

IN Cell Analyzer

Acquisition Software, Version 7.0

Release Notes

Introduction

Version 7.0 of the IN Cell Analyzer software adds support for two new instrument models, the 2500 and 6500.

The following release notes describe the primary changes between versions 6.2 and 7.0. Additional information can be found in the release notes from previous versions of software, which are included within the 7.0 installers.

One of the most noticeable improvements in V7.0 is the user interface, which has been reworked to make the software easier to use and easier to learn. The new interface presents a better, more obvious workflow that will be appreciated by new and existing users. Upgrading from previous versions should require only minimal training.

New Features

Main Toolbar Buttons (2007)

The original icons have been replaced with large buttons that are easier to understand. The color of the buttons changes according to the current mode of operation. For example, blue indicates the active mode. A summary of the colors is below. None of the modes are new, though. Only the buttons have been changed.

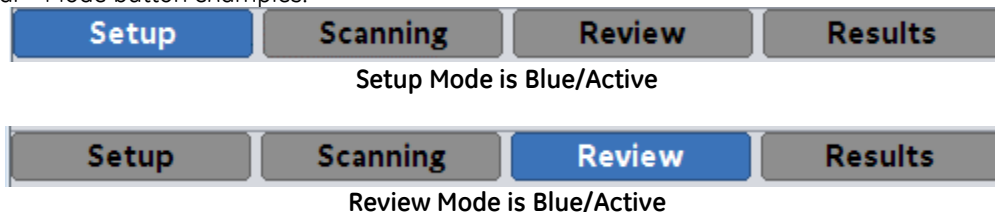
Summary of Button Colors

Blue	Active mode
Gray	Inactive mode
Green	Available actions
Dark Gray	Unavailable action
Dark Gray - Flashing	Action in progress
Red	Stop the current action

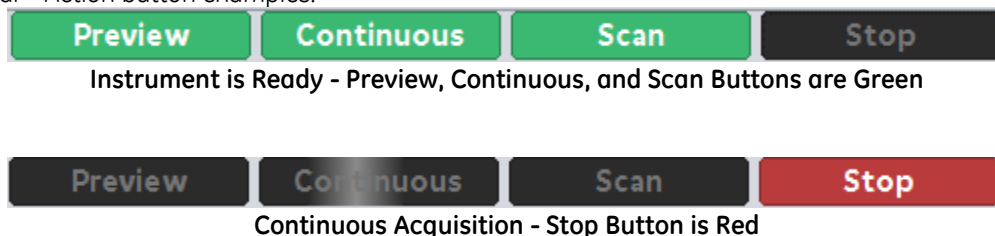
Original Toolbar:



V7.0 Toolbar - Mode button examples:



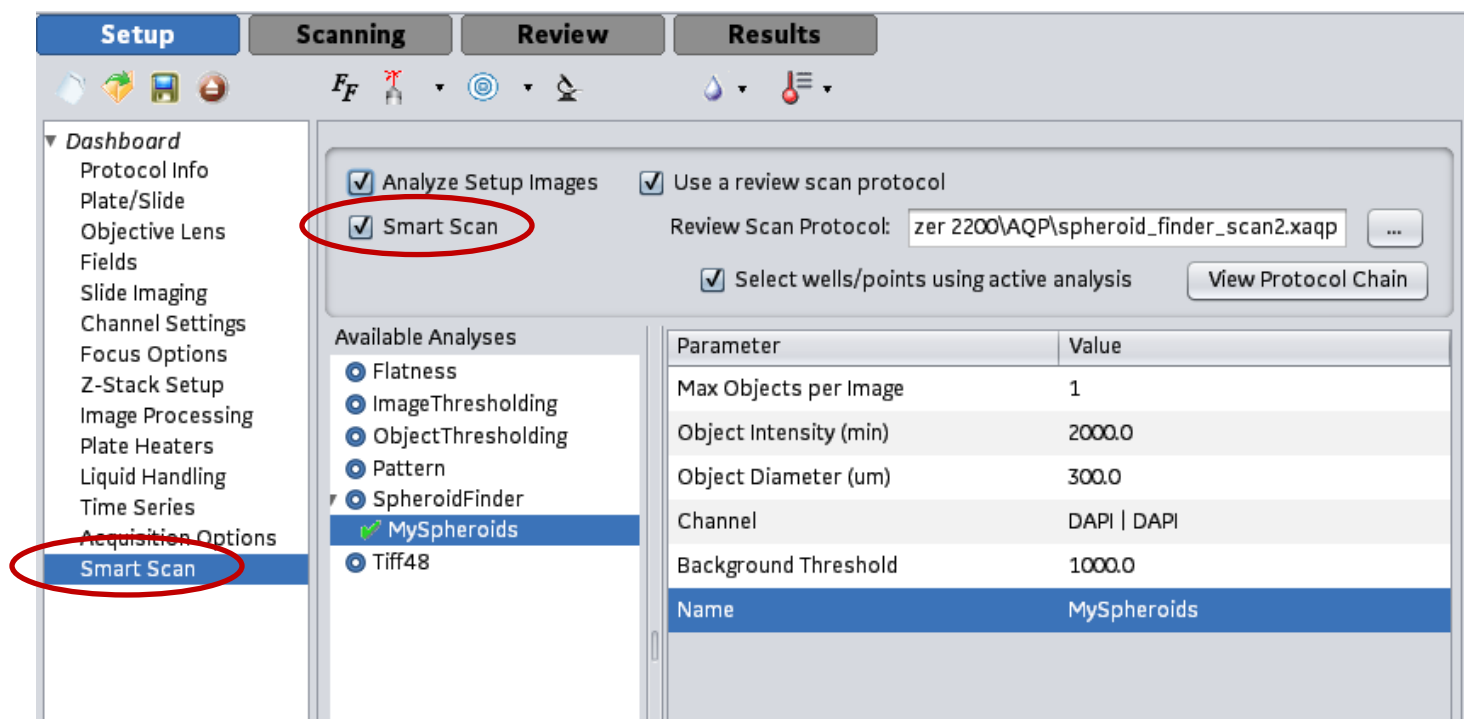
V7.0 Toolbar - Action button examples:



"Smart Scan" for Finding and Rescanning Circular Objects (1974, 2097)

A new type of analysis has been added to the *ReviewScan* setup page. The analysis is designed to look for circular/spherical objects with a given size and intensity.

To help promote the new capabilities, the toggle button used to enable *ReviewScan* analysis procedures has been renamed to "Smart Scan". Similarly, the corresponding tab has been renamed to "Smart Scan".



