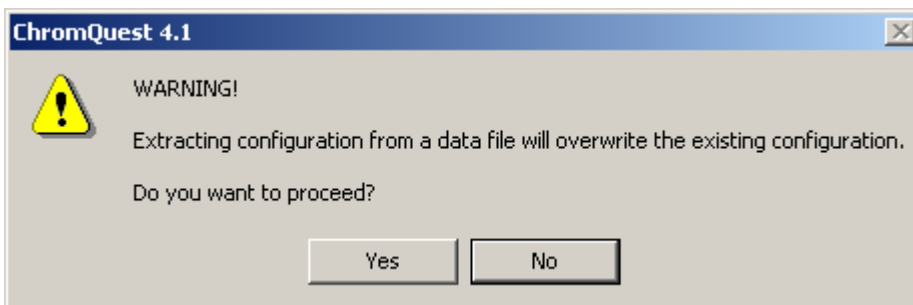


Figure 70. ChromQuest - Warning window

Click on **Yes** to display the Select Data File dialog box.

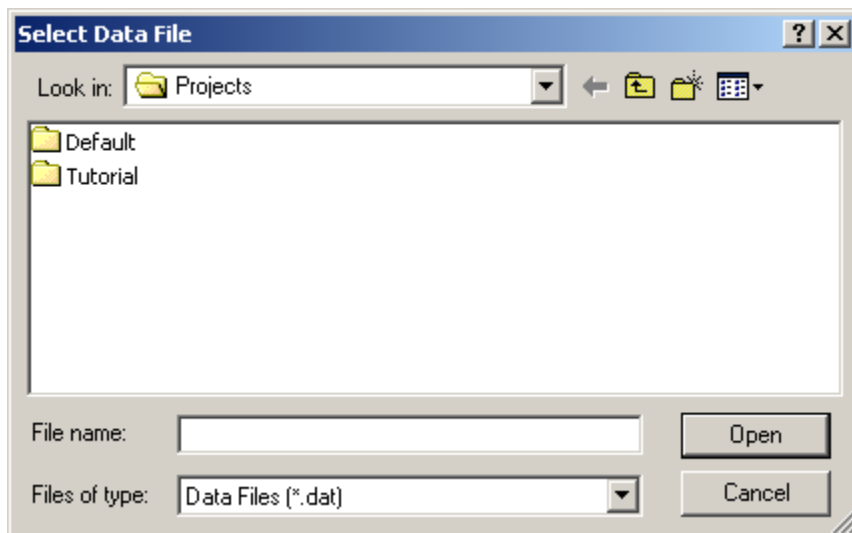


Figure 71. Select Data File window

Generic System Configuration

This dialog box is used to add and define detectors and external events for your instrument.

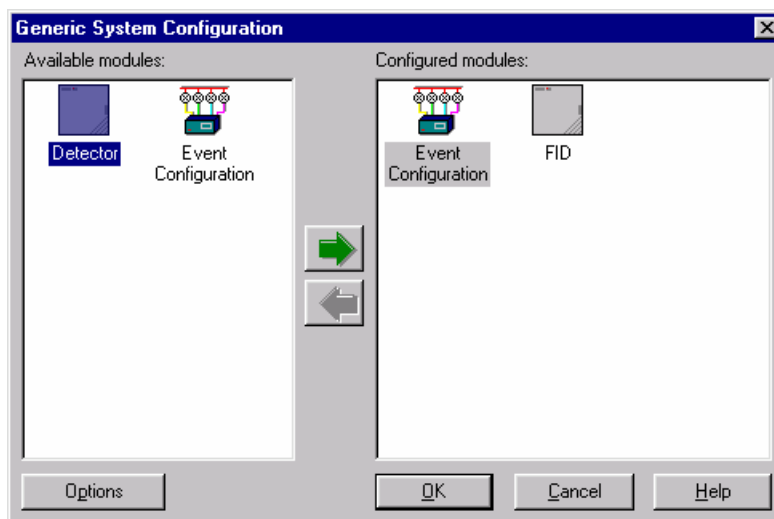


Figure 72. Generic System Configuration window

There will be one or more icons displayed in the **Available Modules** box on the left. To add a detector for configuration, click on the icon in the left box. Then, click on the Green button to move it to the **Configured Modules** box on the right, or double-click on the icon. You must then configure each module (detector or event configuration) separately. The **Options** button is used to initiate any optional analysis software for this instrument.

