

# inciseCAD release notes

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## Version 2.5.2.1

A bug in the measurement of implant pin positions has now been fixed. The previous version introduced an error which meant that measured implant pins could be out of position by up to 0.4 mm.

## Version 2.5.1

The following implant systems have been added for abutments:

OEM	Implant system	Size
<b>MIS®</b>	Internal Hex	NP
		SP
		WP
	Conical Connection	SP
		WP
<b>Osteo-Ti</b>	Ezee Combi	–
<b>BioHorizons</b>	External	3.5
		4.0
		5.0
		6.0
	Tapered Internal	3.5
		4.5
5.7		
<b>TBR</b>	Morse Taper M	3.2
		3.9
		4.7
	Internal Octagon	3.5
		4.0
		5.0
<b>AstraTech</b>	OsseoSpeed™	TX 3.0
		TX 3.5/4.0
		TX 4.5/5.0

The following implant systems have been renamed:

OEM	New name	Old name
<b>Biomet 3i</b>	Certain® 3.4	Certain® 3.4 implant
	Certain® 4.1	Certain® 4.1 implant
	Certain® 5.0	Certain® 5.0 implant
	Certain® 6.0	Certain® 6.0 implant
	External Hex 3.4	External Hex 3.4 implant
	External Hex 4.1	External Hex 4.1 implant
	External Hex 5.0	External Hex 5.0 implant
	External Hex 6.0	External Hex 6.0 implant
<b>Straumann®</b>	Bone Level NC	Bone Level 3.3 NC Implant
	Bone Level RC	Bone Level 4.1 RC Implant
		Bone Level 4.8 RC Implant
	Tissue Level RN + SynOcta® abutment	SynOcta 4.8 RN Abutment
Tissue Level WN + SynOcta® abutment	SynOcta 6.5 WN Abutment	

<b>Nobel Biocare®</b>	NobelReplace™ NP	Replace® Select 3.5 NP Implant
	NobelReplace™ RP	Replace® Select 4.3 RP Implant
	NobelReplace™ WP	Replace® Select 5.0 WP Implant
	NobelReplace™ 6.0	Replace® Select 6.0 WP Implant
	NobelActive™ NP	NobelActive™ Internal 3.5 NP Implant
	NobelActive™ RP	NobelActive™ Internal 4.3 RP Implant
		NobelActive™ Internal 5.0 RP Implant
	Brånemark System® NP	Brånemark System® Mk III 3.3 NP Implant
	Brånemark System® RP	Brånemark System® Mk III 4.3 RP Implant
Brånemark System® WP	Brånemark System® Mk III 5.0 WP Implant	

The full list of available Abutments and Implant Bridges is now:

OEM	Implant system	Abutment	Implant Bridge
<b>Biomet 3i</b>	Certain®	✓	✓
	External Hex	✓	✓
	Low Profile Abutment	✗	✓
<b>Straumann®</b>	Bone Level	✓	✓
	Tissue Level + SynOcta® abutment	✓	✓
<b>Nobel Biocare®</b>	NobelReplace™	✓	✓
	NobelActive™	✓	✓
	Brånemark System®	✓	✓
	Multi-unit Abutment	✗	✓
<b>MIS®</b>	Internal Hex	✓	✗
	Conical Connection	✓	✗
<b>Osteo-Ti</b>	Ezee Combi	✓	✗
<b>BioHorizons</b>	External	✓	✗
	Tapered Internal	✓	✗
<b>TBR</b>	Morse Taper M	✓	✗
	Internal Octagon	✓	✗
<b>AstraTech</b>	OsseoSpeed™ TX	✓	✗
	20° UniAbutment	✗	✓
	45° UniAbutment	✗	✓

## Other changes

- It is now possible to select the LaserPFM™ material for implant bridges. These bridges will be manufactured by Renishaw using a combination of 3D printing and milling technologies. Titanium materials will continue to be sent to Biomet 3i for manufacture.
- It is now possible to select pre-shaded material for the Renishaw Realistic™ translucent zirconia material. Four shades, in addition to bleach, can be selected. Contact Renishaw for details of the available shades.
- CAD data can now be imported for submission to Central Manufacture in any material type. This was previously restricted to LaserPFM only.
- All bridge pontic/coping combinations can now be submitted to manufacture. See the laboratory guidelines for details of the warranty of bridge frameworks. Note that the 8-unit limit on ZR100 and Realistic frameworks is still retained.
- To allow for the measurement of all implant locators, a new improved measurement routine has been implemented.

