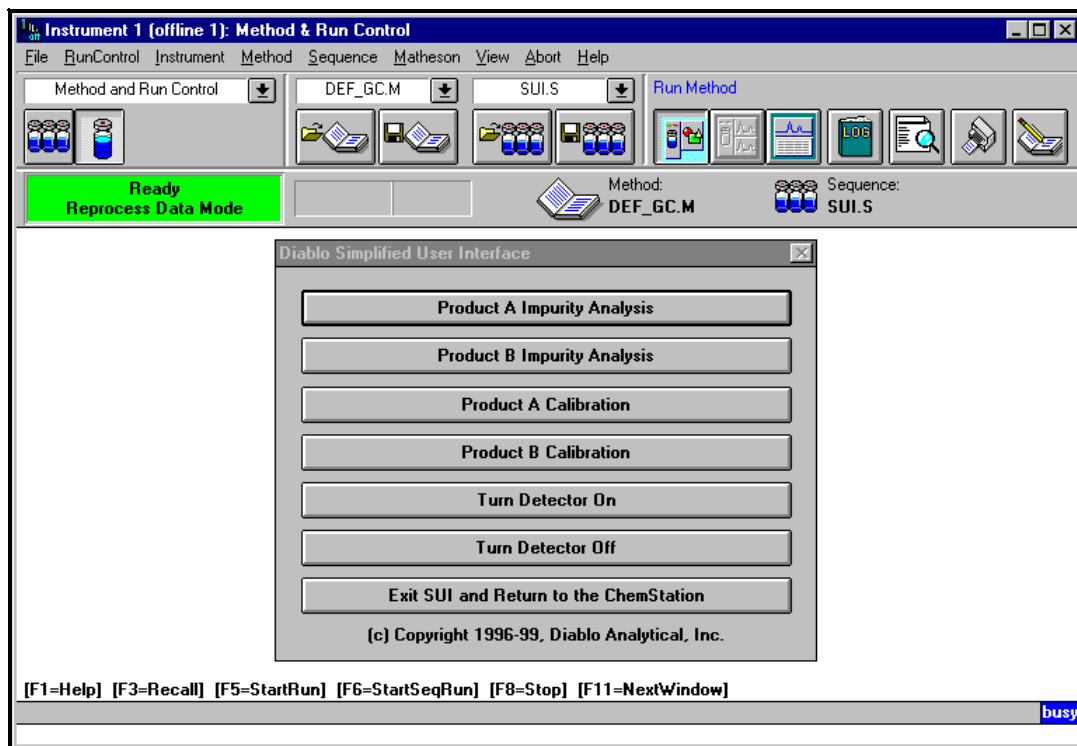


Simplified User Interface Software



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Diablo Simplified User Interface 2.0
Reference Manual

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Manual Revision 20080822-0938

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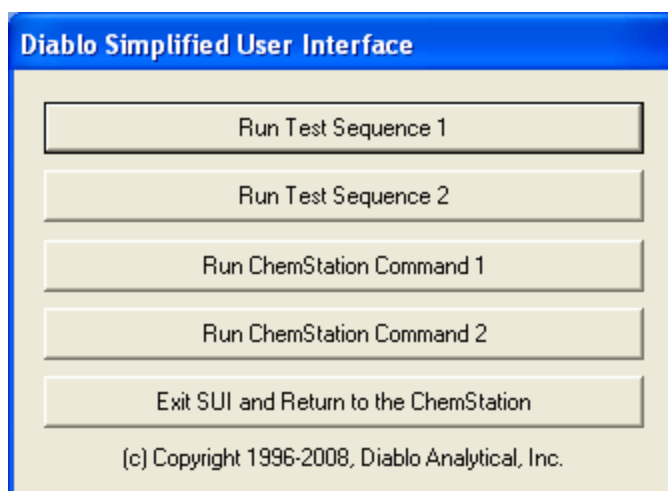
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Introduction

What is the Simplified User Interface

One Button ChemStation Automation



The Agilent Technologies ChemStation provides a powerful chromatographic data acquisition and data processing environment to the experienced user. However, occasional users or busy operators may find the ChemStation software to be complex and have difficulty remembering the proper steps to perform for each analysis that they must run. We developed the Simplified User Interface (SUI) to address this problem.

The SUI allows an operator to initiate analyses on a Agilent Technologies ChemStation by pressing a single button.

The SUI consists of two main components, a configuration editor and a ChemStation macro. The configuration editor is a 32-bit Windows application that is used to configure the options used by the ChemStation macro. The ChemStation macro is used to display the main SUI dialog box and the Sample Information Wizard from within the Method and Run Control View of the ChemStation.

Summary of Features

- Allows ChemStation analyses to be started by pressing a single button. The operator is automatically prompted for any sample information required for the analysis.
- Uses existing sequence and method files. No modification of existing methodology is required.

- Has an automatic data file naming feature that prevents existing data files from being accidentally overwritten.
- Can be configured quickly and easily using the configuration editor included with the software.
- Can be displayed as a normal dialog box located on top of the ChemStation Window, or as a full-screen dialog box that completely hides the ChemStation underneath.
- Has an option to re-display the SUI dialog automatically after the last sample in a sequence is run.
- Runs under the “multi-technique” (GC, LC) version of the Agilent Technologies ChemStation.

Summary of Recent Improvements

1. The SUI is now distributed as a fully-functional evaluation application that expires 30 days after it is installed. A simple 8-character unlock code can be used to register the program or extend the evaluation period. See “[Software License and Registration](#)” on page 5.
2. *Security:* The Configuration Editor can now be password protected. In addition, optional “User” security can be activated so that only approved users are authorized to execute specific SUI buttons. Finally, the SUI can be configured so that an administrator password is required to exit and return to the ChemStation. See “[Security Tab](#)” on page 14.
3. *Prompt for Methods:* The Sample Information Wizard can be configured so that the operator chooses from a list of allowed methods that are specified in the Configuration Editor. See “[Methods Tab](#)” on page 20.
4. *Additional display positions:* The main SUI dialog box can be configured to be displayed in the “corners” of the ChemStation (Upper Left or Right, Lower Left or Right). This is useful if you want the operator to be able to view a particular part of the underlying ChemStation. See “[SUI Display Position](#)” on page 11.
5. *Execute ChemStation Command:* The SUI can now be configured to execute a ChemStation macro or command in addition to the ability to run a sequence. This feature is particularly useful for instruments that have detectors, pumps, or other hardware that need to be turned on or off by the operator. See “[Command Button Configuration Window](#)” on page 26.
6. Additional data file subdirectory and naming options.
7. The SUI and Sample Information Wizard can now be used to add samples to a running sequence. See “[Adding Samples to a Running Sequence](#)” on page 34.
8. A sequence log file can now be created to help administrators monitor usage of walk-up instruments and help users determine which data files correspond to the samples that were run. See “[Miscellaneous Options](#)” on page 12.

Implementing the Simplified User Interface

There are three steps to implementing a Simplified User Interface.

1. Create the ChemStation method and sequence files for the analyses that you want to place on the SUI. Existing methods and sequences can be used with little or no modification. See "[ChemStation Files](#)" on page 7 for additional information,
2. Configure the SUI and its buttons using the [Configuration Editor](#). Each sequence file will be linked to a single button on the Main SUI window. See "[The SUI Configuration Editor](#)" on page 9 for more information.
3. [Load and run the SUI macro](#) from within the ChemStation. When the operator presses a SUI button, the [Sample Information Wizard](#) collects any required sample information before starting the sequence. See "[The SUI ChemStation Macro](#)" on page 29 for more information.

About Diablo Analytical, Inc.

*Mt. Diablo is a well-known
San Francisco Bay Area
Mountain*

The Simplified User Interface was written by Diablo Analytical, Inc. Diablo Analytical is an analytical application development company located in Concord, CA. We specialize in the development of custom analytical solutions for a broad range of industries.



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Agilent Technologies Channel Partner

Diablo Analytical is an Agilent Technologies Channel Partner (formerly Hewlett-Packard) for analytical application development and system integration.

Getting Started

System Requirements

To run the Simplified User Interface (SUI), you will need the following:

1. Windows NT Workstation 4.0 with Service Pack 3 or higher, or Windows 2000 with Service Pack 3 or higher, or Windows XP Professional.
2. An installed Agilent Technologies ChemStation for GC and LC systems: version 7.0 or higher is recommended.
3. Approximately 3 MB of disk space.
4. We recommend that the Windows video display be set to the "Small Fonts" setting in the display properties dialog.

