

OMNICxi Release Notes

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About This Document

This document contains a revision history of OMNICxi, including new features that may not be included in the User's Guide, resolved issues, and known issues.

The following conventions are used in this document:

NOTE | Brief information or reminder.

TIP | Helpful suggestion or advice.

WARNING

A situation that could result in damage to system or data loss.

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OMNICxi v2.5 Hotfix 3

- **Build number:** 2.5.3.3
- **Release date:** May 2024
- **Supported operating systems**
 - Windows 10 64-bit
 - Windows 11 64-bit

New Features

None

Resolved Issues

Laser iButtons Could Become Corrupted

Due to how communication with the laser iButtons was handled, the data stored in the iButton could become corrupted resulting in an unusable laser.

Terrain Maps Could Become Corrupted

If *Autofocus at every point* was enabled during a terrain map collection, the map could become corrupted.

NOTE | Some corrupted terrain maps may be recoverable, but not all.

Known Issues

Spectral Selection From 3D Areas After A 3D Collect

3d areas cannot be selected after they are collected.

Workaround: save and close the collection, then reopen it. Selection will then work normally.

Crash When Double-Clicking File in Search Setup Dialog If Data Security Is Present

Running Data Security on Windows 11, the software can crash in the Search Setup dialog in the Analysis Window if a file is opened via double click.

Workaround: To open the file, select it and then click “open”.

Unable To Delete Regions When Using Autosave and Data Security

If you have Data Security and choose the option to autosave and sign the data after collection (recommended), then it is not possible to delete regions.

OMNICxi v2.5 Hotfix 2

- **Build number:** 2.5.2.30
- **Release date:** November 2023
- **Supported operating systems**
 - Windows 10 64-bit
 - Windows 11 64-bit

New Features

None

Resolved Issues

Cross-Section Collection Center Shifted in Y-Axis After the Scan

After a cross-section scan is finished, the stage is shifted in Y axis for some microns from the cross-

section collection center set in the mosaic before the scan. After sending the map file to Altus, the wrong shifted center spot is saved in the map file and causes confusion which is the true sampling location (mismatch was observed in Y direction).

Cross-Section Scan Taken at Wrong Stage Z-Position

During a cross-section scan, the stage moved to the most recent of either the focal position of the most recent experiment setting or the initial Z position from when the software was started. It then acquired the scan at that position instead of the specified one.

Spectral Series Acquisition Never Completes

When collecting a spectral series, the acquisition would never complete, and the software would become unresponsive.

Spots Appearing in Images with OMNICxi

When using a DXRxi with OMNICxi, depending on the collection parameters, the instrument occasionally missing a spectrum at a position. If this happens during the first scan, it appears as a black spot and there is no spectrum associated with the position. This may also happen on subsequent scans, but it is not as obvious because there is already a spectrum associated with the position. This results in artificially lowered intensity at those spots.

Unable to Open Map File

Starting with OMNICxi 2.3, maps containing no spectral data cannot be saved. This had the side-effect of preventing old map files with no spectral data from being opened. The software now opens those files and presents a warning to the user about the lack of spectral data.

USP Performance Verification (PV) Presents Different Results in Printed Report Than On Screen Report

The printed report gives different Test Names, Measured Values, and Results for the Peak Area Delta tests.

Known Issues

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Workaround: To open the file, select it and then click "open".

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OMNICxi v2.5 Hotfix 1

- **Build number:** 2.5.1.6
- **Release date:** April 2023
- **Supported operating systems**
 - Windows 10 64-bit
 - Windows 11 64-bit

New Features

None

Resolved Issues

Particle Analysis Spectra Matches table missing header

The header row for the Spectra Matches table is not present.

Unable to fade between optical and spectrochemical images

After applying an MCR profile, it is no longer possible to fade between the optical and spectrochemical images.

Known Issues

Spectral selection from 3D areas after a 3D collect

3d areas cannot be selected after they are collected.

Workaround: save and close the collection, then reopen it. Selection will then work normally.

