Release notes

4.7.0

Date of release: February 6th, 2026
Minimum firmware versions:
Cutter G3/D3/S3: 1.79.0
Cutter Q-line: 1.13.0
CIS: 1.13.0
Image-DB (CIS without user manager): 1.8.3
BHS180: 4.7.5
Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Features	

Cut Center	New Recut feature:
	• The parts (single objects or groups) can be marked to be re-produced.
	• Marking parts can be done while producing via interactive selection in production or projection user interface.
	• A recut can be started at the end of a production directly or via the context menu Processing parts within the job list.
	• Within Processing parts:
	  ○ The number of parts can be modified.
	  ○ The parts are automatically re-nested (simple bounding box nesting) in the job origin.
	  ○ The production of the parts can be started.
	• The recut workflow supports unprinted material only.
	• This feature requires the software license option Cut Center Advanced.

	New option Use helical passes in combination with Multi pass, whereby the passes are done as helical paths. This improves the cutting quality especially for thicker materials.
	New sort order option Optimize cut order for unload implemented, where the objects with a lower x coordinate are cut preferred.
	Universal loading and unloading device: • Supported via an OPC UA interface communication (the devices has to be implemented as OPC server). • These devices can be used in combination with a robot or any other devices for loading and un-loading purposes. • The loading or un-loading is supported at a cutter extension or within the working area, including a Tandem workflow. • These devices need the corresponding software license options Loading option or Unloading option (formerly named Pick&Place interface).
	Robot (Modbus) device: • ZCC will now clear all robot communication when shut down to avoid pending pick-ups surprising operators. Customers relying on this behaviour should wait until the robot has completed its pick up before shutting down ZCC. • Improved calculation of the robot gripper positions while unloading. • Adds a new setting under the Robot chapter of the Zund Cut Center.ini file to control the interval used by ZCC between polling the robot over modbus. Use the «PollInterval» key under the Robot chapter. Value must be an integer number and is expression in milliseconds with a default of 10 milliseconds. • Users can now set the gripper type in the equipment settings for the robot. • By default, the gripper type is set to automatic. This means that the gripper type is decided as before depending on the layout of the suction cups. • If the gripper type is set to vacuum, it is assumed the full area of the gripper is a vacuum plate.
	Improved Border recognition when camera image contained multiple edges whereby the background color is learned while detecting the first edge.

Features	
Cut Center	Support M2M Status via OPC UA interface (Cut Center is an OPC server). The status structure contains: • Cutter with type, serial number, and beam position(s) • Production state, notifications, job/copy/page information • Shape meta data information This function needs the software license option «M2M Control» or «M2M Status».
	New option Use as fallback within option Second register device to always execute an ICC registration after the registration with the OCC (overcam camera).
	Now the action Message contains the option After x copies/pages and so the message is not shown after each copy or page.
	Bridges: • Bridge height can be configured for more tools. • Bridges are now visualized within the job view while producing. • Now smooth bridges are also supported on Q-Line. • Bridge height is no longer shown with jobs not containing bridges.
	It's now supported to produce the same job on multiple cutters at the same time, whereby only the first Cut Center can save changes into the job.
	During production, only one info notification message with the latest message is displayed at most.
	A warning is shown if some cutting paths may intersect because of the copy distance.
	Improved registration type Best fit for jobs with multiple feeds, especially for stretched material. The cutting connections between feeds match better.
	Visualizing option: In all color definitions of presentation profiles the color can be set to transparent by setting a value of alpha channel.
	Adjusted default-parameter for Q-Line Jerk-parameters.
	BHS180 in combination with Q-Line: New function in Cutter control panel to manually unload sheets to the stacker in case of the previous production was unexpected aborted.
	Automatic lift up distance available for tool inserts used in VUTO. This improves the reachable working area of the tool.
	Cutter notifications are now shown within the Cutter control panel.
	When edit tool inserts it is possible to enter a value outside of the range with keyboard. When pressing enter, the value is automatically put into range.
	Changed icons for import and export.
	Notification about old image database appears only when an image of a device is missing. But the notification is always visible in the System information of the about dialog.
	Jobs which contain a NAN-value in geometry can be exported and deleted from job list in Cut Center and Cut Jobs.
	Production info export: Support XML format only. The CSV format is not supported anymore, because it contained limited content only.

Features	
Cut Center / Cut Editor	Now each method contains the sort order options Allow move start point and Allow reverse direction. So, these options can now be set for each method separately.
	A custom defined method color is now kept while changing the method type.
Cut Editor	New function for verification purposes of PLT or NC files sent to a cutter. Now the z-position is visualized if the PLT or NC files contains 2.5D commands.
	Improved usability while using right mouse button. The shape is selected, and the context menu is opened with one click only.
	While applying a job template the material settings are taken over too, if the material isn't already defined yet.
	It's now checked if the CIS contains a newer installation EXE. This is helpful for editor only installations.
	Updated nesting library V11.0.9519.
	Autonester-T nesting (from Fraunhofer) is now longer supported.
Data import	The default import settings change for new installations: • Sort options: Allow reverse direction is active. • Optimize contours: default chain tolerance changed to 0.01, but chain stays disabled by default. • Auto bridging: Bridge width is 5mm, but auto bridging stays disabled by default.
Support Report	Optionally, a report is now automatically generated when a cutter error occurs.
	Default number of days reduced to 7.
	Contains now the last 10 used materials as xml files.

Installation	Improved installation procedure:
	• Installer has different pages for main and helper applications.
	• Design of installer adjusted.
	• When in the Setup, a directory already containing a ZCC is selected, there appears a new screen to select, what should be done:
	  ○ Update: Update the existing applications
	  ○ Modify: Show all the screens, modify applications or settings
	  ○ Adjust server settings: Allows, to change the installation to another CIS or Cut Server
	  ○ Install camera driver (only available for Cut Center): Installation of another camera driver
	• Installer creates a backup after initial setup of Cut Server.
	• The installer checks on update-installations if the last installation created startmenu-entries. If so, they are selected - otherwise not.
	• For new installations without fixedLocation, the button to create a start menu entry is disabled by default.
	• Database-Update has now a progress dialog.
	• Installation of Zund Systemanalyzer.
	• When installing Cut Server on a PC where CIS is installed as well, it configures the local CIS and skips the server configuration-page.
	• Discovery of installer detects also Cut Server installed on on CIS.
	• No argument for installer needed when installing Cut Server on new computer with a restored database.
	• Cutter factory is only installed when a newer one is available.
	• Installer shows more details when database-connection fails.

Cut Manager	When restore, it is now possible to restore only individual components.
	A cleanup can be now started manually and not periodically only.
	Automatic clean up settings can be set now on clients and not on server installations only.

Features	
Cut Server	New error-message when estimation failed because all the instances of the cutter factory are in use.
Cut Jobs	Improved UI for the cutter selection.
Simulator	Now are several new functions contained in Simulator for test purposes: • Q-Line • Leibinger • bhs150/180 • label printer • robot (modbus) • universal loading/un-loading device (OPC UA) • camera (to use file images instead images from a real camera) • The exe is renamed from G3Simulator to Simulator.
Zünd Connect	New proxy release: • fixed a bug which caused significant delays in Cutter Overview • Fixed potential risk of filling hard disk with not needed files. Consequence: once the proxy buffer gets filled, it's file size will never shrink again • improved retry-mechanism and error-handling for sending data to cloud • attempts to transmit status updates for Cutter Overview will be suspended for 8h in case of errors which cannot be solved by retry • will not show "Cloud: failed" notification as long there is a chance data can still be transmitted to cloud after automatic retry • updated to .NET 10
General	New software license library, Codemeter 8.40c (WIBU).

Bug fixes	
Cut Center	Feed copies to the front for barcode production on roll, also when preferred working area is at the back.
	Problem while calculating the feed lengths fixed. Avoid too many feeds on small cutters in combination with large, nested shapes.
	Improved/corrected connection accuracy for long banner jobs with Fit to job and Fit to objects.
	Problem with the tool suggestion, inadvertently sometimes was an unneeded tool change requested e.g., when using two Thru-cut methods with the same configuration.
	Skip copies with clipping errors automatically.
	Material parameters of custom tool insert are not removed when tool insert is edited.
	Pick&Place interface: • Inadvertently the robot did a pick for each shape also in case they are grouped. Now, if shapes are grouped the robot does only pick the top group shape. This results in one pick per group. • If a feed is broken up in two or more feeds by the robot, at the intermediate feed the robot will now only pick up the shapes necessary to complete the full feed, instead of all shapes that are available for pickup previously. Since the plotter is waiting for the robot during an intermediate feed, having to pick up less shapes means less time during which the plotter is idle and therefore will increase production. • For robot position parameters in x-direction there exists no limits anymore.
	Problem in the offset calculation if the distance between inner and outer shapes is about the router diameter.

Bug fixes	
Cut Center	Problem with the job estimation when job contains a method with «Init position on material» and the cutter does not contain an ITI nor AKI.
	Visualizing option: • Groups are now considered when using a label printer (zebra). • Automatically reconnect to a label printer when connection dropped because of a timeout.
	Problem in combination with BLE (Board loading extension) and UNDERCAM when producing a job without QR-code detection. The production inadvertently hanged when the mark or border recognition with the UNDERCAM failed, and the operator selected «Retry» with option Take new image. This problem existed since ZCC release 4.6.2.
	Problem with the material selection in prepare with certain jobs. Inadvertently the selected material gets reverted when selecting a material from a different group, switching to another tab or to general settings and switch back to the material tab. This problem exists since 4.6.0.
	Problem with parameter Minimized rotation within the material configurations. Inadvertently the parameter was not always available when using a symmetric tool insert.
	Avoid repeating production of current copies endlessly after changing the reference point on the panel (generation 3 cutters only).
	Problem with user texts in combination with Batch production rectified.
	Consider/detect all necessary marks when adding additional roll boxes during registration (when jobs is shorter than expected).
	UI is updated correctly when change between the same inserts with different tags
	A preparing job cannot be deleted or opened in another application.
	OCC/UNDERCAM: • Dummy calibrations are executed before the real calibration is done. Ensure that these dummy calibrations are discarded and never used when the real calibration is aborted. • Slightly improved QR code detection.
	Hide settings icon during calibration routines.
	Cut-off did not consider scaling/distortion of copies, so the cut-off position was wrong, and shapes could be damaged.
	Some problems with time estimation fixed and the calculation time of the estimation improved.
	In production material load screen, the arrows to move the beam were inadvertently cut off with standard screen resolution.
	BHS150: Show a notification when board longer than 700mm.
	Possible dual beam collisions in combination with knife compensation and a down position (z-position) above the material surface.
	Fixed crash with dual beam cutter when material barely fits the cutting area, and then the user switches to single beam mode.
	Problem with automatic tool initialization in combination with a installed MAM module, or other module types which cannot be initialized.
	Wrong tool suggestion with tool magazine fixed. It happened, that a tool was demanded in tool magazine, but it is already mounted on the beam.
	Library «ImageMagick» was removed from code. Custom mark detection with INI-setting «useOpenCvCustomMarkDetection=false» not supported anymore.
	Problem in job preview of some files where an arc is at the border of the geometries.

Bug fixes	
Cut Editor	Improved store and re-use of the last used folders.
	User rights are set correctly when use without database connection.
	Problem while creating creasing underlays, the creasing underlay was set in the wrong job.
	Inadvertently the metadata and groups were not kept when executing Eliminate overcut or Chain open contours.
	Inadvertently were the metadata not removed from the shape if all keys of this shape were deleted.
	Possible crash when deleting a method right after selecting it within the color square.
	When chaining and remove double lines is disabled don't consider the tolerance of remove double lines.
	Inadvertently Send to Cut Center was available in combination with Cut Center Basic and a CIS with user manager.
	Problem with disabled functions when using the editor without a user manager (CIS).
Data import	DXF files: • Import supports files which contain splines that are defined only by «fitpoints». • Fix import of some DXF-files which contain splines where some control points have few knots between them, and others have multiple.
	SVG format: No warnings in log-file while importing which contains entries where stroke is «none».
	ZCC format: The method-order is not modified when neither the option Use standard method order nor the zcc option Ignore machining step settings (methods, actions) is set in the import settings.
Cut Manager	Login on Cut Manager possible when Cut Center on the same PC has a Q-Line configured but DACOS is not available.
Cut Jobs	Notification 01255 «No reply from DACOS received» is shown in Cut Jobs only, when there is a Q-Line cutter configured.
General	Backup/Restore: • Administrator-Rights required to restore application-data on Cut Server as the restore restarts the Cut Server. • Added a button to reload the backup-settings from the «DbMaintenanceServer».

4.6.5

Date of release: December 18th, 2025
Minimum firmware versions:
- **Cutter G3/D3/S3: 1.79.0**
- **Cutter Q-line: 1.12.0**
- **CIS: 1.12.1**
- **Image-DB (CIS without user manager): 1.8.2**
- **BHS180: 4.7.5**

Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Bug fixes	
Data import	Fix error where optimization generates NaN-values (not a number value) with certain files containing very small geometries.
Cut Server	Cut Server does quit with code 42 and no longer start when try to estimate a job containing a NaN-Value.

4.6.4

Date of release: November 21th, 2025
Minimum firmware versions:
- **Cutter G3/D3/S3: 1.79.0**
- **Cutter Q-line: 1.12.0**
- **CIS: 1.12.1**
- **Image-DB (CIS without user manager): 1.8.2**
- **BHS180: 4.7.5**

Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Bug fixes	
Zünd Connect	Inadvertently were events from estimator process sent to Zünd Connect, under certain circumstances.
Cut Center	Pick&Place interface: Due to backward compatibility the sort profile parameter Separation by can be set to bin to use direct bin assignment (bin and binNumber are equal).

4.6.3

Date of release: November 14th, 2025
Minimum firmware versions:
Cutter G3/D3/S3: 1.79.0
Cutter Q-line: 1.12.0
CIS: 1.12.1
Image-DB (CIS without user manager): 1.8.2
BHS180: 4.7.5
Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Features	
Cut Center	Remember last used folder when adding jobs to the job list or exporting jobs from the job list.
	The Material load screen and the processing action Message can now be confirmed via a Custom button respectively via a digital input e.g., via a foot switch.
	OCC/UNDERCAM: • Slightly improved QR code detection with OCC/UNDERCAM for codes in dark situations. • The settings for the OCC are stored in the database, no longer in the ini-file.
	Support knife compensation for v-cut tools (VCT, VUTO) in Thru-cut methods.
Support Report	The event log of Windows ® can now be added to the support report.
General	ZCC uses libraries of Postgres v17.

Bug fixes	
Cut Center	Bridges: • Slightly change of the smooth bridge form. • The parameters Bridge height and Base depth were inadvertently not calculated correctly with each other. • Problem in combination with smooth bridges. Inadvertently in very certain circumstances could it happen that completely wrong paths (in x and y direction) were cut.
	Visualizing option: • Shapes were inadvertently not projected if they intersect. • Under certain circumstances a barcode was not completely printed with the label printer and so it was not readable
	Pick&Place interface: Inadvertently a direct bin assignment was made when using a plain integer as metadata value in combination with Any value. Now when using direct bin assignment for a robot via metadata a key named binNumber is required in the metadata. Additionally, the robot sort profile parameter Separation by must be set to binNumber.
	Removed router R62 from material database. Zünd does not suggest using it with router RT.
	Problem with the cut-off when the job contains a Kiss-cut method only.
	Q-Line: • Estimation works when the job is produced with a tagged tool insert. • Crash fixed in combination with multiple vacuum areas.
	The information Cutting while lowering and lifting the knife, material can be raised (01316) is no longer shown while cutting with an oscillating tool.
	The parameter Corner detection was inadvertently not imported while importing a material. And custom materials did not contain this new parameter.

Bug fixes	
Cut Center	Ongoing production is no longer interrupted when a tool insert reaches the specified tool usage limit. The warning at the start of production continues to be displayed, and if a second identical configuration is available, the tool is still changed.
	The warning «The bearing play is over the limit» (2002) was falsely not cleared always.
	Fix range of crease pressure.
	Problem with the tool suggestion if job contains one creasing method with a pressure below 10kg and another above 10kg.
	Inadvertently the notification license expires (1418) was triggered every quarter hour instead of 15 mins after startup and then every 12 hours.
	Slightly improved connection accuracy for long banner jobs with Fit to job and Fit to objects.
	ICC/INCAM/OCC/UNDERCAM: • Avoid creating mark templates for OCC/UNDERCAM that are outside mark radius tolerance. • Avoid strange behavior and wrong expected mark positions when doing fallback registration with ICC at another position than OCC registration did. • Improved logic to select correct barcode for OCC detection on roll. • Avoid sporadically registering wrong mark close to correct mark with OCC on stretched material. • Support Zund barcodes with orientation flag T correctly. • Avoid crashes when restarting ICC fallback registration in certain situations. • Fixed a problem with expected barcode position when using code information from file (with a CodeItem). • Import and export cutter configuration also contains settings from OCC. • Avoid crashes during barcode production in specific cases where a wrong code was detected. • Learn mark positions correctly when no border registration is used on a loading device with several pages in Y.
	Barcode production: • Error 1131 Pages do not fit in X was falsely shown for barcode production with feed after sheet and more than 1 page in X. • After rerun of job or QR production the cutter inadvertently didn't wait until the robot completed his job and did a feed of the next shapes to be picked towards the extension.
	Batch production: Avoid crash while open prepare for batch production, when roll feed with a cut-off action selected and the batch list contains a job with all copies done.
	Parameter Unload material completely to stacker was inadvertently not visible in material settings.
	Problem with long material names when they contain a carriage return character.
	Material editor: Fix bug where optional parameters of a tool insert were reset when the parent tool was selected.
	Problem with the cutting path when using parameters Cutting direction on closed shapes or Reverse in combination with Start/Stop overcut or Knife compensation. Inadvertently a false pen up was added. This problem existed since ZCC 4.6.0.
	Problem with closed shapes without an automatic lift-up (e.g., circles) on a V-cut method in combination with Overcut or Knife compensation. Inadvertently the reverse path was done just halfway.
	Problem with the cursor position while modifying a job name.
	Problem with restarting registration after intermediate feed fixed.
	Fix possible crash when connecting to database notifications.