Important

Important Note: The Simplified User Interface does *not* work with the HP 3365 (Alice) ChemStation or any of the GC-MSD ChemStations (Mustang).

Program Installation

The SUI is installed by running the setup executable that was downloaded from our web site or sent to you on CD-ROM. The setup file is a Windows self-installing executable that contains all the required SUI program files. The setup program copies these files to the correct location on your local hard drive. It will also create a "Diablo SUI 2.0" program group under the Windows "Program" menu.

Installation Notes

1. In order to install the SUI onto a ChemStation that is running Windows NT 4.0, Windows 2000 Workstation, or Windows XP Professional, you *must* be logged on to the computer with administrator privileges. Once the SUI has been installed successfully, you will be able to run it while logged on as any level user.
2. If this is the first time you have installed the application on your system, you may be required to reboot the computer after installation of the Visual Basic run-time pre-requisite.

Software License and Registration

The Simplified User Interface is distributed as a fully functional 30-day evaluation application. The evaluation version has all of the features of the registered version, but you will be reminded that you are running the evaluation version with a "nag" screen each time you start the configuration editor or the SUI. At the end of the 30-

day evaluation period the application will no longer start unless you purchase a license or request an evaluation extension from Diablo Analytical.

For more information on activating the software, see the “Diablo Software License Guide”.

Technical Support

Technical support for the SUI is available directly through [Diablo Analytical](#).

Phone

If you want to speak directly with technical support, call us at **(925) 609-1150**.

Fax

Fax a description of your problem or suggestion to us at **(925) 609-9360**.

Electronic Mail

Use our dedicated SUI support address for e-mail based technical support:
support@diabloanalytical.com

World Wide Web

Check our World-Wide Web site for updates and other information:
<http://www.diabloanalytical.com/support>

Uninstalling the Program

From the Windows Control Panel, double-click the **Add/Remove Programs** Icon. Select the **Install/Uninstall** Tab and then select **Diablo Simplified User Interface 2.0** in the list box. Press the **Add/Remove** button and follow the instructions to remove the SUI from your system.

ChemStation Files

Sequence Files

Most sequence files can also be used with little or no modification. It is important to remember that the SUI uses the sequence table as the template for sample analyses. You should make sure that the sequence runs properly before you add it to the SUI.

Number of Lines in the Sequence Table

The number of lines in the sequence table determines the number of samples that will be run.

If you enable a [partial sequence](#), the number of lines in the sequence table determines the *maximum* number of samples that can be specified. See “[Allow Partial Sequence](#)” on page 18 for additional information on partial sequences.

Sequence Table Entries

Any sample names, vial numbers, or other sample information you place in the sequence table becomes the default values for the Sample Information Wizard.

Dual-Injector Sequences

Important

Important Note: The SUI does *not* support Dual injector methods and sequences. Your sequence must contain either all front injector methods or all back-injector methods. This is only an issue for GC ChemStation applications.

Post Sequence Shutdown Macro

Previous versions of the SUI required a post-sequence macro to be specified in order for the SUI to be re-displayed at the end of a sequence. Starting with version 2.1, an option has been added to the configuration editor that allows you to enable the automatic re-display of the SUI without using a post sequence macro.

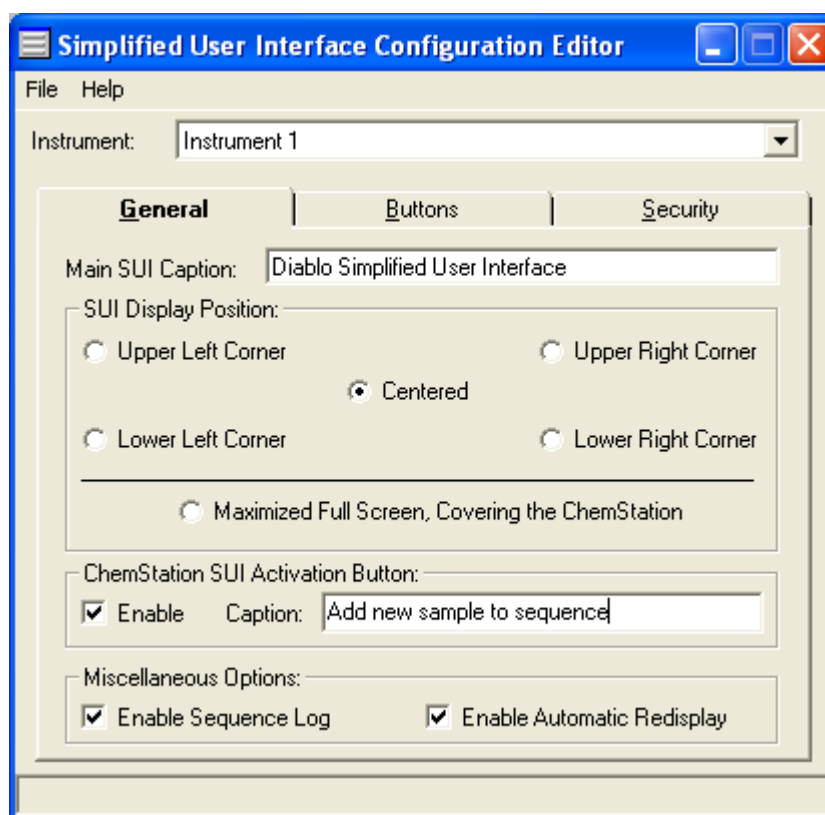
If you do not implement this feature, you will have to display the SUI manually after each sequence is finished using the "Display SUI..." option of the "View" menu. Alternatively, you can enable the “[ChemStation SUI Activation Button](#)” (see page 11).

The SUI Configuration Editor

Overview

The SUI configuration Editor allows the SUI buttons to be defined and configured. Before creating a SUI interface, you must first create the sequence files (and any associated method files) that will be called when a SUI button is pressed by the operator.

The Main SUI Configuration Window



Main SUI Configuration Window, General Options Tab

Instrument

Use this list box to select the Instrument for which you will create/modify the SUI configuration. Each installed instrument has its own SUI configuration.

Important

Important Note: In some situations it is possible to install the GC-MSD ChemStation on the same computer as the GC/LC ChemStation, and that instrument will show up in the SUI “Instrument” list. However, since the SUI ChemStation macro cannot run in the GC-MSD ChemStation (due to a completely different macro language), any configuration settings you make on a GC-MSD Instrument will not be useable.

File Menu Option

Save

Selecting this menu option causes the current SUI configuration for this instrument to be saved to the SUI32.CFG file located in the instrument directory (e.g. \hpchem\1\ for instrument 1).

Exit

This button closes the SUI Configuration Editor.

Help Menu Option

Contents

Opens the SUI help file to its Contents Page.

Search For Help...

Allows you to open the SUI Help search window directly.

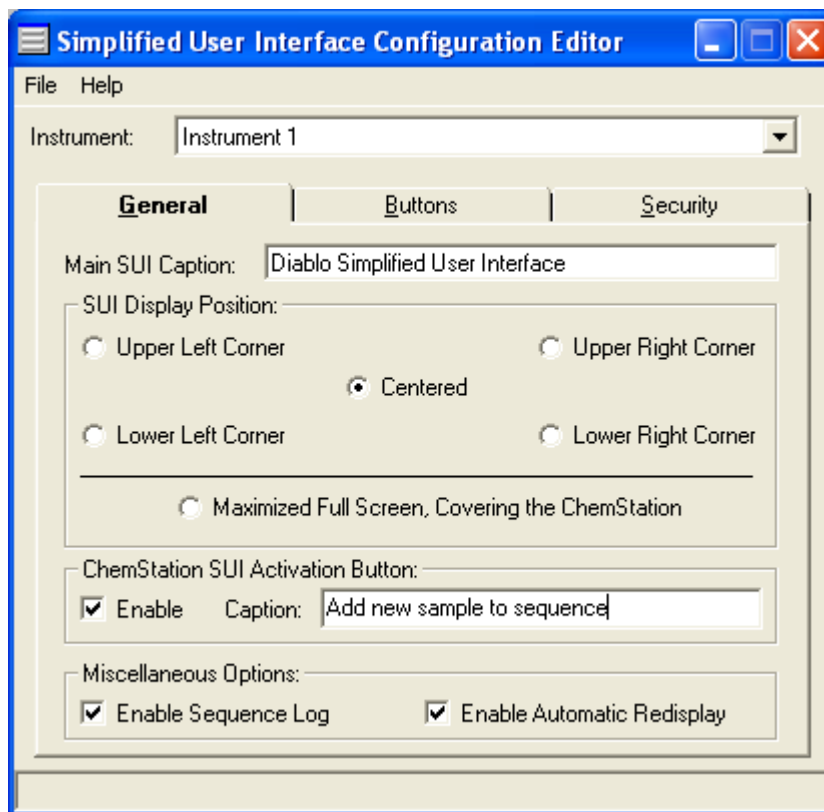
License...