## Bug fixes

- The SQL Installer now works under Windows 8.
- The minimum screen resolution (1024 × 748 pixels) is now supported in the CAD module.

## Version 2.4.2.0

### Changes

- It is now possible to produce LaserAbutments™ (custom abutments) by copying a waxed up abutment. Contact Renishaw for further details.

## Version 2.4.1.0

### Changes

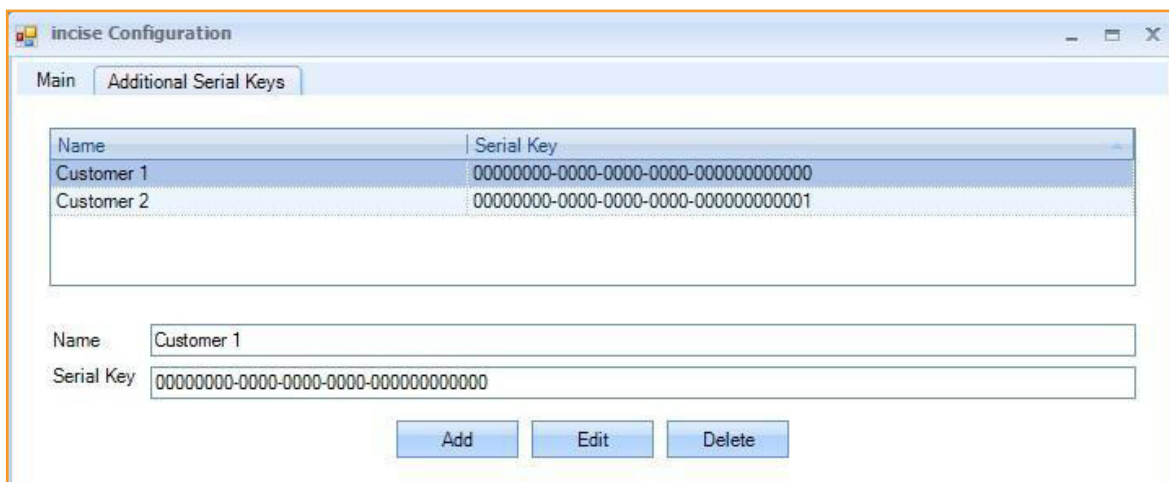
- The identification of undercut areas on scanned frameworks has been corrected to display all the undercut regions.
- The submission of CoCr frameworks on non-English Windows XP systems now works correctly.
- If you change material on an already designed framework, the framework is no longer deleted if the required ballooning is reduced. This means that frameworks designed for PMMA do not need to be redesigned if the material is changed to CoCr or Zirconia.
- If a prescription is imported from either an ExoCAD or 3Shape system and then submitted locally to incise CAM on a different PC, the frameworks no longer fail during cutting path generation.

## Version 2.4.0.174

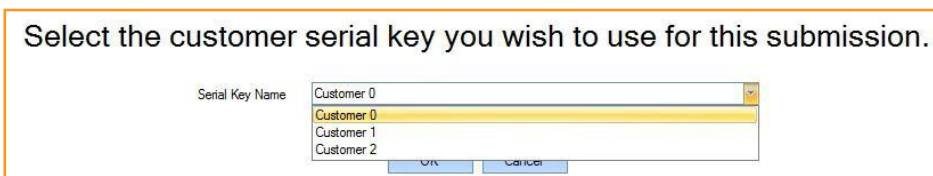
### New features

- The product has been renamed back to incise CAD (from 3i incise CAD).
- Wax and Temporary PMMA frameworks are now supported for central manufacture. Four shades of PMMA material can be specified.
- The system now supports multiple delivery addresses. An account must be set up for each delivery address, each of which will have its own serial key. These serial keys can then be assigned to customers using the new “Additional Serial Numbers” tab on the incise Configuration dialogue.