Bug fixes	
Cut Editor	Visibility of Send to queue is updated correctly after login.
	The distance between jobs was inadvertently not adjustable when adding jobs from job list.
	Contours of the same page are combined only while executing Combine contours.
Data import	ZCC format: • Geometries with different meta data are optimized together. Set Preserve meta data to ensure the meta data are not lost. • Problem while importing jobs with shape meta data in groups and option Preserve shape meta data, where the groups contain punch holes. Punch holes and text objects are now not copied to method {none}: #meta-data anymore and the grouped outlines are now combined in one outline.
	When the name of a method is empty, it creates a method with an empty method name and does not use the name of the imported method.
	AAMA format: The layers «GeometryToNest» and «GeometryToProduce» are now identifiable by the import settings.
	SVG format: Performance problems with large SVG files fixed.
Cut Server	Limit number of parallel estimators on Cut Server to 10, if there are more than 20 logical processors available.
	Fix bug where some files in a hotfolder were not imported correctly.
Cut Manager	No crash when started with parameter «/backup» and database connection is not available.
Installer	Inadvertently a newer frame grabber driver was still not installed automatically.

4.6.2

Date of release: October 7th, 2025
Minimum firmware versions:
- **Cutter G3/D3/S3: 1.79.0**
- **Cutter Q-line: 1.12.0**
- **CIS: 1.12.1**
- **Image-DB (CIS without user manager): 1.8.2**
- **BHS180: 4.7.5**

Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Features	
Cut Center	Visualizing option: Improved projector text position within the shape. This avoids highlighting the text outside the shape contour.
	Support for knife Z208.
	The currently mounted router bit is now highlighted with the magazine view.
	An export of the client configuration contains the projector settings, robot positions and the configuration of the active robot gripper.
Cut Manager	Show error codes of the backup-tools to help resolve the error.
	Now server-backup contains projector presentation profiles, label templates, robot grippers and robot sort profiles as XML.
	When cleanup the log-folder, files of all endings and hidden files are included as well.
Installation	Reduce time to install the help files.
General	New version 6.8.4 of the Qt library.
	New driver 2.1.0 for the frame grabber USB2pro from Imaging Source.

Bug fixes	
Cut Center	Improved performance while preparing large jobs.
	Preventing UI freeze in job list when adding a single large job.
	Fix error where parameters of a tool insert could not be stored.
	Gen3 cutter: Problem with z-up/down positions when a production is interrupted (offline) and a reference initialization is executed. Inadvertently the z-up/down positions are cleared. This leads to problems specially in combination with Multi pass.
	Q-Line cutter: • Preventing a freeze of Cut Center and a slow processing of events (such as IoT). This can occur after many copies was produced and production is still ongoing with more copies to do. • Do not crash anymore if a module slot is not covered by a module or a slot cover. • Problem with the listed tools in TOMAC in combination with a dual beam cutter and Batch production.
	Barcode production with Board loading extension (manual UNDERCAM): • Problem when using option Take new image on next retry in combination with another sheet or with different oriented sheet. • Inadvertently the confirmation of the register notifications (1521, 1619) with the confirm button or the foot switch wasn't possible anymore. Now it's possible again to start a retry of the UNDERCAM registration.
	Barcode production: Inadvertently was not always a notification shown when a sheet was skipped. The reason was visible in the end of production screen only.

Bug fixes	
Cut Center	BHS180 with UNDERCAM: • Problem with continue of the production when a sheet was put back because of the power save settings. This was a problem when the interruption occurred during the recognition with the UNDERCAM. • Dual beam cutter: Inadvertently the feeder did not release the sheet and loading the next one when a previous sheet was skipped. This problem existed with multi page loading only.
	BHS150/180: Problem with the automatically unload procedure when during the procedure the control panel is opened. Inadvertently the progress notifications of the unload procedure were never closed anymore.
	BHS180: Problem while unloading 3 plates to the stacker.
	Batch production: The material size of a batch job cannot be larger than the material size of the batch settings. Now a warning is shown.
	Fixed problem with connection accuracy for long banner jobs with Fit to job and Fit to objects when jobs/rolls are rotated by 180°.
	Error 00551 «Regular mark pattern» falsely appeared for some specific UNDERCAM registrations.
	Improved expected position for multiple pages on the cutter, when pages have been skipped in the previous production step.
	The range limits of the creasing depth parameter (z-down) are now verified and adjusted to avoid cutter warnings.
	Better check of the cutting-edge length against the material thickness for router bits.
	Tandem mode was falsely switched off after tool initialization.
	Waste-cut: Under certain circumstances some waste-cut lines were not done, or the software ran in an endless loop (frozen).
	Problem of long calculation time while converting bitmaps for a Leibinger Inkjet printer solved.
	Pick & place option with multi picking problem at an immediate production re-start after a production abort.
	Potential crashes fixed in combination with border detection.
	Inadvertently the parameters Speed, tool lowered and Acceleration, tool lowered could not be set within polishing methods. Furthermore, as default values used for router bits in a polishing method are now used the finishing parameter values from the database.
	Avoid hanger of Cut Center when cameras are switched off during abort of production.
	Individual camera settings per beam were inadvertently not saved correctly.
	Problem with Offline action in sequences Start of feed. The Offline action is not supported in feed sequences anymore, use material handling setting Stop before feed or Stop after feed instead.
	Inadvertently were sent undefined position values (NAN values) to the cutter under the following conditions: • processing type Sheet feed • material length larger than the cutter working area • job size fits into the working area
	Improved communication (Mqtt) with DACOS and Zünd Connect to avoid production problems when the communication stucked.
	In production view the letters for park position, reference point and OCC registration position are drawn correctly.

Bug fixes	
Cut Center	Update the park position after registration for option Job back right/left.
	Optimized job info view by placing the elements at fixed positions.
	In prepare the cursor position on the horizontal ruler in was inadvertently wrong.
	In prepare the estimation failures are visible again. A warning icon appears next to the produce button. Additionally harmonized handling of estimation errors and warnings in job list and prepare.
	The material list in scrollable if not all material groups fit into the list which is currently visible.
	In settings material the selection is now up to date when changing material thickness and the sort order changes. Furthermore, values which are entered in text controls aren't saved after a specific time but when leaving focus of control.
	Empty material groups were inadvertently not visible in settings.
	Problem fixed with the direct link button to jump from material tab directly into the material editor of the selected material.
	In settings Processing the filter operation in the list now shows / hides the correct groups.
	Parameters in UI were not updated when change the material handling action type of a processing in the settings.
	The multi pass parameter Allow reverse direction was inadvertently shown at a wrong position in the user interface.
	When highly zoomed in a dotted line (like offset of a routing path) was inadvertently drawn as solid line.
	The notification list did not resize accordingly to the content size when a notification was expanded.
Estimator	Problem with time estimation is certain cases, in combination with RT and SDT tools.
Cut Editor	Shows database-status no longer as text but as icon. Last known connection-state to Cut Server is also shown as an icon.
	Fix crash when import multiple files with «Group items per job» enabled where one of the imported files contains only one outline.
	Notches are not removed when convert circles to register-points in Cut Editor. When convert crosses to register points in Cut Editor and the original shape is not kept, both parts of the cross are removed.
	Import settings for Cut Editor are only installed when Cut Editor is selected.
	Inadvertently the items on the «#direction-line» method were re-ordered when running the sorting algorithm.
	Avoid crash when nesting many shapes.
	The menu item «Import settings» was falsely not always correctly set to visible or hidden depending on the current user role.
	Problem with visibility of help (rubber) lines while creating objects like rectangle or lines. This is a problem on Windows 11 only.
Data import	GTK format: fix size of imported labels.
	ZCC format: Problem with «moveTo» between each bezier curves when the files created from ONYX rip software. Now when read ZCC-files, not required points are removed.
Cut Jobs	Cut Jobs shows best estimated time when job is not assigned to a cutter.

Bug fixes	
Support Report	Potential crash fixed when aborting the creation of the support report.
	Inadvertently the creation of a support report was not possible on a server or editor only installation.
Cut Manager	On installations without user manager, the backup fails after a direct update of ZCC from a version below 4.6.0.
	Problem with long delay while starting up, because of a running backup.
	When create a new hotfolder, it is always created with empty import-settings, no longer those from Cut Editor. To apply the settings from Cut Editor, they can be exported in Cut Editor and imported for the hotfolder.
Zünd Connect	The values of dynamic content (e.g. <operator>) was not correct within shape meta data sent to Zünd Connect.
	Not all cutter status message events are queued anymore when connection is down, only the latest is sent after connection is up again.
	Fixed state representation in ZCO cutter overview when production gets aborted.
Installation	Under certain circumstances inadvertently the backup error 01457 «Could not create backup of ZCC database» appeared.
	Inadvertently a newer frame grabber driver was not installed automatically anymore.

4.6.1

Date of release: August 27th, 2025
Minimum firmware versions:
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- **CIS: 1.12.1**
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Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Bug fixes	
Cut Center	Q-Line cutter: Under certain circumstances the G-code was wrong, inadvertently some bows are sent instead straight lines.
Installation	Inadvertently the backup, created at installation start, was removed, if the backup was executed eastside of the GMT (greenich mean time).

4.6.0

Date of release: August 6th, 2025
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Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Features	
Cut Center	Improved OCC (over cutter camera) functionality in combination with Barcode production: • Production on roll or sheets, including multiple jobs in working area. • Not recognized codes can be entered manually. • Jobs can be skipped automatically when codes or marks cannot be recognized. • Considering the code position if specified in ZCC file. • Codes and marks are detected and highlighted in OCC/UNDERCAM recognition settings. Improved mark recognition in combination with OCC: • New option Use fallback register device for OCC registration to finish production of a page with ICC when OCC fails. • Improved mark recognition in general. • Improvements for stretched materials and jobs longer than the working area. • Use OCC option Automatically select front copies also for barcode detection, not only for mark detection.
	Re-connect automatically with OCC/UNDERCAM server in case of a problem. No Cut Center restart necessary anymore.
	New machine to machine interface (M2M) via gRPC implemented. This allows to take control over the Cut Center functionality. This is a list of the most important control commands: • AddJob • Cut • MoveTo • Feed • SelectMaterial • SelectProcessing This feature requires the software license option M2M interface.
	New equipment Universal loading device (ULD) implemented, where the loading device is connected via a gRPC interface. This gives the opportunity to connect any 'loading device' to the Cut Center, e.g. a robot. This feature requires the software license option Loading.
	The material editor is now integrated in the UI with the same functionality for the favorites. The editor for the tool and tool insert configurations is still implemented with a dialog, but the dialog can be opened multiple times now, e.g. for material comparison. The material editor stores values now immediately and not after change of any other parameter.
	Option Remove lines along material border within tolerance to remove contours if they are equal to material border (remove side cuts).
	Execute an intermediate feed with processing type Manual feed when a job does not fit into working area because of the reference point position.
	The advanced parameter Generic parameter of the tools can now contain beam dependent commands. The commands are separated with {}-parentheses, e.g. "{A:xxx}{B:yyy;}zzz;" where xxx are the commands for beam A, yyy the ones for B and zzz commands for both beams.

Features	
Cut Center	BHS180 with UNDERCAM: A mark registration method with UNDERCAM needs a mandatory border registration method too.
	New Modbus driver version 2.13.3 for the communication with BHS150/180 and robot.
	Added user friendly control to enter a due date of a job.
	Improvements for Bridges: • New option to define the bridge height independently of the last pass. So, it's also possible to define a specific bridge height without using multi pass. • New option Use smooth bridges when producing a job with bridges. Smooth bridges have a slightly round form and so the production time is faster (first for Gen3 only).
	Q-Line cutter: • New optional parameter Jerk Z. • Performance in combination with BHS180 improved. Load the next page to UNDERCAM already before the cutter lifts the clamps. • A bearing clearance test is executed automatically while using ELOSTO's. First a warning is shown, afterwards a critical notification where it's not possible to use the ELOSTO anymore. After the manual bearing replacement, the notification is cleared when the tool is initialized next time. • The z-calibration procedure for AUTOMOs is now done automatically after a module change. • Validate max up / down movement in XY for VUTO. • New tool PRESTO added. • Parameter Speed, lifting tool is no longer available for Q-Line configurations. • Secured connection to connect to cutter and the cutter factory (estimation).
	Gen3 cutter: • Initialize the tool change on the cutter when a manual tool change is needed during production.
	Pick & place interface: • Ability to define the minimum suction cups used on a robot gripper.
	Visualizing option: • Support of special method #label-position again, like it was in ZCC3.
	In the machine steps list with custom action sequence the contained action sequences are now visible as text.
	Larger copy distance tolerances for INCAM and OCC due to larger view field. Default tolerances are 8mm (ICC), 24mm (INCAM) and 200mm (OCC).
	New option Close production at end implemented as production option, like Stop production at end of sheet. When selected, the production end screen gets finished automatically and the job list is visible. The option is kept until deselected by the operator.
	With code (e.g. for a QR code) information in the ZCC file (in CodeItem): • The position of the job and its register marks can be determined quite accurately when the code has been detected. Thus, the marks can be found automatically without user request. • The same is true for the automatic Barcode production.
	New optional parameter Pen down movement implemented for Drill methods. The parameter can be used to execute certain commands after the tool moved to pen down. Attention: Only relative movement commands should be used. And the commands are used at your own risk, ZCC does not verify any of these commands.
	Support for new unwinder type Roll-off unit, RollMaster.
	It's now possible to select a default processing type, which is automatically selected within all jobs where no processing is defined yet.

Features	
Cut Center	Surface compensation: Improved z-height behavior. The reference z-height is taken in case of a manual init at the reference point position and in case of an ITI init at the first position of the surface compensation measure points.
	Support for UM-MC and ELOSTO MC.
	CDP-tools (Conductive Dust Protection) added to the material database based on its non-CDP-pendants.
	Processing can be defined being valid only for specific cutter generations independent of the used hardware.
	Cut-off: • The option Optimized for roll removal is now split into two separate options Backward feed to roll-off position and Before last feed. • Fixed position is not selectable anymore, always optimized position used, except in combination with a cutting strip.
	Speed improvements for larger jobs.
	The last used tool (camera or laser pointer) within the material load screen is now stored and re-used the next time a production is started.
	Bevel-cut and V-cut methods contain the parameter Knife compensation now. If switched on a much better result can be achieved when cutting shapes with curves in it.
	The minimum page distance in X and Y is now 0mm, where the default is still 20mm.
	The System information within the about dialog are now moved to a separate dialog. The dialog contains additional a list of all network components related to ZCC.
	Entries of dropdown to select the serial number in Cut Center is sorted.
	The notification which requests a restart of Cut Center shows a button to restart Cut Center.
	New error message that Border roll in combination with register mark method is not supported.
	Show a warning when the reference point is forced into the working area.
	Support for new knives Z105, Z501 - Z504.
Cut Center / Cut Jobs	The total copies and done copies can be changed in the context menu of a job in job list for Cut Jobs and as well as for Cut Center.
Cut Center / Cut Editor	Improved visibility of cutting direction arrow. Additionally, the starting point is visible after a specific zoom level is reached but not at default zoom level anymore.
	A selected line type is now displayed within the job view.
Cut Editor	Open dialog Numeric geometry automatically while adding a new shape with just a left mouse click.
	On a new installation of Cut Editor, the options to show route, camera and contour modification functions are activated.
	When opening log files (*.nc or *.plt) a new option Ignore feeds is shown and the file is imported without any optimizations and sort algorithm.
Cut Editor / Cut Manager	Import settings expanded with the possibility to assign imported jobs automatically to a cutter and optionally add to its batch production. Available for Cut Editor, Hotfolders and 3rd party communication.
Data import	Take over media box size as material size, if not already defined. The material size of the import settings has priority against media box size.