Displays a dialog box that shows the current license status of the software.

About...

Displays an informational “About” box that gives the current SUI version number, license status and serial number of the software.

General Options Tab



Main SUI Configuration Window, General Options Tab

Main SUI Caption

Enter the caption that you want to be displayed in the title bar of the [main SUI dialog box](#).

SUI Display Position

The Main SUI dialog box can be configured to either fill the entire screen, hiding the ChemStation underneath, or to be displayed in a smaller dialog box located on top of the ChemStation.

Important

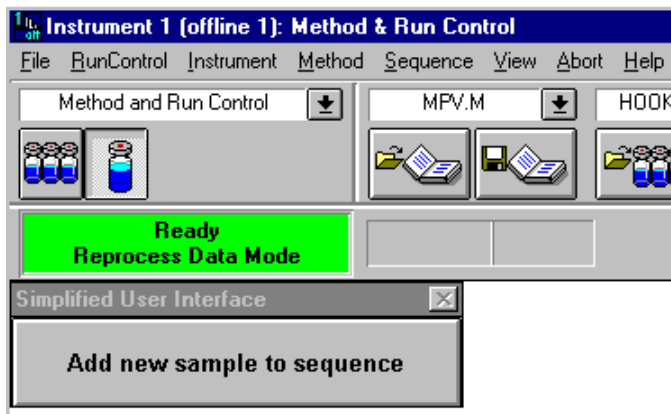
Important Note: When you run the SUI configuration editor, it determines the size and resolution of your current display, and saves this information to the configuration file so that the SUI macro can properly size the dialog boxes.

If you ever change the ChemStation computer's screen resolution, you will need to run the SUI Configuration editor to update the display parameters in each instrument's configuration file. This can be accomplished by selecting the desired instrument and then selecting the "Save" option of the "File" menu.

ChemStation SUI Activation Button

If this option is enabled, a "button" will be permanently displayed in the Method and Run Control View of the ChemStation. This button performs exactly the same

function as the "View | Display SUI..." menu option. However, for "open access" environments where users may not be familiar with the ChemStation menus, this provides a more intuitive way for the SUI to be displayed. The caption that is displayed on the button can be modified by changing the text in the "Caption" text box.



The ChemStation SUI Activation Button

Important

Important Note: After enabling this option, you may need to switch away from and then return to the ChemStation "Method and Run Control View" in order for the button to be displayed.

Miscellaneous Options

Enable Sequence Log: If this option is enabled, a comma-delimited log file will be created in both the instrument's sequence directory (`\hpchem\1\sequence\`) and in the sequence data subdirectory. The sequence log file is named 'SMMDDYY.LOG' where "MM" is the current month, "DD" is the current day, and "YY" is the last 2 digits of the current year ('S050604.LOG', for example). Each line in the sequence log file corresponds to a single sample, and includes the following information:

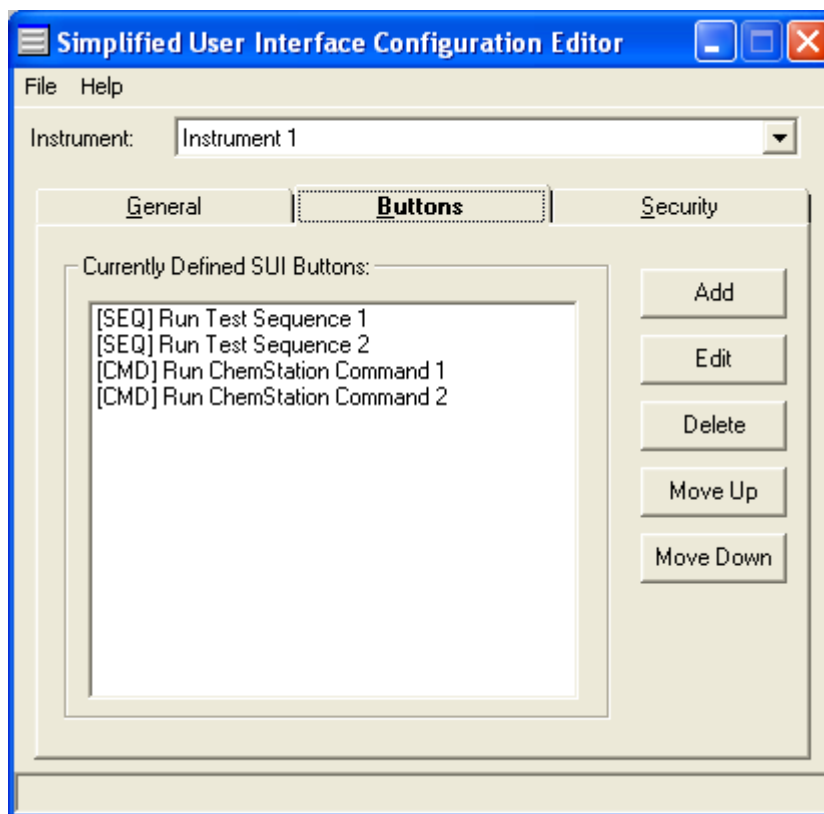
Injection Date, Operator, Vial Position, Sample Name, Method Name, Data File Name

This file can be used to help the user match system-generated data file names to a particular sample. It can also help system administrators to monitor the actual use of an instrument.

Enable Automatic Redisplay: If this option is enabled, the main SUI dialog box will automatically be redisplayed after the last sample in a sequence has been run. This option eliminates the need for the post-sequence shutdown macro that was required by previous versions of the software.

Buttons Tab

Use these buttons to create, edit, delete, and change the order of the buttons that will be displayed on the Main SUI dialog box.



Main SUI Configuration Window, Buttons Tab

Currently Defined SUI Buttons

This list box contains the captions for all the SUI buttons that have been defined for the selected instrument. The SUI buttons will be displayed on the Main SUI dialog box in the same order they are listed in this list.

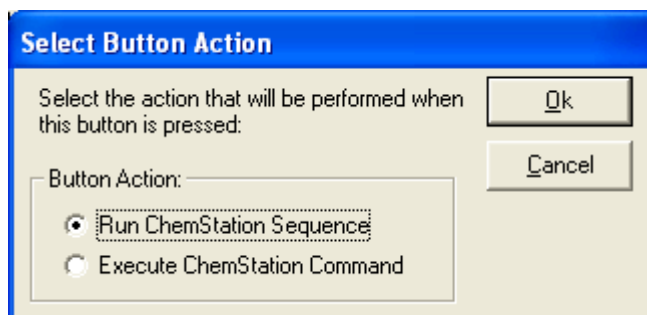
If you double click on one of the captions in the list box, the [SUI Button Configuration Window](#) will be displayed with the settings for that particular SUI button.

A prefix of [SEQ] indicates that the button will execute a ChemStation Sequence when pressed, while a prefix of [CMD] indicates that the button will execute a ChemStation command when pressed.

Add

This button allows you to add a new button configuration to the SUI. You will first be prompted to define the “Action” that will be taken when this button is pressed. There are currently two options for the Button Action:

1. Run a ChemStation Sequence
2. Run a ChemStation macro or command



Select Button Action Dialog Box

After selecting the desired Action and pressing “OK”, a blank Button Configuration dialog box will open so that the options for the button can be set.

Edit

This button allows you to edit an existing SUI button configuration. It opens the Button Configuration Window with the current settings for the selected SUI button.