"Smart Scan" Terminology - Spheroid Finder Parameters

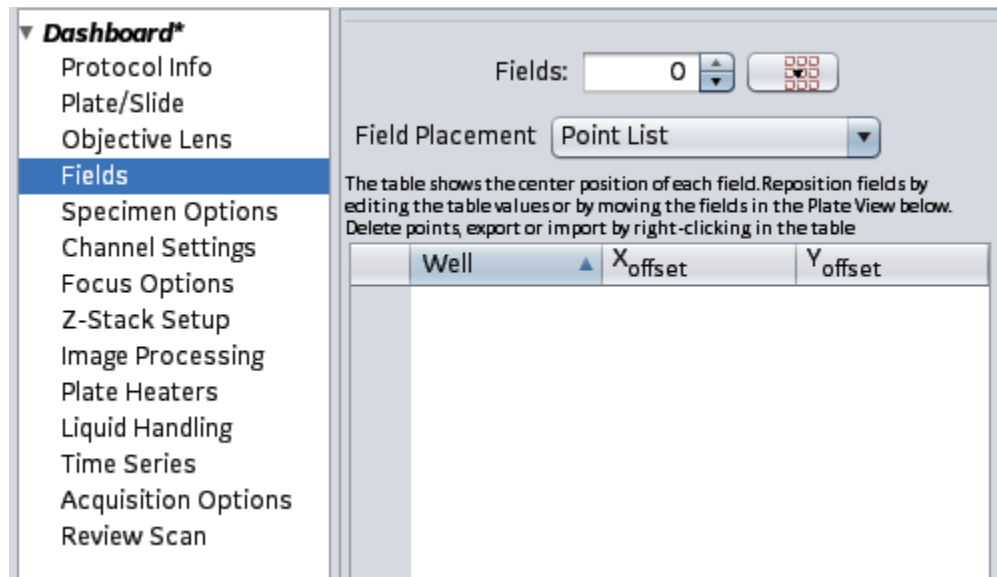
Spheroid Finder Parameter Descriptions

Max Objects per Image	The maximum number of objects/points that will be selected within each field-of-view. One object per field is often the correct choice, although two or more objects is also possible in the case where the objects are small.
Object Intensity (min)	The minimum, average intensity of the object within the requested diameter. Objects with an average intensity below this setting will not be selected. Pixels below the background intensity threshold will not be counted. Use the pixel intensities displayed within Setup mode to help determine an appropriate value. The object intensity value should always be larger than the background threshold.
Object Diameter (um)	Typical object diameter, in microns. Smaller and larger objects may be selected, however, depending on the object intensity setting.
Channel	The channel that will be used for locating objects. Only one imaging channel is used for the calculation.
Background Threshold	An intensity threshold used to exclude pixels from consideration. Setting this value correctly will help the algorithm find the center of the object. The background threshold should always be less than the object intensity value. Use the pixel intensities displayed within Setup mode to help determine a good value for background.
Name	A name that can be used to identify the type of object.

An important aspect of the new feature is the ability to define points that need to be rescanned during the follow-on review scan. Previous versions of software could only rescan wells, rather than specific XY locations. *SpheroidFinder* is presently the only form of analysis that will select points for rescanning. The other analyses are designed to find and rescan wells.

Binning the images acquired during the first protocol is often useful for improving performance and conserving storage space.

The correct method of configuring a review scan protocol for use with the *SpheroidFinder* is to create a "Point List" with zero fields, as shown below. Pre-defined points (and wells) will be overridden when the "Select wells/points" toggle is enabled.



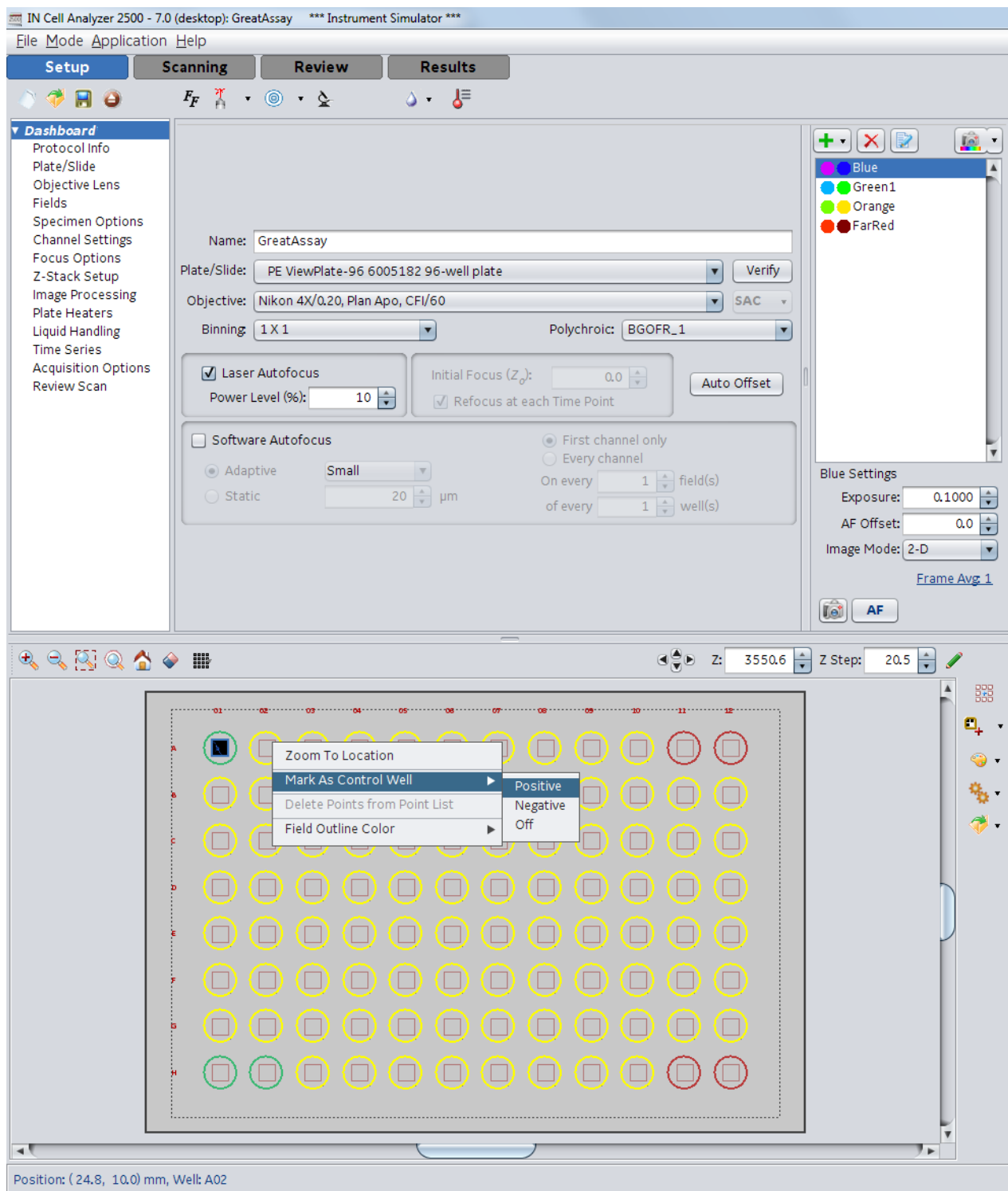
Point List Setup for ReviewScan Protocol - Zero Fields

Positive and Negative Control Wells (2035)

Acquisition protocols can now be configured with positive and negative control wells, as shown below. Use the right mouse button over the *PlateView* to display the popup menu. The main purpose of defining controls is for advanced analysis with programs like IN Carta. The designation is recorded in the scan results (XDCE file).

