

Wave Desktop 2.2 Release Notes

Release Date: 11/18/2014

Introduction

This document provides information pertaining to software changes and new features included in Wave Desktop 2.2.

Compatibility, New Features and Comparison to Older Versions

Version Compatibility

- Wave Desktop (v2.2) is intended for use **only** on personal computers running Windows operating systems, Windows 7 or Windows 8.1, 64-bit installation preferred.

Note: Wave Desktop may take up to 10 seconds to launch.

- XF^e instruments must use Wave Controller (v2.1) to operate the Controller.

New Features in Wave Desktop 2.2

- Improved Group Auto-Naming** – Wave Desktop uses an improved auto-naming scheme when creating groups and automatically distributing groups.
- Custom Color Selection for Groups** – Wave Desktop now allows unlimited custom color selection for each group defined in Group Conditions.
- Export to GraphPad Prism*** – Wave Desktop supports exporting raw data as well as the kinetic graphs directly into GraphPad Prism 6 format (*.pzfx).
- Quick View** – Opening a new results file with Wave Desktop automatically launches a new default view, Quick View. This view displays Oxygen Consumption Rate (OCR) and Extracellular Acidification Rate (ECAR) vs time, and OCR vs. ECAR. The detailed Overview tab is still available by selecting **Add View > Overview**.
- XF PhenoGram View** – Wave Desktop can show changes in the metabolic phenotype from one user defined condition to another (ex. shift from aerobic to anaerobic phenotype between two unique conditions).
- Buffer Capacity by Media Type** – Wave Desktop allows buffer capacity to be defined on a per medium basis for Groups and a per well basis for background wells**. In addition, the buffer capacity of background wells can be recorded within Wave for post-assay analysis for accurately measuring Proton Production Rate (PPR). **NOTE:** *Buffer Capacity settings will only be applied after the assay is run; use the **Modify** function to change buffer capacity for wells and groups after the ECAR data has been collected.*
- Support for XFp-** Wave Desktop (v2.2) supports template design (*.asyt) and data analysis (*.asyr) for the XFp Analyzer.

Comparing Wave Controller (v2.1) and Wave Desktop (v2.2)

Function	Wave 2.1 (XF [®] Controller)	Wave 2.2 (Desktop/Laptop PC)
Assay Designer - Groups and Plate Map	Single tab with swiping to access functions	Groups and Plate Map are now separate tabs
Default Analysis View	Overview	<i>NEW Quick View</i>
Analysis Views	Overview	<i>NEW Quick View</i>
	OCR vs. ECAR	<i>NEW XF PhenoGram View</i>
	Plate Map View	<i>REMOVED Plate Map View</i>
		Overview
		OCR vs. ECAR
Buffer Capacity	One default value per plate.	Group and Background wells can be defined individually by media used.

Known Issues

- Application of Buffer Capacity**– For accurate PPR kinetic graph results, buffer capacity must be calculated and entered into Wave AFTER the assay has been run.
 - To enter in the media buffer capacity (if 2+ media types are used in the assay), open the Assay Result file > Click Modify and select Groups/Conditions > Click Assay Media and for each entry, input the measured buffer capacity.
 - Depending on the number of different Assay Media used, a corresponding number of background wells should be assigned with the various media. To input the background well buffer capacity, open the Assay Result file > Click Modify and select Assay Properties > Click Advanced under Advanced Settings > Click Configure and the location of each background well will be displayed along with a field to input the calculated buffer capacity. Ensure the proper background wells are assigned the correct buffer capacity.
- Kinetic Line Chart Options X-Axis** – Custom Min and Max values for the time axis (x-axis) are not saved despite choosing to save the assay before closing and reopening the assay result file.
- Editing Templates** – When editing an Assay Template file (*.asyt) changes to the **Name, Author, and Description** cannot be made. Please be aware that if a template is directly edited, all changes overwrite the existing template file. In order to create a template from an existing template, use the design function to make changes and save as a template file.
- Media Buffer Capacity Units** – **The correct buffer capacity units are: mol/pH.** In Groups/Conditions within Wave, the units for buffer capacity of the media is: mol/L.

If you have questions, please contact Seahorse Technical Support at

support@seahorsebio.com