Delete

Pressing this button will delete the selected SUI button and all its configuration information

Move Up

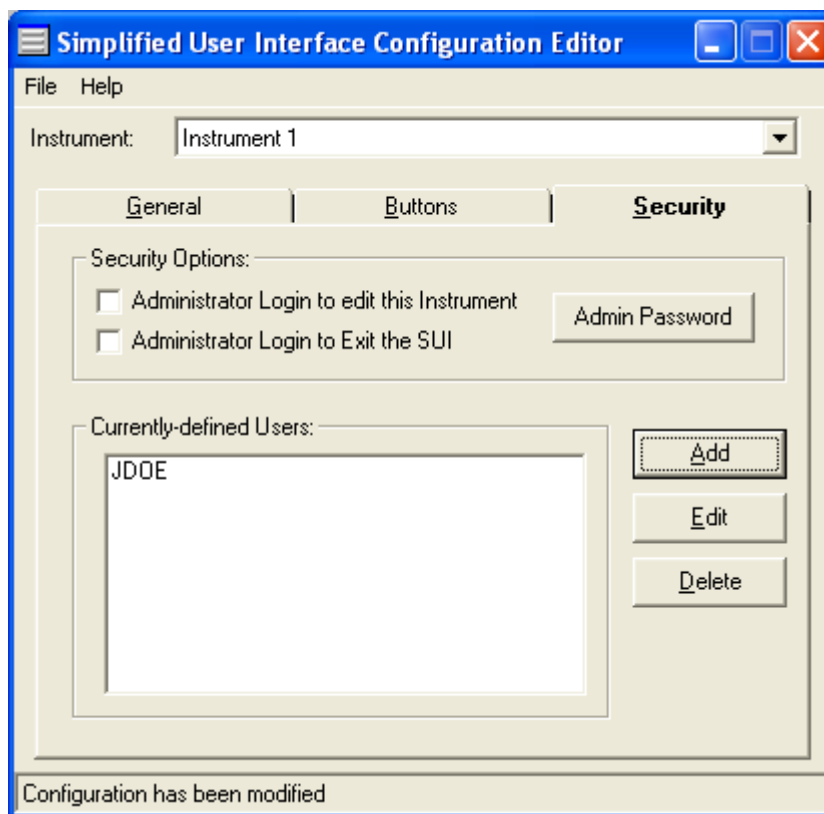
This button allows you to move the selected caption (SUI button) upward in the display order.

Move Down

This button allows you to move the selected caption (SUI button) downward in the display order.

Security Tab

Several options are available to add various levels of security to the SUI.



Main SUI Configuration Window, Security Tab

Administrator Login to edit this Instrument

If you select this option, then the Administrator Username and Password will be required in order to edit the configuration for this instrument. The administrator username must always be 'ADMINISTRATOR'. The administrator password can be changed by clicking the "Admin Password" button.

Administrator Login to Exit the SUI

If you select this option, then the administrator Username and Password will be required to exit the SUI and return to the ChemStation. The Administrator Username must always be 'ADMINISTRATOR'. The Administrator Password can be changed by clicking the "Admin Password" button.

This option provides you with a high level of control over the ChemStation. Since the ChemStation menu options and buttons cannot be activated when the SUI dialog box is displayed, this option prevents non-administrators from being able to modify methods, sequences and other ChemStation settings.

Important

Important Note: If a user activates the SUI in order to append new samples to a running sequence, they will be allowed to exit the SUI without providing an administrator password. This is due to the fact that if the SUI is displayed at the end of the run, the sequence will be unable to move to the next sample until the SUI is closed.

Admin Password

Use the “Admin Password” button to display the “Change Administrator Password” dialog box. The administrator Username is always **ADMINISTRATOR**, and the default administrator password is **suiadmin** (all lower case).

Important

Important Note: The Administrator Password is case sensitive.



The dialog box has a blue title bar with the text "Change Administrator Password". It contains three text input fields: "Current Password:", "New Password:", and "Confirm New Password:". At the bottom, there are two buttons: "OK" and "Cancel".

Change Administrator Password Dialog Box

Currently-defined Users

In order to implement “User Run Security” for any of the buttons, you must first define the users that are authorized for this instrument. You can **Add** new users or **Edit** existing users using the “Add” and “Edit” buttons. These buttons will display the “User Parameters” dialog box. The User Name must be between 3 and 8 characters in length, and cannot contain any characters other than letters or numbers. The Full Name is optional and is not currently being used. The Password must be greater than 4 characters in length.

Important

Important Note: The User Password is case sensitive.



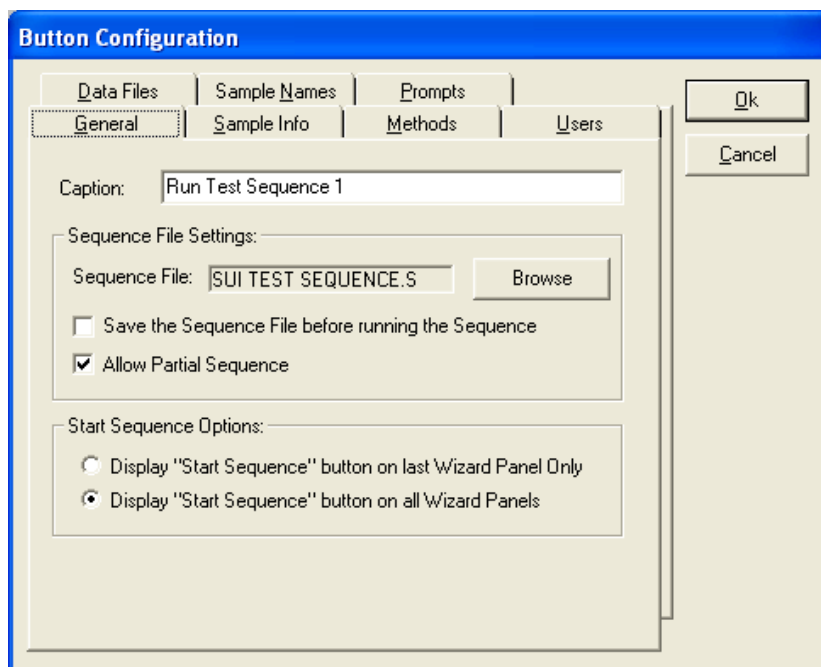
The dialog box has a blue title bar with the text "User Parameters". It contains four text input fields: "User Name:" (with "jdoe" entered), "Full Name:" (with "John Doe" entered), "Password:" (with "****" entered), and "Password (Confirm):" (with "****" entered). On the right side, there are two buttons: "Ok" and "Cancel".

User Parameters Dialog Box for User Run Security

Sequence Button Configuration Window

If the “Action” for this button was set to “Run ChemStation Sequence” when it was added, then the following configuration options will be available

General Options Tab



Button Configuration Dialog Box: General Tab

Caption

The text entered in this box will be displayed as the caption for this button on the [Main SUI Window](#).

Sequence File Settings

You must specify an *existing* sequence file to be run when this SUI button is pressed. It is important to remember that the SUI uses the specified sequence table as the template for sample analyses. The number of lines in the specified sequence table determines the maximum number of samples that will be run (unless you specify a partial sequence). Any sample names, or other sample information you place in the sequence table becomes the default value for the Sample Information Wizard. You should make sure that the specified sequence runs properly before you add it to the SUI using the Browse Button.

Browse Button

Allows you to select the ChemStation sequence file that you want to link to this SUI button from a list of the sequence files that have been saved for the current instrument.

Save Sequence File

If you select this option, the specified sequence file will be saved prior to running the sequence. This means that any changes made by the operator using [the Sample Information Wizard](#) will become the new defaults the next time the analysis is run. If you always want the default values to remain the same each time a sample is run using this button, then uncheck this box.

Allow Partial Sequence

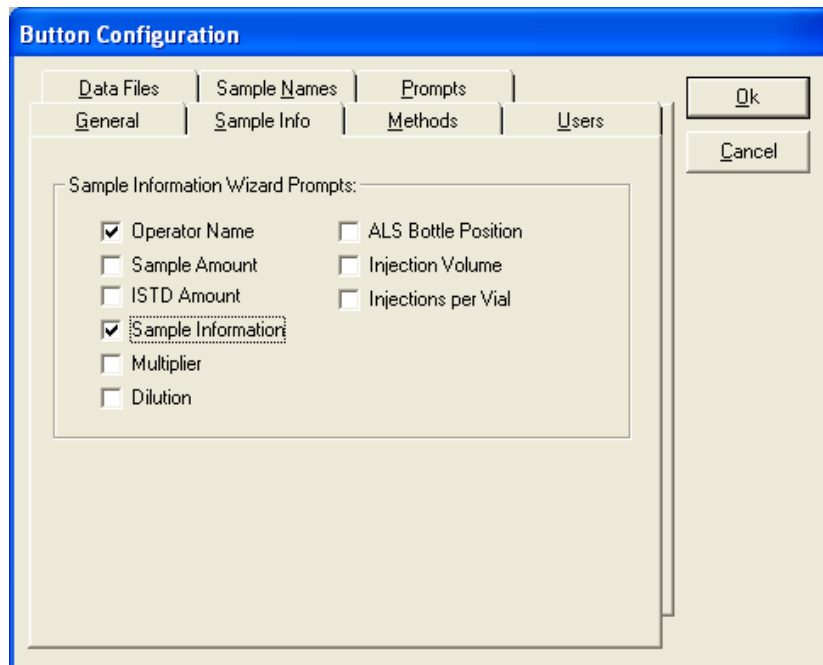
If this option is selected, a partial sequence table is displayed in the Sequence Control panel of the Sample Information Wizard. The operator can select which samples from the sequence table they want to run by clicking the "Select" checkbox for the sample in the partial sequence table.