The presence of controls will have the following two effects on the acquisition program:

1. control wells will be always get rescanned when using "Smart Scan" features. The well/object selection mechanism does not apply to control wells.
2. a Z' factor will be presented in the *DataReview* if the scan contains two or more of each type of control well. Simple features like the mean intensity are potentially useful for preliminary assessment of high content assays.



Definition of Control Wells

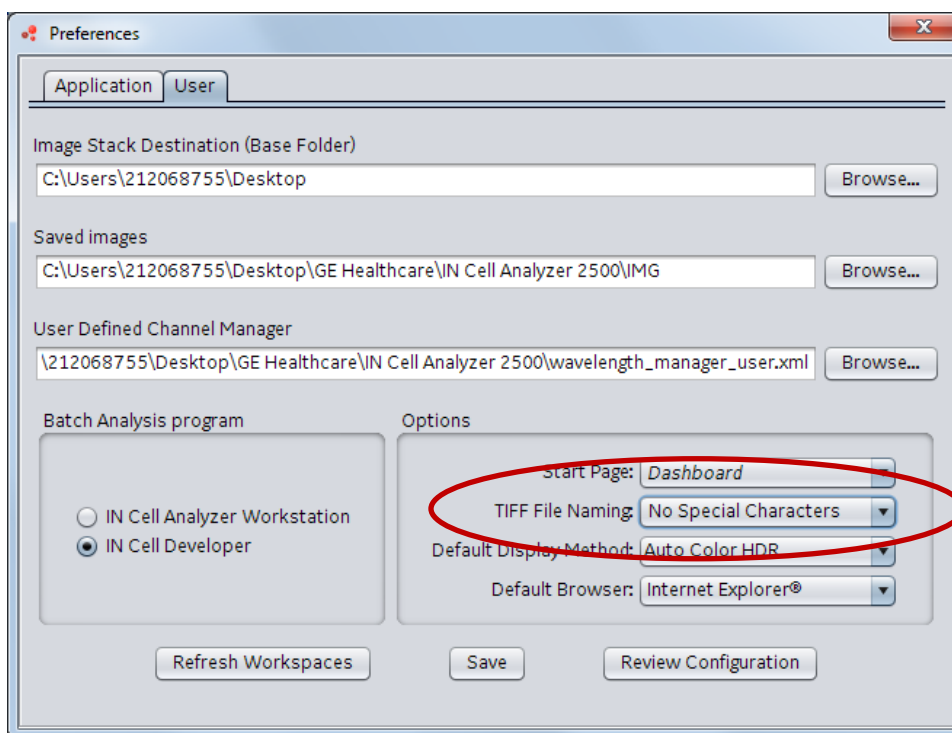
Basic Improvements

TIFF Image Saving Option (2033)

An optional method of generating TIFF file names without spaces or other special characters has been added. Only the following characters are allowed:

a - z	lower case letters
A - Z	upper case letters
0 - 9	numbers
_	underscore

Environments that involve many different pieces of software and long-term storage of data files will benefit from the increased reliability of simple file names. Names without spaces are easier to parse and are generally more reliable.



File Naming without Special Characters

Cell Counting of Larger Objects (2030)

The maximum allowed size has been increased, making it possible to count larger objects. The change is useful when working with low magnification objective lenses that have large fields-of-view.

New Environmental Control Panel (2500 and 6500 only, 2083)

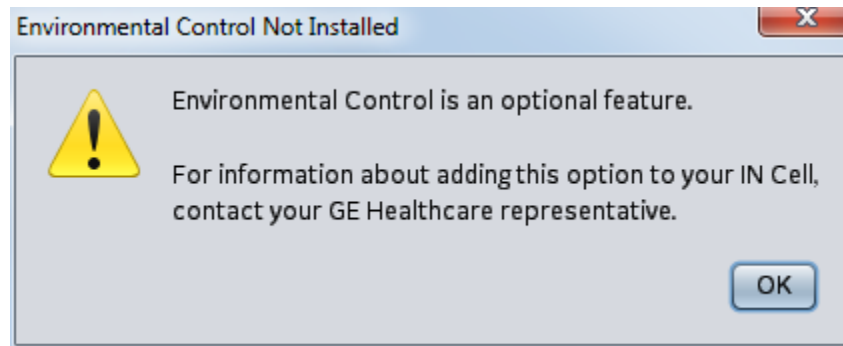
A new type of environmental controller is available for the 2500 and 6500. The original controller will remain for the 2200 and 6000. Pressing the "EC" button on the toolbar will launch the appropriate control program for the instrument that is being used.



EC Button

Instruments	EC Style	Control Panel	Licensing Method
2500/6500	New. Includes gas mixer.	Combined gas mixer and heater control. Installed separately. The warning message below will occur if the software is not installed.	No license required.
2200/6000	Original	Original, built-in.	Software license required for plate heating.

