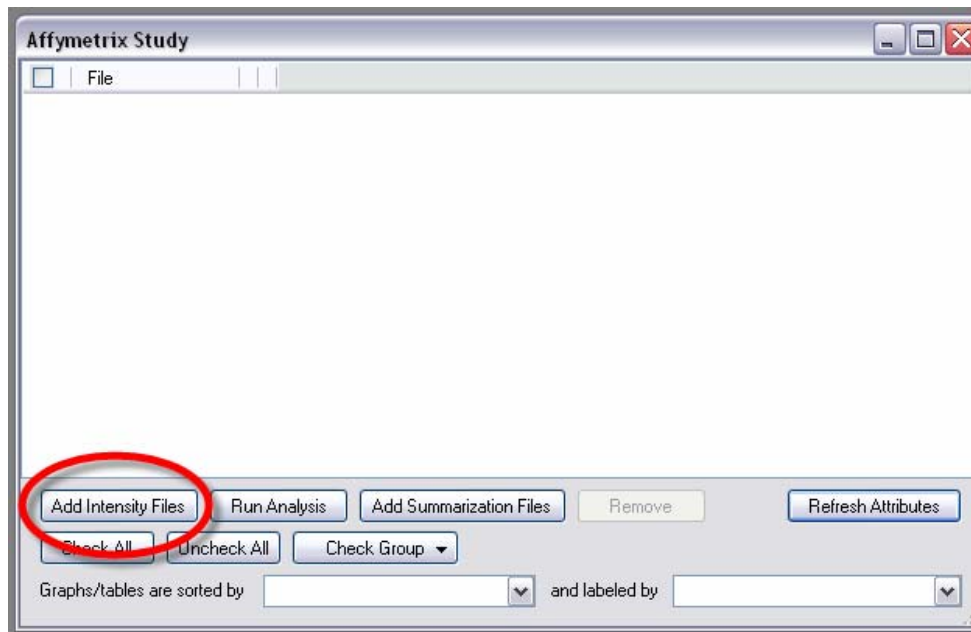


Quick Start Guide for 3' Expression Arrays

The purpose of the Expression Console™ software application is to enable probe set summarization and initial data quality examination for Affymetrix expression arrays. Expression Console software takes probe cell intensity files (*.CEL) and creates probe level summarization files (*.CHP) using the selected algorithm workflow. Probe level summarization files can then be further analyzed using software applications from Affymetrix GeneChip Compatible partners to identify differentially expressed genes (<http://www.affymetrix.com/products/software/compatible/index.affx.>)

1. Download the necessary library files for analyzing your array type if they are not already in the library file directory.
 - a. Go to the **File** menu and select **Download Library Files**.
 - b. Enter your NetAffx email address and password. If you do not have one you will first need to register at <https://www.affymetrix.com/site/terms.affx?buttons=on&dest=register>
 - c. In the NetAffx Library File window check all probe array types that you will be analyzing now or in the future and click on the **Download** button. You can always come back and add more library files at a later date.
2. Create a New Study by selecting **File** ->**New Study** or by going to the Study tab of the workflow toolbox and selecting **Create New Study**. A Study consists of a collection of probe cell intensity files (CEL) and probe level summarization files (CHP) of the same array type.
3. A blank Affymetrix Study window is created. Use the **Add Intensity Files** button at the bottom of the Affymetrix Study window or click on **Add Intensity Files** in the toolbox to add your collection of CEL files to the study.

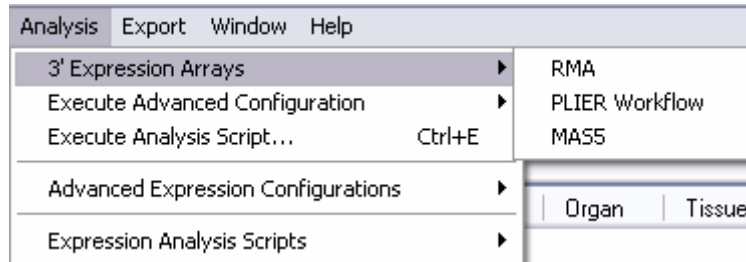


4. Once the appropriate CEL files have been added, use the check boxes to select the CEL files to be summarized.
5. Select the desired algorithm workflow from the **Analysis** menu under **3' Expression Arrays**. Alternatively, clicking the **Run Analysis** button at the bottom of the **Affymetrix Study** window or