Start Sequence Options

You can choose to have the sequence "Start" button displayed only on the last Sample Information Wizard panel, or on all panels if you want to allow the user to start a sequence without reviewing each sample's settings.

Sample Information Tab

These check boxes determine which pieces of information will be collected from the user by the [Sample Information Wizard](#). Most of these items correspond to entries in the sequence table. In order to keep things as simple as possible, you should only check those items that need to be entered by the user.



Button Configuration Dialog Box: Sample Information Tab

Operator name

Name or initials of the operator entering the sample information. Operator Name can have a maximum number of 29 characters, and will be shown on reports.

Sample Amount

Total amount of sample in the vial.

If Sample Amount is left blank, the value used (the default) will be the Sample Amount from the Calibration Settings dialog box (Calibration Menu).

A positive Sample Amount overrides the Sample Amount in the Calibration Settings dialog box.

A negative Sample Amount will not be accepted.

Sample Amount is used only for ESTD% and ISTD% calculations. Normally, the results of these calculations are determined as a percent of the total amount, based on the following formula:

$$\text{Relative Amount of } y = \frac{\text{Actual Amount of } y * 100}{\text{Sample Amount}}$$

If you want ESTD and ISTD results to be calculated in absolute amounts, enter a Sample Amount of zero. When Sample Amount equals zero, the following formula will be used:

$$\text{Absolute Amt of } y = \text{AREA}_y * \text{RESPONSE}_y$$

ISTD Amount

Internal standard amount added to a sample when using internal standard report calculations.

If ISTD Amount is left blank, the value used (the default) will be the ISTD Amount from the Calibration Settings dialog box (Calibration Menu).

A positive ISTD Amount overrides the ISTD Amount in the Calibration Settings dialog box. (If more than one ISTD peak is specified, only the first one (I#=1) can be overridden.)

Sample Information

Use Sample Info to display, record, and edit information about each sample in this sequence table. Up to 4K (about 4100 characters) of text can be used.

Multiplier

A scaling factor applied to calculation results before they are reported. A Multiplier is often used to compensate for changes in sample volume that occur during sample preparation.

If Multiplier is left blank, the value used (the default) will be the Multiplier value from the Calibration Settings dialog box (Calibration Menu).

A positive Multiplier value overrides the Multiplier in the Calibration Settings dialog box.

(If you need a second scaling factor, see Dilution.)

Dilution

A scaling factor applied to calculation results before they are reported. Dilution can be used to compensate for changes in sample volume that occur during sample preparation.

If Dilution is left blank, the value used (the default) will be the Dilution value from the Calibration Settings dialog box (Calibration Menu).

A positive Dilution value overrides the Dilution in the Calibration Settings dialog box.

(If you need a second scaling factor, see Multiplier.)

ALS Bottle

Number used to identify the vial from which the sample will be drawn. For instruments configured with an automatic sampler, this number represents the vial's physical location in the sample tray.

Prompt for Injection Volume

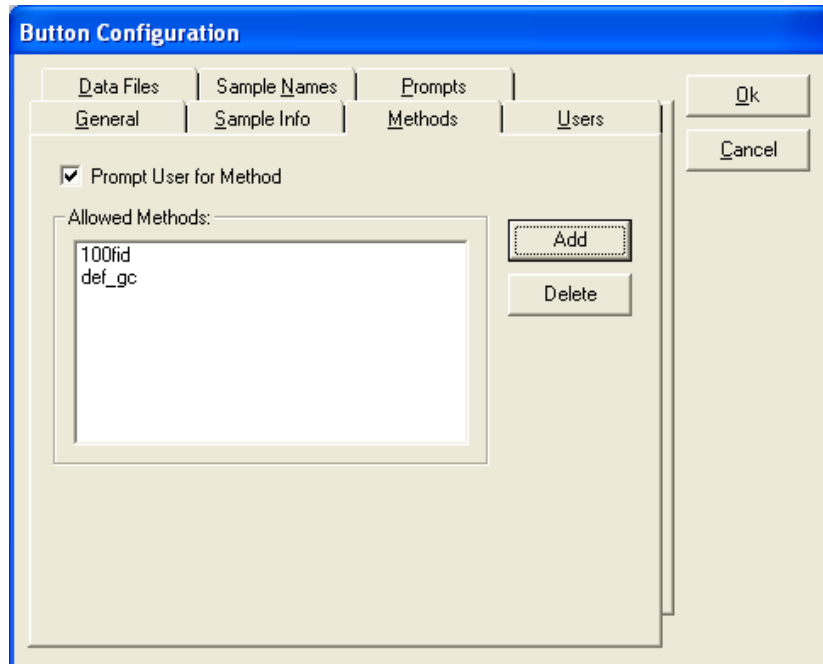
Amount of sample (in microliters) to be injected

Prompt for Injections per Vial

Number of injections to be made from the sample vial (maximum is 99). Analyzing multiple injections of a sample will help you to validate the original analysis. Make sure there is a sufficient amount of sample in the vial to draw the number of injections you specify.

Methods Tab

If the “Prompt User for Method” option is enabled, you can enter a list of Allowed Methods using the “Add” button. The Sample Information Wizard will provide the operator with this list of Methods to choose from. If “Prompt User for Method” is not checked, then the SUI will use the method defined in the sequence table.



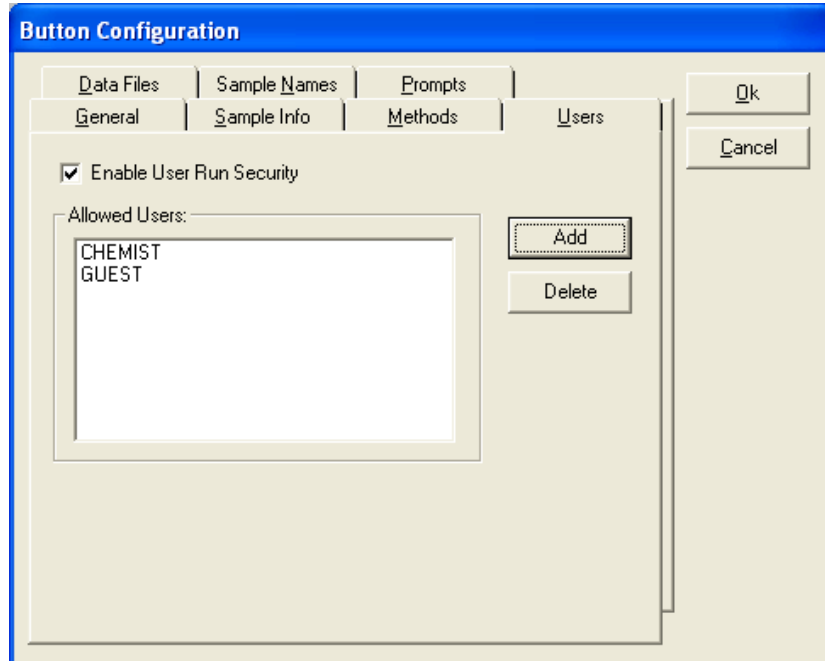
Button Configuration Dialog Box: Allowed Methods Tab

Allowed Users Tab

If “Enable User Run Security” is enabled, the user will be prompted for a Username and Password when they press this SUI Button. In order for the user to be authorized to run this button’s analysis, they must be added to the list of Allowed Users using the Add button.