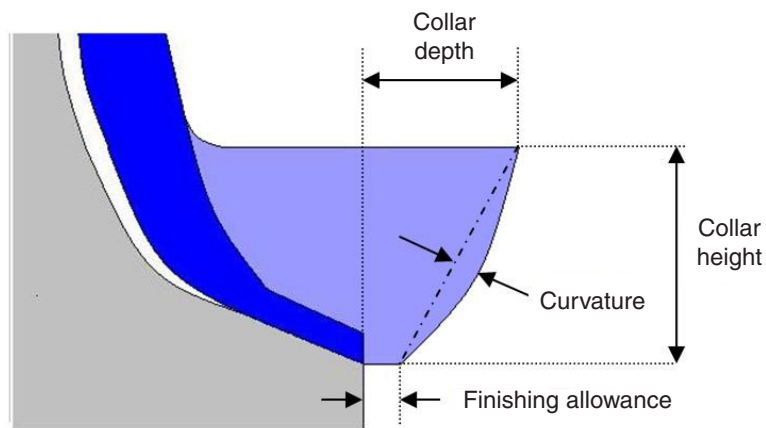
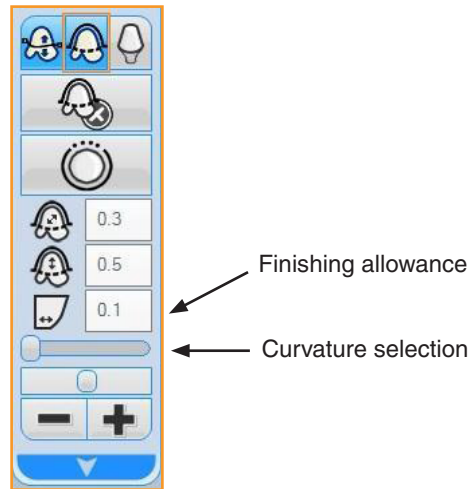
Zirconia 0 (Bleach)
Zirconia 1 (A1, B1, B2, C1)
Zirconia 2 (A2, A3, C2, D2)
Zirconia 3 (A3.5, A4, B3, B4, C3, D3, D4)
Zirconia 4 (C4)
Zirconia 5
Temporary (PMMA) 1 (B1, A1)
Temporary (PMMA) 2 (B2, D2, A2, C1)
Temporary (PMMA) 3 (C2, D4, A3, D3)
Temporary (PMMA) 4 (B3, A3.5, B4)
Cobalt Chrome
Wax



If multiple serial numbers are specified, an additional dialogue will be displayed during the submission process where the delivery customer can be selected.



- Improvements to collar design. Two new parameters have been added to the collar dialogue to allow a finishing allowance and collar curvature to be defined.



- Gutter filling. A new option has been added to the margin line menu.



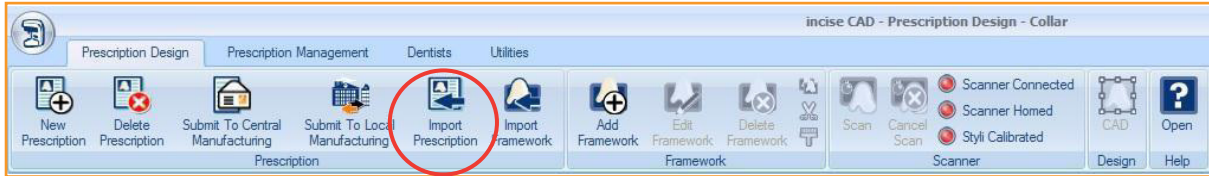
If this is set to "On", guttered areas close to the margin line will be automatically thickened to make them easier to machine.

- A restart option has now been added which allows the user to restart the design process.