General Configuration Options

A list of available analysis options will be presented.

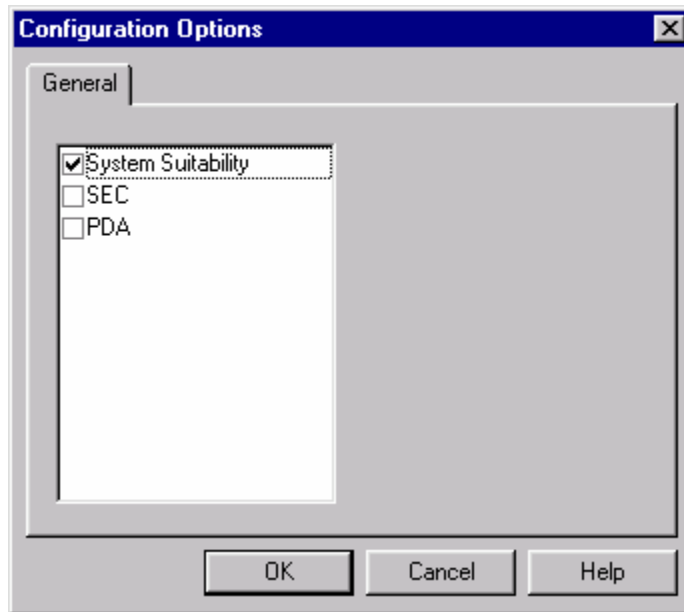


Figure 73. Configuration Options dialog box

Select the checkbox(es) for the optional software you want to enable for this instrument. PDA will automatically be selected if a detector capable of spectral analysis is configured.

Detector Configuration



For EACH detector in the Configured Modules window, double click on the icon and complete the configuration dialog for every detector channel. You must also complete the Acquisition Source configuration by clicking on the **adjacent** button before leaving the Detector Configuration dialog.

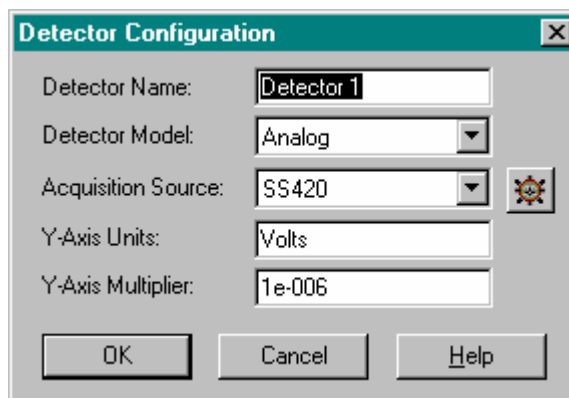


Figure 74. Detector Configuration dialog box

- Detector Name

Enter a descriptive name for the detector. For example, FID or TCD.

- Detector Model

Select the type of detector from the drop-down list.

- Acquisition Source



Select the type of A/D board or device you are using from the drop-down list. Then click on the adjacent button to configure it.

- Y-Axis Units

Type in the units to be displayed on the Y-Axis of your chromatogram. For example, microvolts or AU, depending on the detector units of measurement. ChromQuest acquires your analog signal and stores it in microvolts. If you want to display the signal in different units, you must use the correct multiplier. Consult the table below for commonly used Y-axis labels and corresponding multipliers.

- Y-Axis Multiplier

ChromQuest normally displays the chromatogram in volts. If you wish to display another unit, enter the conversion factor to be applied. The following table shows commonly used Y-axis labels and corresponding multipliers.

Y-Axis Label	Y-Axis Multiplier
Volts	0.000001
Millivolts	0.001
Microvolts	1
Other	Enter a number such that when multiplied by microvolts, gives you the desired units.

For example, if you want the label to be Units, and each Unit corresponds to 5 microvolts of signal, enter $1/5 = 0.2$.



Before you exit the dialog, you **MUST** configure the **Acquisition Source** by clicking on the button adjacent to the acquisition source.