Features	
Cut Manager	Overview of all applications implemented, where is listed their license ID, maintenance end date, host computer and last started at.
	The server-settings Hotfolder-backup-path, 3rd party import settings and production time estimation can be configured from a remote Cut Manager.
	Backup and restore: • Backups are synchronized with CIS. So, the backups are stored at one destination, defined in CIS. The period for the backup is defined in CIS and taken over from ZCC. • List of backups visible in Cut Manager with a button to restore them. • When no local backups are available, it is possible to assign the current installation to existing backups on CIS. • This requires the CIS release 1.12.1.
Cut Server	Over XML-communication (zcc communication): • It is possible to get method-information of multiple materials in one command. • New attribute AssignToCutter in node Job, where the received job will be assigned automatically to the specified cutter. • New attribute Persistent in node Job, where the job is marked as persistent and will not be cleaned up automatically.
Support report	Specifications of the computer are now contained within the report.
	The report on a Gen3 cutter contains now more complete parameter values (equal to the Get all log within Service Tool).
	Default submission service is now www.swisstransfer.com instead of www.wetransfer.com.
General	Use of QT version 6.8.
	Use of updated MQTT library to communicate with Zünd Connect and DACOS from Q-Line. This should solve the communication problems via MQTT.
	New CodeMeter (software license) driver 8.30.
Installation	It is possible to install Cut Editor without any connection to the database.
	Easier handling for updating ZCC in a network, where not every ZCC component is installed on the same computer (applicable for Cut Center Advanced environment with a Cut Server only). While installing the Cut Server, the installation EXE is stored in the downloads of the CIS. On other clients (Cut Center, Cut Jobs or Cut Editor) the installation EXE can be downloaded and installed while starting the application the next time. Administration privileges required for installation.
	Installer uses port of discovered CIS.
Zünd Connect	New ZündConnect proxy release 2.4.2: • ZCC gets notified if the connection between proxy and MQTT broker gets lost. • Service will not restart anymore when connection state notification cannot be sent to ZCC. • Improved reliability to avoid data loss potentially caused even more by connectivity issues. • Will recover automatically from corrupted buffer which can occur in downgrade-scenarios.

Bug fixes	
Cut Center	Q-Line cutter: • INCAM, IDS camera driver update to 4.97.0 • When pressing pause and a tool change was made after the next pause command the rest of the shapes to cut was then cut twice.
	Automatically reduce or increase the number of copies that are produced within one feed. This is done during registration depending on the registered size and distances of the copies.
	A production could not be started incorrectly even with a rotated layout if the job width was greater than the cutter width.
	The on/off state of the underlay was not saved and restored anymore.
	Barcode production: • Problem in combination with the underlay setting. The underlay setting is now verified while loading a job and if needed the material load screen is shown to adjust the setting. • Consider expected position and size of codes (e.g. QR code) and adjust feed length accordingly.
	Problems in combination with OCC (over cutter camera): • Consider user adjustments of the ROI (region of interest) when doing Barcode production with OCC and several different copies on the working area. • A Barcode production in combination with an OCC produced some jobs falsely 180° rotated. • Avoid wrong OCC registration on rolls with regular register mark pattern. • OCC did not always detect all QR codes if several QR codes are visible in the image. • Improved OCC recognition of multiple copies placed closely to each other on the working area. • Automatically skip copies that could not be detected with OCC, also when multiple copies are placed on the cutter.
	BHS150/BHS180: • Inadvertently the loading was aborted when the vacuum was switched off because of a production interruption. • A job wider than the cutter in Y could inadvertently not be started, even if the layout was turned. • Reopen the Modbus protocol in case of an unknown communication error. • Sometimes problems with the automatic unloading procedure.
	Processing type Feed after sheet: • Avoid wrong error Sheets in X-direction do not fit for action (01077) in combination with Flip cut. • Without a loading device inadvertently the number of sheets in X was limited to 1.
	Problem with the flute dependent pressure. It was not correctly sent to the cutter in combination with a rotated job, e.g. when started via a QR-code. Additionally, the flute direction icon was not correctly shown in the job view with a rotated job.
	Improved prediction of next copy position if copies are larger or smaller than defined in the file.
	Slider to control the confidence level for custom mark registration added to camera recognition settings.
	Do Border roll registration for batch jobs > 1 without user confirmation.
	Problems with the tool suggestion: • Q-Line: Sometimes inadvertently a cutting tool is taken by an AUTOMO-L instead AUTOMO-E. • In combination with pressure mode the tool was inadvertently not always taken with the correct module, depending on the requested pressure.
	Calibration cut could fail if the tool to calibrate wasn't fully configured in the first found material.

Bug fixes	
Cut Center	Some problems fixed in job list regarding sort by due date.
	Wrong notification Sheet does not fit on working area in Y because of the job rotation (01009) was shown instead of Sheet does not fit on working area in Y (01012) in prepare layout for specific jobs. Additionally, the notification '01012' wasn't shown while job with no material length in X was rotated.
	The tool insert parameter Asymmetric offset was not considered at all. Now it's applied as offset compensation.
	Fixed some problems with manually mounted router bits in combination with an ARC (Automatic router bit changer).
	Inadvertently the warning Max. number of skipped copies (01177) already shown at production start when Max. number of skipped copies set to 0.
	The log file cleanup functionality did inadvertently not cleanup 7z-files and files inside subfolders.
	Do not show wrong success-message when store a job to database fails.
	Different problems while editing the manual feed length: • in combination tandem • in combination cutter orientation • with a very small zoom level • wrong defined feed positions are shown in red now • Improved notifications in combination with manual edited feed lengths
	Avoid too many equal notifications (e.g. 1335 setup and confirm tool configuration) in Zünd Connect.
	Jobs with big number of geometries or copies (250000+) cannot be produced anymore to avoid using too many system-resources.
	Problem with frame grabber ZST PAL/YUV-Converter USB when using on a computer with an integrated camera. In combination with a single beam cutter was inadvertently always the integrated camera selected instead the USB framegrabber box.
	Pick & place interface: • Users experiencing additional feeds after change will likely be able to extend their front limit of the working area about 30mm to the front without issues, since that was implemented in the previous version. However, this assumption was wrong and could mean shapes became unpickable after a feed that was too long (very rare case). • After production abort, sometimes not all fully produced shapes were picked up.
Cut Editor	Inadvertently the number of up/downs for Drill methods was always 0 within the job information.
	Combine contours respects selected items.
	The nesting report is now stored within the correct folder again.
Data import	When importing a multi-page job with option Preserve meta data, inadvertently all shapes of the specific #meta-data method are put to the first page.
	Fix import-error of arcs for some special cases.
Cut Server	When Cut Server estimates jobs and remaining RAM is low (<1024 MB) the notification (and pause estimating jobs) triggered only when no estimator process is running anymore, and some jobs need to be estimated.
Cut Manager	The system-root (usually C:) is not allowed as hotfolder.
	Problem with Email settings and Teams settings on installations with a Cut Server SW license only. Inadvertently the settings couldn't be modified if no Cut Center license was installed.

Bug fixes	
General	Cut Server, Cut Editor and Cut Jobs cleanup the Logs-folder.
Installation	Adjust CIS-login during setup to be more robust.

4.5.3

Date of release: May 28th, 2025
Minimum firmware versions:
Cutter G3/D3/S3: 1.79.0
Cutter Q-line: 1.10.0
CIS: 1.10.0
Image-DB (CIS without user manager): 1.8.1
Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Features	
Cut Center	BHS180/BHS150: When feeder stack is empty, all already loaded sheets are produced and the production is ended. To enable this behavior, the following processing action must be added to the corresponding processing: Material handling setting with BHS / sheet feeder: continue at end of stack.
	If a VUTO was loaded manually (via cutter cockpit) into an AUTOMO-L a production with this combination is not allowed.
	Improve time management during creation of BHS-dump.
Cut Center / Cut Editor	New version 7.8 of the library VRONI for the offset operations.
General	Updated OpenSSL library.
	New multicam driver 6.19.2 for PICOLO frame grabber card.

Bug fixes	
Cut Center	Q-Line cutter: • After a cutter restart the control panel can now be opened correctly. • Prevent a specific case that the broken insert was not automatically deposited into the magazine anymore. • Clarify text of notification 01815 to 'Not enough empty magazine slots available. There must be at least one empty slot for each small and large tool. If AUTOMO-L is equipped with a small tool, then there must be at least two empty small slots.' • Fixed problem, where the material borders were searched at the wrong position with the INCAM after some time when producing flipped sheets. • Prevent NC-command error at production start in the specific case when calibration cut was closed via back button and control panel via close icon. • For calibration cross-cut the tool ELOSTO was inadvertently loaded into an AUTOMO-L. • Avoid crash when executing a calibration cut with VUTO.
	In production info export the number of interrupts was inadvertently not correct in the xml output file.
	The feed length was too short for the cut-off at end of job when using option Produce at the back.
	Optimized OCC/UNDERCAM registration view to show all information correctly on the single screen.
	When activating polishing, the notification 01704 was active for finishing offset because its value wasn't adjusted.
	Problem with mark recognition algorithm base on Color change with INCAM of Q-Line (without exhaustive). Under certain circumstances was a mark not recognized depending on the image itself and the mark position within the image.

Bug fixes	
Cut Center	In prepare, layout when using rotation, the copies in x were inadvertently multiplied in y and vice versa.
	When using cut off in combination with a cutting strip the correct tool is suggested for the cut off method. Additionally, the cutting mode can be changed correctly. Furthermore, the depth value for the KCM-S tool is now correctly set.
	When select a material in UI, the defined default dimensions are applied, even if some dimensions have already been defined for the previous material.
	ZCC crashed when adding a material dimension with no name and then another one with a name.
	A router bit has to be confirmed only once as ‘manual’ as long as Cut Center is not closed. This prevents multiple needed confirmations.
	Under certain circumstances the waste-cut was not always done, depending on the calculated transformation based on the registration.
	If a job name has dots at the end, ZCC would fail to create log files for those jobs.
	In settings tools the amount of RT tools was inadvertently count up based on inserts in ARC.
	Cut Center did not quit immediately if an estimation was still running in background.
	In prepare, tools when loading default settings (via button) the parameter bit diameter wasn't loaded and had inadvertently the old value.
	Inadvertently the grooving angle was not shown on VCT2 tools within the tool configuration screen when the requested angle and the adjusted angle on the cutter were equal.
	Improved performance when starting production of a job.
	Overall performance improvements.
	Cut-off via production user interface was inadvertently enabled when a cutting strip is configured.
	In Service mode, the button to open the cockpit opens the correct link.
	Fixed a crash in combination with notifications when they were handed over to the UI-layer in Cut Center.
	Fixed possible crash in z-calibration if camera was not configured correctly, and if no camera was available the z-calibration button stayed hidden.
	Prevent a possible deadlock when re-authentication with CIS failed.
	The notification 01622 isn't shown blocking anymore when a tool initialization is running. This prevents a double confirm of the notification. Additionally, a naming improvement to Init before use was made.
	Fixed possible crash during camera initialization.
	In a support report some folders inadvertently had files with no content and a size of 0 bytes.
	Fixed an issue where a support report might contain inadvertently empty folders.
	When export a job with Punch or Drill to SVG, the diameter is respected when drawing the circle. This fixes also missing circles in the preview-images.
	When production is paused the parameter Crease Depth was inadvertently set to zero.
	The overall progress indicator (the green circle) when producing multiple pages was wrong.
	Avoid switching on camera after tool initialization or tool re-adjusting. Avoid camera overheating in special error cases.
	Avoid to switch vacuum OFF if the user switched it ON while Cut Center is in an interrupt.

Bug fixes	
Cut Center	Avoid problem with BHS180 when put pages back in combination with a feeder interrupt.
	Problem with tagged inserts when parameter Require tag was NO.
	Problem with V-cut in combination with start- and stop-overcut.
	In production tool configuration the slot number was inadvertently suggested wrong for a router module.
	Automatic skipping of pages because of failed border registration did falsely not work anymore.
	Tool insert wizard did not show the correct name for some tools.
	When export a tool or a tool insert, the name is proposed as filename.
	Improved UNDERCAM border detection to avoid that wrong printed borders outside border tolerance area are sporadically detected.
	Fixed problem, where the material borders were searched at the wrong position with the INCAM together with corner detection.
	Fix clipping calculation in combination with knife compensation and multiple methods in a job where inadvertently the wrong method was taken for clipping calculation.
	Batch production: The notification (01295) «Batch end... » was inadvertently displayed at the end of production, even if the options Shutdown cutter at end of production or Shutdown computer at end of production were selected.
Cut Editor	When the decimal separator and the thousands separator have the same character, the values entered might not parsed correctly and lead to a wrong number in the user interface control.
	When select a material in UI, the defined default dimensions are applied, even if some dimensions have already been defined for the previous material.
	Avoid crash while saving nesting sets into database.
	Avoid crash while loading a job template if the template contains two register methods with marks.
	Possible crash when deleting a selection that included notches and their parent shape.
	Diverse problems while editing a job containing multiple pages: • optimization functions like move start point to corner. • insert, move or remove of a point. • insert a bridge. • view problem with the cutting direction.
	Avoid crash when executing Combine contours on grouped objects.
Cut Server	Avoid a possible crash during shut down of Cut Server.
	Avoid crash while estimator loads job.
	Fix potential security issue with windows registry entries.
	ZCC communication, inadvertently was the attribute «RegisterType» in element «AssignedCutter» marked as required instead optional.
	Configurations which where offline for a while are estimated by the Cut Server shortly after go online again without require a restart of the Cut Server.
	Estimations were falsely not redone after some configuration changes.
	Application argument «moveServer» works correctly when server is not in a domain.

Bug fixes	
Installation	During setup of ZCC the CIS login window was inadvertently in background and not visible for the user.
	Diverse minor improvements during installation procedure.
	«ZundConnect Proxy» is started after installation and ZundConnect is enabled when selected during installation and it was not disabled on previous installation before.
	Updated OpenSSL dlls might be overwritten with an older version which then lead to a crash when using the OpenSLL dll.

4.5.2

Date of release: April 25th, 2025
Minimum firmware versions:
Cutter G3/D3/S3: 1.79.0
Cutter Q-line: 1.10.0
CIS: 1.10.0
Image-DB (CIS without user manager): 1.8.1
Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Bug fixes	
Cut Center	Avoid crash when reconnecting via MQTT to the DACOS or to the ZündConnect-proxy.
	When sending a job list to TOMAC, previously sent jobs were not removed from the list
Cut Server	• Menu item re-estimate works correctly. • After startup of cut server only jobs where the cutter configuration or the job changed will be re-estimated. • Estimator is shut down after a certain idle time. • Estimated time was falsely visible for finished jobs. • Jobs might be falsely estimated multiple times in sequence.

4.5.1

Date of release: April 4th, 2025
Minimum firmware versions:
Cutter G3/D3/S3: 1.79.0
Cutter Q-line: 1.10.0
CIS: 1.10.0
Image-DB (CIS without user manager): 1.8.1
Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Features	
Cut Center	Pick & place interface: Improved suction cup positioning.
	The beam calibration is done at a suggested position to improve the adjustment.
	Note: Since ZCC 4.0.0 the Cut Center sends a Clear buffer to the cutter while connecting to the cutter at startup. So the cutter is in a defined state before starting any production.
Cut Editor	Editor shows in the title-bar that a template is edited. It is possible to define if empty methods should be removed after applying a template. New button Export template to file, this functionality was not obvious before.
Data import	DXF import: Blocks are considered as groups when dxf option Keep groups selected.
Cut Manager	The license ID and container number can be copied via the clipboard now. Now it's possible to update all licenses with Update all.
General	New software license driver Codemeter 8.20a.

Bug fixes	
Cut Center	Pick & place interface: • Some robot sort settings were not enabled correctly after login of a user.
	Visualizing option: • Import of projector and its related calibrations fixed. • Fixed an endless wait when using roll feed in combination with a projector. • With an attached projector and in case of manual feed with multiple copies the performance is optimized.
	Q-Line cutter: • A broken knife was inadvertently not detected if the knife was mounted in the tool so it could not be initialized. • Registration problem with user on Q-line double beam cutter fixed. • Sometimes the job list was not sent correctly to the TOMAC.
	Avoid memory problems when using custom marks.
	Blue signal light (G3, S3, D3) was not always switched on anymore.
	Job rotation problems: • Wrongly split geometry items in case of rotation fixed. • Wrong feeds with barcode production on roll where copies are rotated by +90° or -90°. • Include correct rotation of job for clipping error boxes during production.
	Problem with the tool configuration when changing to a cutting mode which does not contain any tool configuration within the material database.
	Problem with the cutting direction of asymmetric knives.
	While configuring a custom tool insert, some parameters specifying the dimensions are no longer mandatory and cannot be left 0.

Bug fixes	
Cut Center	Problem with the xy-speed during a calibration cut.
	Material editor: • When copy a tool into another method, the required insert-parameters of the new method are added to the insert. • Restore a ZCC material of a deleted Material Group works. • When add a material-dimension, it is checked if one with the same name or an identical one already exists. • Fix bug where remove a module from a custom tool was not possible. • Cut Center does not crash when importing a material which contains multiple methods of the same type.
	When using a custom button configuration, it is possible to choose between button and switch. The former reacts on the falling edge of the signal, the latter reacts on rising and falling edge of the signal.
	Problem with inside/outside validation in prepare fixed.
	Selection and visibility problems with the camera recognition algorithm Color change or Contour detection rectified.
	ICC recognition could falsely not be started after finishing the production when the settings have been already opened while producing.
	Border roll recognition: Always go halfway back to try to find the border, if the border could not be found automatically at some point. Inadvertently this was done just 3 times.
	Border recognition with the Laser pointer: Inadvertently the button Skip feature was visible and the confirm button contained text Confirm corner instead Confirm border.
	Improved UNDERCAM border recognition for boards with slightly damaged corners.
	A ZCC job file could inadvertently not be opened when the file contained a tool configuration with a tagged insert.
	With cut center basic a job which is dragged into Cut Center was inadvertently not opened in prepare.
	Skip pages in case of a clipping error.
	Problems with waste-cut: • Waste-cut calculation duration improved. • Improve time when combine the processing Feed after sheet with waste-cut. • Waste-cut was falsely not done in further feeds in jobs longer than the cutter length in combination with Border: right/left.
	Improvement during production to avoid simultaneous visibility of the blocking notification and the popup notification (bottom right).
	BHS150: Sheets get now skipped when the QR code cannot be determined.
	Intermediate feeds are done with all processing types when needed, except for tandem processing.
	Present lower pressure values in gram instead kilogram again.
	With imperial units in machine steps list the router diameter was shown in metric units.
	Diverse minor problems while editing the manual feed lengths rectified.
	Freeze after error in combination with vacuum power save option fixed.
	Estimated time for double-beam-cutters was not shown correctly in job list.
	Estimator does not end with an unhandled exception when connection to server is lost.
	Problem with Surface compensation in combination with End of prepare.