Crash when double-clicking file in Search Setup dialog if Data Security is present

Running Data Security on Windows 11, the software can crash in the Search Setup dialog in the Analysis Window if a file is opened via double click.

Workaround: To open the file, select it and then click “open”.

Unable to delete regions when using autosave and Data Security

If you have Data Security and choose the option to autosave and sign the data after collection

(recommended), then it is not possible to delete regions.

OMNICxi v2.5

- **Build number:** 2.5.0.41
- **Release date:** Jan 2023
- **Supported operating systems**
 - Windows 10 64-bit
 - Windows 11 64-bit

New Features

None

Resolved Issues

Visual data cannot be saved spectral data

If the save button is pressed before spectral data is collected, the user is now warned that spectral data is required before the file can be saved.

Mosaic visual improvements

Flat field correction of mosaics has been improved to address artifacts with some samples.

Terrain mapping 3D visualization

Fixed a problem where terrain mapping 3D visualization failed to show the terrain with a point (3x3) spectral area.

UI Cursor and stage position out of synchronization

Fixed an intermittent problem where the UI cursor and the stage position could fall out of sync.

Fixed an issue saving collected data while exiting the application

Fixed an issue where data could be lost if the application was closed with unsaved data.

Artifacts in mosaic when overlapping

Visual artifacts may be generated if an additional mosaic is acquired over an existing mosaic. Improvements have been made to reduce these artifacts, but it is still recommended to limit overlap in mosaics.

Artifacts created when starting & stopping mosaics

Stopping a mosaic before it was complete could generate grey patches or stripes in the unfinished portion of the stopped mosaic. This was exacerbated if multiple mosaics were started and subsequently stopped. This has been addressed.

Visual artifacts for narrow maps

Maps that were only one or two pixels wide could produce odd visual artifacts. This has been fixed.

Acceleration button failure for a specific stage firmware version

The joystick button to switch between course and fine movements could fail to switch properly for a specific stage/firmware version. This has been addressed.

File save improvements

Issues were noted, particularly in particle analysis, where saved MAPX files were not complete. This has been fixed.

File save improvements with YZ cross section data

Fixed an issue when saving YZ cross section data.

Crashes during live spectrum, mosaic, and performance verification test

Improved system stability during live spectrum, mosaic, and performance verification actions.

Known Issues

Spectral selection from 3D areas after a 3D collect

3d areas cannot be selected after they are collected.

Workaround: save and close the collection, then reopen it. Selection will then work normally.

Crash when double-clicking file in Search Setup dialog if Data Security is present

Running Data Security on Windows 11, the software can crash in the Search Setup dialog in the Analysis Window if a file is opened via double click.

Workaround: To open the file, select it and then click "open".

Unable to delete regions when using autosave and Data Security

If you have Data Security and choose the option to autosave and sign the data after collection (recommended), then it is not possible to delete regions.

Particle Analysis Spectra Matches table missing header

The header row for the Spectra Matches table is not present.

Unable to fade between optical and spectrochemical images

After applying an MCR profile, it is no longer possible to fade between the optical and spectrochemical images.

OMNICxi v2.4

- **Build number:** 2.4.0.18
- **Release date:** August 2022
- **Supported operating systems**
 - Windows 10 64-bit

New Features

None

Resolved Issues

Particle analysis acquisition time issues

The estimated time for particle analysis was not accurate. The estimate has been improved.

The particle acquisition had some inefficiencies and took longer than expected. There have been some modest time improvements to correct this.

Crashes in live spectrum, mosaic, or after Performance Verification

There were reported crashes in live spectrum, mosaic, and after Performance Verification. This has been fixed.

Timestamp Issues in reporting

Some timestamps were reported in GMT time, but without a GMT label, so they appeared to be in local time. This has been fixed so that times reported in GMT always have a GMT label.

Aperture Issues in reporting

A single aperture was reported even if different apertures were used during collection. The report now includes the aperture used for each region.

Crash during Z depth scan collection

There were reported crashes during the Z depth scan collection. This has been fixed.

