

Eco Software v3.0 Release Notes

These release notes describe new features and improvements of Illumina's Eco Software.

1. New Features

- 1.1. Graphs have been improved in Eco v3.0.
 - 1.1.1. Graphs will now scale automatically based on the assay, samples, calls, and/or channels.
 - 1.1.2. Graphs now have manual scale for both the X- and Y-axis. (Bar graphs are an exception; they can only have the Y-axis adjusted manually.) Axis limits can be set by right-clicking on the graph.
- 1.2. Improvements have been made to the Saved Experiments and Templates screens.
 - 1.2.1. Users can now copy an experiment file.
 - 1.2.2. Users can now delete an experiment file from the list.
 - 1.2.3. A new template, called **SBS Library Quantification.ecot**, is now available in the Recent Templates list.
- 1.3. Relative Quantity calculations now enable user-defined variable efficiencies based on assay.
- 1.4. Multiple reference assays are now supported in Relative Quantity experiments for singleplex experiments.
- 1.5. Eco v3.0 now enables users to manually call genotypes in the Melt Curve and Results tabs for High Resolution Melt (HRM) experiments.
 - 1.5.1. Shift-click and drag the mouse to highlight plots. Release the mouse button and Shift key to mark the plots.
 - 1.5.2. Right-click over the selected plots, then select **Manual Call Checked Items**.
 - 1.5.3. Calls are displayed in the well table. Selected items show a check mark in the well table.
- 1.6. Eco v3.0 now has improved reporting features.
 - 1.6.1. The following fields can now be exported:
 - 1.6.1.1. Raw Data
 - 1.6.1.2. Raw Melt Data

- 1.6.2. Data can now be exported to PowerPoint directly.
- 1.6.3. The Run Finish time of the experiment is now displayed in all exported files.
- 1.7. Plot coloring based on assay/sample is now provided through a drop-down list.
- 1.8. Genotyping experiments are now supported, including PCR and single-read protocols.
- 1.9. Genotype calling is now determined through controls defined in the Plate Layout.
 - 1.9.1. Clustering occurs automatically.
 - 1.9.2. A scatter plot shows the calls based on color. Other display options are available.
- 1.10. Eco v3.0 now enables users to add additional control types in HRM and Genotyping experiments.
- 1.11. Eco v3.0 now enables users to manually call genotypes in the Results tabs for Genotyping experiments.
 - 1.11.1. Shift-click and drag the mouse to highlight plots. Release the mouse button and Shift key to mark the plots.
 - 1.11.2. Right-click over the selected plots, then select **Manual Call Checked Items**.
 - 1.11.3. Calls are displayed in the well table. Selected items show a check mark in the well table.
- 1.12. Eco v3.0 now enables users to modify Analysis Settings before running an experiment.
- 1.13. Raw PCR and Raw Melt graphs are now available on the Monitor Run screen post-run.
- 1.14. The Eco Software can now recover data from the Eco instrument if the instrument and computer become disconnected while a run is in progress.

NOTE: Melt data cannot be recovered if the instrument and computer become disconnected during a run.

 - 1.14.1. The instrument is designed to continue an in-progress run if a disconnection occurs.
 - 1.14.2. When reconnected, the Eco Software will automatically prompt to recover data.
 - 1.14.3. Data can also be recovered manually by selecting **Options | Recover Last Experiment**.
- 1.15. Minor enhancements have been added for ease-of-use, including:
 - 1.15.1. Handling of multiple selections in the well table has been improved.
 - 1.15.2. Control types can now be renamed in HRM and Genotyping experiments.

1.15.3. Assays and samples can now be renamed directly from the Plate Layout screen.

2. Resolved Issues

2.1. Controlling the Eco instrument:

2.1.1. Eco will now re-establish communication to the instrument after plugging a disconnected network cable back into the computer.

2.1.2. An intermittent error where Melt data was not being collected has been fixed.

2.1.3. An error no longer occurs when opening multiple experiments simultaneously.

2.1.4. An error no longer occurs after stopping a run during collection of Melt data.

2.2. Analyzing data:

2.2.1. The Melt Curve tab is no longer grayed out when using a duplex/multiplex plate layout for **Quantification | Standard Curve** experiments.

2.2.2. Data for a well excluded in the Plate Layout is no longer displayed in an exported CSV file.

2.2.3. An error no longer occurs when attempting to export HRM data to PDF.

2.2.4. Pressing the Enter key multiple times to open Eco from the desktop icon no longer causes the software to crash.

3. Known Issues

3.1. Users must have Administrator privileges on the Netbook computer to be able to start the Eco Software.

3.2. If a user saves an experiment as a template post-run, channels 2-4 will be missing from the Monitor Run screen during the next run.



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