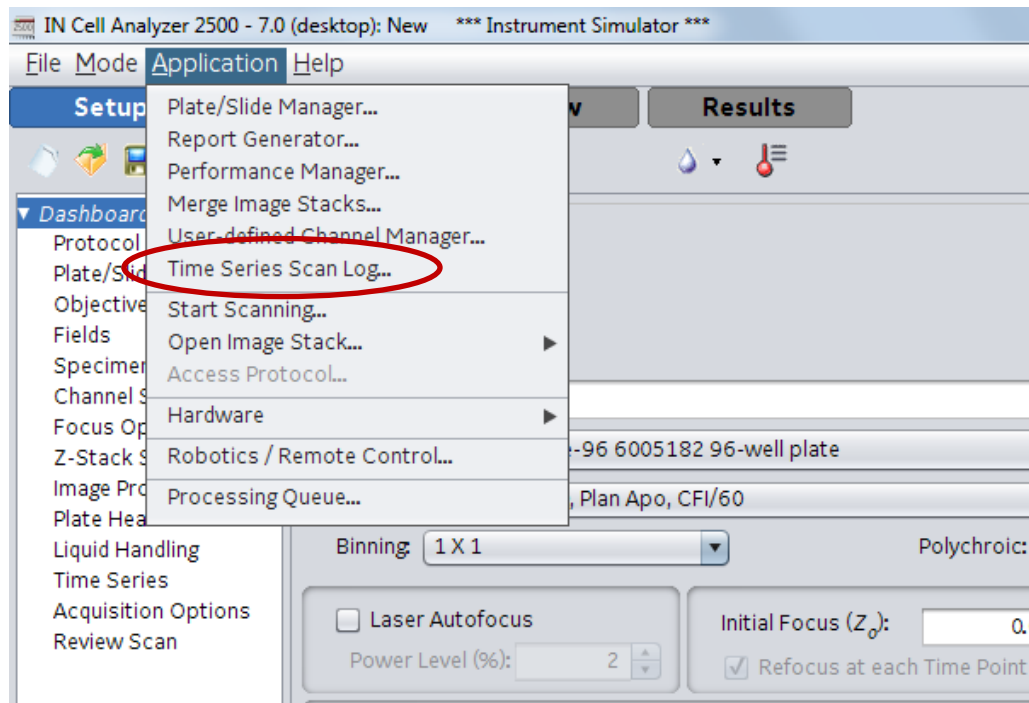
The EC hardware used for the 2200, 6000, and 2000 has not been changed. In this case, the EC module is still supported by the INCell software. Only the 2500 and 6500 will use the new EC hardware and software. In the event that the EC software is not installed on a 2500 or 6500, the following message will be displayed when the EC button is pressed.



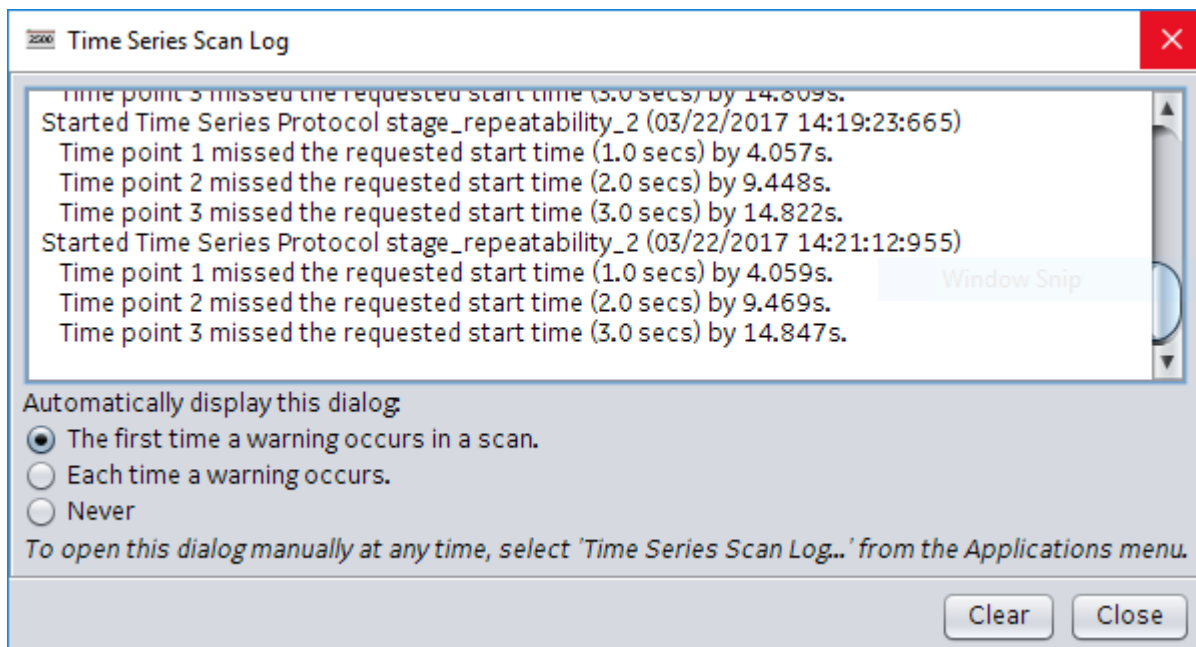
Warning Message if EC Software is Not Installed - 2500 & 6500 Only

Time Series Scan Log (2044)

Timing information about the last scan can be found in the new scan log. Use the log to determine whether measurements were acquired at the requested times. If it is important to measure at perfectly controlled time-points, adjust the schedule to match the capabilities of the instrument.



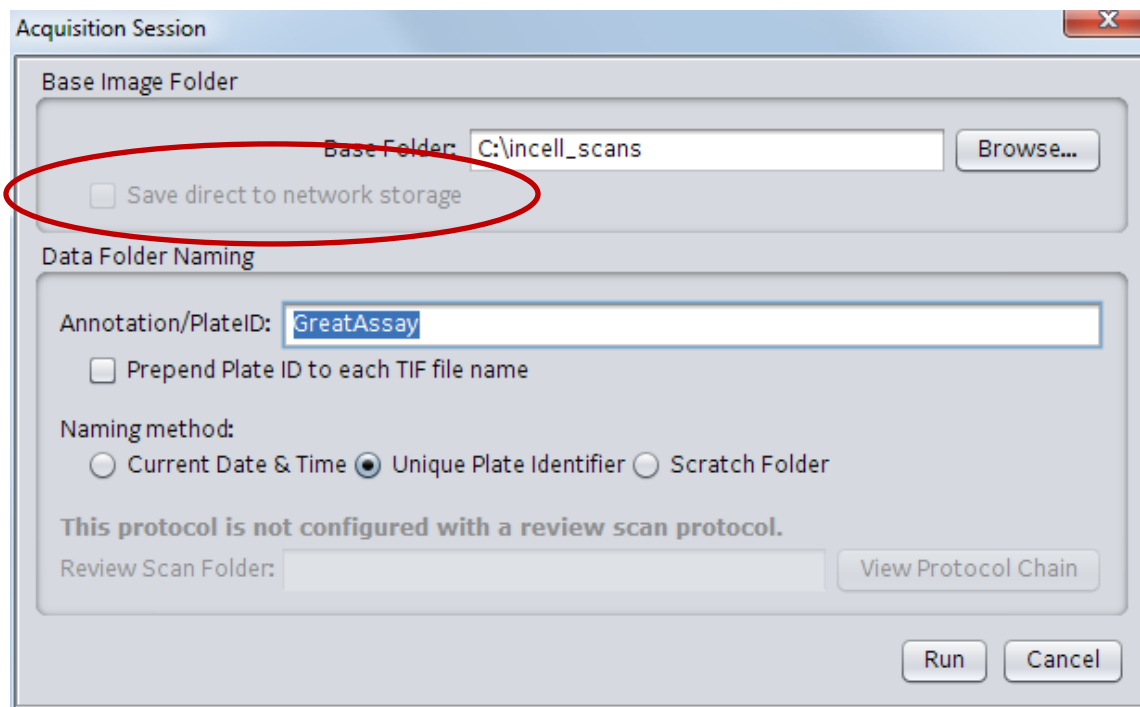
Menu Selection for Opening The Scan Log



Time Series Scan Log - Sample Report

Direct Save to Network Drive (1958)

The toggle button shown below is active when the base folder is located on the network. When enabled, scan data will be saved directly to network storage without buffering to local storage. Saving directly to network storage is sometimes faster than saving first to local storage. Saving to local storage has the advantage that the INCell can finish the scan even if the network environment is unstable.