Bug fixes	
Cut Center	Fix quit of settings when hitting twice the quit button.
	Problem in production when cutter rebooted without restart of Cut Center.
	Under certain circumstances Cut Center did sometimes not terminating properly.
	Move towards the inside of the page when adjusting pixel to mm scale during border detection.
	Found QR-codes were sometimes not highlighted anymore in the ICC/INCAM image.
	Fix read of some INI-file entries regarding the chapters [Cutter] and [Production].
Cut Center / Cut Editor	Inadvertently ZCC files could not be opened anymore when the ZCC file (XML file) contained the tool parameters for a Leibinger Inkjet e.g., the ZCC file was produced before.
Cut Editor	A job estimation did inadvertently not work anymore, because of the wrong order of <job> and <cutterinfo> elements when sending the XML to the server. Now the order of <job> and <cutterinfo> elements is not relevant anymore.
	Set inside/outside option correctly while executing the function Offset operation. Toggle the setting when 'Keep original objects' selected where the new shapes added to the same method, otherwise keep the inside/outside setting.
	In Editor when add a job to an existing one, new methods are added to the end of the list
	Sporadic problems with the user rights e.g., within the import settings.
	When round corners, notches are moved only if they are on the part of the geometry which is rounded.
	Convert notches to outlines or points when changing a Notch method to any other method type.
	Cut Editor starts in offline-mode when a CIS is configured but it is not available
	Fixed some wrong drawn beziers during import and improved performance of detection if a point is on a bezier.
Data import	DXF format: Reversed Text in DXF is also shown reversed in ZCC.
	To the method settings, a tag can be added to the tool insert to select the configuration automatically.
Cut Manager	Problem with start/stop cutserver and hotfolder settings because of the problem with the connection via gRPC to the cutserver.
	Hotfolders: • Settings of hotfolder checks the correct flag to determine if a user has write-rights. • When add hotfolders, the mounted network drives with its letters are shown as drives additional to the drives of the Cut Server. • When selecting a hotfolder, a folder marked in the interface is taken, it does not have to be opened.
	Fix format of date in Cut Manager.
Cut Server	XML-communication: Error description was falsely not contained in StatusInfo anymore.
Cut Jobs	Harmonize label layout in job list and avoid wrong presentation in UI to assign a job to a cutter.
Support report	Inadvertently the support report did not contain always a BHS180 dump when selected.
Installation	Fix installer when windows is scaled.
	Help can be opened when another language than English or German is selected.
	Help can be opened while the installer is extracting the files.
	Reduced size of the online help files.
	ZundConnectProxy 2.3.10: stability improvements.

4.5.0

Date of release: February 10th, 2025
Minimum firmware versions:
Cutter G3/D3/S3: 1.79.0
Cutter Q-line: 1.10.0
CIS: 1.10.0
Image-DB (CIS without user manager): 1.8.1
Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Features	
Cut Center	Mark or border detection with INCAM / ICC: • Possibility to select between two different algorithms Algorithm based on color change and Algorithm based on contour detection. Where the color change algorithm is selected by default. The contour detection algorithm should be used only when the default algorithm isn't successful. • Border detection: new option Corner detection to start the detection with a corner. This has the advantage, that the operator must confirm just one time and that the detection with multi page loading does not take falsely the back edge of the sheet in front. The option is OFF by default, but it's recommended when using smaller distances in X between sheets. • Mark detection: Possible to define a tolerance for circle detection. • Camera (INCAM) and light on Q-Line cutter is switched off after an interruption of 5 minutes. When user confirms message, the camera is switched on again and production can be continued.
	OCC / UNDERCAM: • Slightly improved accuracy of OCC/UNDERCAM registration. • Improved robustness of OCC/UNDERCAM calibration. Detected and not detected grid marks are visualized after calibration. • Support the registration type Fit to job in combination with the UNDERCAM. • Improved OCC registration for unevenly stretched material (textile).
	Z-Depth calibration: This setting allows to adjust individually per cutter the depth compensation. This helps to cut in right depth based on the standard parameters in the material database, independent of wear of conveyor belt. This feature needs at least Gen3 cutter firmware 1.80.0 and Q-Line software release 1.10.0.
	Pick & place interface: • In robot sort profile the user can choose between setting specific value to match a specific value from meta data to a specific bin. On the other hand, if the user choses the setting any value the shapes with the same meta data value will be assigned to the same bin. In this case there is no specific relation to the meta data value required but only to the meta data key. • Label printer or Robot: The order of the printed labels respectively the pick-ups can be controlled now. The order is in alphabetical. • Support for up to 128 vacuum cups. • Under Settings→Equipment→Robot sort there is a new setting for each sort of method called Shapes identified by. The user can specify a metadata here. The content of this key is sent to the robot each time it picks up a shape. The goal is for the robot to identify which shape it is picking up. • Improved feed length calculation in combination with a robot equipment in a production of sheets.
	Board loading extension with UNDERCAM: All confirmations in combination with manual UNDERCAM can now be executed via a button in the user interface or as before by using either the hardware button or the foot switch.

Features	
Cut Center	Material database: • Revised material database for materials of group Soft boards. The order of tools and tool inserts have been checked and improved. The parameter values have also been optimized. • Parameter of all oscillating tools (POT's, EOT's, ELOSTO's) adjusted. • Material editor shows pressure, e.g. Crease method, in kg instead gramm. • Now the material dimensions and the flute direction can be added to the material database. • Improved reconnect to the database.
	Show an information when a material thickness used out of the defined thickness range.
	Q-Line cutters: • Dual-beam cutters: Support 2x1600mm sheets on a cutter length with 3200mm. • Select always an AUTOMO-L module when the requested pressure value, e.g. for Crease, not supported by the AUTOMO-E. • Add Oscillating frequency as optional parameter to all ELOSTO's.
	It's now supported to route without additional underlay, when the corresponding option in Cut Center settings is active.
	Now the settings contain a Setup tab, which contains the different camera calibration and recognition functions.
	Optimized layout for custom button configuration.
	Support beam angle check with marks building a T-form.
	New setup for Teams messages. Now supported via «Microsoft Graph API», because Microsoft does no longer support the solution with «Office 365 connectors».
	Support for new knife Z702.
	The Spring stroke parameter of spring-loaded tools, like KCT and UDT, is now always considered independent of a manual or automatic initialization.
	Improved AKI workflow. ZCC adds the additional underlay thickness to the cut path in case of AKI. Thus, the AKI has to be placed on the conveyor instead of on the underlay now.
	Possibility to set a reference point to a certain x/y position.
	At production end there is a summary of the skipped copies available with details per skipped copy (such as device type, registration type).
	Production creates a log-file containing details about the used configuration of cutter, projector, label templates and robot.
	Information about the beam is sent to TOMAC.
	Processing: • Execute vacuum command in abort production sequence also if cutter is in stop/offline state. Support all the commands that are supported in end production sequence also in abort production sequence (unless cut off). • The action Material handling settings for Feed compensation, Feeding clamps - release mode, Feeding speed, Feeding acceleration level and Max number of skipped copies cannot be disabled. They are either there and active or have to be removed. • Action to adjust the feeding speed and acceleration added to all processing. • If the job has a processing not known by settings it can be added in prepare.
	Job list: • Expanded the context-menu of the job list to estimate a job again. • The sorting options of the job list are now saved. • Renamed button Add to job list with a new icon.

Features	
Cut Center	Support report: • The time range of a support report can now be entered in hours too. • Dump of BHS 180 is added to a support report automatically. • Creating a support report is done in a separate application that can be started separately in case the ZCC hangs, and the user can enter additional text as information to be included in the report. • Support report can create a data dump on a computer where Cut Server is not installed.
	Improved error-message when some CIS certificate-problems occur.
	ZCC checks version of image-database when CIS is installed without user manager.
	The point of interest of custom register marks is now better visible.
	Cutter control panel: • Improved visual layout of cutter control panel. Additionally removed some duplicated texts. • New button in the control panel to lower/lift the UNDERCAM fixing bar.
	Problem with meta data: Obsolete leading and trailing white spaces are now removed from meta data.
	ZCC-format (XML file): • New geometry item «CodeItem» in ZCC file format implemented. Currently it's shown within the job view, further functionality will follow later. • Support exponential numbers in material width and length. • ZCC Files are always compared against XML-schema (ZCC specification) while reading (Hotfolder, Editor, Center).
Cut Manager	Configuration of hotfolders and other server settings is now possible from remote, not only from the computer where the Cut Server runs.
	User with write-rights «Cut Manager/Server» can restart the server from client. Server requires rights of Windows to restart itself.
	No restart of Cut Server required to disable the Estimation on Server. Icons in job list of Cut Center are also updated without restart.
Cut Center / Cut Editor	New version 7.7 of the library VRONI for the offset operations.
	Sort algorithm: Slightly improved sort order in certain circumstances.
Cut Editor	Now is the offset side of Route or Bevel-cut methods visible again.
	Editor sets processing for all generation when already a processing is set, and creasing channels are created.
	Zoom-in and zoom-out use the same factor.
Data import	Optimized import of circle arcs. The import tries to combine multiple small lines to an arc.
	Importer detects drawn notches on contours of Notch methods.
	Problem with material size and thickness, inadvertently these values were not taken over from the import settings while importing.
Cut Server	Exe started with -exportJobs «path» exports all jobs to the provided directory.
	Show a warning respectively add an event within the Windows event log (in Applications) when selected port already in use.
Cut Jobs	New Application to visualize the job list on any computer without a needed software license. Within the application the jobs can be assigned to a specific cutter.
	The cutter assigned to a job by the Cut Jobs program is stored in zcc-files and shown in «JobStatusRequests» over the XML interface.

Features	
Zünd Connect	Zünd Connect is now contained in ZCC4: • minor security improvement • ZundConnectProxy is now a x64 application. Support for x86 operation systems has been dropped • ZundConnectProxy will notfiy ZCC each 8h that connection to cloud cannot be made even in case of permanent errors • ZundConnectProxy.dll is now digitally signed too

Bug fixes	
Cut Center	OCC / UNDERCAM: • Problem with the job rotation in combination with an OCC production. • More robust border detection with UNDERCAM when the images are slightly rotated because the camera is not perfectly aligned. • Avoid problems with barcode production with UNDERCAM and rotated pages if the offsets in the file are different from the real offsets of the print. • Wrong UNDERCAM registration with badly printed marks fixed. • QR code detection with OCC/UNDERCAM now also works with very small ROI around the code. • Improved OCC recognition of multiple stretched copies. Sometimes, not all copies were found.
	Problem with job rotation with jobs longer than the cutter length rectified. This problem existed when job rotated manually within the layout tab or when started with a barcode/QR-code.
	Border roll: • Problem fixed when a border point was not found. The helper points between were inadvertently not searched at the correct position and so the automatic production stopped. • Fixed problem with Border roll left registration.
	Roll feed: do not ask user about copy distance when feeding within a copy.
	Board handling system 180: Problem with the production abort when abort while loading the very first sheet.
	Board loading extension: two consecutive clicks on the hardware button (or foot switch) are always processed correctly.
	In combination with a Sheet feeder the vacuum was inadvertently not switched to blow on the very last feed.
	Material initialization parameter is only available for custom tools / tool inserts. In all other cases the parameter isn't available anymore and for manual initialization the user must confirm inside the production tool configuration whether it is base or material init.
	Vacuum behavior: • If the vacuum is blowing before a feed, it would not be switched to off during the feed. • Material handling setting Air cushing during material transport is now supported from ZCC. Per default it is switched to on. To switch it off it has to be turned off in the processing. The setting is now also supported for the Q-Line. • Inadvertently the vacuum of Gen3 Cutter is not switched off when the cutter is interrupted for a longer time and the power settings are setup accordingly.
	Visualizing option: With a configured projector the full screen mode for the projector window was inadvertently not always set correctly.
	Problem with shifted geometry items of {none} methods within the job view during production when the job is heavy stretched or shrinked.

Bug fixes	
Cut Center	When using comma as decimal separator the Grooving angle was inadvertently not applied when changing method properties.
	Barcode production: • Support with UNDERCAM as code reader device for jobs without any UNDERCAM registration method. • Problem with the extended barcode content. Inadvertently the type specifier behind the semicolon are case sensitively interpreted (so ;j and ;r worked, but ;J and ;R did not).
	Fixed hanger of ZCC when apply template in some special cases.
	Problems with some custom register marks rectified.
	Images for register-devices are now loaded from image-database.
	Learn expected border position for flip cut.
	Job is not estimated again after open and close in prepare without any changes.
	Switch off camera light when aborting production. This was sometimes not done on Gen3 cutters (G3,S3,D3).
	Changed algorithm to stabilize arcs (under certain circumstances some circles were inadvertently not exactly round).
	Diverse performance improvements in combination with larger jobs.
	The parameter Master axis was inadvertently not listed in Register methods of tools ICC and INCAM.
	Q-Line cutter: • Avoid endless waiting time at production start if AUTOMO's have empty tools. • Time estimation corrected for Q-line jobs with registration where the cutting paths go below 0/0 in the job file.
	Waste-cut: • Problem certain circumstances, where the waste-cut lines were falsely not always done. • Waste-cut before cutting works when job requires feeding.
	Show button Add as default only for processing which aren't available in database.
	Material editor: Add tool insert to all cutting mode no longer overwrites inserts if they already exist.
	Problem with tag names within the ARC user interface, inadvertently the tag names are not shown correctly when changing.
	Support R602 in combination with the router module HSK and ARC.
	R118, R119 and R220 are now available for RM-A.
	The test-cut for Route is now done with a shape with an outside offset. This changes the direction of the rough and the finishing path.
	Support tandem processing with several sheets in X correctly.
	Rotated labels are exported correctly to SVG and displayed correctly in the job preview image.
	The action Cutter state was inadvertently not available anymore.
Cut Center / Cut Editor	Problem with the text label font height fixed. The font height can now be entered as cap height too.
	Geometries on border-register-methods are removed when load a ZCC-file.
	Problem with the method order while applying a job template.

Bug fixes	
Cut Editor	Unite contours leaves closed contours which are completely inside the outer contour.
	Problem with zcc files containing a Border roll left registration type.
	Fix crash in Editor when access import-settings without database-connection.
	Geometries are converted to points if the method is changed to a type which only supports points (Punch, Drill, Register, Notch).
	Cloning methods did not work together with action steps.
	The line type is no longer shown for Route methods.
Cut Manager	Cut Manager → Cutters: Delete-button is enabled correctly only for cutters, which are not online.
	The e-mail notification with TLS encryption did not work anymore, because of a change in the Windows operating system. Now the setup has to be done with «Microsoft Graph API».

4.4.4

Date of release: November 15th, 2024
Minimum firmware versions:
Cutter G3/D3/S3: 1.79.0
Cutter Q-line: 1.8.0
CIS: 1.8.0
Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Features	
Cut Center	Bevel-cut: • The parameter Base depth is considered now while calculating the cutting path and the precut distance. • Improved view of Bevel-cut paths, where the cut at the material top is drawn as dashed line and the cut at the material bottom as dotted-dashed line. The different bevel types have now better names, and the icons are added to the bevel type combobox to support the type selection.
	Improved visibility of the tool insert usage (running meters).
	Accept the decimal separator of the numeric keypad of the hardware keyboard even if the keyboard setting is different from the windows region setting.
	The notifications regarding the required material size are improved. Now the notifications contain the reason why the dimensions are required.
	Buttons added to load default values for OCC/UNDERCAM camera and alignment mark settings.
	Address and port of Cut Server are shown in about-dialog.
	Barcode production: Support a possibility to end an automated production, even when the loading device cannot detect an empty stack (e.g. Board handling system 180). Automated production ends when a QR code with the content ‘PRODUCTIONEND’ is read. All sheets already loaded are still being processed.
	Pick & place interface: Support robot grippers with up to 32 suction cups.
	Border detection: The «less restrictive» border detection algorithm can now handle two edges within the camera image. This «less restrictive» algorithm can be selected via INI entry ([camera] useOpenCvBorderDetection=false).
	Now always an already used knife is used for further productions, if multiple equal configurations are available within the tool magazine.
General	New codemeter driver 8.20 (8.20.6539) of the software license.