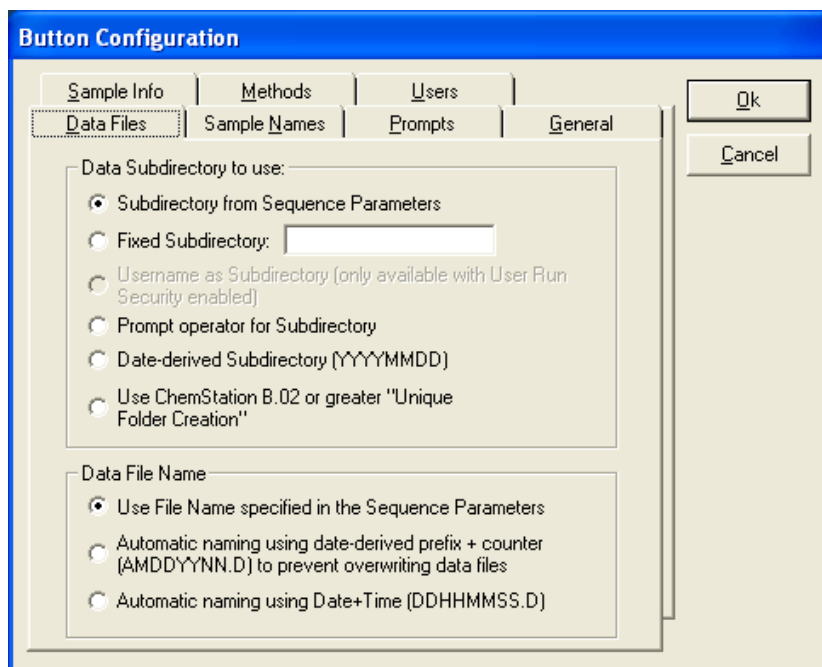
Important

Important Note: Users must first be defined for this Instrument using the “Security” panel of the main Configuration Editor dialog box.



Button Configuration Dialog Box: Allowed Users Tab

Data Files Tab



Button Configuration Dialog Box: Data Files Tab

Data Subdirectory

There are six options available for specifying the data subdirectory that will be used for the button's analyses:

1. **Subdirectory from Sequence Parameters:** The first option instructs the SUI to use the subdirectory specified in the ChemStation Sequence Parameters dialog box for the sequence file that is linked to this button.
2. **Fixed Subdirectory:** The second option allows a fixed subdirectory to be specified.
3. **Username as Subdirectory:** If "User Run Security" has been enabled, the third option instructs the SUI to place data files in a directory that is the same as the Username for the logged-in user.
4. **Prompt Operator for Subdirectory:** If this option is selected, the operator will be prompted for a data subdirectory in the Sample Information Wizard. This option allows a different data subdirectory to be specified each time a sequence is run.
5. **Date-derived Subdirectory:** The data subdirectory will automatically be set to the current date of the form "YYYYMMDD" (e.g. "20040812").
6. **Use ChemStation B.02 or greater "Unique Folder Creation":** Starting with ChemStation version B.02, the ChemStation automatically creates a unique data folder for each sequence. If you would like to use this capability, then select this option. If you want to use one of the other SUI data subdirectory options, then you MUST disable "Unique Folder Creation" in the ChemStation using the "View

> Preferences” menu.

Important

Important Notes:

1. The data subdirectory that you choose will always be located in the data directory for the currently-selected instrument. For example, if a fixed subdirectory called BUTTON1 is specified, then the data files will be saved in the directory, c:\hpchem\2\data\button1\, if the SUI is configured for Instrument 2, and the ChemStation is installed on drive C:.
2. It is not possible to disable “Unique Folder Creation” with the version **B.02** ChemStation software. If you are running this version of the ChemStation, you *must* select option 6, “Use ChemStation B.02 or greater “Unique Folder Creation”.

Data File Name

There are three data file naming options:

1. The first option is to use the data file naming settings from the Sequence Parameters for the sequence that is linked to this button. It is not recommended to use this setting since it is very easy for data files to be overwritten using the standard ChemStation file naming options.
2. The second option is to use the automatic data file naming capability built into the SUI. The format for the data file name is as follows:

MDDYYNNN.D, where:

M is the month that the sequence started (123456789ABC)

DD is the day of the month when the sequence started

YY is the last two digits of the year

NNN are the counter digits (001 to 999)

Before each line in the sequence table is executed, the SUI searches the data directory for the next "free" data file name, and then sets the 'Datafile' field for that line in the sequence table accordingly.

3. The third option is to name the data files automatically based on the date and time that the run was started. The format for the data file name in this mode is:

DDHHMMSS.D, where

DD is the current day

HH is the current hour (24-hour clock)

MM is the current minute.

SS is the current second

Note that if you choose this option, you should use separate data

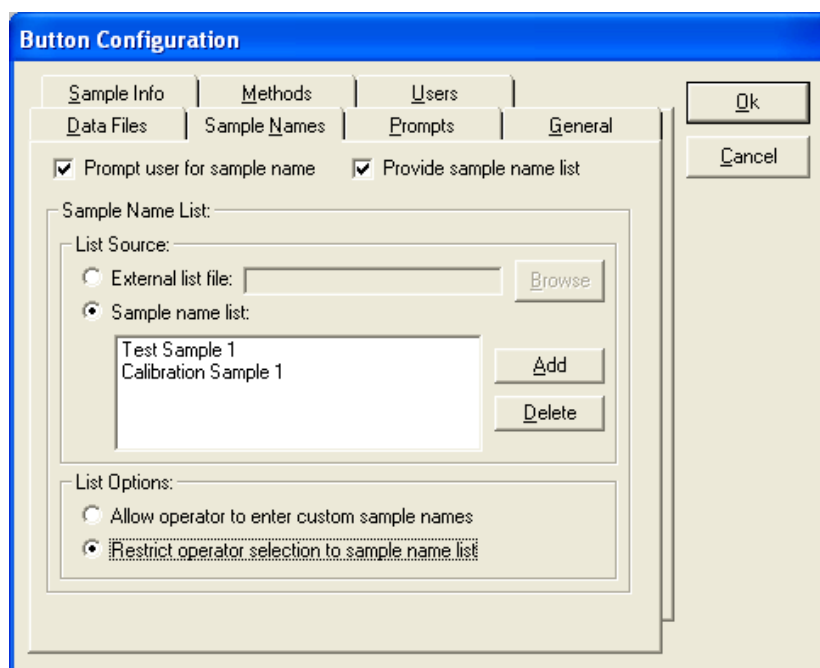
subdirectories each month at a minimum to prevent the possibility of duplicate file names. You can use the “Date-derived Subdirectory” option described above to accomplish this automatically.

Important

Important Note: If you specify multiple injections for a line in your sequence table (Injections per Vial > 1), then the ChemStation will automatically append the replicate injection number to the end of the filename. This will result in filenames that don't correspond to the expected format described above.

Sample Names Tab

The sample names tab contains options that control how the sample name will be entered by the operator.



Button Configuration Dialog Box: Sample Names Tab

Prompt User for Sample Name

The "Prompt user for sample name" check box should be checked if the operator should be able to enter a sample name for this button's samples. If this box is unchecked, the SUI will automatically use the sample name from the sequence table.

Provide Sample Name List

If the "Provide sample name list" box is *unchecked*, the operator will manually enter the sample name into a text box on the Sample Information Wizard's panel for each sample. If this box is *checked*, you can specify either a specially-formatted external list file, or a manually entered sample name list. The sample names present in either of these list sources will be presented to the operator.

External List File

A specially-formatted file can be specified as the source of the sample names that will be presented to the operator. Use the "Browse" button to select the file containing the sample names list. If the file is not formatted properly, an error message will be displayed.

This file must be formatted as a Windows "INI"-style text file as follows:

```
[Samples]
NumSamples=10
[Sample1]
SampleName=Sample Name for First Sample
[Sample2]
SampleName=Sample Name for Second Sample
...
[Sample10]
SampleName=Sample Name for the Tenth Sample
```

Sample Name List

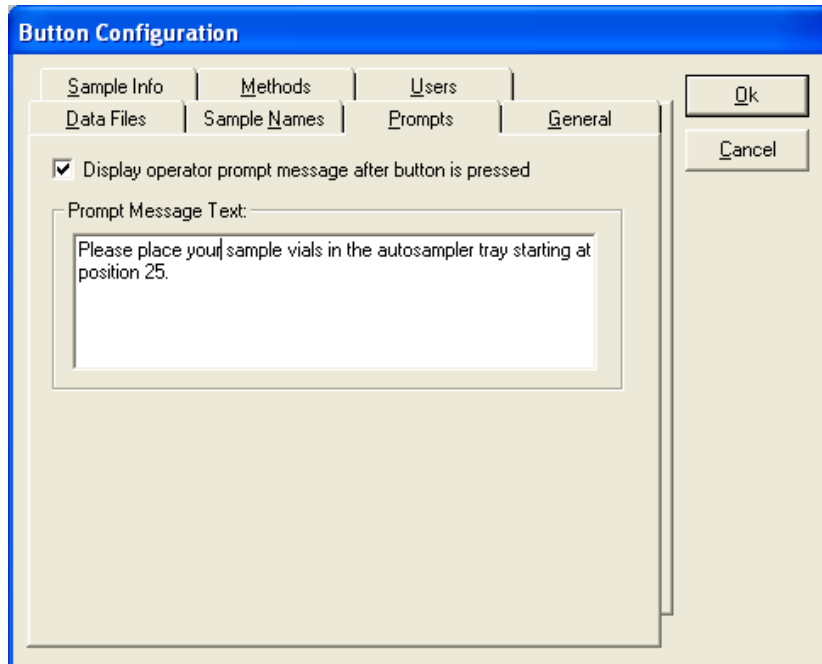
The list of sample names can be generated manually by adding or deleting sample names from the Sample Names list box using the "Add" and "Delete" buttons.

