

ABI PRISM® 310 Genetic Analyzer

Data Collection Software Preferences Module – Windows® NT, 2000, and XP OS

BEFORE PERFORMING ANY TROUBLESHOOTING WORK ON YOUR ABI PRISM® 310 GENETIC ANALYZER, PLEASE READ THE INSTRUMENT USER'S MANUAL FOR SAFETY AND WARRANTY INFORMATION AND FURTHER DETAILS ON USE OF THE SYSTEM.

NOTE: [Text in this fashion indicates a link to a picture or another section of this/another document.](#)

Please contact [AB Technical Support](#) if you have any questions regarding this procedure.

About Data Collection Preferences

The ABI PRISM® 310 Genetic Analyzer is controlled by Data Collection software via a Macintosh® or PC computer. The Data Collection software utilizes a series of “preference” settings to control the following aspects:

- Where the software looks for files
- How files are named
- Default settings for sample sheets and injection lists
- Computer/instrument communication ports
- File numbering
- On-screen dye representation

Occasionally, these preferences may be inadvertently changed, deleted, corrupted, or otherwise compromised. A variety of “preference-related” problems may subsequently arise as a result. This document serves to inform users about the following topics:

- [What the preferences mean](#)
- [How to set preferences](#)
- [When to delete preferences](#)
- [How to delete preferences](#)

Before You Begin

If you are unfamiliar with the regular preference settings for your system, please take some time to read this document in its entirety. As a safeguard, please record ALL your current settings, in case they need to be re-entered.

Windows® Operating System - What the Preferences Mean

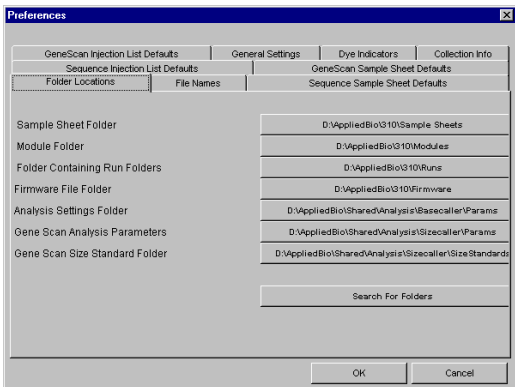
There are nine preference windows that enable the user to set defaults for Data Collection software. Each window consists of user-designated parameters. This table provides an overview of those preference windows.

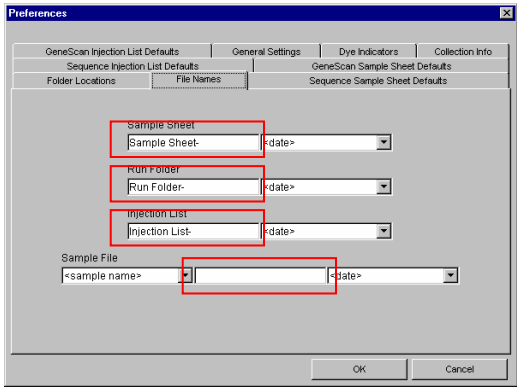
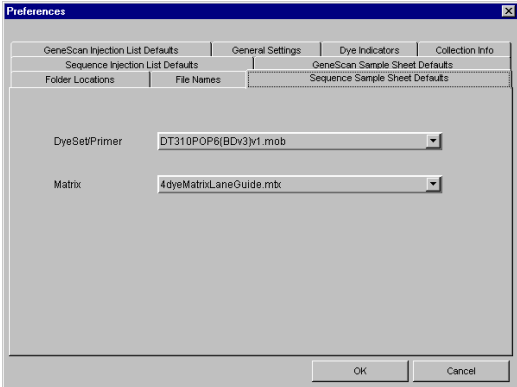
Preference	Description
Folder Locations	Configures the folders on the hard disk in which the following are stored or found: sample sheets, modules, runs, firmware, general settings, matrix files, analysis settings (basecaller), analysis parameters, and size standard files.
Default File Names	Configures the default naming convention of various files generated by the Data Collection software.
Sequence Sample Sheet Defaults	Configures the default dye set/primer and matrix file used on a sequencing sample sheet.