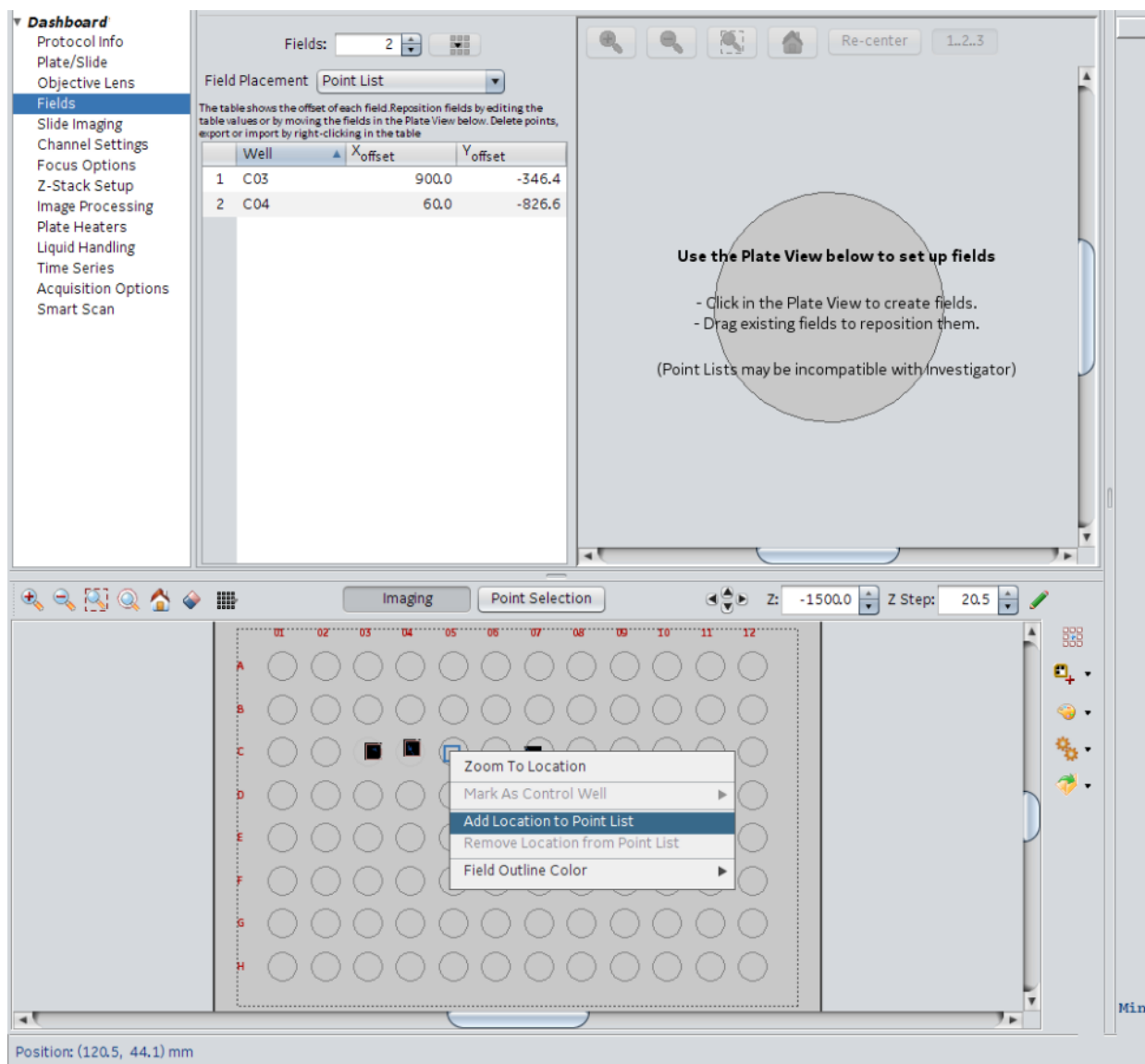
New Toggle - "Save direct to network storage"

The default state of the toggle button is controlled by the setting below. The configuration option was originally available in only the GUI configuration file. Providing the option in the GUI allows the setting to be easily changed, as well as providing a way to see the current setting.

```
<save_to_network max_queue_size="0" display_behavior="default">true</save_to_network>
```

Improved Method of Adding Points (2161)

The *PlateView*'s right mouse menu now includes an option for adding the current XY location to the list of points. The option is only enabled for acquisition protocols that are configured to scan point lists. See example below. The original method of adding points (with the "Point Selection" button shown below) is still available, but is now disabled by default.



Remote Control Improvements

Improved Handling of Invalid Network Storage Locations (2086)

In the case where the remote control program specifies an invalid storage location, INCell will now present an obvious, visible error message. Previous versions of software only reported the invalid path to the log file. Similar to the situation before V7.0, however, INCell will stop scanning if an invalid path is requested by the remote control program. The relevant control command is shown below.