Bug fixes	
Cut Center	In prepare tools view the V-Cut is visualized now correctly also in case of a negative base depth.
	KCT is only used for waste-cut/cut-off if no other (better) tool is available
	Problem with cut waste lines not cut in combination with overcut fixed.
	Fixed endless hanger at start of production if previous production was aborted in combination with Abort production action sequence.
	Cutter Control Panel: Problem when aborting a command rectified, e.g. a feed.
	Fixed situation where the vacuum state button in the control panel showed the wrong state (on/off) of the vacuum.
	Avoid strange correction feeds after registration of some marks (mainly in Y direction).
	Barcode production: • Improved barcode (QR-code) content check to avoid problems when UNDERCAM detected multiple codes. • Improved learning of barcode positions on a roll with several copies in Y direction. • Learning position of copy on roll from detected barcode position corrected. • Decoding of Zund Barcodes corrected.
	Avoid beam collision after moving one beam via joystick in material load screen in combination with production re-run.
	The workflow with the Board loading device did inadvertently not work anymore when using an older cutter firmware than 1.79.0 (Gen3 only).
	A custom park position was inadvertently not saved.
	Number of vacuum width changes reduced.
	A job with no metadata can be produced with a robot.
	Adjust OCC search field correctly to copies on roll. This was a problem in very specific cases.
	Adjust colors of the slider for the speed when using an oscillating tool.
	Problem with the brightness level of the ICC camera. After the camera was switched off and on again, it was not possible to adjust the level anymore.
	The camera image is less blurred if the option Noise reduction is off. But the camera image needs to be blurred with a certain level for the circle detection.
	Delay after pressing down fixing bars on Board loading extension (manual UNDERCAM table) slightly increased to make sure the bars are down when taking image.
	In tools magazine view the running meters progress bar wasn't always fully visible.
	In magazine view the text of the context menu wasn't available for all menu items.
	When cutter is configured to shut down the cutter after x minutes production interruption, the timer is now restarted every time the user executes a command on the cutter.
	Shutting down both, the cutter and the computer, after production ends respectively stops, inadvertently only shut down the cutter while the pc kept running until the user confirmed the connection-lost popup.
	A VUTO can no longer end up in an AUTOMO-L.
	Double beam cutter: Both beams can now be selected and moved within the material load screen, even if a loading unit is used.
	Prevent trigger of multiple notifications 01622 (reference init done for G3) which lead to a stack of notifications to confirm for the user.

Bug fixes	
Cut Center	Board handling system 180 (bhs180): Problem with unloading of sheets, because of a wrong sheet length. The problem existed with some job rotations only.
	Problem with Leibinger Inkjet printer, where inadvertently some lines were not printed.
	Notification 01611 (Re-run the inside-outside detection after method type changed) will be triggered only if the method type changes to either route or bevel cut.
	When using comma as decimal separator the grooving angle had inadvertently the wrong unit mm.
	Material editor: • Problems while creating custom materials. • Names of material-groups are set correctly when importing a material. • Material-Import: Actions for the tool configs are imported correctly. Fix wrongly imported data. • Optional parameters for Q-Line-tools are set correctly.
	Material initialisation setting is not lost when open the job in editor from prepare.
	Show warning of not cutting through (01352) only if base depth is < 0. Show warning of not processing material (01349) only if base depth < material thickness.
	GAT numbers are shown differently in tools.
	Problem with the job list filter Wait for estimation.
	Layout-Rotation is not lost when open job in Cut Editor from prepare.
	Do not change value of elements when hover them with mouse and scroll with mouse-wheel. Require a click to focus the element.
	Avoid clipping error because of border if it is not needed.
	Problem with PPT solved, inadvertently error 00606 because of not supported grooving angle blocked the production start.
	Fix geometric calculation when using arcs.
	Crease depth can be highlighted in depth view.
	Depth view shows flute dependent depth view when the first depth is 0.
	Problem while changing a Notch method from a Notch to a DRT tool.
	Problem with waste-cut when using option Inside to outside or Outside to inside in combination with Vacuum width or Table width.
	Fix equipment-text when export the cutter config.
	Decrease possibility of a timeout while estimate jobs.
	Fix bug where database-error could be shown in Cut Center after a tag was added in TOMAC.
	In prepare layout tab the rotate button is properly updated and visible.

Bug fixes	
Cut Center	Solved diverse possible crashes: • When inserting job into existing job in cut editor. • Crash happened when using dynamic text variables within a text object. • Crash when changing OCC/UNDERCAM settings like shutter time etc. • Crash after the tool magazine was scanned. • Crash when quitting production and then changing an option. • Crash when registration failed with no camera (doing simulation). • Crash fixed when changing a tool of a notch method. • Crash when copying custom tool inserts. • Fixed rare situation where estimator could crash cancelling a running estimation. • Crash aborting batch production after the first job is done and the second one can't be produced due to errors in the job. • Crash which could happen during camera initialization. • Crash in MQTT library, updated the libraries: paho-mqtt and OpenSSL.
Cut Editor	Strange results of the nesting efficiency in some cases.
	Fix operations not selectable after open a job from a file.
	The sort algorithm (TSP) could return a cut order that was worse than the original when option Allow reverse direction was selected.
	Save job enabled immediately after import.
Data import	The attribute Media box was falsely not correctly considered within the import settings.
	Some notches were skipped during data import.
	When import multiple files in editor and the align-option is set, they are aligned together.
	ZCC does not crash when try to import a PDF-file with the command to close «Marked Content» without open it before.
	Fix bug where contours were no longer closed when they were imported and start with a line smaller than 0.01mm.
	The zcc import option Keep identical shapes and text labels did inadvertently not work correctly anymore.
Cut Server	Fixed possible crash when reading the file list in a hotfolder.
	Server failed to estimate a job where Board-loading extension (manual) was used.
	Fixed possible estimator crash when cut server was closed or the network connection interrupted while sending data to the estimator.
Installation	Default file for convert-settings is renamed correctly when install Cut Server without Cut Editor.

4.4.3

Date of release: September 10th, 2024
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.8.0
CIS: 1.8.0
Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Bug fixes	
Cut Center	For route methods when using polishing in combination with finishing the finishing path was inadvertently the same as the polishing path.
	Allow confirmation of tool configuration when in tool magazine all large slots are occupied, and only small tools are mounted on the beam and at least one small slot is empty. Furthermore, for tool confirmation on a double beam when using single beam mode consider only the magazine of the active beam.
	Prevent crash if the bridge distance of an ARC is larger than the ARC length.
Cut Server	Cut Server accidentally delivered names of user-defined materials only after a restart.

4.4.2

Date of release: August 29th, 2024
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.8.0
CIS: 1.8.0
Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Features	
Cut Center	Board loading extension: Support multi page loading.
	Improved registration type Fit to objects for jobs with objects that are split on multiple feeds, especially for stretched material.
	Improved roll box length to avoid split contours.
	Support Z702 in VCT2.
	Leibinger Inkjet: New option Open nozzle in processing action Inkjet printer implemented.
	Cutter control panel: Vacuum can be turned off when production is at the registration screen.
	In job list a due date can be added. It will be validated to have a valid date/time timestamp.
	Board handling system 180 (BHS180): New warnings 1079 and 2079 if cutter is not in automatic mode.
Cut Editor	Nesting library: new release 10.
General	Default backup period reduced from 14 to 2 days.
	New codemeter driver 8.10b (8.10.8237) of the software license. Avoid runtime error while updating driver from 8.00 to 8.10.

Bug fixes	
Cut Center	Problem with certain jobs in preparation, it took a very long time until the jobs could be produced.
	Problem with processing type Tandem in combination with re-adjust of a tool insert solved.
	Determining relevant marks for Fit to objects transformation corrected for objects that are longer than the cutter.
	The production did inadvertently not continue under very certain circumstances. The problem could happen while producing a job longer than the cutter with different methods where multiple roll boxes are produced in one feed.
	Batch production: • Fixed a crash when deleting multiple jobs from the batch job list. • Problem with slow refresh reaction when many or large jobs in batch queue solved.
	Barcode production: • In some case the application was very slow, very bad reaction. • Consider defined copy distance in x direction on a roll and learn if distance changes. • Learn position of copy on roll from detected barcode position. • Learn barcode position correctly also for jobs without registration.
	Leibinger Inkjet: Avoid wrong printed lines in a GAM/GAT in combination with a line width > 1.
	Production continues when database-connection is lost.
	Problem of re-adjust in combination with waste-cut solved.
	Improved calculation of expected position for multiple copies on multiple pages.

Bug fixes	
Cut Center	Problem when the processing action sequence Start of sheet contained more than one action of type Message.
	Ensure to produce grouped objects in one feed, if possible.
	Problem with remaining time when the production was interrupted because of the external feed stop signal (e.g. by a robot). Inadvertently this was not handled as an interrupt.
	Notches are inadvertently not always produced in the same feed as the corresponding outline contour.
	Flip cut corrected together with rotation of the layout.
	Count the number of sheets correctly in combination with multi page loading while using the function Re-init after x sheets.
	Q-Line cutter: • Avoid sending an empty command to the cutter while using the action 'Generic G-code'. • The custom button did inadvertently not flash when a confirm notification of a Board loading device (BLD) was pending.
	Board handling system 180 (BHS180): Since ZCC 4.4.0, the fixing bar was inadvertently not pressed down anymore while calibrating the UNDERCAM.
	Problems with custom marks and recognition settings solved.
	Improved UNDERCAM border detection when the UNDERCAM is slightly rotated.
	Cutter Control Panel: Ensure to take over the specified feed length.
	Job list: • The job list export to file via swipe gesture creates a correct job file. • In job list multi selection works correct in case any data of a list item changes. • Selection and deselection with keyboard (shift, ctrl) works correct. • Job is not estimated again after open and close without any changes.
	Visualizing option: • For projector with Group per group feature the set label has no label index anymore and must not be separately confirmed in case of Print on request. • Unintentionally the projector calibration didn't work with double beam configuration. Now the correct beam moves to place the marks.
	Fix bug where notch-insert was not automatically selected.
	Fixed crash when copy an action in processing.
	In prepare tools the parameter list (tab advanced) doesn't scroll automatically to top when changing value to other than default.
	GAT: Parameters depending on other parameters were not added when configuring tool parameters.
	Material editor: • Visibility of material groups in prepare are updated without restart of Cut Center. • Material export: Attribute Comment was falsely missing. • Material editor shows correct tooltip for user defined materials which contain a tool insert with undefined parameters. • Do not add un-needed parameters when import a material.
	Unintentionally in user roles the item Tool default value of parameters couldn't be changed.
	Button to retry connect to CIS at startup of Cut Center.

Bug fixes	
Cut Server	Data import: Hotfolder problem because of not completely written files.
	Server starts only one estimator process per 512MB free memory to avoid overload of the computer.
	When the Cut Server could not open the port, the reason is added to the log.
Data import	Problem with the font height of text objects when using the Single stroke font, which converts the letters to vectors.
	Material was not taken over anymore while importing. This problem exists since ZCC 4.4.0. Material dimensions and flute direction could falsely not be set in the import settings of the hotfolders.
	PDF import: • Import inadvertently had problem with comments inside the pdf. • Problem with (corrupt) PDF files fixed, where the xref table content is wrong. • Problem with the wrong position of text objects solved.
	Fix import of some very small geometries.
Cut Editor	Nesting dialog: Changes are added to UNDO/REDO stack now.
	Problem in the Object properties dialog, where column Quantity was inadvertently missed when the value was 0 or 1.
	Improved chain algorithm: Does take the nearest found geometry to chain not the first one found.
	Remove double lines removed some lines shorter than 0.01mm although they were required.
	Problem with not selectable methods in Fit inlay or Creasing channel jobs while switching between the jobs.
	The job status is shown correctly while using the function Open from job list.
	When adding a zcc file file is afterwards not stored into the path of the added file anymore.
	Fixed crashes: • When pasting geometry items. • When searching for register marks.
Cut Manager	Diverse problems with hotfolders: • Inadvertently were changes of the default method colors not taken over into the hotfolder import settings. • Import settings are moved when change the path of a hotfolder. • Correct subfolder-check when configuring hotfolders. • Show processing only once in hotfolder import settings.
	Problem with email and teams settings when Cut Server license was installed on the same computer as the Cut Center license.
Installer	Installer checks content of ini-file to determine if Adjust server configuration is enforced instead of check if any ZCC-Executables already exist in the selected directory

4.4.1

Date of release: July 16th, 2024
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.6.2
CIS: 1.7.0
Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Bug fixes	
Cut Center	Selection of a Q-Line cutter was inadvertently not possible anymore. This problem exists in ZCC 4.4.0 only.
	Registration type Border roll: Problems with wrong cut offsets in Y direction after corrections.
	Board handling system 180 (BHS180): Option Material already loaded supported again, but it expects an already loaded sheet on the cutter extension too. The situation without a loaded sheet on the cutter extension will be implemented later.

4.4.0

Date of release: July 4th, 2024
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.6.2
CIS: 1.7.0
Supported operating systems are Windows® 10 (at least 1809), 11 and Server 2019, 2022 (64 bit)

Features	
General	Support backward and forward navigation within the online help.
	Installation: • Disable automatic Windows update, if possible. • Entry in installer for ZST PAL/YUV-Converter USB
	Software license: new codemeter (WIBU) driver 8.1 contained.
Cut Center	Q-Line cutter: • Support the cutting modes quality/standard/speed, where the parameter values of previous ZCC4 installations correspond with the new ‘speed’ values. • Support for new tool VUTO with variable, automatically changed grooving angles. • Support for new tool ROTATO. • Support for the new tools ELOSTO 10 and 50.
	Gen3 cutter: • Support for new equipment Board loading extension including the UNDERCAM. • Possibility to confirm multiple equal tool / tool insert configurations.
	Board handling system 180 (BHS180): • The plate lengths are now sent to the stacker to avoid problems when different plate lengths are unloaded. • Put page back to feeder staple if the production progress is interrupted and the power option Switch off vacuum after.. is activated. • New material parameter Unload material completely to stacker implemented. With this option, the sheets are always completely unloaded to the stacker. A small backward feed is needed afterward.
	New Waste-cut option Cut direction to cut either from inside to outside or outside to inside over the material border.
	Change tool upon event, • if tool is broken in combination with re-init • if tool has reached the defined limit of cutting meters (tool insert usage) • show a warning when the tool insert has not enough meters left at start production
	OCC (over cutter camera): • Improved registration for stretched material (textile). • Sheets are now automatically skipped, if parameter Max number of skipped sheets defined and e.g., the QR-code couldn't be detected. • Avoid showing error 'not all marks found' in combination with a correction feed.
	Support manual skipping while recognizing QR-codes, marks or borders with the UNDERCAM or OCC.
	Board loading device: The waiting time can now be set via processing action Material handling settings.
	Within the material load screen in production, there's a new function Move cutter to position x/y which allows to move the cutter beams via click inside job view.

Features	
Cut Center	Improved registration type Fit to job for jobs with multiple feeds, especially for stretched material.
	Barcode production: • If the parameter Max number of skipped sheets is set, a sheet is skipped automatically, when no QR-code found, or no job found for the detected code. • A sheet is now skipped automatically when no QR-code could be detected, if the option 'Max number of skipped sheets' is defined.
	The settings of a barcode or batch production can be now exported and imported.
	Pick & Place interface: • Support a vacuum gripper (without suction cups).
	Visualizing option: • Improved projector setup configuration. • New option Separated by groups in combination with a projector and label printer. • Implement import and export of projector calibrations. • projector configuration and robot positions are client dependent and no longer global
	Automatic router bit changer ARC: Router bit assignments are now possible without opening the magazine.
	Show correct unit for parameters Teeth/Inch and Laser power scale.
	Tool action sequences are visible in prepare when tool configuration has some.
	Do not allow Knife compensation and Minimized rotation in combination with symmetric tool inserts.
	It's now possible to open the web shop with the direct link of the selected tool insert (knife, router bit, etc.).
	Support for knife Z207c.
	It's now possible to switch the beams while pausing a production.
	Shortcut F10 starts the production.
	Notification list which opens after clicking on a notification icon is now sorted by severity.
	The data base version is now shown in the about window.
	Default print height parameter for Leibinger Inkjet reduced to 90% to avoid problems with dirty nozzle. To keep the same label height the distance of the printer head is increased to 15mm. This is now an own parameter in the ink jet tool insert configuration.
	Jobs contain independent Processing settings for Gen3 and Q-Line, now.
	There's no automatic processing selection in Cut Center anymore. The operator must select one or it can be set automatically while importing jobs.
	Cutter Control Panel: It's now possible to start an initialization of a tool insert.
	Increased range of V-Cut gap to +- 5mm.
	Now, production export contains the size of one copy in X and Y.
Cut Editor	Nesting: • New function Load material defaults implemented, where the nesting parameters are taken over from the selected material.
Cut Editor / Cut Manager	Import and export functionality for the import settings. File ConvertParameter.ini is automatically renamed to ImportSettings.xml.

Bug fixes	
General	Problem while installing a Cut Editor on a separate computer in combination with Cut Center Basic.
Cut Center	Pick & Place interface: • Problem with pick up with heavy stretched material in combination with registration type Fit to object.
	Visualizing option: • Problem with sometimes wrongly viewed shapes. • Diverse problems with the projection.
	Problem with the order of notches. The notches were done inadvertently after the cut paths in combination with Group per group order or they were done in different feeds.
	Automatic router bit changer ARC: • Inadvertently no initialization was done after a manual router bit change. • Under certain circumstances the router bit magazine was falsely not scanned again.
	Job from job list was falsely deleted when sending it back from Cut Editor to Cut Center if creasing channels were added.
	Improved border detection algorithm.
	Board handling system 180 (BHS180): • Problem with y-shift between different batch jobs. • Problem with the function Unload material automatically after a production abort. Inadvertently sometimes the sheets are not correctly unloaded to feeder or stacker staple. • Option Material already loaded not supported anymore.
	Board feeder: Production of sheets longer than the cutter working area was inadvertently not possible anymore.
	Board loading device: Problem with feed of longer boards, where the feed must be split.
	URT: Problem with the z-position in relative mode in combination with base initialization.
	Problem while starting a production via a hand scanner just after the start of Cut Center.
	Problem with the turning direction on closed shapes when using Multi pass in combination with Knife compensation.
	Do not automatically skip any pages/copies in the first row along Y.
	Show a warning if a method, which is inside-outside relevant, contains open contours.
	Double beam collision at production start fixed.
	Double beam collision fixed with jobs containing labels.
	Time estimation: • The time estimation failed inadvertently when a processing contained an action Lower screen (Q-Line only). • Problem with the estimated time when Page feeder mode = Time optimized within the processing settings in combination with a bhs180 or bhs150.
	Improved feed length at the end of job, the last feed position is now at an optimized position.
	Inadvertently the RM-A was supported only at slot 3 of on a G3 or D3.
	When import material from ZCC 3 prefer registration with ICC over laser pointer.
	Problem with nested user variables inside QR-code / data matrix.
	After deleting a machine step, it was unintentionally possible to move waste cut method to another position. This could lead to unexpected behavior during production.