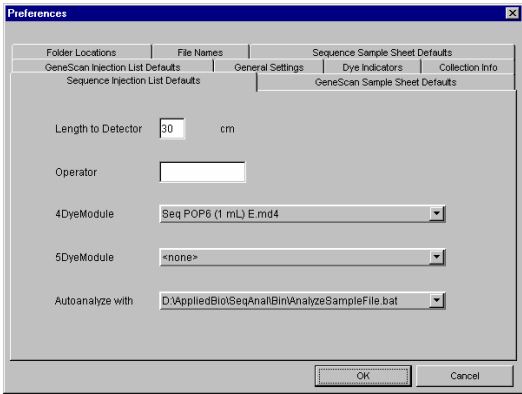
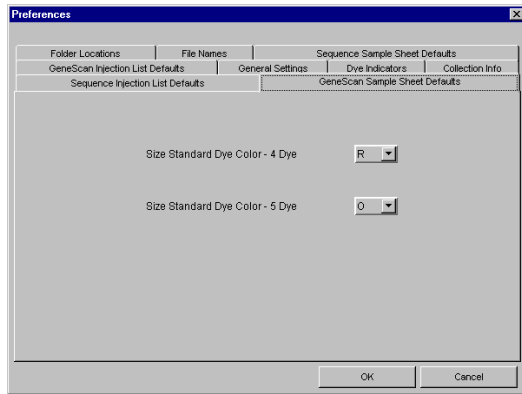
Preference	Description
Sequence Injection List Defaults	Configures defaults for the operator, length-to-detector, 4 and 5 dye run module, and automatic function parameters on a sequencing injection list.
GeneScan Sample Sheet Defaults	Configures the default size standard color of a GeneScan sample sheet.
GeneScan Injection List Defaults	Configures defaults for the operator, length-to-detector, 4 and 5 dye run module, automatic functions, matrix, and size standard parameters for GeneScan runs.
General Settings	Configures the global serial number and communication port.
Dye Indicators	Configures the displayed and printed colors.
Collection Info	Configures information used by Sequence Collector (LIMS) software. Allows creation or deletion of collection names.

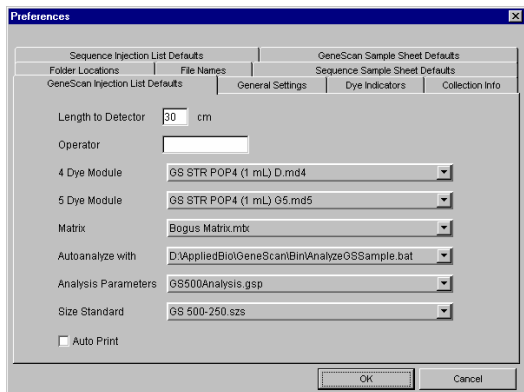
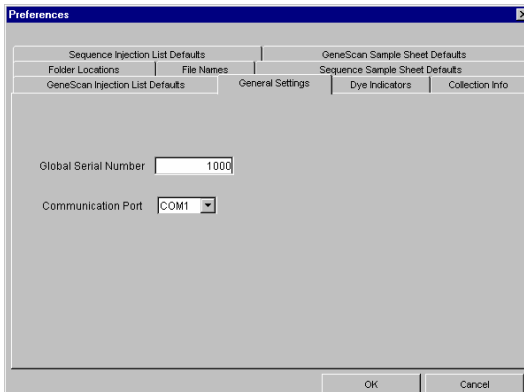
Windows® Operating System - How to Set Preferences