When you have completed configuration for all detectors of this instrument, your System Configuration dialog will display each detector's name and type. Click on **OK** to exit the configuration. It is necessary to re-start the instrument application for the configuration to take effect.

Configuring SS420 Acquisition

If you select this acquisition source, a dialog box will appear.

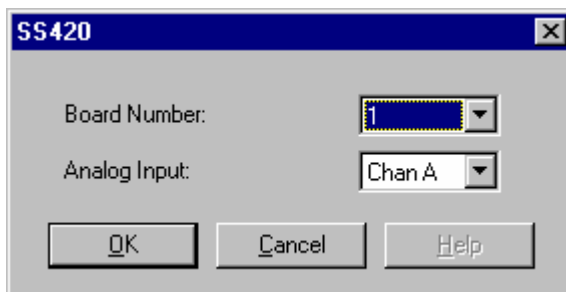


Figure 75. SS420 dialog box

If you have more than one SS420 board installed, select the **Board Number** for this instrument from the drop-down list.

For **Analog Input**, select the channel to which the detector channel is connected from the drop-down list. Make sure each detector is configured for the correct channel to which it is connected on the A/D board. Click on **OK** to exit and return to the detector configuration dialog.

Configuring PE Nelson 760 Acquisition Source

If you are using a PE Nelson 760 series interface to acquire your data, the following dialog box will appear.

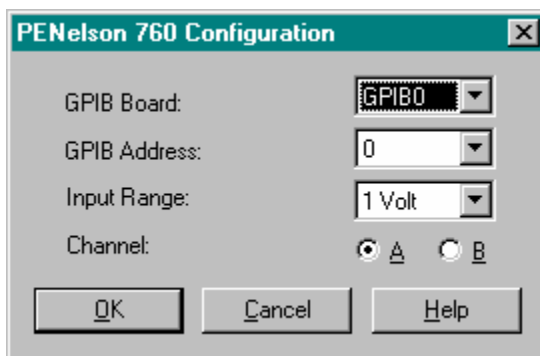


Figure 76. PE Nelson 760 Configuration dialog box

Select the **GPIB board number** from the drop-down list. For most systems, select GPIB0.

Select the **GPIB Device Address** for the PE Nelson interface connected to this instrument. This address should match the address set on the PE Nelson interface.

Note GPIB address changes do not take effect unless the instrument is power cycled.

Select an **Input range** for the detector from the drop-down list.

Select the **Channel** for this detector. The detector should be connected to this channel on the PE Nelson interface.

When you are done, click on **OK** to return to the detector configuration dialog.

Configuring PE Nelson 941 Acquisition Source

If you are using a PE Nelson 941 interface to acquire your data, the following dialog box will appear.

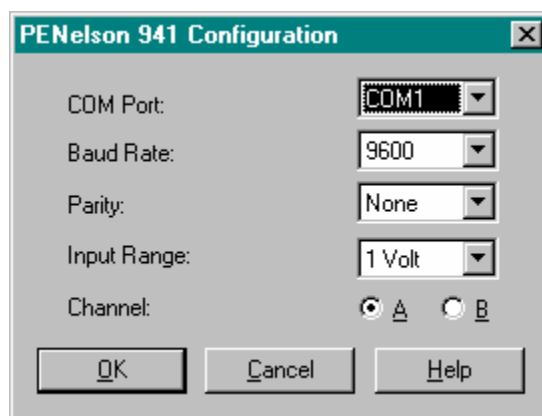


Figure 77. PE Nelson 941 Configuration dialog box

Select the **Com Port** from the drop-down list.

Select the **Baud Rate** the PE Nelson interface uses to communicate. This should match the baud rate set on the PE Nelson interface.

Select the **Parity** used from the drop-down list.

Select the **Input Range** for this detector.

Click on the radio button adjacent to the **Channel** that matches the channel where the detector is connected.

When you are done, click on **OK** to return to the detector configuration dialog.

Configuring PE Nelson 960 Acquisition Source

If you are using a PE Nelson 960 interface to acquire your data, the following dialog box will appear.

If the interface is set to communicate via GPIB, the following box will appear.