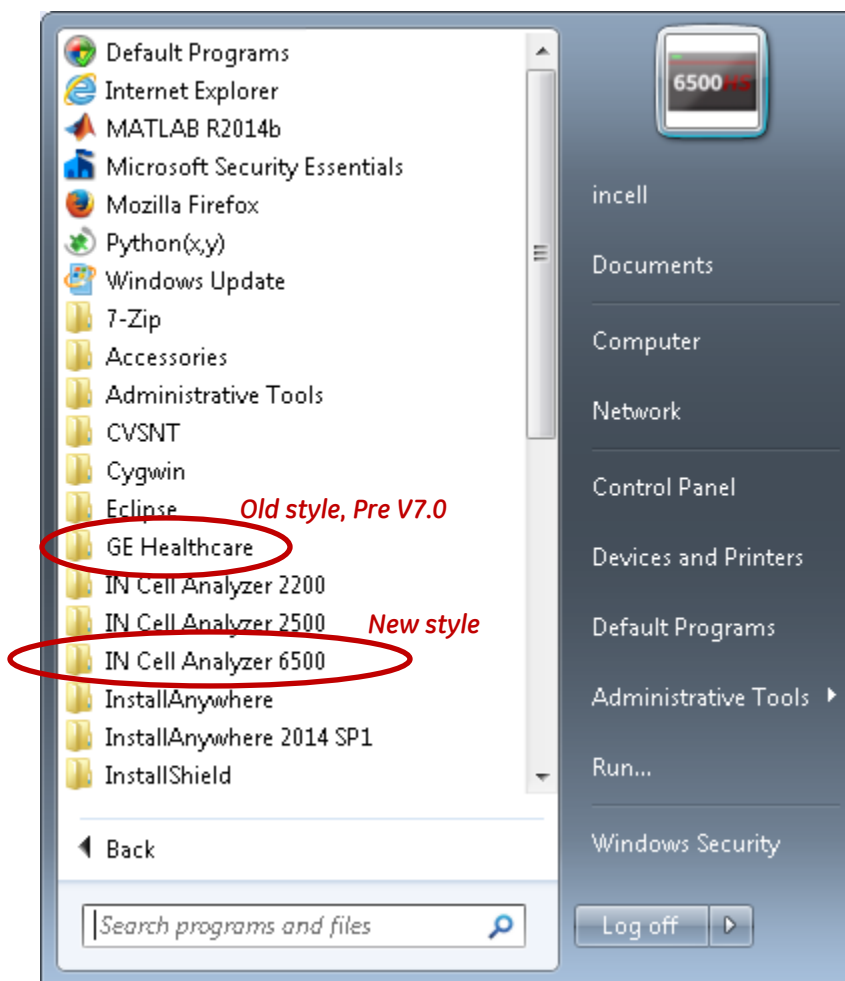
```
<m:ImageStack>
  <m:BaseFolder> NETWORK_STORAGE_LOCATION (VALID?) </m:BaseFolder>
  <m:FolderNaming> DATETIME|UNIQUE|SCRATCH </m:FolderNaming>
  <m:Annotation> text string (e.g. barcode) </m:Annotation>
</m:ImageStack>
```

For additional information about remote operation of the INCell, refer to the remote control protocol document "INCell_Remote_Control_Interface.pdf".

Microsoft Windows 10 and Windows 7

The V7.0 installation packages for the 2200, 6000, 2500, and 6500 will work with either Windows 7 or Windows 10.

Note that the location of the INCell software within the Windows StartMenu has been changed. The installer will no longer add the menu layer called "GE Healthcare", because Windows 10 does not support sub-folders within the StartMenu. INCell programs can now be found at a higher level within the menu. See examples below.



Windows StartMenu - Difference Between Old and New Style

As of April 2017, GE will begin shipping instruments with workstations running Windows 10.

Based on GE's internal tests, the performance of Windows 10 appears to be equal to or better than the performance of Windows 7. GE encourages sites to report INCell software problems related to Windows 10. For additional comments, see the release notes from V6.1 and V6.2.

Significant Fixes and Changes

Initial Z Value Not Always Set When Loading Acquisition Protocols (2064)

The "Initial Z" stored in the acquisition protocol was not always set when a new protocol was loaded from disk storage. Acquisition protocols that relied on software autofocus were most affected by this bug, because the initial Z value is used as the starting point for software autofocus (at the first well of the plate scan). Acquisition protocols that use laser autofocus were not affected by this bug.

Software Installation Prevented While Simulator is Running (1869)

Similar to the improvements made in previous versions of software, installation will be prevented while the Simulator is running. All INCell software must be stopped before the installer will continue. Preventing installation will avoid known issues with Java VM file corruption.

In the event that Java files become corrupted, neither the INCell software nor the installer will launch. In addition, the Uninstaller will not work. The issue can be resolved by manually deleting the following folders and then reinstalling the software:

- C:\Program Files\GE Healthcare\IN Cell Analyzer XX00\UNINSTALL
- C:\Program Files\GE Healthcare\IN Cell Analyzer XX00\Temp

XDCE File Saving when using 3D and Advanced 2D Deconvolution (2032)

The XDCE file was not always saved to the destination folder when using 3D and Advanced 2D deconvolution. The problem was intermittent and only occurred under certain combinations of conditions. One of the conditions involved starting a second run (with deconvolution) before deconvolution jobs from a previous run were complete.

Known Issues and Usage Notes

Information about previously reported topics can be found in previous versions of the release notes, located in "C:\Program Files\GE Healthcare\IN Cell Analyzer XX00>manual".

List of Changes Between 6.2-15289 and 7.0-15838

Items listed in this table have been fixed in version 7.0, unless otherwise discussed in the comments.

ID	Brief Description	Comments
1515	"Edge" confocal introduced for the 6500.	A new form of line scanning confocal has been added to the product line. The feature is available on the 6500.
1873	Upgraded the Java VM from 1.8.0_51 to 1.8.0_92	A routine upgrade to the Java Virtual Machine.
1922	USB interface for the Motion Controller (2500 and 6500)	USB is faster than the RS232.
1958	Allow operators to change the "save to network" setting from the start scan dialog	The configuration option was originally available in only the GUI configuration file. Providing the option in the GUI allows the setting to be easily changed, as well as providing a way to view the current setting.
1974	<i>ReviewScan</i> analysis for finding circular/spherical objects and generating point lists	The SpheroidFinder will locate objects and is capable of directing subsequent scans.
1981	Add support for new instrument types: 2500 and 6500	The same software can now be used on four different kinds of INCell instruments: the 2200, 2500, 6000, and 6500.
1989	Installing software while the Simulator is running may cause Java file corruption	Installation will now be prevented if the Simulator is running. Stop the Simulator to proceed with installation. For a related item, see #2099.
1998	<i>ReviewScan</i> XAQP files contain absolute paths and cannot be relocated (V6.2 V&V)	The issue has been addressed in two ways: 1. relative paths are now supported. Absolute paths are still the default, however, the operator may revise the path shown in the GUI. 2. INCell will attempt to locate review scan protocol files if the absolute path doesn't work. The paths around the original protocol will be searched.
1999	Controller installation warnings confuse people who only want to use the Simulator	Information has been added to the warning message.
2000	Windows 10 StartMenu problem with multiple installations	Window 10 does not appear to support multi-level start menu selections. As a consequence, multiple versions of the INCell software could end up side-by-side in the start menu. The issue only affects computers with multiple versions of the INCell software (e.g. 2200 and 6000). The issue was resolved by removing the "GE Healthcare" level of the start menu. INCell programs can now be found at a higher level of the start menu.
2002	Optimize multi-channel exposure time changes (2500)	Changing the exposure time is time consuming due to camera reconfiguration. Some of the reconfiguration procedure is avoidable under certain conditions. The optimization applies only to the 2500 (not 2200, 6000, or the 6500).
2003	Confusion while finding a <i>ReviewScan</i> Protocol	The initial path and file extension used by the dialog box were left-over from a previous area of the GUI. Finding the desired <i>ReviewScan</i> protocol was sometimes difficult. The file path and extension are now reset appropriately.
2007	Rework the main toolbar - replace confusing icons	The main tool bar icons have been replaced with large named, buttons that change color according to the current mode of operation.
2009	Record SISO CamLink board information in the ICS log file.	The CamLink serial number and model number are now recorded in the ICS log file.
2011	"Next" button should be disabled during ICS installation	The "Next" button should not be active during ICS installation. The problem was mostly benign.
2012	Upgrade the InstallAnywhere tool from v2013 to v2017	InstallAnywhere 2017 provides better support for Windows10.
2018	Confocal aperture not adjustable on the <i>FocusOptions</i> page	The confocal aperture settings were sometimes inactive