Sample Names List Options

Select "Allow operator to enter custom sample names" if you would like the operator to have the ability manually enter a sample name that is not present in the list. Conversely, select "Restrict operator selection to sample names list" if you want the operator to only use sample names from the list.

Prompts Tab

If you would like a custom prompt to be displayed after the operator presses this SUI button, then check this box and enter the prompt message into the text box.



Button Configuration Dialog Box: Prompts Tab

Save Button

Pressing this button will save the current button configuration to the configuration file.

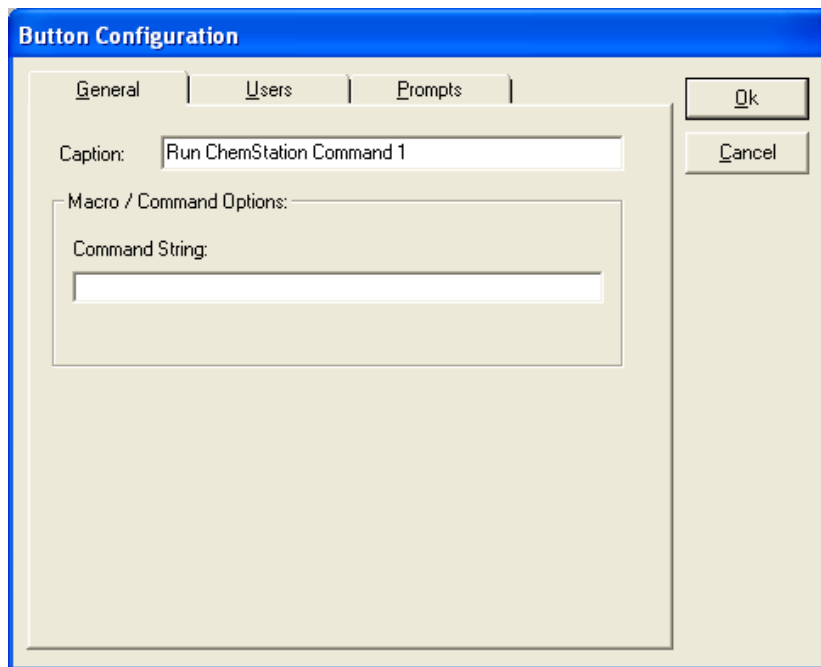
Cancel Button

Pressing this button will exit the button configuration window without saving any changes to the configuration file.

Command Button Configuration Window

If the "Action" for a button was set to "Run ChemStation Command" when it was added, then the following configuration options will be available

General Options Tab



Command Button Configuration Dialog Box: General Options Tab

Caption

The text entered in this box will be displayed as the caption for this button on the [Main SUI Window](#)

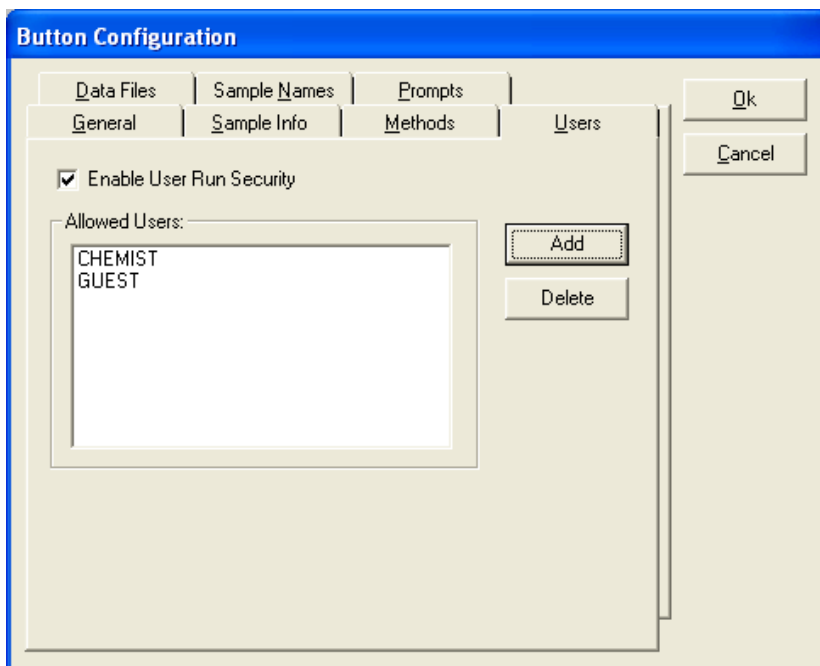
Command String

Enter the ChemStation command string or macro that you want to execute when this button is pressed by the operator.

Allowed Users Tab

If "Enable User Run Security" is enabled, the user will be prompted for a Username and Password when they press this SUI Button. In order for the user to be authorized to run this button's analysis, they must be added to the list of Allowed Users using the Add button.

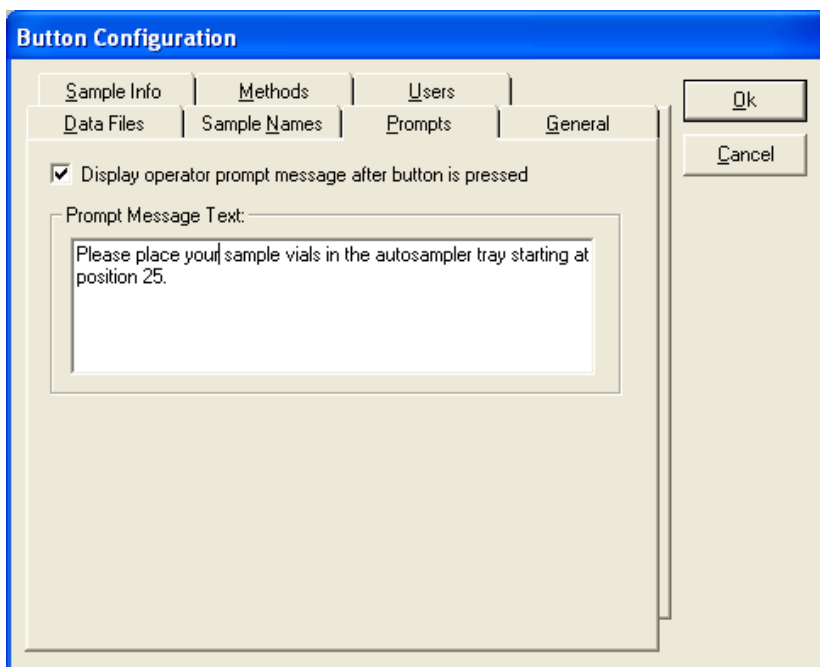
Important Note: Users must first be defined for this Instrument using the "Security" panel of the main Configuration Editor dialog box.



Command Button Configuration Dialog Box: Allowed Users Tab

Prompts Tab

If you would like a custom prompt to be displayed after the operator presses this SUI button, then check this box and enter the prompt message into the text box.



Button Configuration Dialog Box: Prompts Tab

The SUI ChemStation Macro

Loading and Running the SUI Macro

Start the ChemStation and enter the "Method and Run Control" View. From the command line type "**macro sui32.mac**". You will need to do this each time you exit and restart the ChemStation. This command will load the SUI macros and add a menu option to display the SUI dialog box to the ChemStation.

To display the SUI, select "Display SUI..." from the ChemStation "View" menu. The main SUI dialog box will be displayed with the buttons that were defined using the configuration editor.

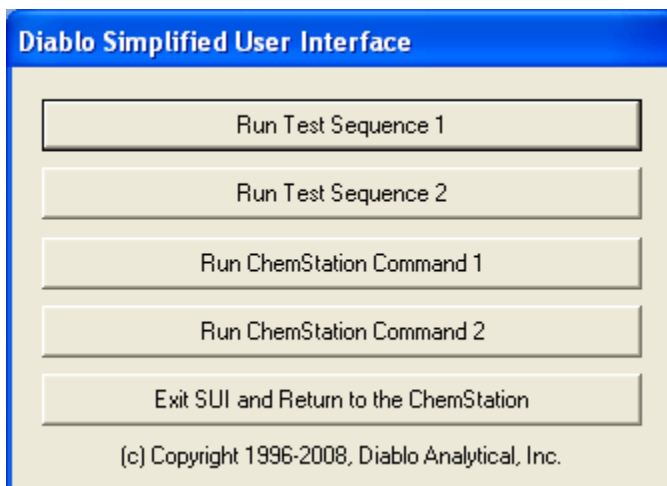
Important

Important Note: If you have enabled the [ChemStation SUI Activation Button](#), you may need to switch away from and then return to the ChemStation "Method and Run Control View" in order for the button to be displayed.