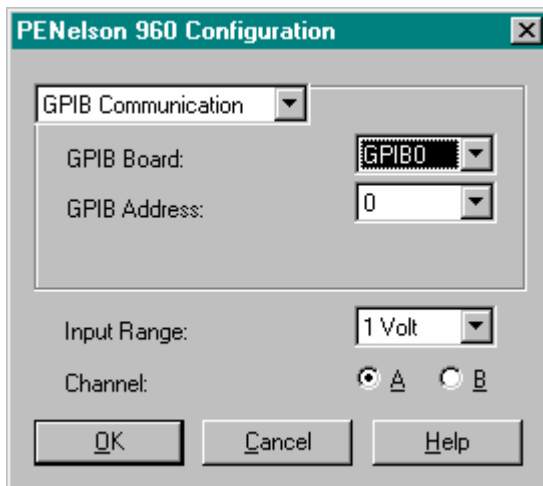


Figure 78. PE Nelson 960 Configuration dialog box

Select the **GPIB board number** from the drop-down list. For most systems, select GPIB0.

Select the **GPIB Device Address** for the PE Nelson interface connected to this instrument. This address should match the address set on the PE Nelson interface.

Note GPIB address changes do not take effect unless the instrument is power cycled.

Select an **Input range** for the detector from the drop-down list.

Select the **Channel** for this detector. The detector should be connected to this channel on the PE Nelson interface.

When you are done, click on **OK** to return to the detector configuration dialog.

If the interface communicates via RS232, select RS232 Communication from the drop-down list, and complete the following dialog.

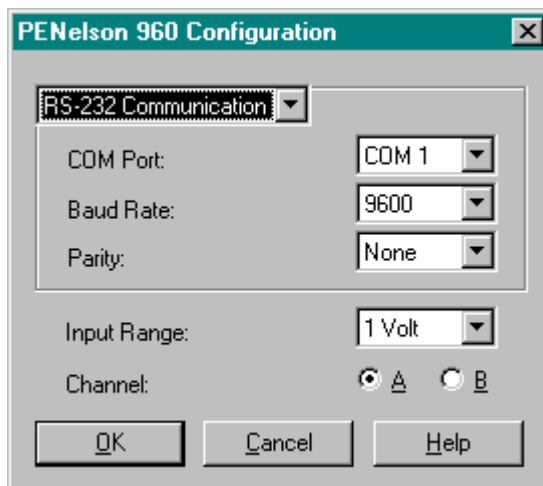


Figure 79. PE Nelson 941 Configuration dialog box

Select the **Com Port** from the drop-down list.

Select the **Baud Rate** the PE Nelson interface uses to communicate. This should match the baud rate set on the PE Nelson interface.

Select the **Parity** used from the drop-down list.

Select the **Input Range** for this detector.

Click on the radio button adjacent to the **Channel** that matches the channel where the detector is connected.

When you are done, click on **OK** to return to the detector configuration dialog.

Configuring Valves and External Events

In order to configure a valve, trigger, or other external event, you must first make sure the event is properly connected to the ChromQuest system. Configuring an external event involves specifying which input lines are being used, so you must have this information available before you start the configuration.

Valve and external event configuration is done from the instrument configuration dialog. To access this, highlight the instrument to configure, then choose **File > Configure** from the Instrument menu bar, or do a right mouse click on the instrument icon, and choose the **Configure** command.

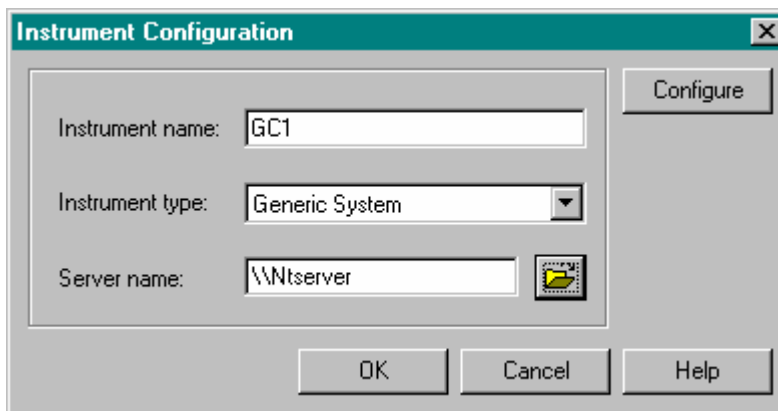


Figure 80. Instrument Configuration dialog box

Click on the **Configure** button. From the System Configuration window, double-click on the **Events Configuration** icon. This will move the icon into the “Configured Modules” area of the window.