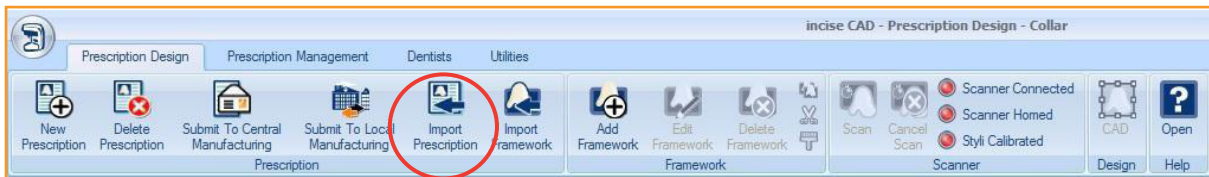
- It is now possible to import 3Shape data directly into incise.
  1. Select “Export CAM output” (F7) in 3Shape to write out the framework details.
  2. Select “Import Prescription” from the incise “Prescription” tool bar.



3. Select Files of type “XML” and browse to the xml file written by 3Shape.
4. Submit the prescription in the normal way.

This allows multiple delivery addresses to be used for 3Shape customers. It is also a back-up method to the normal 3Shape submission process.

- It is now possible to import ExoCAD data directly into inciseCAD.
  1. Select “Import Prescription” from the incise “Prescription” tool bar.



2. Select Files of type “Exocad files” and browse to the constructionInfo file written by Exocad.
3. Submit the prescription in the normal way.

## New features available for evaluation on request

- Abutment design (controlled by config file).
- Wax up abutments, using stylus B or A+C (controlled by config file). *The abutment design and manufacture is currently being evaluated.*

## Other changes

- It is now possible to define CoCr, Wax and PMMA bridges with up to 16 units.
- The “Show/Hide preparation” display button now toggles between “off”, “on” and “show undercuts”, allowing the undercut display to be turned off.
- You can now perform a detailed scan of the wax surface for Waxup Copings. There is an option to use “stylus A and stylus B” or just “stylus B”, in a similar way to scanning Waxup Bridges.
- A reference tooth scan is now defined by four boundary points and a low point. Also, the reference tooth is now scanned in two directions, giving a better definition surface.
- A ridge scan is now defined by four boundary points. This makes it easier to scan unsegmented ridges.
- Material must be entered for every framework. This used to default to Zirconia 0 which meant the user could easily select this material by accident.
- If one of the predefined views is selected (top, bottom etc.), there is now a smooth change from the current view.
- Restrictions on generating frameworks from overlapping copings have been relaxed. It is now only an error if the cavities overlap. Also, if there is a problem during framework generation, the incorrect coping will be highlighted.
- It is now possible to apply edge radiussing to copings which have a collar defined.
- The use of the Shift key during Pontic and Anatomical modification has changed. The default will now only modify one side of the form. The Shift key needs to be pressed to modify both sides of the form.
- The “Styli Calibrated” indicator now shows calibrated (green) if any stylus is successfully calibrated. Previously, if a stylus was skipped during calibration, the “Styli Calibrated” indicator showed uncalibrated (red). You will get an error message if you attempt a scanning operation that requires an uncalibrated stylus.
- At the end of the calibration process, if at least one stylus is calibrated, the user will be automatically taken to the “Prescription Design” tab. If none of the styli has been calibrated, because the process has been cancelled or all styli skipped, then the user will remain on the calibration screen. This removes the confusion whereby users were not sure if the calibration process had completed.
- Scan data is now transmitted with each framework. This means that it will not be necessary to ask the customer to submit Support Data when we need to repair a framework.
- The percentage so far completed by the Submission progress is now indicated by a progress bar.
- Implant pin measurement now uses the 1 mm stylus (stylus A). This is to make it consistent with abutment pin scanning. Also, the scanning of implant master positions has changed to allow for scanning both implant bridge pins and abutment pins.

- Implant positions are now shown using a directional symbol instead of a cylinder, again to make it consistent with abutment pin scanning.