Known Issues

None

OMNICxi v2.3 Hotfix 4

- **Build number:** 2.3.4.3
- **Release date:** March 2022
- **Supported operating systems**
 - Windows 10 64-bit

New Features

Extend PHEUR validation test

This test has been extended to include a resolution test.

Resolved Issues

None

Known Issues

None

OMNICxi v2.3 Hotfix 3

- **Build number:** 2.3.3.14
- **Release date:** December 2021
- **Supported operating systems**
 - Windows 10 64-bit

New Features

None

Resolved Issues

Analysis window scale bar

The analysis window scale bar was not visible. This has been fixed.

Issues related to using Z stacked maps

There were a number of Z stack map issues in selecting the proper layer, sending to OMNIC, displaying the selected layer, deleting slices, etc. These have been fixed.

Stage cursor not always in correct position

Sometimes when clicking on the mosaic to move the stage, the cursor does not move all the way to the click point. This has been fixed.

Particle analysis issues

Issues related to opening a large particle analysis file and a counts mismatch were reported. These have been fixed.

Use of correlation spectrum from file

When selecting a correlation reference spectrum from a disk file, the software will crash if done before a map has been collected. This have been fixed.

Known Issues

None

OMNICxi v2.3 Hotfix 2

- **Build number:** 2.3.2.8
- **Release date:** September 2021
- **Supported operating systems**
 - Windows 10 64-bit

New Features

None

Resolved Issues

Particle Analysis with security

When running a particle analysis measurement with security, the report is not shown in the analysis window when the measurement is done. This has been fixed.

Cross section with security

The cross section map collect had the save button on the acquisition screen enabled. When in cross section mode, the button will be disabled. The only way to save a cross section map is to send it to OMNIC. The has been enhanced to prompt for a signature when security is on.

Known Issues

None

OMNICxi v2.3 Hotfix 1

- **Build number:** 2.3.1.43
- **Release date:** May 2021
- **Supported operating systems**
 - Windows 10 64-bit

New Features

None

Resolved Issues

Performance validation crashes when used with security

When running the performance validation operation with security installed, the software may crash. This has been corrected. This also fixed translation issues.

MCR and show region terrain map crash

A crash will occur when showing data using the MCR profile and then showing a region as a terrain map. This has been fixed.

Known Issues

None

OMNICxi v2.3

Release Date: Oct-2020

Supported Operating Systems

Windows 10 64-bit

New Features

Enhance USP ValPro test

The USP ValPro test has been enhanced to include a photometric precision test.

Particle analysis improvements

Particle analysis has been improved to support separate analysis regions in the same map. This keeps the information between the separate particle analysis sections of a map separate for easier analysis views.

Resolved Issues

None

Known Issues

None

OMNICxi v2.2

Release Date: Jul-2020

Supported Operating Systems

Windows 10 64-bit

New Features

Search region setup improvements

Ranges for the regions can now be typed in so allow exact ranges specifications. Range setups can also be saved and loaded from disk files to simplify setting up ranges from different experiments.

Improve library search

For some samples, the library search was not as effective at matching results with other applications. This has been improved.

Particle analysis setup improvements

A button to start calculations when changing the setup has been added so that the calculation is done only when all the setup steps have been completed if the auto-update is disabled. The default type of collect is set to be points instead of regions. A button to revert to default setup has been added.

Enhance deletion of many regions

The delete region has been improved to handle all types of region and allow selection of multiple regions for deletion.

Particle analysis results table improvements

The particle results table allows unselecting all but the ID column to provide maximum flexibility in viewing the results. Column widths can be adjusted. A right click menu to send spectra directly to OMNIC has been added. The title of the spectrum now includes the name of the map file that they were extracted from. Deleting a particle does not change the IDs of the other particles.

Terrain image analysis improved

When a terrain image is acquired, the image analysis has been improved to aid in lower contrast images.