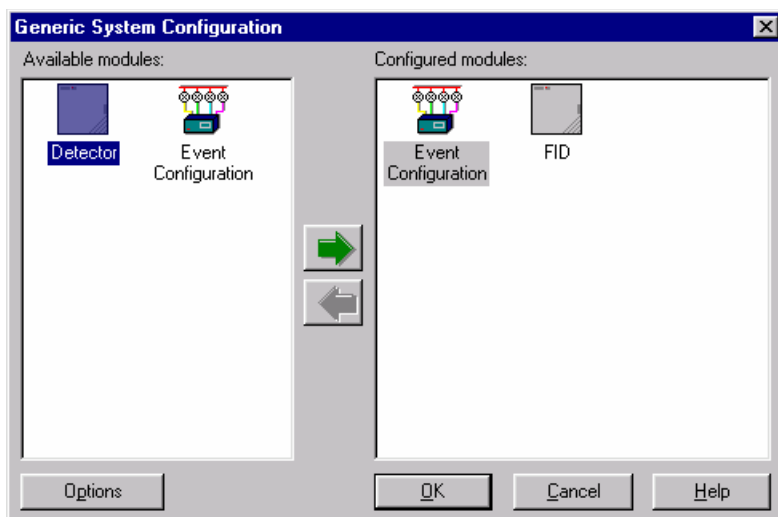


Figure 81. Generic System Configuration dialog box

Double-click on the Event Configuration icon in the right-hand box. A spreadsheet will appear where you can select the external events to configure.

Event Configuration

When you double-click on the Event Configuration icon, the following spreadsheet will appear where you configure the events.

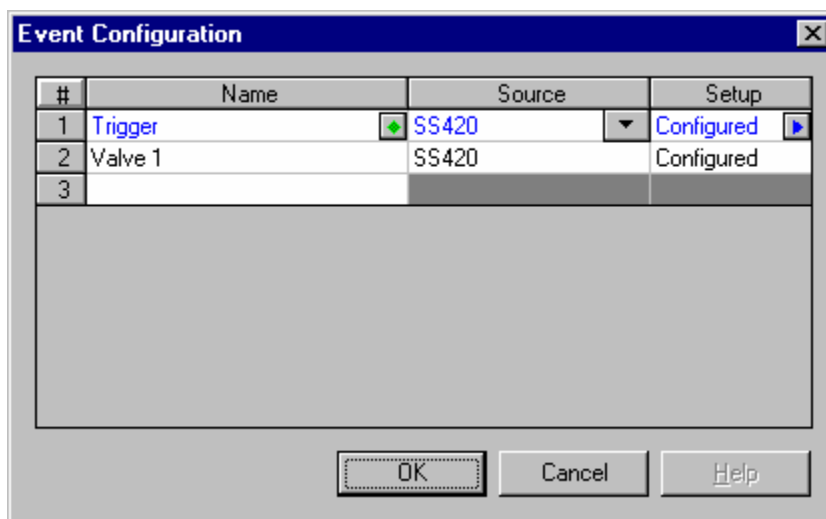


Figure 82. Event Configuration dialog box

- Name

If you are configuring a Trigger or Ready line, click on the button in the Name text box and select either Trigger or Ready from the list. If you are configuring a valve or other external event, simply click on the Name text box and then type in the name of your event.

- Source

In the **Source** field, click on the button and select the source of the event (the hardware from which the event comes).

- Setup

Click on the button in the **Setup** field. A dialog will appear where you set up the appropriate information for the operation of this event.

Continue the external event configuration until all events for this instrument are configured. Programming of the external events into your method is done in the **Instrument Setup** section of the method, and is described in the Method Development section.

Note

1. The external events tab in Instrument Setup will not be available unless you have configured your instrument with one or more external events.
2. It is possible to assign the same event to more than one instrument. Be careful to assign events such that conflicts between instruments will not happen.

SS420 Input Setup

When you are configuring a Trigger, the SS420 Input Setup dialog will appear when you click on Setup. Select the appropriate input line for your Trigger.