		on the <i>FocusOptions</i> page. The problem was not very serious, since the same settings were accessible from the <i>DashBoard</i> .
2030	Cell counting max allowed area needs to be larger for low magnification lenses	The maximum allowed area has been increased to match the objective lens' field-of-view.
2031	Upgrade to the latest SISO SDK and CamLink driver (2500 and 6500)	The 2500 and 6500 will use: SDK: v5.4.4, 64-bit, Driver: 4.1.8 The 2200 and 6000 will continue to use: SDK: v5.1.2-1, 32-bit, Driver: 3.9.12_4.0.1
2032	XDCE file not always saved when using 3D and Advanced 2D Deconvolution	The XDCE file was not always saved to the destination folder when using 3D and Advanced 2D deconvolution. The problem was intermittent and difficult to recreate. More than one condition was needed. One of the necessary conditions involved starting a second run (with deconvolution) before the deconvolution jobs from previous runs were complete.
2033	New TIFF file naming convention that doesn't use special characters.	An optional method of generating TIFF file names without spaces or other special characters has been added. Names without spaces are easier to parse and are generally more reliable. Environments that involve many different pieces of software and long-term storage of data files will benefit from the increased reliability of simpler file names.
2035	Add a method of specifying positive and negative control wells.	To define control wells, use the right mouse button over the <i>PlateView</i> in <i>Setup</i> mode.
2037	Change the default exposure time increment from 0.1 to 0.01 seconds	Finer increments are useful with highly sensitive cameras. Facilitates setting exposure times less than 0.1 seconds.
2044	Provide information when a time-lapse schedule is not met.	The TimeSeriesScanLog contains information about the exact timing of the scan. Time-points that are acquired after the requested time are identified.
2047	Add license protection for the IC2000 GUI	The 2000 is not officially supported by V7.0. A license is needed to protect against accidental use.
2048	Improve the warning dialog that is presented when the plate is not detected and the "Run" button is pressed.	The warning message is now more informative.
2050	Change "Wavelength" to "Channel" in GUI (continuation of #1879)	"Channel" is the proper term (except when referring to the wavelength of light).
2051	Acquisition protocol file's list of "offset_point" values should be sorted by index	The change improves the readability of the XAQP file. There is no bug associated with this change.
2056	Modified UDEV rules file doesn't work for the 2000	The UDEV rules file was out-of-date and would not have worked on the 2000.
2057	"Frame Avg:" link in <i>DashBoard</i> does not update. The number of frames is always reported to be "1".	The issue was only with the <i>DashBoard</i> part of the UI. The "Channel Settings" page worked properly, and frame averaging operated correctly during acquisition.
2060	<i>CaptureLog</i> tool should always get the current acquisition protocol.	The <i>CaptureLog</i> tool was unable to find the acquisition protocol if the corresponding file did not exist on the disk drive. This could happen if the <i>CaptureLog</i> tool was launched shortly after the INCell GUI was started. In this situation, the package of log files did not contain information about the acquisition settings.
2064	Initial Z set incorrectly when changing protocols	The bug affected acquisition protocols that rely solely on software autofocus. The value stored in the acquisition protocol was not always used.
2067	Optimize Z scan range used for "short" LAF scans on thick bottom plates (2500/6500)	An improved algorithm is now being used for determining the LAF scan range on the 2500 and 6500. The algorithm used for the 2200 and 6000 has not been changed.
2070	Add a backup copy of the template, site specific GUI configuration file	A template for the site-specific GUI configuration file (not the factory default configuration file) is now

		installed to the config folder. The file can be used to overwrite a pre-existing configuration file, and thereby reset the instrument to factory configuration.
2072	Change default state of "Use Channel Offsets" toggle button in Laser Autofocus control window.	Channel offsets after LAF are usually desired. The default state should be enabled.
2075	GUI crashes due to extremely large number of requested fields.	The number of fields to acquire is now limited to a reasonable value. Extremely large (and impossible) values are not allowed.
2076	Deleting Channels in the <i>DashBoard</i> sometimes causes a failure.	Under rare conditions, deleting channels from the <i>DashBoard</i> caused the software to fail.
2080	Input Validation for Time Series	The software now prevents the use of unrealistically large time series experiments.
2083	Add support for launching the new environment controller program	The 2500 and 6500 will use a new environmental controller. The 2200 and 6000 will continue to use the original EC control program.
2084	Improve LH pump homing and communication reliability (MForce controller configuration)	The homing procedure and control methods used with the liquid handling pump are now more reliable.
2085	Scale Bar length needs to be limited to a reasonable size	Extremely long scale bars are no longer allowed.
2086	Remote Control mode stops in State 3 if the mapped drive (as requested by the remote control program) has invalid permissions.	INCell will now report a visible error if the remote control program requests an invalid location for storing data.
2088	Change GUI font to the "GE Inspira Sans" (with anti-aliasing)	The new font is a big improvement over the old font.
2091	Archive the ICS INI file on the workstation during normal operation	The instrument controller configuration file ("ic601.ini") is now automatically saved on the workstation during initialization of the INCell GUI.
2092	Replace main program icons for the INCell scanners	The main program icons have been updated.
2095	Unexpected "0" at the beginning of TIFF file names	
2097	Change name of the "Review Scan Analysis" toggle button to "Smart Scan"	The original name of the toggle button was often confused with the term "Review Scan".
2098	Confusion involving the backlog of 3D deconvolution jobs from multiple scans.	<p>A popup status message will now be displayed in two scenarios:</p> <ol style="list-style-type: none"> 1. a run is started while deconvolution jobs are still on the queue from a previous run. 2. the GUI is changed to <i>DataReview</i> mode when either deconvolution jobs or save to network jobs are still on the queue from a previous run. <p>The status message will indicate that jobs are still on the processing queue, and that not all results will be visible in <i>DataReview</i> mode.</p>
2099	Automatically remove the "Uninstall" folder before starting installations.	Corrupted Java files within the "Uninstall" folder can prevent the INCell software from launching. The problem affects the main program as well as the installation program and the uninstallation program. Manually removing the files before installation is sometimes necessary for restoring operation. Automatically removing the files may help avoid the need for manual intervention. For a related item, see #1989.
2103	Prevent multiple copies of the Simulator from running simultaneously.	Only one copy of the Simulator is needed. Running multiple copies can cause confusion.
2104	Aperture calibration dialog (6000/6500) uses only magnification to distinguish objective lenses.	The calibration dialog does not work well with instruments that have more than one type of objective lens with the same magnification (for example, the 20X/0.45 and the 20X/0.75).
2105	Add ability to recalibrate the LAF laser power after ICS initialization.	The LAF laser is calibrated during initialization only. If a safety interlock is somehow disconnected during startup, the calibration will fail and the laser will be