Resolved Issues

None

Known Issues

None

OMNICxi v2.1

Release Date: May-2020

Supported Operating Systems

Windows 10 64-bit

New Features

Add particle analysis of collected maps

Particle analysis of an existing map using the profile has been added. This is available in the Analysis window by right clicking on a region to analyze. It opens a separate window to do the analysis.

Add terrain mapping

The ability to collect a terrain map has been added. This includes collecting the video image in focus over an uneven surface and the collection of the Raman spectra at the same focus point. The video image and the final data set can be viewed as 3D.

3D display improvements

In the 3D window, spectra can be displayed by selecting positions on the data cube. The right click menu tools for the analysis spectral view have been added to the 3D spectral view. This supports Y axis scaling and related tools. The default background color can be selected.

Library searching enhancement

When sections of a library spectrum needs to be ignored, a new tool in the library selection drop down allows selection of regions to include in the library search to improve search results.

More ValPro tests added

More ValPro tests area available in the performance tests menu. These allow selection of several of the standard pharmaceutical tests.

Video particle analysis improvements

Several improvements have been added to the video particle analysis. They include sorting the result table by column header, deletion of particles from the data set, reanalyze button.

Particle spectra save

One or more spectra can be saved to an OMNIC type group file by control clicking on each of the spectra to save or by using the right click menu to select all the spectra and then using the right click menu to save the selected spectra.

Resolved Issues

Auto calibration runs too often

On some systems the auto calibration may run more often than 30 minutes. This has been corrected.

Align calibrate issue when using special components

The align calibrate may fail when using a high power 532 or 633 laser with an extended grating. This has been corrected.

Cannot send MCR component spectra to OFDR

The component spectra produced by MCR could not be sent to OFDR. This has been corrected.

Library searching issues with particle analysis

When using user created libraries the results for particle analysis spectra was inconsistent. Some particles were reported as unidentified when they should have been found. This has been corrected.

Incorrect spectrum shown when using Results button

When viewing library search results using the Results button the spectrum shown on the spectral display window would sometimes be incorrect. This has been corrected.

Library searching issues with particle analysis

When using user created libraries the results for particle analysis spectra was inconsistent. Some particles were reported as unidentified when they should have been found. This has been corrected.

Issue with library searching averaged spectra

When using the averaged spectral search, the search was using the average spectrum but showing the unaveraged spectrum. This has been corrected.

Issues with Preview and Cross Section modes

The Preview window was not updating to the correct size when changing to a smaller size for the collection and the old data was not always cleared off. Cross correction also had this issue. This has been corrected.

Preview and auto calibration laser setting

When starting a preview and the auto calibration is activated the laser value was set to 0 when the calibration was complete instead of maintaining the current setting. This has been corrected.

Crash when running in French

It has been observed that a version of OMNICxi crashed when running in French. This has been corrected.

Known Issues

None

OMNICxi v2.0 Hotfix 1

Release Date: Jan-2020

Supported Operating Systems

Windows 10 64-bit

New Features

Save particle analysis tables as tsv file

Particle analysis table information can be saved to a tab separated text file.

Particle analysis tables shows units

The particle information columns now shows units for the items that have units.

Particle selection has selectable high light

The particle high light can now be turned on or off.

Security features are available

Security is available.

Resolved Issues

Particle analysis time estimate

Particle analysis time estimate is now more accurate.

Known Issues

Rename file in security

When using the save file to rename a file when the rename feature is allowed causes an exception dialog to be shown. The operation completes after the exception is shown.

OMNICxi v2.0

Release Date: Dec-2019

Supported Operating Systems

Windows 10 64-bit

New Features

3D visualization of data sets

Data sets collected as a stack of maps in time or Z space can be visualized as a 3-dimensional cube to enhance the view of the data. The view can be sliced in the X, Y or Z directions using the current profile for the data set. Single maps can be visualized as a surface.

Particle selection and analysis

A mosaic image can be analyzed to define particles to collect into a map file. After collection, the particles can be analyzed to identify the particles and calculate information about the particles. A report feature will put the information in a report format.

Point and shoot data collection

A set of selected single points can be collected into a single map file. The spectra can then be displayed, searched in a library or saved to disk.