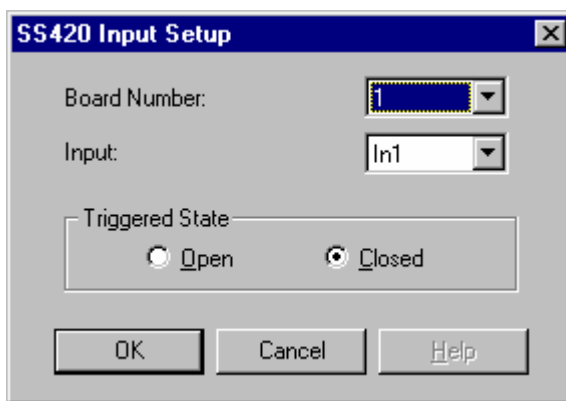


Figure 83. SS420 Input Setup dialog box

- Board Number
Select the number of the board from which the event comes.
- Input
Select the input to which the event is connected on the board.
- Triggered State
Select the state of the connection when it is **triggered**. (e.g. For normally-closed select **Open**, for normally-open select **Closed**.)

SS420 Output Setup

When you configure a valve or other external device, the Setup field opens the SS420 Output Setup dialog. Select the Output line on your board to which the event is tied.

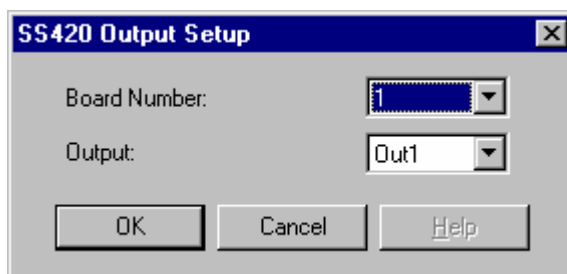


Figure 84. SS420 Output Setup dialog box

When completed, click on **OK** to exit the dialog. Continue the external event configuration until all events for this instrument are configured. Programming of the external events into your method is done in the **Instrument Setup** section of the method, and is described in the Method Development section.

Note The external events tab in Instrument Setup will not be available unless you have configured your instrument with one or more external events.

PE Nelson 760 Output Setup

When you configure a valve or other external device, the Setup field opens the Output Setup dialog. Select the GPIB Board Number, GPIB Interface Address, and Output line to which the event is tied.

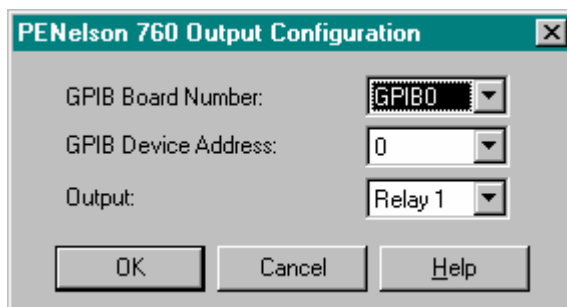


Figure 85. PE Nelson 760 Output Configuration dialog box

When completed, click on **OK** to exit the dialog.

PE Nelson 941 Output Configuration

When you configure a valve or other external device, the Setup field opens the Output Configuration dialog.

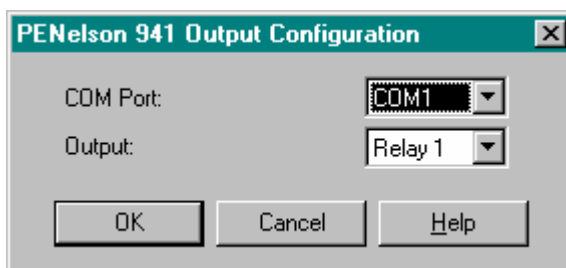


Figure 86. PE Nelson 941 Output Configuration dialog box

Select the **COM Port** where the interface is configured from the drop-down list.

Select the **Output** from the drop down list.

When completed, click on **OK** to exit the dialog. Once the events are configured, you can program them from the Instrument Setup section of the methods.

PE Nelson 960 Output Configuration

When you configure a valve or other external device, the Setup field opens the Output Configuration dialog.

If the interface uses GPIB to communicate, select this option from the drop-down menu.