The Main SUI Window

The main SUI Window is displayed when you select the "Display SUI" option of the ChemStation "View" menu. It contains the buttons that you defined using the [SUI Configuration Editor](#) (see page 9). This window can be displayed as either a small dialog box located on top of the ChemStation, or as a large dialog box that covers the entire computer screen.

Important Note: When you run the SUI configuration editor, it determines the size and resolution of your current display, and saves this information to a configuration file so that the SUI macro can properly size the dialog boxes. If you change the ChemStation computer's screen resolution, you should run [the SUI Configuration Editor](#) so that his display information is updated.



Main SUI Window

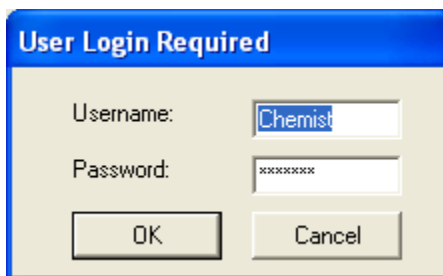
Title Bar

The text in the title bar of the main SUI Window can be customized using [the SUI Configuration Editor](#).

Analysis Buttons

Each analysis button is linked to a particular ChemStation Sequence file or a Command or Macro that you specify. If a “Command” Button is pressed, the [ChemStation command or macro](#) specified for that button will be executed immediately. If a “Sequence” button is pressed, the [Sample Information Wizard](#) is started using this sequence file as the template for collecting sample information. The button caption and the specific sample information parameters that are collected from the user are defined using the [SUI Configuration Editor](#).

If “[User Security](#)” has been enabled for a particular button, then a User Logon dialog box will be displayed when the button is pressed. The user must enter a valid Username and the corresponding Password in order to proceed.



User Login Dialog

Exit Button

If the “[Administrator Login to Exit the SUI](#)” option has been enabled in the Security Tab for this instrument, then a Login dialog box will be displayed. The correct administrator Username and Password must be entered in order to exit the SUI.

The image shows a dialog box titled "Administrator Login Required". It has a blue header bar. Below the header, there are two text input fields: "Username:" and "Password:". At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Administrator Login dialog box

The Sample Information Wizard

The Sample Information Wizard is the tool that collects any sample information required for the analysis from the operator. The operator is presented with a dialog box that contains only the sample information parameters that need to be entered by the operator. The [SUI Button Configuration Editor](#) allows you to specify which sample information parameters will be displayed.

The image shows a dialog box titled "Run Test Sequence 1". It has a blue header bar. Below the header, there is a section titled "Fill In any Requested Information:". This section contains several fields with their corresponding values: "Injector:" is "Back", "Sample Number:" is "1 of 3", "Operator:" is "SJH", "Sample Name:" is "Sample 1", and "Method:" is "SUI TEST METHOD". There is also an "ALS Bottle:" field with a text input box containing the number "1". Below these fields is a "Sample Information:" section with a text input box containing "Test Sample". At the bottom of the dialog, there are three buttons: "<< Prev", "Next >>", and "Cancel". At the very bottom, there is a copyright notice: "(c) 1996-2008 Diablo Analytical, Inc."

Sample Information Wizard Panel

Sample Information Fields

The Sample Information Wizard provides the operator with text boxes to enter the desired sample information data. These text-box fields correspond to fields in the specified sequence table. The "Injector", "Sample Number", "Operator", and "ALS Bottle" fields are always displayed, but are only editable if enabled using the configuration editor.

The Wizard Buttons

Depending on which panel is displayed, one or more of the following control buttons will be visible at the bottom of the Sample Information Wizard. The operator uses these buttons to navigate between samples, and to either start or cancel the run.

<< Prev

This button returns you to the previous sample in the Sequence Table.

Next >>

This button takes you to the next sample in the Sequence Table.

Start

The sequence will start immediately when this button is pressed. This button is only present on the wizard panel for the last sample to be run.

Cancel

This button returns you to the Main SUI Window without running the sequence.

Sequence Control Wizard Panel

The Sequence Control Wizard Panel is displayed if you have enabled "Prompt for Operator's Initials", "Prompt for Data Subdirectory", or "Allow Partial Sequence" in the Sample Information Wizard Options for this SUI button.

Run Test Sequence 1

Fill In any Requested Information:

Operator:

Data Subdirectory:

Partial Sequence:

Select	Sample	Vial	Sample Name
<input type="checkbox"/>	1	-1	Sample 1
<input type="checkbox"/>	2	-1	Sample 2
<input type="checkbox"/>	3	-1	Sample 3

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Sequence Control Wizard Panel

Operator

This text box will only be visible if you have enabled "Prompt for Operator's Initials" in the "Sample Information Wizard Options" for this SUI button.

Data Subdirectory

This text box will only be visible if the "Prompt Operator for Subdirectory" option is selected in the "Data Files" tab of the configuration editor. This option allows a new data subdirectory to be specified each time a sequence is run. If this option is enabled, the operator must enter a valid subdirectory name (1 to 8 characters in length). All data files that are created when the sequence is run will be placed in this subdirectory of the ChemStation Data directory.

Partial Sequence

The partial sequence table will only be visible if you have selected "[Allow Partial Sequence](#)" in the "[Sample Information Wizard Options](#)" for this SUI button. Each line in the sequence will be displayed in this table. Click the checkbox in the "Select" column to include a particular sample in the run.

Final Wizard Panel

This is an example of the final sample panel. After entering the required sample information, the operator presses the "Start" to initiate the sequence.

Run Test Sequence 1

Fill In any Requested Information:

Injector: Back

Sample Number: 3 of 3

Operator: SJH

Sample Name: Sample 3

Method: SUI TEST METHOD

ALS Bottle:

Sample Information:

Test Sample

<< Prev Start Cancel

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Final Sample Panel

Running the Sequence

Starting the Sequence

When the operator presses the "Start" button in the final Sample Information Wizard Panel, the following steps occur

1. If you selected the "Save Sequence" option in the Button Configuration Editor, the current sequence table is saved. This means that any sample information changes made by the operator will become the default values the next time the sequence is run.
2. If this is a partial sequence, the lines in the sequence table greater than the number of samples to be run are deleted.
3. The SUI Dialog Box is closed.
4. The Sequence is started

Adding Samples to a Running Sequence

You can use the SUI and the Sample Information Wizard to add samples to a running sequence. If you activate the SUI while a sequence is active, any samples selected and configured with the Sample Information Wizard will be appended to the active sequence when the "Start" button is pressed.

Changes made to the operator and/or data subdirectory in the Sample Information Wizard will automatically be applied when the appended sample(s) are run.

Important

Important Notes:

1. It is very important that neither the main SUI dialog box nor the Sample Information Wizard remain displayed while a sequence is running. If either dialog box is displayed when the current run is finished, the ChemStation will be blocked from performing data analysis and will be unable to run the next sample in the sequence until SUI is closed!
 2. Samples can only be appended to an active sequence if their method uses the same injector as the active sequence.
-

Re-displaying the SUI after Completing the Sequence

If you would like to have the SUI automatically re-displayed after a sequence has finished running, make sure to select the "Enable Automatic Redisplay" option in the "General" tab of the SUI Configuration Editor..

Appendix

Ordering Information

A license for the Simplified User Interface software can be purchased directly from Diablo Analytical, Inc. To purchase a software license, fill out the order form and fax it to (925) 609-9360. Alternatively, you can call us at (925) 609-1150 and order via phone.

Unlocking the Software

In order to complete your order, we will need the Authorization Request Code from the "License" dialog box of the SUI Configuration Editor. After receiving and approving payment, we will e-mail or fax you an Activation Code that will "unlock" your software and turn it into a fully registered version.

Important

Important Note: Activation Codes are computer specific. You will need to purchase an additional license if you want to run the SUI on a different ChemStation computer.

Multiple ChemStation Licensing

Contact Diablo if you are interested in purchasing multiple licenses of the SUI. Discounts start with a 5-unit license.

Customization

Contact Diablo directly if you are interested in having a customized version of the SUI developed to your specifications.

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