

## Affymetrix Expression Console™ Software

Simple software for data quality control and summarization for differential expression analysis

### Simple and easy-to-use analysis solution that moves your data toward insight

The Affymetrix GeneChip® platform remains the gold standard for robust, comprehensive expression analysis, and we are providing extensive software tools to take you from microarray data to identifying what is differentially expressed.

Expression Console™ Software is an easy-to-use software package openly available to all Affymetrix expression array users. Every researcher now has the ability to normalize, perform data quality control, and summarize data from thousands of samples, tens of thousands of genes, hundreds of thousands of exons, or hundreds of thousands of different transcript isoforms using a standard desktop computer. No data servers or petabits of storage are required.

With a few simple mouse clicks, you have the ability to analyze datasets and perform downstream differential gene, transcript, exon, and alternative splicing analysis in minutes instead of days or weeks.

Expression Console Software supports the following array types:

- 3' IVT arrays
- Gene ST arrays
- Exon ST arrays
- miRNA arrays (version 2.0 and higher)
- Human and mouse transcriptome arrays
- Custom designed arrays

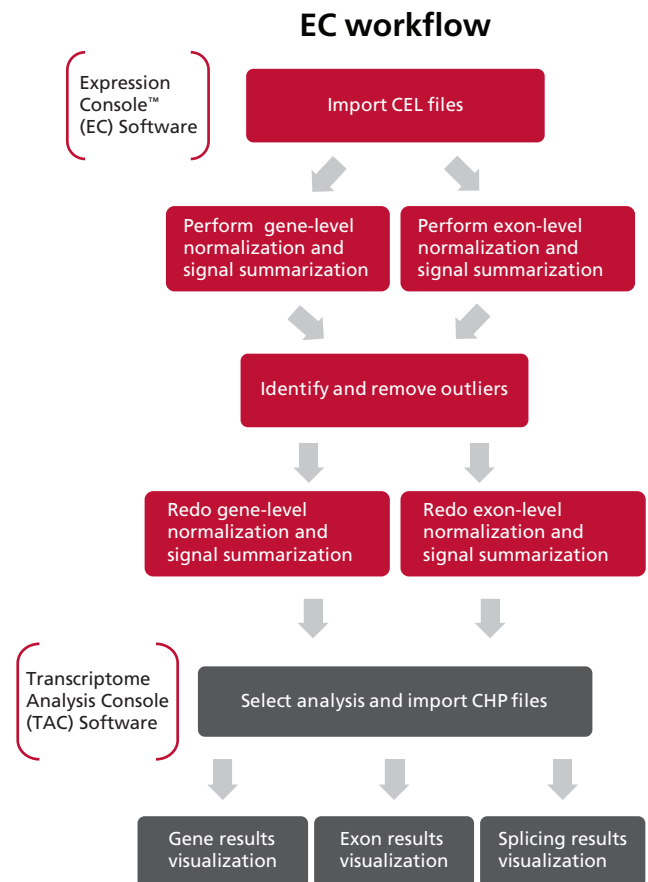
The Expression Console workflow provides the user with a choice of commonly used probe set summarization algorithms. The algorithms offered include

- Robust Multi-array Analysis (RMA)
- MAS5 Statistical Algorithm
- Probe Logarithmic Intensity Error Estimation (PLIER)

The software provides a convenient, easy-to-use analysis workflow that enables CHP files to be generated from CEL files with minimal effort using standardized approaches tailored by Affymetrix. Alternatively, more advanced users can configure the background correction, normalization, and summarization methods to meet the needs of their research.

### Simple and powerful analysis at your fingertips

- Convenient standardized workflows for both gene-level and exon-level analysis
- Flags outlier samples based on configurable QC metrics
- Principle Component Analysis (PCA) using CEL intensities or CHP signal values
- Seamless integration into Affymetrix® Transcriptome Analysis Console (TAC) Software

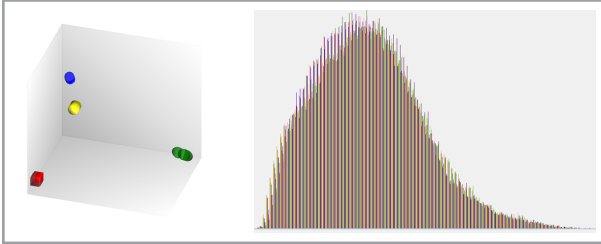


### Powerful data visualization tools

GeneChip® data quality control is a key component to this workflow and is augmented by a variety of visualization and graphing tools provided by Expression Console Software.