Resolved Issues

None

Known Issues

None

OMNICxi v1.7

Release Date: Sep-2019

Supported Operating Systems

Windows 7 64-bit

Windows 8.1 64-bit

Windows 10 64-bit

New Features

Support for 532 and 633 high power lasers

The two high power lasers are added so that lasers can be switched between the normal and high power versions without recalibration. This is effective for the lasers with the new prefix in the serial number.

Resolved Issues

Front illuminated camera recognized

The front illuminated camera was not automatically recognized. This has been fixed.

Known Issues

None

OMNICxi v1.6 Hotfix 1

Release Date: Nov-2018

Supported Operating Systems

Windows 7 64-bit

Windows 8.1 64-bit

Windows 10 64-bit

New Features

None

Resolved Issues

Change for 532 high power laser

The 532 high power laser did not always pass laser calibration. This has been resolved.

Known Issues

None

OMNICxi v1.6

Release Date: Jul-2017

Supported Operating Systems

Windows 7 64-bit

Windows 8.1 64-bit

Windows 10 64-bit

New Features

New policies added for data security

1. Add policy to prevent cancel of data collection
2. Add policy to prevent cancel of signature dialogs
3. Add policy to set the filename of a collected map being auto saved to use a generated title.
4. Add audit event for start of a collection.
5. The signature dialog will not close after three failed signatures
6. At start of the application, the status of the security suite will be checked and report any issues

Resolved Issues

Spectral autofocus during collect preview

When doing a spectral autofocus during collect preview, the software would crash. This has been fixed.

Prevent overwriting of file policy implementation has been changed

The policy to prevent overwriting of files implementation has been changed to be consistent with the use in OMNIC. This policy will still prevent overwriting a mapx file but will now allow adding regions to a map that has not been saved.

Sign file at end of pre-named mapx file

When the data security policy was set to force signing a file, the signature was not forced when the file was named prior to the collection. It now asks for the signature at the end of the collection of

the pre-named file.

Known Issues

None

OMNICxi v1.5 Hotfix 1

Release Date: Apr-2017

Supported Operating Systems

Windows 7 64-bit

Windows 8.1 64-bit

Windows 10 64-bit

New Features

None

Resolved Issues

Change for Performance Verification

Performance verification number of scans and exposure time were not always set correctly when running the tests. This has been fixed to always use the correct parameters.

Map file release

In some circumstances the map file was not released for the changes or deletion from Windows Explorer. This has been corrected.

Service tool exception

When using the EEPROM section of the service tool, an exception occurred, this has been fixed.

Known Issues

None

OMNICxi v1.5

Release Date: Dec-2016

Supported Operating Systems

Windows 7 64-bit

Windows 8.1 64-bit

Windows 10 64-bit

New Features

Grey scale 16 bit tiff file save

The tiff file save has been improved to allow saving higher resolution tiff files in grey scale. This helps use of tiff files in other applications.

Resolved Issues

Intermittent mosaic image position problems

Intermittently the mosaic image will show problems with overlapping images. This has been corrected.

Correlation profile with region limits

The correlation profile when used with region limits was not always showing the correct result. This has been corrected.

First column not coadding

The first column will intermittently not be coadded like the other columns in a map. This has been corrected.

Software failure when saving very large tiff files

The application would fail to save very large tiff files, this has been corrected.

Selection of large numbers of regions

When creating a large number of regions to collect and using the queue to select them all, it was taking the software a long time to update. Also some of the collection setup sliders were slow. The update time has been greatly improved.

Live spectrum mode with longer time

When in live spectrum mode, the exposure time longer than 4 Hz did not use the selected exposure time. This has been corrected.