Bug fixes	
Cut Center	In cut off action, after selecting a different x position the popover had falsely a width of 0 and was not correctly visible anymore.
	Barcode production: • Waste-cut lines are falsely rotated when option 'job length/width' selected and the job was rotated with 90° because of the read QR-code. • Production was inadvertently not continued after a plate was skipped. • Learn QR code positions correctly also with a loading device. • Problem while producing on a roll in combination with OCC. • Fixed bug where UI was getting very slow in barcode production if the processing contained a foil-cut. • Camera settings for barcode detection and for mark/border detection were falsely not separated anymore. • Unnecessary delay before each barcode detection with ICC (G3) eliminated.
	Problem with a manual router bit change.
	Dead lock while cutting with both beams on one board fixed.
	If there are several copies on the cutter, OCC did not always recognize all of them.
	Improved OCC recognition of marks that are very close to other printed objects.
	Fix unwanted cut when cutting some overlapping arcs (curves).
	Under certain circumstances it was falsely not possible to execute a manual cut-off at end of production.
	Problem if an item of the label template contained multiple metadata within one text.
	Problem with the parameter value of Score depth when pausing the production.
	Make pause and continue work correctly during waste cut execution.
	In production pause view, the media player buttons were inadvertently covered by a pending notification.
	Problem with job containing multiple sheets in Y in combination with a Material turn over.
	Images for custom tools (GAT) were not loaded correctly.
	Clipping of user defined variables in labels is disabled in prepare. After the value is available (in production) and before producing the item there is a clipping available. For counters where the value is determined just before production a placeholder is used to calculate the clipping.
	Jobname-Suffix ".zcc" is falsely not removed when receiving a job over XML communication.
	Learn where border positions have been found.
	The size of the text of progress (copies & sheets) during production (inside the donut) is set correctly depending on the size of the donut.
	Polishing method is deleted properly after changing the material to one which doesn't support polishing.
	Show tool insert usage (running meters) of the tool inserts in the magazine too.
	Improved border detection with UNDERCAM for wavy borders.
	Show material thickness when selecting the materials to restore but hide the favorite-buttons.
	Material editor: • Fixed but that tag was lost when using copy-paste. • Fixed bug where Cut Center crashed when copying an insert.
	Some custom inserts could falsely not be removed.
	Router R-118 A was falsely not listed.

Bug fixes	
Cut Center	Crash while changing the orientation of the job within the layout tab.
	In prepare rotate layout icon and tool tip improved. Furthermore, it is not possible to rotate the layout for roll feed jobs or jobs longer than one table length. The save button was enabled inadvertently.
	Start border roll registration at start of roll, also when the roll is fed to the front at first. This happens together with a reference point that is set at x > 0.
	Tags are respected when copying a Zund tool insert and create configs automatically.
	Fix bug where the helper-job (inlay, creasing channel) of original job was lost during duplication.
	Undo / redo in prepare did not apply all changed values properly when changing action parameters.
	Diverse problems with the RBT (raster braille tool).
	Avoid very long calculation time with jobs containing Bezier curves and feed connection cuts.
	A hidden polishing method can't be deleted anymore. A route method with active polishing parameter can be duplicated correctly (incl. the appropriate polishing method).
	Job cannot be deleted when duplicated and some tool processing actions were configured.
	Diverse speed improvements on larger zcc job files.
	Show also large job names properly in production running screen (for multi and single job production).
Cut Editor	Crash while importing certain files with the sort option.
	Fix bug where island fill did not fill the complete area. Improve length of stems with island-fill.
	Improve performance when selecting multiple geometry items in editor.
Data import	Problem with the nesting parameters of the selected material. Inadvertently were the parameters not taken over while importing a file.
	Problem with the notch scanner, under certain circumstances the path contours were falsely modified.
	Problem while converting the same layer into two methods in combination with notches solved.
	Problem while importing a file with read only flag via hotfolder.
	DXF import: • Problem in combination with the sort option, if the dxf file contains multiple equal notches. • Crash while importing certain files in combination with option Group inner and outer objects automatically.
	PDF import: Problem with certain files, where an array object is stored as reference (e.g. files generated with AI2023 or PackZFlow).
Cut Manager	Add option Include database dumps to the support report options.
Cut Server	Messages appear twice in communication log of server

Not implemented features compared to ZCC 3.5	
Definition of user defined feed lengths.	Planned in ZCC 4.5.0
Data preparation for Zünd Connect	Planned in ZCC 4.5.0
Border inside sheet	Not planned to implement, because it can be replaced by using custom defined marks.
Register type Fit to objects without rotation	Not planned to implement again. It will be useless because the improved algorithm Fit to objects which comes soon.
Batch/Barcode production with a border recognition (Border right, Border left, Border roll).	Not planned to implement, because possible use cases are unlikely.
Screen simulation	Not planned to implement.
Laser pointer simulation	Not planned to implement. With the new movement function a faster check to see if job fits onto material is now available.

4.3.1

Date of release: Apr. 26th, 2024
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.6.2
CIS: 1.7.0
Supported operating systems are Windows® 10, 11 and Server 2019, 2022 (64 bit)

Bug fixes	
Cut Center	Problem with the border detection, inadvertently sometimes the wrong border was taken when the camera image contained multiple edges.
Cut Manager / Cut Server	Inadvertently all hotfolders are de-activated after the update. This problem exists in ZCC release 4.3.0 only.

4.3.0

Date of release: Apr. 17th, 2024
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.6.2
CIS: 1.7.0
Supported operating systems are Windows® 10, 11 and Server 2019, 2022 (64 bit)

Features	
General	Support Cut Center and Cut Manager without user manager. So, the user roles can be changed without any password. This simplifies the installation process of CIS and Zund Cut Center. This is supported in combination with Gen3 cutter only, for Q-line the user manager is still required.
	Installer for Cutter factory is downloaded from CIS not contained in ZCC installation anymore.
	ZCC can handle non default CIS ports.
	New codemeter (WIBU) driver 8.0a contained.
	7zip is now used to compress files for the support report and so larger files than 2 GB are also supported.
Cut Center	UNDERCAM: • Improved QR code detection. • Support inverted (white on black) QR codes. • Avoid occasional crashes when detecting QR codes. • Improved border detection. Boards were skipped sporadically because no border was found.
	Check camera shooting mode of OCC and show a warning if it is not set to manual exposure '(M') when starting calibration. Set correct shooting mode automatically for UNDERCAM.
	Automatically feed to the front if the first OCC registration detects that the job is not completely on the cutter.
	Possibility to integrate a 3rd party editor on machining step page.
	Support Alignment register marks together with registration type Fit to objects. Each grouped object can contain 1 or 2 align marks.
	Improved border recognition algorithm of INCAM/ICC.
	Warn when the tool insert usage limit is reached during this job (remaining cutting length are lower than the cutting length of the job).
	After a tool insert was replaced, because it was broken or the tool insert usage limit reached, the notification of the change contains the sheet number now.
	Visualizing option: • While adding a new projection device there is the possibility to distinguish between two device types - either screen or projector. For projector the known calibration procedure is executed. For screen a quicker procedure (which only includes the place grid) is available. • Type of item (static or metadata) is visible in the list overview. • Label printer: Selection problem fixed (UI is updated now properly). Draw the barcode depending on its word length.

Features	
Cut Center	Database parameters for ELOSTO 50 added.
	A user defined ROI (region of interest) for custom mark search can be defined with INI-file entries. Various settings to customize the behavior.
	Improved handling of polishing bits, e.g. base depth of polishing method gets checked, the diameters of router and polishing bit get checked, improved polishing bit selection.
	Added context menu items Set done and Reset done copies to the job list and the list of the batch production.
	Within tool configuration dialog, the eject button is now supported on an empty module too, to load a tool or a connector guard.
	Skipping sheets automatically: • Extend notification 01625 by current number of skipped sheets and maximum number of skipped sheets. • Do not skip pages automatically if there is a problem with the UNDERCAM that cannot be resolved for the next page. • User gets notified if a sheet is skipped automatically (during registration).
	The vacuum isn't switched off anymore after a test-cut with method Kiss-cut.
	Board handling system 180 (BHS180): • Support for mirrored construction. • Improved logging mechanism.
	Import of materials containing unknown tools or inserts is possible.
	At end of production execute action Move to park before the unloading device finished the unload.
	Improved UI performance with very long jobs (e.g. on a roll).
Cut Server	ZCC communication: 'jobprocessingrequest' returns translated name of processing.
	The re-start settings within the CutServer service properties are defined while installing.
Cut Editor / Data import	New attribute Media box for {none} methods, where the vectors of this method are ignored while running the function Group inner and outer shapes.
Cut Editor	Feed settings are not visible anymore, because they are currently not used.

Bug fixes	
Cut Center	The parameter Print height of the Leibinger Inkjet printer was falsely not implemented.
	Pick & Place interface: • Crash while picking shapes with all suction cups. • Last shape was maybe not picked up with the robot. • Problem with the '#direction line' of the shape after an intermediate feed.
	Make sure the cutter does not produce anything after production was cancelled on a G3/S3/D3 cutter.
	In ICC/INCAM recognition (for custom marks) the indicators for default (circle) and custom mark (cross) are no longer visible at the same time.
	Calculation time of time estimation with cut-waste optimized.
	Avoid double beam collision with v-cut.
	Problem of wrong clipping error in combination with V-cut fixed.
	Fix bugs when create a custom tool by copying a Zund tool.

Bug fixes	
Cut Center	The reset of the tool insert usage (running meters) did not work correctly in all cases.
	Visualization option: • The key of the meta data is not case sensitive anymore (upper/lower case letters). • Moving to position during projector calibration (step place marks) is now correct in case cutter is offline and laser pointer is not the currently selected tool. • Changes of the projector profile were inadvertently not taken over without Cut Center restart. • Label printer: Abort of job works correct if there are pending labels to print.
	Problem with custom register marks, it could lead to a crash.
	Bug fixed where punches falsely only assigned to one beam with double beam production.
	Cut time estimation: • Calculation time of time estimation with a lot of pages optimized. • Crash and error in time estimation fixed on jobs with border roll registration and cut off. • Some problems of the cut time estimation fixed for Q-line.
	Learn QR code positions correctly when using sheets/boards with a loading device.
	Detect inside/outside correctly while opening a ZCC file generated with ZCC3.
	Cut Center Basic installation: Problem while opening the Cut Editor inside Cut Center. Inadvertently it was not possible to return back to Cut Center after modifying the job.
	Backup is triggered correctly in case of a Cut Center Advanced or a Basic license in Cut Center and Cut Server.
	Fix a crash when a job contains a bezier with the same start- and endpoint
	Problem with a comma as decimal separator with the material thickness inside the material editor.
	Show the span pin warning only if the router module RM-A is currently mounted.
	Problem with Flute/grain direction in combination with certain materials.
	Fixed bug where camera image was not visible when noise reduction was turned off.
	Fixed bug where tool insert of a job is not set correctly after undo in prepare.
	Improved automatic sort order. Inadvertently the shape order of certain zcc files was worse than in ZCC3.
	After taking image with OCC and before executing the first method (with a different tool than the last method) there is no pen up executed anymore. Straight move to the start position.
	ROI was not always set correctly for OCC registration on a roll after the first feed.
	Rotate mark templates for OCC/UNDERCAM correctly.
	Notifications 01073 and 01131 (sheets do not fit in X & Y direction) are set properly and a job start is prevented.
	Total and done copies per job are now displayed correctly in production running view (in case of rerun production and for batch production with the same job multiple times in the batch list).
	Modifier keys control & shift work properly in projector calibration to move the points of the calibration grid.

Bug fixes	
Cut Center	Production info export: • 'Total copies' are now contained in the export file. • Interrupts are not exported twice.
	Batch/Barcode production: • Avoid to show the same notification 00386 The tool insert usage limit of x exceeded.. multiple times, when the operator confirmed it once. • Show correct job names in case the job is reused.
	Batch production: Problem with the unexpected long delay between two large jobs.
	Inadvertently the creasing tools were initialized twice after a restart of the cutter (Q-line cutter only).
	All notifications in the prepare tools tab are now visible when opening the job without an additional click in the tools tab.
	Fix bug where the text of notification messages was missing.
	When producing a job with processing manual load after producing a job with tandem the correct image is visible in production load screen.
	Avoid crash if a new job is added to the job list.
	Crash or wrong job properties were inadvertently shown while using short cut F2 in job list.
	Fix crash when create a custom tool.
	Insert tags were not properly handled together with an ARC.
	Fix crash when a favorite material was deleted.
	Remove and add or restore ZCC parameters works now correctly for router bits where the polishing parameter is enabled on the tool.
Cut Center / Cut Editor	Problem with hatch fill on certain shapes.
Cut Editor	Cancel an Add job operation did falsely add the job anyway.
	Help of Cut Editor & Cut Manager is closed if the application closes.
Cut Editor / Data import	Problem with function Remove double lines.. in combination with certain files. Inadvertently some small lines were not removed.
Data import	DXF format: • Problem while importing dots in combination with option Automatic minimum distance order. • Fix hang of ZCC while import specific DXF-files.
	ZCC can import zcc-file which has an invalid parameter in the file.
Cut Server	Server restarts the hotfolder watcher only when ini-entries about hotfolder change, not on any change in ini-file.
	Does no longer start when an invalid port (0 or >65535) is configured. Within Cut Manager the server port is configured with a number- instead of a text-field.
Cut Manager	Problem with hotfolder settings when path contained a comma character.
General	Installer does not reset park position type.

Not yet implemented features compared to ZCC 3.5	
Cut Center	Batch/Barcode production in combination with a border recognition (Border right, Border left, Border roll).
	Production info is available at end of production only. No production statistics will be available afterwards. Statistical data will be stored in Zünd Connect only in the future.
	Data preparation for Zünd Connect.
	Laser pointer simulation.
	Screen simulation.
	Definition of user defined feed lengths.
	Register type Fit to objects without rotation is not completely implemented.
	Border inside sheet.

4.2.4

Date of release: Mar. 15th, 2024
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.6.1
CIS: 1.6.1
Supported operating systems are Windows® 10, 11 and Server 2016, 2019, 2022 (64 bit)

Bug fixes	
Cut Center	Some crashes during production.
	Ensure that the remaining time of creasing channel jobs is calculated.
Cut Center / Cut Editor	Problem with Round corner function in combination with very small geometry outlines.

Not yet implemented features compared to ZCC 3.5	
Cut Center	Batch/Barcode production in combination with a border recognition (Border right, Border left, Border roll).
	Production info is available at end of production only. No production statistics will be available afterwards. Statistical data will be stored in Zünd Connect only in the future.
	Data preparation for Zünd Connect.
	Laser pointer simulation.
	Screen simulation.
	Definition of user defined feed lengths.
	Register type Fit to objects without rotation is not completely implemented.
	Border inside sheet.

4.2.3

Date of release: Mar. 6th, 2024
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.6.1
CIS: 1.6.1
Supported operating systems are Windows® 10, 11 and Server 2016, 2019, 2022 (64 bit)

Bug fixes	
Cut Center	Tool insert usage: • Inadvertently sometimes a second equal tool configuration was not taken automatically when the usage limit was reached. • A tool insert will be deposit automatically in the magazine when usage limit reached. • Inadvertently an equal available tool configuration was not taken automatically at production start. • A tool insert which already reached the usage limit was falsely not marked with a warning icon anymore after Cut Center restart. • Under certain circumstances a manually changed tool insert (knife) was falsely not initialized after the notification 'usage limit reached'.
	Roll feed: Avoid strange feed at production start with jobs containing mark registration and the first mark is not close to x=0.
	Board Feeder 180 with UNDERCAM: • Loading problem, if a notification blocked the production just at the time the UNDERCAM took the image.
	Avoid crash when leaving OCC or UNDERCAM recognition via settings button (top right icon).
	Avoid crash when starting barcode production with cut offs.
	Creasing channels: Crash while producing the underlay job for creasing channels, because of the remaining time calculation. Currently the remaining time won't be calculated for the underlay job.
	Installed MQL equipment was always active inadvertently, even when router tool without MQL was selected.
	Machine step list is now updated after undo / redo when tool insert changes.
	Text objects on registration methods are automatically removed to avoid any problems during production.
	MQTT communication via secure web socket.
	Improved performance with large jobs.
	Fix bug for estimation of Gen3-cutters without ICC.
	Setting of Narrowing vacuum stored permanently.
	Too many register marks were optimized away for jobs longer than the table in some cases.
Cut Center / Cut Editor	When reading a job file without material-guid try to find material by name.