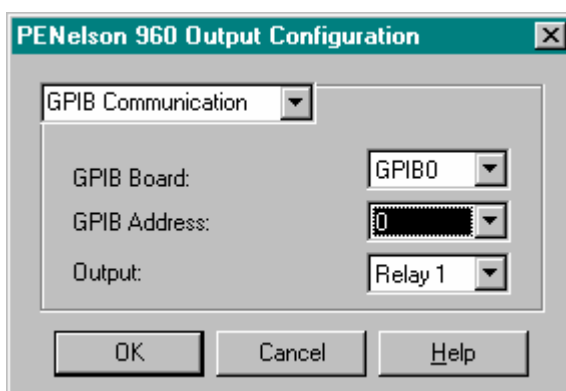


Figure 87. PE Nelson 960 Output Configuration dialog box

Select the **GPIB Board** to which the interface is connected from the drop-down list.

Select the **GPIB Address** that matches the address set on the interface.

Note GPIB address changes do not take effect unless the instrument is power cycled.

Select the **Output** to configure from the drop-down list.

Click on **OK** to exit the dialog.

If the 960 Interface communicates via RS232, select this option from the drop-down list, and the following dialog will appear.

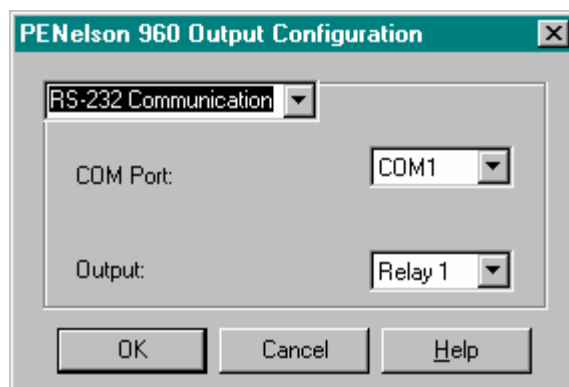


Figure 88. PE Nelson 960 Output Configuration dialog box

Select the **COM Port** where the interface is configured from the drop-down list.

Select the **Output** from the drop down list.

Click on **OK** to exit the dialog box. Once the events are configured, you can program them from the Instrument Setup section of the methods.

CIO/DIO Setup - Event Configuration

If you are using one of the CIO/DIO boards, the following dialog will appear when you click on the Setup field in the event configuration spreadsheet.

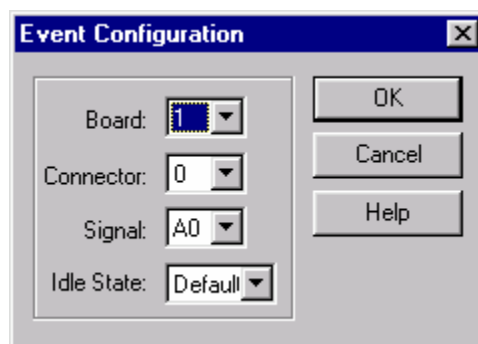


Figure 89. Event Configuration dialog box

5 Configuring Instruments

Configuring Instruments and Detectors

- Board
Select the board for which you want to configure events.
- Connector
Select the connector to be used.
- Signal
Select the signal source for the event.
- Idle State
Select the idle state for the event: default, open, or closed.

When you have completed the dialog, click on **OK**. Once the events are configured, you can program them from the Instrument Setup section of the methods for instruments using this board.

Printer Configuration

ChromQuest allows each instrument to print to a different printer. Use the following guidelines to specify the printer.

Print Setup for Workstations

Each instrument connected to ChromQuest can have its own unique printer. To designate a printer other than the Windows default printer, choose the **File > Print Setup** command from the Instrument window menu bar. Select and setup the printer to be used for this **instrument** from the standard printer dialog shown.

Printing in an Offline Environment

When working with an instrument Offline, the printer designated in the **File > Print Setup** dialog becomes the configured printer for that user, and has no effect on the configured printer for the online instrument. This enables a laboratory manager to work offline and request reports to a local or office printer without changing the printer configured for the instrument to use in the lab. A user can designate a different offline printer for each instrument.

Verification of Analog Connections

Before attempting to inject samples on your chromatograph, you should verify the analog connections and triggers you have made are correct by looking at the actual detector signals.