Known Issues

None

OMNICxi v1.4 Hotfix 2

Release Date: May-2016

Supported Operating Systems

Windows 7 64-bit

Windows 8.1 64-bit

New Features

Region Z axis setting

The region Z axis value setup has been extended to allow unique Z axis settings for each region without editing the Queue table. When a new region is created in the acquisition window mosaic screen, the Z axis value will be set according to the following rules:

- 1. If no mosaic image is present where the region was created, the current Z setting will be used.*
- 2. If a mosaic exists at the location of the region but the video auto focus is turned off, the current Z setting will be used.*
- 3. If a mosaic exists at the location of the region and the video auto focus is turned on, the Z axis of the mosaic at the region location will be used.*

This feature allows more selective use of the Z axis for a region for samples that have large height differences.

Resolved Issues

Long exposure time collects fixed

When a large region is collected in with a long exposure time, it may stop after the completion of the first scan of the first region. This has been corrected in this version.

Polarizer motor does not move

In the OMNICxi 1.3 software, when OMNICxi is started and the Analyzer polarizer is set to a position by angle, the polarizer will not respond and move. This has been corrected in this version.

Known Issues

None

OMNICxi v1.4 Hotfix 1

Release Date: Apr-2016

Supported Operating Systems

Windows 7 64-bit

Windows 8.1 64-bit

New Features

None

Resolved Issues

Administrative change for installation

Change needed for administrative changes

Known Issues

None

OMNICxi v1.4

Release Date: Mar-2016

Supported Operating Systems

Windows 7 64-bit

Windows 8.1 64-bit

New Features

Performance verification

The feature to do Performance verification has been added to the OMNICxi software. To run the tests, the following items are required: 10X and 50X objectives on the microscope, Polystyrene sample from sample kit and the DXRxi Silicon Test Sample, also from the sample kit. The tests can be performed with the 455, 532, 633, 780 and 785 lasers using the full range grating for each laser. The test will report the state of the instrument at the time of running the test.

Qualification

The ability to do system qualification has been added to OMNICxi. This is available as a separate package and contains documentation for usage.

Data security

Data security has been added to OMNICxi. This is available as a separate package. It uses the Thermo Security Administrator software to allow control of access to features in OMNICxi and control digital signing of spectral data. This also includes audit trail information in the Windows Event Viewer and history in map files.

Resolved Issues

Improved slow collect stability

The slow speed collect has been improved to better handle external vibrations and other interferences to prevent data loss.

Preview video image updates

The video preview will now be shown in the mosaic window of the acquisition window when the software starts and when the position is updated.

Other changes

Other small changes were done such exporting selected spectra from the acquisition window.

Known Issues

None

OMNICxi v1.3 Hotfix 1

Release Date: Nov-2015

Supported Operating Systems

Windows 7 64-bit

New Features

None

Resolved Issues

Update Andor camera driver

The driver for the Andor camera has been updated to prevent possible problems with camera lifetime issues.

Known Issues

None

OMNICxi v1.3

Release Date: Oct-2015

Supported Operating Systems

Windows 7 64-bit

New Features

Long exposure time collection

This version adds the ability to collect with long exposure times so that user can obtain good spectra from very weak raman scatterers.

Photobleaching

This version adds the ability to expose a sample point to the laser for a defined time before measuring so that the sample is photobleached. The stage control firmware must be updated to support photobleaching.

Polarization support

This version supports the polarization accessory. Input polarization and polarization analyzer can be set for single spectrum, map or time-based collection.

Display region information

A context menu option is available to display selected region information, including collect parameters such as laser serial numbers, objective, aperture, stage position, etc. The region information window also has a button to allow user to copy the parameters to clipboard for use in external reporting.

New circuit board and support for more lasers

This version supports a new circuit board, which supports more lasers, such as the 785nm laser, supports the new polarizer motors, and this board also supports Windows 8.1 and higher versions.

Video mosaic size improvements

The video mosaic is no longer limited to 2 GB in total size. This allows sparse mosaics across the entire stage travel and is now only limited by the available memory in the computer.

Flat field correction

The stitched mosaic appearance is greatly improved through flat field correction for the vignetting that all lenses and optical systems exhibit.

Small stage movement in Z axis

User now can adjust the stage up or down in the Z axis by a small step size (0.1 micron for the 100x objective). The small step up/down buttons are available under the stage up/down slider.