Bug fixes	
Cut Editor	Function Remove sheet: • Crash when saving a job in the job list after using Remove sheet. • Wrong sheet is deleted when using Remove sheet.
	Problem while using function Island fill.
	Editor basic: Does not discard job when Save-dialog is cancelled after click on Send to Center.
Data import	Problem with Remove double lines while importing certain jobs.
	DXF format: • Problem with some shapes on certain dxf files. Some shapes are placed at the wrong position. • Fix a crash when importing some files with notch scanner. • Problem in combination with option Use color to define layer names.
	PDF format: Problem with wrong text content while importing text objects of certain files.
Cut Manager	Manager starts when invalid server port-number is configured.
General	Support report: Do not create a ZIP file when cancelled. Add hotfolder to the report when started from Cut Center, if Cut Server on the same computer installed.
	Allow "_" in CIS names.
	Login in Center, Manager and Editor works, when CIS address contains some uppercase letters.

Not yet implemented features compared to ZCC 3.5	
Cut Center	Batch/Barcode production in combination with a border recognition (Border right, Border left, Border roll).
	Production info is available at end of production only. No production statistics will be available afterwards. Statistical data will be stored in Zünd Connect only in the future.
	Data preparation for Zünd Connect.
	Laser pointer simulation.
	Screen simulation.
	Definition of user defined feed lengths.
	Register type Fit to objects without rotation is not completely implemented.
	Border inside sheet.

4.2.2

Date of release: Feb. 14th, 2024
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.6.1
CIS: 1.6.1
Supported operating systems are Windows® 10, 11 and Server 2016, 2019, 2022 (64 bit)

Bug fixes	
Cut Center	Board Feeder 150/180: • ZCC did sometimes stop and not proceed after registration with the UNDERCAM. The sheet was transported to the cutter and then the process stopped. • Problem with page feeder mode Earliest possible loading. This problem exists since ZCC 4.2.0 only • Page feeder mode Time optimized loading: Improved calculation of the loading time of the next sheet. • The process did inadvertently stop when at the stacker an error or light barrier interruption occurred while the stacker was already moved to the cutter.
	Barcode production: • Board Feeder 180: Problem with y-shift between different jobs. • The time estimation in combination with an UNDERCAM did not work and so the time optimized loading of sheets with the board feeder did not work either. • Problem in time estimation with QR-codes, where the codes contained different data than ZCC expects for job recognition.
	Batch production: Problem while producing mixed jobs with and without UNDERCAM.
	UNDERCAM / OCC: • The mark recognition did sometimes not work and so the sheets get skipped, if option Maximum number of skipped sheets selected. • Improved precision of border detection. • Problem with huge memory consumption of RMR service fixed. • Detected Zünd bar code position corrected. It was wrong for cutters where the OCC orientation is not 0°. • Wrong registration with OCC for very specific situations fixed. • Wrong registration for close marks fixed.
	Problem in time estimation for a Q-line cutter. If the calculation takes more than 5 minutes, the calculation stopped without a warning and the time was shown anyway.
	Avoid crash while opening a job in prepare.

Not yet implemented features compared to ZCC 3.5	
Cut Center	Batch/Barcode production in combination with a border recognition (Border right, Border left, Border roll).
	Production info is available at end of production only. No production statistics will be available afterwards. Statistical data will be stored in Zünd Connect only in the future.
	Data preparation for Zünd Connect.
	Laser pointer simulation.
	Screen simulation.
	Definition of user defined feed lengths.
	Register type Fit to objects without rotation is not completely implemented.
	Border detection inside the material (cut paths outside the border) not implemented yet.

4.2.1

Date of release: Jan. 18th, 2024
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.6.1
CIS: 1.6.1
Supported operating systems are Windows® 10, 11 and Server 2016, 2019, 2022 (64 bit)

Bug fixes	
Cut Center	Crash because of waste-cut.
	Visualizing option: For projector and label printer when using user defined variables in metadata they are now correctly replaced with the value of the variable. Furthermore, it is projected/printed correctly.
Cut Server	Problem with hotfolder settings after a ZCC update. Hotfolder-paths are stored relative to ini-file not to the executable again.

Not yet implemented features compared to ZCC 3.5	
Cut Center	Batch/Barcode production in combination with a border recognition (Border right, Border left, Border roll).
	Production time calculation, so no production statistics will be available, except the production info export at end of production. Statistical data will be stored in Zünd Connect only in the future.
	Data preparation for Zünd Connect.
	Laser pointer simulation.
	Screen simulation.
	Definition of user defined feed lengths.
	Register type Fit to objects without rotation is not completely implemented.
	Border detection inside the material (cut paths outside the border) not implemented yet.

4.2.0

Date of release: Jan. 11th, 2024
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.6.1
CIS: 1.6.1
Supported operating systems are Windows® 10, 11 and Server 2016, 2019, 2022 (64 bit)

Features	
Cut Center	Re-initialization of tools: • The tools can be re-adjusted using the Re-adjust action during production. • Two re-adjust options are available: after x plates or depending on running meters. • An abrasion limit and a pull-out limit can be defined. If the limits are exceeded, another equal tool configuration is automatically selected if available, otherwise the production stops. • The abrasion and pull-out limit of knives are set to 0.5mm and for router bits to 0.3mm by default. • Mark broken tool inserts with a notification, no matter if they are used within the current job or not.
	The Running meters of the tool inserts are now determined while producing with a Q-line cutter, too.
	Cut time estimation of jobs for Q-line cutters.
	Support barcode production in combination with the processing type Roll feed.
	Support batch production in combination with processing type Roll feed.
	Show remaining time while running a batch or barcode production.
	Support Surface compensation with Gen3.
	Support for the tool URT.
	All router bits with a shaft of 3mm or 1/8 inch can be used with the URT.
	Support for the tool SCT.
	Support for two Board loading devices (BLD) for a better workflow in combination with a double beam cutter.
	BHS180 with UNDERCAM: Improve procedure to save sequence time. The plate is moved to the cutter while recognizing barcodes, marks and/or borders. Move stacker to the cutter earlier. Time optimized loading of the plate with the feeder.
	Support for the sheet optimized vacuum handling.
	New improved workflow with Polisher bits. The use of polisher bits does not need the creation of the polisher paths. Everything can be adjusted within the Cut Center, like the finishing path.
	New processing sequence Abort production implemented, where for instance a Vacuum off can be inserted.
	New option to show found marks for each OCC registration and to let user confirm the registration.
	Initialize all important camera settings for OCC and UNDERCAM. This is necessary if other applications like MindCAD Part Scan use the same camera and change the properties. The most important camera properties are accessible for the user in ZCC.

Features	
Cut Center	In prepare tools view, an icon is shown indicating which tools/tool inserts are readily available on the cutter. Now an icon is shown indicating on which beam the tool/tool insert is available if it is not available on both beams.
	Pick & place interface: • Support for '#direction-line' implemented. • Support the pick-up of shapes with a hole inside. • New parameter X position front shape limit to define a maximum front position where a shape can be fed and picked up. So larger shapes can still be picked up, even if the gripper cannot reach to this front-line position. • Parameters for the stack remeasure and gripper step angle implemented.
	Visualizing option: Transport action in job end processing is not needed anymore, the workflow does that automatically.
	Determine the lengths of up- and down-movements and the up-downs of the tool. And insert this information to the production info export.
	Optionally, the production info can be exported into an XML file, see Production info export, where the file formats XML or CSV are supported. Attention: The file format has changed, compared to the 'job info export' of ZCC3.
	Waste cut: negative values for extra length are now possible. Improved selection of the tool configuration for a waste-cut method.
	Action Confirm unloading before feed does consider installed extension now.
	Optional parameters for a tool are exported and imported.
	With service-login it is now possible to backup and restore a cutter configuration.
	Gen3: Cannot set available modules/tools to a value lower than the amount mounted on the cutter.
	Support beam angle check for service technicians.
	Support for new USB frame grabber box 'ZST PAL/YUV-Converter USB' (not yet available).
	Files in the logging folder 'Logs' older than 2 days get zipped.
	Easy import function for ZCC 3 data, see ZCC3to4Updater below.
Cut Editor	Re-run the inside-outside detection after changing the method type.
	Combine multiple jobs from job list in a new job in Cut Editor.
Cut Manager	Hotfolder settings: Checkbox implemented to temporarily deactivate a hotfolder.
Cut Server	ZCC communication: • Own state 'interrupted' when a production is interrupted. • Added material guid, name and description to the 'methodinfos' response.
	ConnectionLog of CutServer in CutManager
Installation	Improved handling of license type to avoid a wrong license selection.
General	Install missing certificate at startup with two clicks.
	Support backward and forward navigation within the online help.

Features	
ZCC3to4Updater	This is an own application available in the reseller area of the Zünd homepage. Tool to convert the following settings from a ZCC3 to ZCC4 installation: • material database: user defined materials and modified parameters on Zünd defined materials • cutter configuration including cutter type, equipment, available modules, tools and tool inserts • user defined job templates • custom marks • label printer templates • RMR settings and calibration data • hotfolder settings Not exported settings (must be manually setup or copied over): • e-mail settings • robot settings and calibration • projector settings and calibration • jobs • camera settings • clean up settings • backup settings

Bug fixes	
Cut Center	Small correction of position where found marks are drawn on OCC and UNDERCAM images.
	Fixed bug that estimation did not work if an offline command was contained in processing.
	Waste-cut: • A waste-cut was falsely executed after a production abort. • Problem with waste cut (hanger), when the waste cut method uses a different tool configuration than the previous method. • Problem of the proposed tool configuration for a waste-cut method.
	Pick and place interface: Shapes of skipped pages are no longer picked up.
	Visualizing option: • Font of #index changes according to profile specification. • Projected index numbers are fixed and properly visible for all feeds. • A static text in label template is not replaced with meta data when matching a meta data key.
	The wrong tool insert parameters of Z206c fixed.
	Copies in X and Y were falsely shown at the wrong position when no material size defined.
	Problem with counter or usercounter values in dynamic texts. Falsely the exchanged value was saved within the zcc job after a production.
	Parameters in recognition settings are initially closed to make the filtered image fully visible. Additionally, the name of custom mark set is visible. Save image button is aligned to bottom to stay available all the time. On/off switch for noise reduction.
	Problem while saving a job with Fit inlays or Creasing channels to the job list. Inadvertently, the job was removed from job list when returning from Cut Editor.
	Problems with manual feeds in combination with an installed unwinder equipment.
	Border roll registration corrected. Problems happened mainly on small cutters like S3 M800.
	Avoid crash when returning from production to preparation, with jobs with many copies.

Bug fixes	
Cut Center / Cut Editor	Viewing problem in job view with larger arc's (circulare arc) while zooming in.
Cut Editor	Under certain circumstances the automatic order algorithm loses geometry items.
Data import	Data import: Warning 00595 was inadvertently shown in the background of the progress dialog.
	Set Cutting Mode to standard if imported ZCC file does not contain any information about the Cutting Mode.
Cut Server	ZCC communication: Problem with 'jobprocessingrequest' fixed.

Not yet implemented features compared to ZCC 3.5	
Cut Center	Batch/Barcode production in combination with a border recognition (Border right, Border left, Border roll).
	Production time calculation, so no production statistics will be available, except the production info export at end of production. Statistical data will be stored in Zünd Connect only in the future.
	Data preparation for Zünd Connect.
	Laser pointer simulation.
	Screen simulation.
	Definition of user defined feed lengths.
	Register type Fit to objects without rotation is not completely implemented.
	Border detection inside the material (cut paths outside the border) not implemented yet.

4.1.2

Date of release: Nov. 24th, 2023
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.4.0
CIS: 1.4.0
Supported operating systems are Windows® 10, 11 and Server 2016, 2019, 2022 (64 bit)

Features	
Cut Center	Cut Center: Decimal values smaller than zero can now be entered without a leading zero again.

Bug fixes	
Cut Center	Sporadic crash because of Waste-cut path calculation fixed.
	Board Feeder 150/180, support automatic unload of the material to the stacker when feeder stack empty.
	Order Q-line cutters correctly inside the selection combo box. Cut Center starts without crash when a Q 18-32 D or a Q 22-32 D is selected.
	Pick & place interface: When switching between different robot gripper configurations the number of suction cups is updated properly.
	Refresh speed of the job view during production improved for very large jobs.
	Automatic router bit changer ARC: Show error in the tab and on the confirm button, if router bit is required.
	Fix some bugs when using GAT.
	Error 01021 when knife is too short to process the material (due to material thickness) is visible in tool insert selection.
	Option to wait before OCC image is working now.
	Inadvertently was the notification ‘Camera not connected' shown even without an installed camera.
	Name of Gen3 cutter (G3/D3/S3) configurable.
	Problem with manual barcode scanner rectified.
	Fix bug where parameter ‘Require tagged tool insert’ is not shown in material editor for tagged inserts.
Cut Center / Cut Editor	Viewing problem within job view with very flat curve segments (arcs).
Cut Editor	Problem with job name while adding jobs.
Data import	Problem with the job template. Inadvertently the action steps of a template got removed. Another problem was the flute direction which was not set correctly while set via material parameter and was not shown at all in custom materials.
Cut Server	Hotfolder import: Problem with manually added 'TextReplacements' settings. Inadvertently they were removed while starting the Cut Server.

Not yet implemented features compared to ZCC 3.5	
Cut Center	Time estimation of jobs for Q-line cutters.
	Production time calculation, so no production statistics will be available. Statistical data will be stored in Zünd Connect only in the future.
	Data preparation for Zünd Connect.
	Job info export.
	Re-adjust tool action: Re-initialization of tool inserts depending on number of plates, copies or depending on running meters. This function is also required for automatic tool change.
	Laser pointer simulation.
	Screen simulation.
	Definition of user defined feed lengths.
	Implementations for tool URT are not completely done.
	Register type Fit to objects without rotation is not completely implemented.
	Border detection inside the material (cut paths outside the border) not implemented yet.
	Batch/Barcode production in combination with roll feed.
	Polisher bits are not supported yet.

4.1.1

Date of release: Oct. 31th, 2023
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.4.0
CIS: 1.4.0
Supported operating systems are Windows® 10, 11 and Server 2016, 2019, 2022 (64 bit)

Features	
Cut Center	Status messages sent via teams or email now contain the remaining time.
	Support tagged tool inserts in combination with Q-line.
	Pick & place interface: Robot position values in X and Y are now in cutter coordinate system.
	Support for tool SCT.
Installer	Nicer error-message when connection to the database is possible but the version could not be determined.
	New option to add a new license server.
	New command line parameters for special installation requests: • restoreDbDump: Restore of the database • moveServer: Move the server to a new computer
General	Direct database updates from alpha- and beta-versions before the release of ZCC 4.0 are no longer possible.
	New codemeter (WIBU) driver 7.6d contained.

Bug fixes	
Cut Center	UNDERCAM: • Avoid problems with backward feeds on a workflow with BHS180 and UNDERCAM. The notification 01333 inadvertently appeared while producing long plates which lead to the maximum working area in X. • UNDERCAM border detection failed randomly, and registration was repeated.
	Some improvements in sort algorithm. And a custom sort order was inadvertently not considered while producing.
	Automatically adjust minimal up position while producing different jobs at the same time with different material thicknesses. To avoid collision with the thicker material.
	Barcode production: • Job saving problem when a job had to be modified while producing. • Problem in combination with processing Feed after page without a loading device.
	Batch production: • Problem with skip of a page. • Crash resolved if the last job of a batch list was skipped due to error. • Jobs in batch list are revalidated when configuration of the cutter changes.
	Crash when using function Reset tool offset within test cut.
	Cutter control panel, consider cutter orientation while using Endless feed.
	Problem in INCAM calibration, sometimes a crash occurred.

Bug fixes	
Cut Center	Problem with Cut-waste, the cutting position in Y was not always correct depending on the selected option.
	Behavior of shifting Each different job together with skipped pages corrected.
	Avoid problems with skipped pages.
	OCC: • Improved QR code detection • Problem with OCC production when jobs were rotated by 180° against the ZCC file.
	Problem with notifications of the automatic router bit changer ARC.
	Span pin notification not visible if no automatic router bit changer ARC is configured on cutter. Warning icon properly visible next to span pin in ARC tools configuration.
	Problem with RT QC, inadvertently it was not possible to use it without ARC.
	A confirmation dialog is shown once, if the job needs an underlay (e.g. for routing) but currently it's not selected.
	Available router bits are updated without restart of Cut Center.
	Store the tool insert parameters correctly on DACOS (Data Collection Server) for Q-line.
	Show pressure parameter for Kiss-cut CT and ST.
	Leibinger Inkjet: Support firmware versions >= 62.0.
	Problems while switching the ICC camera type.
	Inadvertently Cut Center sometimes crashed while closing.
	The parameter Flute/grain dependent is set to false by default on all materials where the flute/grain dependent parameters are equal. This avoids the notification because of not defined flute/grain direction.
	Visualizing option: • Problem with the color settings of the projected text. • Problem with projected position when the job contained a user defined feed action at production end. • Problems with the label index. • Problem when metadata are assigned to a group.
	Pick & place interface: • Option Drop shapes and Stack shapes are reversed. • Diverse problems in the UI and settings solved. • Crash if robot used without robot debug screen. • Problem with stacking of the shapes, stack them with the same direction as they are on the cutter, for jobs without a method '#direction-line'. • Value for number of cups in Y is now correctly read from the database. • Problem with feeds when they had to be split, because of the robot pick up. • Problem with shapes on the edge of the pickup zone. • Problem with production abort. Position and gripper settings are now taken over without restart.
	Show nesting-parameters in material editor if an editor with nesting-license connected to the same database started once.