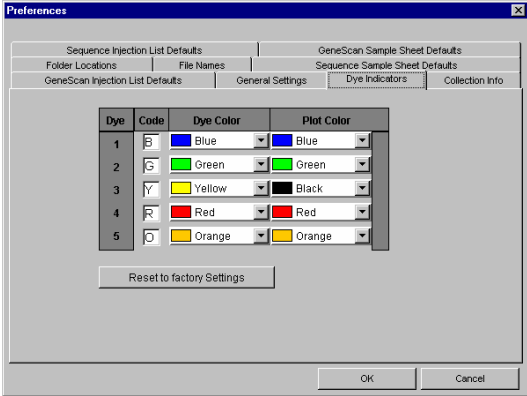
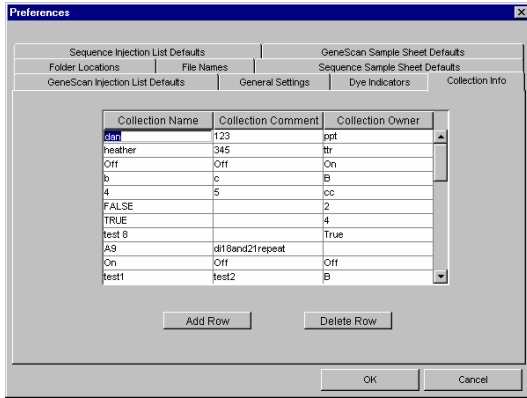
Each of the nine individual preferences will be addressed in greater detail:

Preference	Description
Folder Locations 	The Folder Locations preference tells the software where to find the: • Sample Sheet folder • Module Folder • Run Folder • Firmware File Folder • Analysis Settings Folder • Genescan Analysis Parameters Folder • Genescan Size Standard Folder The 7 pathways on the right identify the path to the folder. Most systems will be setup with pathway endings similar to this screen. The “Search For Folders” button resets all folders to default pathways. To set/change the path to a folder: 1) Click on the button/pathway that you want to change. 2) In the subsequent window, navigate to the location of the correct folder. 3) Click on the desired folder then click “Select” to set.

Preference	Description
Default File Names 	The Default File Names preference allows the user to designate specific names for the: • Sample Sheet • Run Folder • Injection List • Sample File NOTE: The “text boxes” (highlighted red) can be left as default, edited, or blanked out as desired. Do not use non-alphanumeric text as such characters can disrupt downstream processes. The drop down-menus allow a prefix/suffix to be attached. The selections in the drop-down menus include: • None ~ No value will be entered • Date ~ Computer date and time stamp • Serial number ~ Instrument serial number (if entered in the ABI 310 Calibrations file) • Global serial number ~ The Global Serial Number is basically a “counter”. It starts at the number entered in this screen and counts upward. • Tube number ~ Well position on the sample tray • Sample name ~ Name entered in the sample sheet
Sequence Sample Sheet Defaults 	The Sequence Sample Sheet Defaults preference automatically fills in the following two selections on a sample sheet: • Dye Set/Primer ~ Also known as a mobility file. This file corrects for mobility shifts caused by the dye molecule. • Matrix ~ This file corrects for spectral overlap inherent in the dyes. NOTE: These settings should be for the most commonly used chemistry on this instrument. If more than one chemistry is used, you will need to manually override the sample sheet settings each time.

Preference	Description
Sequence Injection List Defaults 	The Sequence Injection List Defaults preference allows for automatic filling of a new injection list. The settings available include: - Length-To-Detector ~ The real distance (in cm) between the end of the capillary and the capillary window. NOTE: This value is for record-keeping only. It has no bearing on the data or the instrument. - Operator ~ Enter the name of the user. 4Dye or 5Dye Module ~ Choose the default sequencing module that will automatically appear on a new injection list. - Autoanalyze with ~ Select a pathway to the appropriate file which will initiate the automatic analysis feature: For Data Collection 3.0 navigate to: D:\AppliedBio\SeqAna\Bin and select the "AnalyzeSampleFile.bat" file. For Data Collection 3.1 navigate to: E:\AppliedBiosystems\SeqA5.2\AppSeqA and select the "Automation310" file.
GeneScan Sample Sheet Defaults 	The GeneScan Sample Sheet Defaults preference designates the default dye color that will automatically be selected as the Size Standard color on a newly created 4 Dye or 5 Dye Sample Sheet. From the drop-down list, select the appropriate color (represented by the letter of the color).