Ability to turn EM gain on and off

Ability to turn EM gain on and off, this allows improved signal to noise when using a very long exposure time.

Resolved Issues

Improved gray scale color map

Gray scale color map now goes from black at low profile values to white at high profile values.

Cross Section starting point

Cross section image collects from the current Z location down into the sample to the extent defined by the Z-size slider.

Improved peak position profile

Peak position profile now uses center of mass for peak position.

Color bar shows color outside of selected range

When the slider on the color bar is adjusted, the range outside of the slider shows the color will be represented in the image.

Improved peak position profile

Peak position profile now uses center of mass for peak position.

Improved cosmic ray rejection

Cosmic ray rejection works when the cosmic ray event is small relative to the sample spectrum.

Improved support for data in wavelength nm mode

Fixed issues that caused the data collected in wavelength mode to be displayed incorrectly. Also improved the library searching and display of library matches in wavelength mode.

Save the upper and lower thresholds for profiles

The thresholds set for each profile are now saved and restored the next time you open the file.

Improved live spectrum navigation

Clicking on a collected survey profile moves the stage in live spectrum mode to allow you to see a live spectrum at a clicked survey location.

Improved laser power of zero

Closes the laser block shutter when the power level slider is set to zero. This allows collection of luminescence data.

Improved appearance of colorbar copied to clipboard

Colorbar now has a white background and black text.

Known Issues

None

OMNICxi v1.2

Release Date: May-2015

Supported Operating Systems

Windows 7 64-bit

New Features

Time based map collection

This version adds the ability to collect maps at specific time intervals or based upon an external digital trigger. Time interval collects maps at a specified time interval (start of map to start of next map). It will collect a set of frames that can be viewed in the analysis window using a new map image player to view the frames.

The trigger based collect uses an external USB digital IO box to start each map. There are also digital outputs to synchronize when the map collection is in progress and when all the maps are complete. The maps can be viewed in the same manner as the time interval maps.

60X objective

The 60X objective has been added to the list of possible objectives to use.

Filename can be defined prior to map collect

The filename for a map can now be defined prior to collecting a map by using the Save Map button to define the new filename, As the map is collected, the data will be written to the new location. When New Sample is selected, the filename will be forgotten so the software will not overwrite the previous file.

Early Analysis window update

When a new set of regions are collected, the Analysis window will be updated with the new region at the completion of the first region collect. As other regions are collected, they will not automatically be added to the Analysis window, but a button at the top of the Analysis window will be highlighted in green to show more data is ready to add to the window. Clicking this will update the Analysis window with the new data. At the completion of collecting all the regions, the Analysis window will be updated automatically.

Time based maps viewing

When time based maps are collected, there is a new control in the Analysis window that allows viewing the time frames automatically or manually. Using the play button will start showing maps at about 1 per second. Clicking the fast forward button will increase the speed of the update. The stop button will stop playing the maps. The current index and time of the frame will be shown at the bottom of the control set.

The maps can also be selected by sliding the frame selected control up or down. There is also an up and down arrow control to step one frame at a time.

Delete regions from map file

Regions can now be deleted from a map file loaded from disk. It does not allow deleting all the regions. There must be at one region in the file after deleting regions.

Tiff files contain region information

Tiff file save has been improved to include region information tags in the file to allow easy loading of files into other applications with registration of the regions.

Time based tiff file saves all the frames from a region into one file with the region information for easy display of a large number of frames.

Time based regions spectra extraction

Spectra can be extracted from a single time frame or from all time frames at one location. This also applies to the spectral average function.

Time based map frames can be removed

A right click menu is available to remove frames from either end of a stack of frames.

Auto spectra average

Spectra can be auto averaged using the nearest neighbor when using the spectrum selection tool. There is a right click menu item to turn this feature on or off.

Doubled speed of opening files from disk

When opening a file from disk, it will open faster than in previous release.

Improved speed of profile calculation

For profile types other than MCR, the calculation speed has been doubled.