Bug fixes	
Cut Server	Server estimates only for cutters which connected in the last 7 days and give priority to jobs which were modified shortly.
	Avoid too many 01446 notifications, if a hotfolder file isn't ready for import (not completely saved).
	ZCC-Communication, command ID ‘JobEstimationResultRequest’: • ‘JobFilter’ works • ‘TotalTime’ added to ‘EstimatedTime’ entry • Parameter contains the type of time
	Estimation is possible when server is configured as a hostname and not as an IP address. Estimation-button is disabled when database-connection is not available.
Cut Editor	Problem of auto grouping rectified. If the outmost shape is equal to the job bounding box but not a rectangle, it was inadvertently not grouped together.
	Problem with nesting on multiple irregular material plates. Inadvertently only one plate was filled with shapes.
	Problem with sort order, inadvertently sometimes a longer up distance was taken over while running the sort order algorithm.
	While detecting inner and outer contours the following method types Thru-cut, Bevel-cut and Route are considered only. Other method types are now ignored.
	Problem in combination with a Cut Center Basic license. It was inadvertently not possible to save a job and open directly in Cut Center.
Data import	Problem while importing a multi page job (e.g. PDF) rectified, inadvertently all pages had the same content within the zcc files.
	Problem with notch positions while importing with option 'move start point to corner'.
Installation	Installation: Improvements while selecting a container on a license server.
	Installation: Problem with the database installation while installing a Cut Center with BASIC option the very first time.
	Installer does not allow installation into a directory containing a ZCC-Version before 4.0
	Installer does not propose paths of a version below 4.0
	Installer checks database version at startup before it begins with the installation.

Not yet implemented features compared to ZCC 3.5	
Cut Center	Time estimation of jobs for Q-line cutters.
	Production time calculation, so no production statistics will be available. Statistical data will be stored in Zünd Connect only in the future.
	Data preparation for Zünd Connect.
	Job info export.
	Re-adjust tool action: Re-initialization of tool inserts depending on number of plates, copies or depending on running meters. This function is also required for automatic tool change.
	Laser pointer simulation.
	Screen simulation.
	Definition of user defined feed lengths.
	Implementations for tool URT are not completely done.
	Register type Fit to objects without rotation is not completely implemented.
	Border detection inside the material (cut paths outside the border) not implemented yet.
	Batch/Barcode production in combination with roll feed.
	Polisher bits are not supported yet.

4.1.0

Date of release: Sept. 8th, 2023
Minimum firmware versions:
Cutter G3/D3/S3: 1.78.2
Cutter Q-line: 1.4.0
CIS: 1.4.0
Supported operating systems are Windows® 10, 11 and Server 2016, 2019, 2022 (64 bit)

Features	
Cut Center	Estimated production time: • Calculation implemented for 3rd generation cutters (G3/D3/S3). • The time estimation can be activated / deactivated.
	Functionality for cutters with a Tandem vacuum plate.
	Tool and/or tool insert is changed automatically when usage limit (running meters) is reached and an equal tool configuration is available, otherwise the cutter stops and the user has to change the tool manually.
	Barcode production: • Support production with OCC/OVERCAM, either with large QR-codes or with the Zünd barcode. • Support different material thicknesses in combination with a Board Feeder 180.
	Support OCC/OVERCAM registration of different jobs while producing with Batch or Barcode production.
	Support registration with OCC/OVERCAM for jobs that are longer than the cutter.
	Q-line cutter: • Adjust the z-position of the sensor module while using the INCAM. • New function Move to park available on the custom buttons.
	Board feeder (BHS): Implemented parameter Lower lift table on/off, where the lift table is lowered a certain distance to support the separation process.
	Pick & place interface: • Now completely supported. • Support profiles to select a predefined robot configuration. • Support multiple robot positions (locations) and gripper configurations, where operator can easily switch between them.
	Visualizing option: • Projector and label printer are now completely supported. • Support profiles to select a predefined projector configuration. • New option 'project group per group' to highlight the shapes group per group.
	Cutter control panel: • New button in Cutter Control Panel to switch an installed unwinder ON/OFF, where the default state is ON. • New functions to shut down and restart the cutter.
	Improved waste-cut: do not cut along the material edge.
	More reliable border detection.
	The serial number of the tool is shown within the tool config and the tool magazine view.
	Functionality for user defined tools and tool inserts are now implemented.
	User can now select the job saving behavior while using functions Shutdown cutter/computer after production.

Features	
Cut Center	Test cut: • The test cut page can now also be opened within the tool magazine page. • Test cut for a Perforate method is now the same as for Crease method.
	Tagged tool inserts: • New parameter Require tagged tool insert. If set, a tagged tool insert is required for the production, if not also an untagged tool insert can be used. • Alias names of tool inserts from earlier ZCC installations are converted to tags.
	Changed algorithm for custom mark detection. Default is to use the new algorithm, but it's possible to use the old algorithm again via the following INI file entry: [camera] useOpenCvCustomMarkDetection=0
	Implemented possibility to deactivate production time estimation.
Cut Editor	Shows the estimated production time of all cutters connected to the Cut Server. It's also possible to request the estimated production time just for certain cutters.
	Show a warning when editor is started without a database-connection.
	Nesting and shape property dialog: Show the shape preview depending on the selected cutter orientation.
Cut Editor / Data import	A job surrounding shape will not be considered while using Automatically group inner and outer shapes.
Data import	Ensure to determine metadata from text labels before preserve the meta data to method '{none}: #meta-data'.
Cut Server	Estimated production time: • The server calculates the estimated production time for all available cutters. • Currently only cutters of the 3rd generation are considered. • These estimation results of multiple cutters are also sent to Cut Editor or 3rd party software through the ZCC communication interface. • Implemented possibility to deactivate production time estimation via Cut Manager.
Installer	Installer requests the CIS address and verifies the database access before installing any files. If the database access fails, the installation procedure is reverted.
General	User can search for license updates and activate them.
	New codemeter (WIBU) driver 7.60c contained.
	New multicam driver 6.18.7 for PICOLO frame grabber card.
	What's New information is accessible on a webpage only.

Bug fixes	
Cut Center	UNDERCAM: • Problem with sporadic wrong border position registered by UNDERCAM corrected. • Avoid crash when pages are skipped during production. This happened only while producing with just one plate on the cutter working area.
	Leibinger Inkjet: Problem with printer error 5052 in combination with dashed lines. Error 5052 is suppressed now.
	Avoid crash because of automatically skipped pages.
	OCC/OVERCAM: • Problems with intermediate feeds after OCC/OVERCAM registration rectified. • Problem with wrongly rotated camera images. Cut Center now works correctly even if images are rotated by the camera.
	Some problems of feature Pause/rewind/continue of the production rectified.
	Limit cut-offs to cutter area.
	The camera image did inadvertently stop refresh after using the function Save image.
	Batch/Barcode production: Under certain circumstances the wrong tool was used while producing two different jobs within the working area with a double beam cutter.
	Material editor, some parameters were inadvertently visualized as numbers instead as selection list.
	Problem rectified while drag & drop tool inserts over the slot borders.
	Batch/Barcode production: Avoid crash at production end, if one job of a detected QR-code couldn't be found in the job list.
Cut Server	Server does not crash when a Q-line cutter is configured on the database but DACOS is not available.
	Problem with auto group in combination with shapes containing bezier curves. This problem exists in 4.0 release only.
Cut Editor	Hatch/island fill: Ensure that the inside shapes are always cut before the outside shapes and that the cut contour is always started from inside.
	Problem with auto group in combination with shapes containing bezier curves. This problem exists in 4.0 release only.
Data import	Implemented an INI entry to define the default deformation value of text labels: [conversion] defaultTextLabelDeformation=1.0
General	Fixed the problem where log files were locked and could not be opened while the application/service was running.
Installer	Problem with the determination of the CIS availability rectified.

Not yet implemented features compared to ZCC 3.5	
Cut Center	Time estimation of jobs for Q-line cutters.
	Production time calculation, so no production statistics will be available. Statistical data will be stored in Zünd Connect only in the future.
	Data preparation for Zünd Connect.
	Job info export.
	Re-adjust tool action: Re-initialization of tool inserts depending on number of plates, copies or depending on running meters. This function is also required for automatic tool change.
	Laser pointer simulation.
	Screen simulation.
	Definition of user defined feed lengths.
	Implementations for tools SCT and URT are not completely done.
	Register type Fit to objects without rotation is not completely implemented.
	Border detection inside the material (cut paths outside the border) not implemented yet.
	Batch/Barcode production in combination with roll feed.
	Polisher bits are not supported yet.

4.0.1

Minimum firmware versions:
Cutter G3/D3/S3: 1.77.2
Cutter Q-line: 1.4.1
Supported operating systems are Windows® 10, 11 and Server 2016, 2019, 2022 (64 bit)

Features	
General	XML-Communication: Value of CommandID is always sent in lowercase.
	Login is shown in different languages.
Cut Center	Board handling System BHS180: • Implement Clearing mode as material parameter.
	UNDERCAM: • Improved QR code detection on dark images (dark material) • Slightly faster register mark recognition with UNDERCAM and OCC.
	New joystick mode so only straight movements in X or Y are possible.
	The splitting of the production screen can be selected.
	Show more detailed error message when a ZCC file cannot be imported because its version is not supported.
	Camera recognition: Button to save the images (original and grayscale) to files within the log folder, for support cases.
	Make the region of interest (ROI) for OCC or UNDERCAM recognition adjustable for user.
	Registration type fit-to-objects and fit-to-objects without rotation are not supported for UNDERCAM.
	Support for new knife Z609c.
	Support for new router bits R301 and R301A.
Cut Server	Windows service renamed from ZccService to Zund.CutServer.
Cut Server / Cut Manager	Support report for Cut Server can be created from Cut Manager.
Data import	Option Adjust metadata key is moved to the import settings, named as Take over job name as.
	DXF import: Problem with HATCH elements defined as poly lines or circular arcs.

Bug fixes	
Cut Center	Diverse problems of function Pause / continue rectified.
	Problem with re-init after feed.
	Fix crash when delete a method before a crease-method
	Fix crashes in Material Editor
	Problem with ICC calibration accuracy for generation 3 cutters corrected.
	Respect a customized shape order whenever possible. A customized order is still changed for job splitting with a double beam cutter and for Route methods (offset calculation).
	Problems fixed with unload boards automatically with BHS (first generation).
	Problem fixed where recognized marks were not marked with the green circles in the camera view
	Multiple copies per sheet were inadvertently not produced.
	Test cut: • Closing ZCC with X-button of main window hanged when cut-off at end of production was active • random crashes when running test-cut or cut-off
	Board handling System BHS180: • Unloading problems in combination with processing Manual load with stacker and option Material already loaded. • Some problem fixed with abort and automatically unload
	The option Material already loaded was sometimes not visible after a Rerun of a production.
	Support of OCC recognition for jobs longer than the cutter corrected.
	Fixed bug where parameters are not shown correctly with imperial units configured.
	After skipping a sheet, cut waste was falsely executed.
	Problems with tool selection for INCAM/ICC calibration corrected.
	Refresh problem in ARC configuration rectified.
	Changing the material of a job resets tool and insert selection of all cutter generations.
	Handle manually entered barcodes case insensitive. Support both, upper- and lowercase characters.
	Beam collision with Q-line double beam cutter fixed after an automatic tool change has been executed.
	Fix crash when interacting with main window while material editor is open.
Cut Server	Hotfolder: • Show a notification if an import file in a hotfolder can't be deleted. • An import file was maybe imported already while the file wasn't completely written.
	Server validates jobs using an UNDERCAM correctly.
Cut Editor	Problem in nesting report rectified.
	Show an irregular material correctly within nesting preview.
Installer	Error-message when certificate is not installed.
	No login required with an update installation.

Not yet implemented features compared to ZCC 3.5	
Cut Center	Time estimation of jobs.
	Production time calculation, so no statistics will be available. Statistical data will be stored in Zünd Connect only in the future.
	Data preparation for Zünd Connect.
	Job info export.
	Functionality for cutters with a Tandem vacuum plate.
	Support of Pick & Place Interface option (robot).
	Visualizing option: Implementations for projector and label printer are not completely done.
	Re-adjust tool action: Re-initialization of tool inserts depending on number of plates, copies or depending on running meters. This function is also required for automatic tool change.
	Laser pointer simulation.
	Screen simulation.
	Functionality for user defined tools and tool inserts are not completely implemented.
	Definition of user defined feed lengths.
	Implementations for tools SCT and URT are not completely done.
	Register type Fit to objects without rotation is not completely implemented.
	Border detection inside the material (cut paths outside the border) not implemented yet.
	Batch/Barcode production in combination with roll feed.

4.0.0

Minimum firmware versions:
Cutter G3/D3/S3: 1.77.2
Cutter Q-line: 1.4.0
Supported operating systems are Windows® 10, 11 and Server 2016, 2019, 2022 (64 bit)

Features	
General	Support of Q-line and 3rd generation (G3/D3/S3) cutters, whereby not all functions of ZCC3.5 could be implemented until now. See table below.
	Real client/server architecture in environments with multiple cutter environments. Only one Cut Server for multiple cutters.
	New license structure with maintenance license type.
	Material and cutter configurations are now stored centralized in one PostgreSQL database, even for multiple cutters. With Cut Center Advanced the cut jobs are also stored within the database and not as ZCC files anymore.
	New user management by Cutter Information Server (CIS) and management of user permits in ZCC based on roles.
Cut Center	Completely new user interface, optimized for touch operation: • Guided job preparation, including a direct error/warning indication to the error reason. • A job can be prepared in parallel to a running production within the Cut Center. • Improved job progress indicator while producing. The job is displayed with the real position and rotation. And the currently produced shape is indicated. • Materials can now be marked as favorites, which simplifies material selection. • Cutter Control Panel to control cutter functions from inside Cut Center. • The job list is now integrated in Cut Center. This replaces Cut Queue as an own application.
	All settings, needed for Cut Center, are now available in Cut Center itself: • General • Material • Cutter • Tools • Processing • Camera • User roles
	New function to pause to production, optionally rewind the production step, change of cutting parameters like speed or depth and continue again.
	Cutter Control Panel for the support of diverse cutter functions, like vacuum, park position, tool configuration, magazine configuration (if available), …
	Barcode and Batch production are now fully integrated in Cut Center with improved workflow and setup functionality.
	Support of new board handling system BHS180 with the optional UNDERCAM to read the register marks, the border or QR-code from the bottom of the material.
	On double beam cutters in combination with Barcode or Batch production it's now possible to produce plates/boards of different jobs with beam A and B.
	Improved workflow of Batch production in combination with a board loading device (BHS, BHS150/180, Sheet feeder). The plates are continuously loaded between jobs without interruption. Different material thickness may be combined in one stack.

Features	
Cut Center	It's now possible to define a specific turning direction (clockwise or counterclockwise) with the optional parameter Cutting direction on closed shapes.
	It's now possible to define and store the speed of the feed via material parameter.
	Waste-cut: Possibility to execute the waste-cut optionally before the cutting process.
	Optionally it's now possible to save and apply a camera profile material dependent.
	It is now possible to automatically select the material profile on the Cradle Feeder via ZCC. This depends a corresponding software release on the cradle feeder and a network connection between the ZCC computer and the Cradle Feeder.
	The user-defined keys on the Q line can be assigned with first few functions from ZCC.
	Tool offset calibration can now be done via ZCC.
	Visualizing option: • The functionality regarding projectors and label printers is now fully integrated in Cut Center. • Projector settings can be stored and re-used in projector profiles, similar to the use of the label printer templates. • Guided calibration for projectors. • Optimized user interface for the creation of label printer templates. • Projector profiles and label printer templates are now stored in the database, shared among all cutters in the same environment.
Cut Center / Cut Editor	Behavior regarding inside/outside offset of routing has changed. The definition of inside/outside is newly defined for each individual shape, instead per method. Whereby the inside/outside detection of the shapes can be done automatically.
Cut Server	Cut Server runs now as a Windows® Service in the background and does not have an UI anymore. All settings of Cut Server are set via Cut Manager.
	The ZCC communication via network (TCP/IP) has slightly changed regarding 'JobStatus'. Further information is contained in the ZCC specifications.
	Cut Server required for Cut Center Advanced option only.
Cut Manager	Reduced to the general settings and the settings of Cut Server and Cut Editor, depending on the installed applications on the local computer.
G3 Simulator	Test application for simulating the functionality of Cut Center in combination with a Gen3 (G3/D3/S3) cutter.
Data import	Import nested markers by XML files in ASTM D7331 format.
	Possibility to execute the filling functions (hatch/island) automatically during import.
	The automated nesting while importing was removed. This functionality is available in Zünd PreCut Center (ZPC).
	New text variables and new formats for text variables were added to widen the range of usable job files.
Dashboard	Removed from product scope. Post processing data is available in Zünd Connect (ZCO).

Not yet implemented features compared to ZCC 3.5	
Cut Center	Time estimation of jobs.
	Production time calculation, so no statistics will be available. Statistical data will be stored in Zünd Connect only in the future.
	Data preparation for Zünd Connect.
	Job info export.
	Functionality for cutters with a Tandem vacuum plate.
	Support of Pick & Place Interface option (robot).
	Visualizing option: Implementations for projector and label printer are not completely done.
	Re-adjust tool action: Re-initialization of tool inserts depending on number of plates, copies or depending on running meters. This function is also required for automatic tool change.
	Laser pointer simulation.
	Screen simulation.
	Functionality for user defined tools and tool inserts are not completely implemented.
	Definition of user defined feed lengths.
	Batch/Barcode production in combination with roll feed.