- If a small error is encountered during implant bridge alignment, the user is now given the option to accept the alignment. For alignment errors above the current maximum (0.25 mm) but below 1.0 mm, a warning is displayed. The user can then see the relative positions of the framework/pads and decide whether to continue or not.
- If an implant bridge, which is ready for submission, has one of its implant locators rescanned, then the aligned bridge surface is no longer displayed. Instead, the unaligned bridge surface is displayed.
- Support mode has been removed. Framework Export/Import is now selectable at all times. Also, errors are only reported to the error txt file. As they are no longer reported to the database, there is no requirement to display them in support mode.
- Framework import now uses the standard file browser. This means that the import file (frameworkImportFile.xml) must be explicitly selected. Previously, you only browsed to the folder containing the file.
- STL output can now be controlled by framework type. The output of Crown/Bridge, Abutment and Implant Bridge stl data can be individually controlled by different dongle options.
- Cobalt Chrome framework files are now reduced in size prior to submission to reduce submission time.
- CAD output now uses a standard browser window to define the location and name of the stl file. Previously the file was automatically named "exported\_framework.stl" in the framework folder.
- The Help button on the Dentist tab has been renamed "Open" to make it consistent with all other dialogues.
- You can now submit support jobs for prescriptions containing Wax frameworks.
- The icon to display the Help File on the Context menu (top left of screen) is now named "Help". It used to be called "Open".
- It is now possible to type in the entry for "Local Manufacturing Path" on the CAD configuration menu. Previously, you had to browse to the folder.
- Allow cancel when asking whether gimbal has moved.
- The error "scanner moving" is no longer seen if a rescan of a waxup coping occurs.
- Occasionally, a prescription was successfully submitted for manufacture but this was not indicated on the submission PC. This could result in the prescription being incorrectly submitted to manufacture a second time.
- The order in which framework parameters are displayed has changed  
*From* Framework Type > Material > Cement Space > Thickness  
*To* Framework Type > Material > Thickness > Cement Space

## Scanning error message improvement

If an error occurred during scanning or surfacing of scan data, the system used to simply display an “SEnn” error. This has now been replaced with more meaningful messages as follows:

<p>Cannot move to scan start position</p>	<p>The system failed to move to a position. Please ensure that the part is within the working volume of the scanner.</p>
<p>Scanning not completed</p>	<p>The system failed to scan the surface. Please ensure:</p> <ul style="list-style-type: none"> <li>• the part is stable within the holder;</li> <li>• the part is within the working volume;</li> <li>• the part is not moved during scanning.</li> </ul> <p>Do not touch the probe system when scanning is ongoing. If the problem persists, please recalibrate the system and attempt to rescan the part. If the problem continues to persist, please contact Renishaw support via the telephone number that has been provided to you.</p>
<p>Could not find the surface during scan set-up</p>	<p>The system failed to find to find the surface. Please pay careful attention to the instruction image provided when taking pick points. If the problem persists, please attempt to place the pick point a little closer to the target surface.</p>
<p>Error during measurement of implant bridge turnover fixture</p>	<p>The system failed to find the turnover fixture reference artefact. Please ensure that the implant bridge is held within a turnover fixture and the turnover fixture is on the correct mounting.</p>
<p>Error during surfacing (after scan has completed)</p>	<p>An error has occurred when attempting to surface your scan data. This may be because the scan was incomplete. Please ensure:</p> <ul style="list-style-type: none"> <li>• the part is well within the working volume of the machine before attempting to rescan;</li> <li>• if the part is already within the working volume of the machine, please rescan by taking slightly different pick points.</li> </ul> <p>If the problem persists, please submit support data for the prescription that contains the framework for which a scan is failing to surface and contact Renishaw support via the telephone number that has been provided to you.</p>
<p>Any error during calibration</p>	<p>The calibration has failed. The most common reasons for this are:</p> <ul style="list-style-type: none"> <li>• the wrong stylus was used;</li> <li>• the stylus was missing;</li> <li>• the calibration artefact was missing.</li> </ul>
<p>All other errors</p>	<p>An unexpected error has occurred during operation of the scanner. If scanning a part please ensure:</p> <ul style="list-style-type: none"> <li>• the correct stylus is loaded;</li> <li>• the part is within the working volume of the scanner.</li> </ul> <p>It may be necessary for you raise the height of the part by using a gimbal spacer that is provided with your scanning kit.</p>

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