Resolved Issues

Invalid correlation spectrum

When a reference correlation spectrum is selected from disk that does not match current settings for map spectra, the operator is prompted to select a different spectrum. When one is selected prior to collection and it is not valid for use, a spectrum from the data set will be used instead, This prevents blank correlation spectra.

Error from illegal spectral range in profile

When a spectral range outside the range of the data being collected was set in a profile, there were sometimes errors. This has been corrected to allow only legal ranges for the data available.

Improved mosaic and map data transparency

When using the transparency with data that fully overlaps, all data sets were visible. The transparency will work correctly for full overlapped regions.

Known Issues

None

OMNICxi v1.1

Release Date: Dec-2014

Supported Operating Systems

Windows 7 64-bit

New Features

Translations

The translations of the software are now included for the following languages: German, Spanish, French, Italian, Japanese, Russian and Chinese.

Add 5x and 60x objectives

The 5x and 60x objectives are now shown.

Browse button for setting default save folder

The folder for the default location to save maps can be browsed to with a browse button.

Non square cross sections

Cross sections of non square shape can now be defined using sliders for the two dimensions. Also allow deeper cross sections.

Peak width profile added

Peak width profile has been added. The peak location and the method of calculating the peak width can be defined for the profile. This also has a threshold value to filter values when no peak is present.

Peak position profile updated

A peak threshold value has been added to the peak position profile to filter values in spectra that do

not have a peak.

Zoom to world

The zoom to world button on the mosaic pane of the acquisition window will zoom to the size of the regions collected if no mosaic is collected.

Live video image size

The live video size will now remain the same no matter how the survey region size is changed.

Selected spectra indicator

The location of the selected spectrum or multiple spectra is indicated on the region for each spectrum.

Add “Unknown” as search result

The search result “Unknown” has been added to be used in a search to be used if the search does not find relevant hits to the selected spectrum.

Changes for Queue window

The queue window can be moved to allow viewing all of the mosaic or other sections of the application. A select all regions button has been added to facilitate use of regions.

Profiles update when profile type changed

The will be recalculated when the profile type is changed except for MCR which has an apply button after setting it up.

Profile value shown

When clicking on spectra in the Analysis window, the value calculated for the profile is shown to allow viewing exact profile results.

Viewed spectrum indicator

When a spectrum is selected from the map, a symbol is shown to indicate the location of the spectrum on the map.

Enhanced map color selection

Three new color ranges have been added that range from black to either red, green or blue to show the low amplitude profile results as black instead of white.

New mosaic collect start point

When collecting a new mosaic it will start collect from the current stage position so that stage not

moved from selected location.

Resolved Issues

Joystick locked out during align and calibrate

To prevent accidental stage movement during align and calibrate, the joystick is locked out.

Collected regions values adjustment

The values on the acquisition window sliders are disabled for regions that have been collected.

Region size control

The lower left corner of the region can be used to change the size of the region.

File open fail mode

When file open fails, the software will be reset as if the new sample button was pushed.

Send library spectra to OMNIC

Sending library spectra to OMNIC is disabled.

Units after align and calibrate

Units will be consistent with selected units after align and calibrate.

Do not allow multiple objectives in mosaic

Limit mosaic collect to one objective size.

Report the actual time in queue

Report the actual time of a region collect in queue.

Changed report information

Fix pixel size and number of spectra values in report. Change to show table as two tables so can be seen on one page of report.

Correct misaligned Filter/Grating error

An error occasionally seen during align and calibrate regarding the filter and grating has been corrected.

Cross section coordinates

Fixed reported coordinates shown in cross section for cross section image.

Known Issues

None

OMNICxi v1.0

Release Date: Apr-2014

Supported Operating Systems

Windows 7 64-bit

New Features

Initial Release, all features are new

Resolved Issues - None

Initial release, there are no resolved Issues

Known Issues

None

How to Contact Us

Current contact information is located at <https://www.thermofisher.com>

Select the "Contact Us" icon at the top of the screen