		<p>disabled.</p> <p>To help recover from this situation, a "Recalibrate" button has been added to the LAF Trace Tool. In the case where the safety interlock is still disconnected, the recalibration procedure will report a useful warning message.</p>
2108	3D deconvolution installation problem (V6.2, Standard package, 2200 only)	<p>The 3D deconvolution program was being installed with the name "decon3d" rather than "decon3d.exe". The INCell GUI could not launch deconvolution jobs because the program was not found. Only the standard, V6.2 package for the 2200 was affected. The other installation packages (e.g. 2200, Desktop) were OK.</p> <p>Workaround for previous versions of software: Append ".exe" to "decon3d" located in "C:\ProgramFiles\GE Healthcare\IN Cell Analyzer 2200\bin".</p>
2109	Plate/Slide Manager malfunctions after LAF warning messages.	The LAF warning about working-distance and bottom thickness led to a condition where the Plate/Slide manager would no longer function properly. New plates/slides would not appear in the list and parameter modifications would not be accepted.
2110	Preview area rectangle does not go away when "Clear" is pressed.	The gold colored rectangle does not disappear until the screen is refreshed by a different activity (e.g. <i>PlateView</i> zoom).
2112	Center object procedure responds twice to double-click in preview image.	Only the first click should be honored. After that, the mouse cursor will no longer be in the desired location. Subsequent clicks will center the XY stage on an unintended position.
2113	Aperture calibration date is presented in GMT rather than local time.	The aperture calibration date is recorded within the instrument in GMT. When presented to the operator, the time should be converted to the local time zone.
2115	Simplify the method of restoring channels to a known combination of colors - Channel Settings page.	The list of known channels has been moved to a more accessible location. The list is now presented when the right mouse button is pressed over the table of channels.
2118	Rename the protocol editor page called "Specimen Options" to "Slide Imaging"	"Slide Imaging" is a more appropriate title.
2119	Rename the protocol editor page called "Review Scan" to "Smart Scan"	"Smart Scan" is a more interesting title.
2125	Remove the "Uninstall" selection from the Windows StartMenu	The Uninstall program does not require prominent display in the StartMenu. Normal access via the standard Windows tool is sufficient. The program is also available from the INCell program folder.
2134	Aperture calibration dialog doesn't handle "No" (don't save) answer	Pressing "No" after the calibration procedure caused an invalid combination of imaging conditions and GUI state. The software will now return to "Step 1" and restore the proper imaging conditions.
2135	Aperture calibration procedure always uses the center of the well	The calibration procedure will now move to a grid location that is calculated from the month and day of the month. For example, grid location (1,1) will be used on January 1st.
2139	<i>FocusFinder</i> needs to be disabled during the aperture calibration's AF procedure.	The <i>FocusFinder</i> can work against the autofocus procedure. In some cases, the GUI program could crash.
2140	Autofocus during aperture calibration is inconsistent.	The Z range used during software autofocus was smaller than the bottom height variability of the calibration plates. The range has been increased.
2145	<i>DataReview</i> image misalignment - one channel is 3D deconvolution, the other is 3D	3D deconvolution images are cropped to remove the border roll-off that is used for image processing. The

		resulting images are smaller than the original images. Special care is required to align cropped and uncropped channels.
2147	Add ability to calibrate the 6000/6500 aperture at the current location (rather than a target well)	Calibrating at the current location is useful when working with custom calibration plates.
2148	<i>FocusFinder</i> sometimes changes the image zoom level and XY shift	<i>FocusFinder</i> will now do a better job of retaining the user's zoom level and XY shift.
2153	Lens 12413 needed in the <lens_id_maps> section of the GUI configuration file.	Objective lens 12413 (40X/0.75) has been added to the default configuration file.
2157	The Simulator should support lens 12207.	Objective lens 12207 (20X/0.75, Plan Apo) has been added to the list of lenses supported by the Simulator.
2158	<i>DataReview</i> image display problems with 6+ channel images.	The "blended color" method can only display five channels at a time. Most parts of the GUI will only allow the user to enable five channels for display. Under certain circumstances, however, it was possible to enable 6+ channels. A variety of display problems (like blank images) occurred when 6+ channels were enabled. A warning message is now presented if the user attempts to enable more than five channels.
2161	New method of adding points to the list.	The <i>PlateView</i> 's right mouse button menu now contains a selection called "Add Current Location to Point List". The feature is only active when working with a PointList protocol and the Field Setup mode is active. When selected, the current XY stage position will be added to the point list of the acquisition protocol.
2166	Small improvements to point list setup.	The default state of the original point list setup mode is now off, because of the new method described in #2161. Also, point list coordinates are now displayed with one digit of precision rather than three.
2180	System initialization fails if the X or Y stage is against a hard stop.	<p>The instrument failed to initialize when the X or Y stage was at the far end of travel (against a hard stop). Encoder errors during early initialization caused an unrecoverable situation within the motion control firmware.</p> <p>Recovering from the situation required:</p> <ol style="list-style-type: none"> 1. manual repositioning X/Y away from the obstacle 2. power cycling the instrument. <p>The problem has been fixed in V7.0. The instrument can now be initialized if the X or Y stage is at the far end of travel.</p>
2181	icstop/icstart do not always allow enough time for the XY stage to return to standby	The stop procedure waited only 3 seconds for the instrument control program to close before forcing the exit. In the case where the XY stage was far from standby, the program stopped before the stage could finish moving to its destination. Prematurely exiting the program may have caused other problems as well.
2186	TIFF save issues during interactive imaging (<i>DashBoard</i>)	<p>Errors were not being properly reported when saving TIFF images from the <i>DashBoard</i>. Also, the GUI presented contradictory messages about whether the file was actually created.</p> <p>Two changes were made to V7.0:</p> <ol style="list-style-type: none"> 1. the messages are now consistent 2. error messages should contain information about why the file was not saved.
2192	Add new aperture calibration plate types ("Aperture Calibration HS Black" and "Aperture Calibration HS Yellow").	"Aperture Calibration HS" (Black and Yellow) are the latest types of plate for calibrating the 6000/6500 confocal aperture. The new plates replace the previous

		models: "Aperture Calibration 6000 29144664" and "Aperture Calibration 6000 29003369"
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