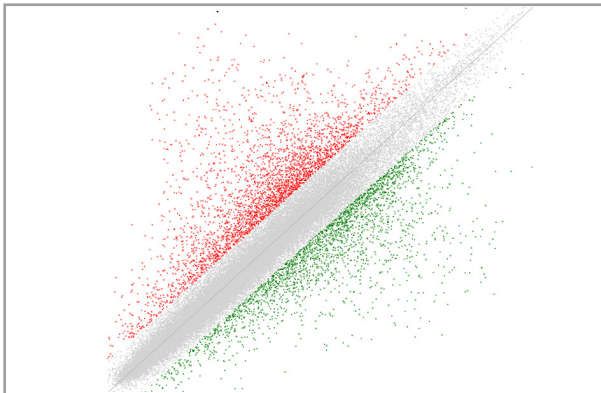
### PCA plot and signal histogram

Quickly identify outlier samples.



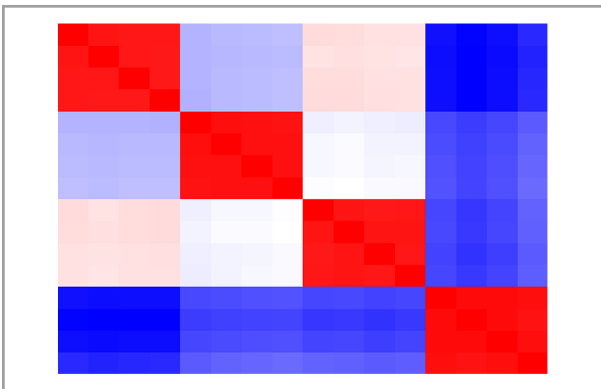
### Signal scatter plot

Visualize changes in signal between conditions.



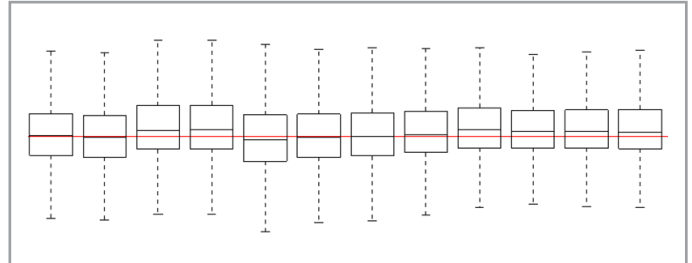
### Pearson correlation plot

Visualize Pearson correlation of signal or detection vs. p-value.



### Signal box plot

Visualize the ratio of individual probe intensity to the median probe intensity across all selected arrays.



### System requirements

The minimum system requirements for computers running Windows® 7 and Windows 8 operating systems are listed below.

Microsoft Windows® 7 Professional operating system with Service Pack 1

Operating system*	64-bit
Processor	2.83 GHz Intel® Pentium® Quad Core
Memory (RAM)	16 GB
Web browser	Internet Explorer® 8.0 and above

Microsoft Windows® 8 Professional operating system

Operating system*	64-bit
Processor	2.83 GHz Intel® Pentium® Quad Core
Memory (RAM)	16 GB
Web browser	Internet Explorer® 8.0 and above
Available disk space	150 GB HD + data storage

\*Expression Console™ Software no longer supports 32-bit operating systems.

Affymetrix, Inc. Tel: +1-888-362-2447 ■ Affymetrix UK Ltd. Tel: +44-(0)-1628-552550 ■ Affymetrix Japan K.K. Tel: +81-(0)3-6430-4020  
Panomics Solutions Tel: +1-877-726-6642 panomics.affymetrix.com ■ USB Products Tel: +1-800-321-9322 usb.affymetrix.com

[www.affymetrix.com](http://www.affymetrix.com) Please visit our website for international distributor contact information.

**“For Research Use Only. Not for use in diagnostic procedures.”**

P/N EXP02286 Rev. 2

©Affymetrix, Inc. All rights reserved. Affymetrix®, Axiom®, Command Console®, CytoScan®, DMET™, GeneAtlas®, GeneChip®, GeneChip-compatible™, GeneTitan®, Genotyping Console™, myDesign™, NetAffx®, OncoScan™, Powered by Affymetrix™, PrimeView®, Procarta®, and QuantiGene® are trademarks or registered trademarks of Affymetrix, Inc. All other trademarks are the property of their respective owners.

Products may be covered by one or more of the following patents: U.S. Patent Nos. 5,445,934; 5,744,305; 5,945,334; 6,140,044; 6,399,365; 6,420,169; 6,551,817; 6,733,977; 7,629,164; 7,790,389 and D430,024 and other U.S. or foreign patents. Products are manufactured and sold under license from OGT under 5,700,637 and 6,054,270.