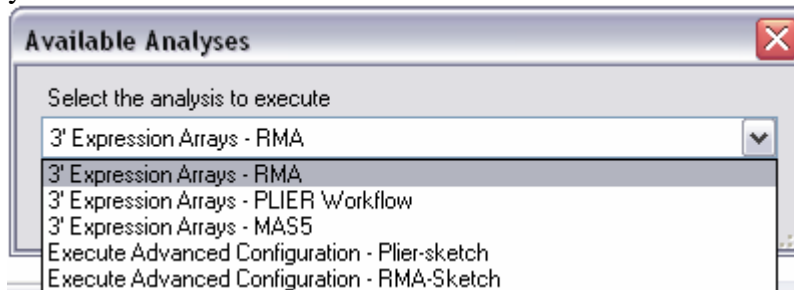
Quick Start Guide for 3' Expression Arrays

selecting **Run Analysis** in the **Toolbox**, also allows the algorithm workflow to be selected. Note, advanced configurations can be selected from the **Analysis** menu **Advanced Expression Configurations** or from the drop-down list in the **Available Analyses** window after they have been defined.

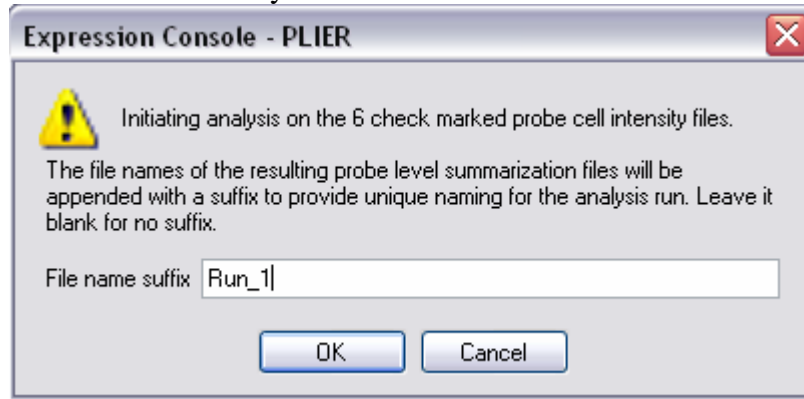
Analysis Menu:



Toolbar/Run Analysis button:



6. If desired, enter a suffix to be appended to the file name, and then Select **OK**. Note, the summarization method is automatically included in the file name.




7. Depending on the number of arrays selected, several minutes may be required for processing. Once processing is complete the newly summarized data (CHP files) will appear in a new group in the Study window. The title of the new group will be the name of the summarization method.

Quick Start Guide for 3' Expression Arrays

Affymetrix Study - C:\Documents and Settings\jburri\My Documents\Data\wednesday.study

<input checked="" type="checkbox"/>	File	Threshold Test	Sample Name	Biological System	Organ	Tissue
Probe Cell Intensity Data						
<input checked="" type="checkbox"/>	3AJZ02083089a.CEL		3AJZ02083089a	Reproductive System	Uterus	uterus corpus
<input checked="" type="checkbox"/>	3AJZ02083089b.CEL		3AJZ02083089b	Reproductive System	Uterus	uterus corpus
<input checked="" type="checkbox"/>	3AJZ02021913.CEL		3AJZ02021913	Reproductive System	Uterus	uterus
<input checked="" type="checkbox"/>	3AMH02030703.CEL		3AMH02030703	Reproductive System	Uterus	uterus
MAS5						
<input checked="" type="checkbox"/>	3AJZ02083089a.mas5.CHP	Within Bounds	3AJZ02083089a	Reproductive System	Uterus	uterus corpus
<input checked="" type="checkbox"/>	3AJZ02083089b.mas5.CHP	Outside Bounds	3AJZ02083089b	Reproductive System	Uterus	uterus corpus
<input checked="" type="checkbox"/>	3AJZ02021913.mas5.CHP	Within Bounds	3AJZ02021913	Reproductive System	Uterus	uterus
<input checked="" type="checkbox"/>	3AMH02030703.mas5.CHP	Within Bounds	3AMH02030703	Reproductive System	Uterus	uterus

Toolbar: Add Intensity Files, Run Analysis, Add Summarization Files, Remove, Refresh Attributes, Check All, Uncheck All, Check Group, Graphs/tables are sorted by [dropdown] and labeled by [dropdown]

8. Highlighted rows in the **Affymetrix Study Table** signify CHP files that contain metrics outside of the user defined thresholds.
 - a. There are three ways to display the thresholds. Menu item: **Edit-> Report Thresholds;**
Toolbar: the  button, and the **Toolbox: Configuration-> (4) Specify Report Thresholds.**
9. The newly created CHP files are now ready for QC analysis within the Expression Console software or other software provided by a GeneChip Compatible partner. The CHP files can be found in the same directory as your original input CEL files.