Preference	Description
GeneScan Injection List Defaults 	The GeneScan Injection List Defaults preference allows for automatic filling of a new injection list. The settings available include: - Length-To-Detector ~ The real distance (in cm) between the end of the capillary and the capillary window. NOTE: This value is for record-keeping only. It has no bearing on the data or the instrument. - Operator ~ Enter the name of the user. 4Dye or 5 Dye Module ~ Choose the default GeneScan® module that will automatically appear on a new injection list. - Matrix ~ Choose the appropriate matrix that will correct for spectral overlap inherent in the dye set. - Autoanalyze with ~ Navigate to: D:\AppliedBio\GeneScan\Bin and select the “AnalyzeGSSampleFile.bat” file. This will allow the software to automatically analyze sample files. - Analysis Parameters file ~ Choose the appropriate analysis parameter file, which sets the start, stop, threshold, smoothing, and size-calling method. - Size Standard file ~ Choose the appropriate size standard, which is a ladder of known fragments used to compare relative sizes of unknown samples under similar run conditions. - Auto Print ~ Check this box to have sample file data automatically printed after analysis.
General Settings 	The General Settings preference sets the communication port and automated file numbering. Communication is typically through the COM1 port. Select COM1 if the serial cable from the instrument is connected to the computer's COM1 port. If the instrument is connected via the COM2 port – make changes accordingly. NOTE: If the computer is powered up before the 310 is powered up, the communication port setting can switch to NO PORT. This effectively severs communication between the computer and instrument until the setting is set properly. To fix this, select the appropriate COM port then OK this screen. The Global Serial Number is basically a “counter”. It starts at the number entered in this screen and counts upward. The Global Serial Number is an option that is selectable in the Default File Names preference.

Preference	Description
Dye Indicators 	The Dye Indicators preference allows the user to set the: - Dye Code ~ Letter related to the dye's color or name. Type in the box to change the code. - Dye Color ~ Color displayed on the screen to represent fluorescence from that dye. Click the drop-down menu to change the color. - Plot Color ~ Color displayed on the electropherogram to represent fluorescence from that dye. Click the drop-down menu to change the color. - Reset To Factory Settings ~ Click to revert all settings on this page to factory settings.
Collection Info 	The Collection Info preference allows the user to create and delete Collection Information required by the Applied Biosystems Sequence Collector software. If Sequence Collector is not used, please disregard this preference. Click Add Row to create a new Collection Name. Click Delete Row to delete an existing Collection Name.

Windows® Operating System - When to Delete Preferences

The preference file is involved in the following processes:

- Where the software looks for files
- How files are named
- Default settings for sample sheets and injection lists
- Computer/instrument communication ports
- File numbering
- On-screen dye representation

Any compromise in these functions may be manifesting a preference-related problem. The most likely symptoms include (but are not limited to):

- Sample sheet does not show all selections
- Injection list does not show all selections
- Communication between the instrument and computer is unreliable
- Data does not get saved to designated locations
- File names are changed or altered

Windows® Operating System - How to Delete Preferences

In cases where the preference file may be compromised, the user should delete the preference file, and allow Data Collection software to recreate it. The preference file (by default installation) is located in the following directory:

D:\AppliedBio\310

Drag the file entitled “preferences310” to the Recycle Bin and empty the Recycle Bin. NOTE: Data Collection must not be running while this file is removed. Once Data Collection is re-launched, use this guide to set the preferences as desired.

NOTE: Unlike the Macintosh® OS version of Data Collection software, the Windows® OS version does NOT require manual setting of the folder locations when the software is launched after preferences are deleted. Instead, the Windows® OS version automatically creates a new preference file (in the background), and sets it to default settings, without any user intervention. Should the user so desire, the preferences can then be edited to their liking.

Contacting AB Technical Support

By Telephone: 1-800-831-6844

By Internet: <http://www.appliedbiosystems.com/support/>

Then click on “Frequently Asked Questions” and then the “Ask a Question” tab.

By E-mail: ABTechnicalsupport@appliedbiosystems.com

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