Using Preview to Verify Analog Connections

To do a quick preview of the signal without performing a run using the Preview function.

1. From the ChromQuest Main Menu, click on the icon that represents the instrument you wish to check, and login to start the instrument application.
2. Locate the **Preview** button on the command ribbon and click on it. Alternatively, choose the **Control > Preview Run** command from the menu. At this point, you will see the real time detector output from your instrument. If you inject a simple sample (i.e. solvent) you should see a peak elute, oriented in the correct direction. If you see no peaks, check to see if your connections and assignment of analog line numbers, and configuration are correct. If the peaks are in the wrong direction, reverse your detector signal lines and repeat.
3. When you are finished, click on the **STOP** button. Note that in the **Preview** mode, the data is not integrated or analyzed.



Once you have verified your analog signals and remote input lines are properly connected, you can start acquiring actual data. If you are using ChromQuest for the first time, take a few minutes to perform the Tutorial. This Tutorial takes you step-by-step through the basics of using the system, and will make learning ChromQuest much faster.

Starting an Instrument

To access the Instrument window where you can develop methods and sequences, create custom reports, and acquire data, double-click on the instrument icon you wish to start in the Main Menu. You may be required to login before you can access the instrument window functions.

Instrument Login

Whenever the instrument login and project management is enabled, you will be required to login whenever you attempt to start an instrument application.

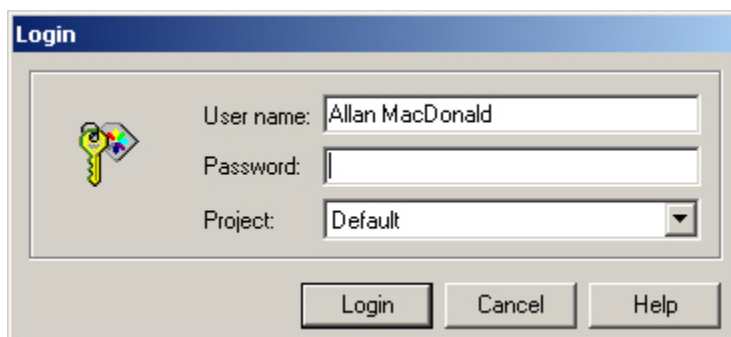


Figure 90. Login - User name dialog box

Enter the information as prompted, and then click on **Login**.

- User name

Enter the user name that has been assigned to you on the network.

- Password

Enter your assigned network password.

- Save Password

If the “save password” option is enabled by your system administrator, a **Save password** checkbox will appear.

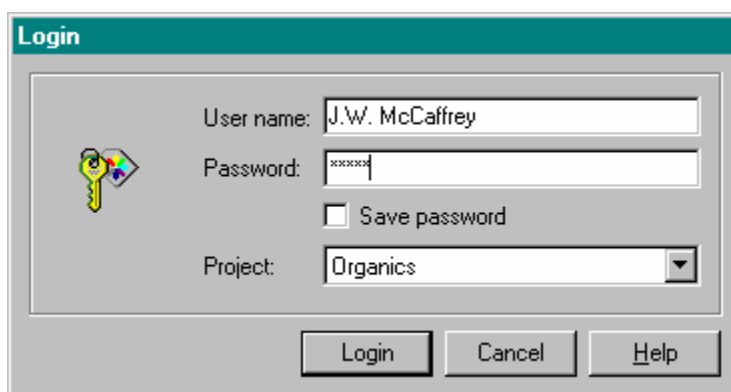


Figure 91. Login - Password dialog box

If you select this box, the password you type at login will be saved when you click on the **Login** button. Once the password has been saved, whenever you login to the instrument, the saved password will be used.

Note The password will be saved when the **Login** button is clicked, whether or not the login is successful.

- Domain

Select the domain you have privileges on from the drop-down list, or type in the correct domain. (Not shown unless you are using a domain controller.)

- Project

Select a project to log into. This project will become the default project path for methods, data, and sequences in the instrument. You can, however, create and save files in other locations, or change the selected project later, even though you have logged into a designated project.

Once you have logged into an instrument and selected a project, that project's paths for methods, data, sequences, and templates will be used unless you designate a new project. To change the selected project, use the **File > Select Project** command from the Instrument window menu bar.

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