



CADS RC3D for Revit® Release notes



Contents

| | |
|---|----|
| Release Notes | 1 |
| Version 2021.1 for Revit® 2021 & 2020.3 for Revit® 2020 & 2019.7 for Revit® 2019..... | 1 |
| Version 2021.0 for Revit® 2021 & 2020.2 for Revit® 2020 & 2019.6 for Revit® 2019..... | 4 |
| Version 2020.1 for Revit® 2020 & 2019.5 for Revit® 2019 | 6 |
| Version 2020.0 for Revit® 2020 & 2019.4 for Revit® 2019 & 2018.5 for Revit® 2018..... | 7 |
| Version 2019.3 for Revit® 2019 | 8 |
| Version 2019.2 for Revit® 2019 & 2018.4 for Revit® 2018 | 8 |
| Version 2019.1 for Revit® 2019 & 2018.3 for Revit® 2018 | 9 |
| Version 2019.0 | 10 |
| Version 2018.2 | 10 |
| Version 2018.1 | 11 |
| Version 2018.0 | 11 |



Release Notes

Thank you for upgrading to the latest version of **CADS RC3D for Revit®**.

These release notes summarise the enhancements and corrections that have been made for each release of the product.

Version 2021.1 for Revit® 2021 & 2020.3 for Revit® 2020 & 2019.7 for Revit® 2019

Release – December 2020

Revit Support

CADS RC3D 2021.1 for Revit® supports Revit 2021.

CADS RC3D 2020.3 for Revit® supports Revit 2020.

CADS RC3D 2019.7 for Revit® supports Revit 2019.

New features

Freeze rebar

- Selected Rebar can be frozen in the model to prevent modification to coincide with Issuing Schedule(s).
- Rebar associated with Release(s) can be frozen when either assigning the rebar to a release or when ordering a release for fabrication.
- Rebar can be “unfrozen” for editing using the Unfreeze Rebar command.
- Use Freeze Rebar Status to display a list of the frozen rebar and their current status.

Annotation

- Staggered and Alternate Groups are now supported in the Create Group command. Annotation for Alternate & Staggered Ranges is also supported.
- The new command Align Tags allows multiple tags to be selected and aligned either horizontally or vertically.
- Edit Annotation, a new command that allows the repositioning of the indicator rebar or the range annotation using a slide bar.
- The position of the radial range line can now be selected along the rebar when the Radial Range assembly is being annotated. The centres of the radial range will be calculated based on the position of the radial range line.
- Modifications made to CADs Groups of rebar after they have been annotated will be automatically reflected in the bar label.



- The user can now configure default percentage for the range line and the indicator bar position in the project settings dialog.
- The radial range annotation now supports the annotation of the radial rebar arrangement placed as a free form rebar.
- The bar reference annotation can now be placed in assembly views.
- Multi range annotation can be placed for the rebar across multiple hosts.
- A fix has been introduced for the fixed pitch multi range annotation which failed to place in specific cases.
- A fix has been introduced for the *untagged* rebar annotation command which placed duplicate tags while annotating a single rebar.
- A fix has been introduced for the group annotation command in which the annotation did not place properly in specific cases.
- A fix has been introduced for the host annotation command which reported an error and did not work in specific cases.
- A fix has been introduced for the group rebar functionality in which the rebar quantity was deleted while updating the bar mark.
- The “Show rebar” command will display the Indicator rebar in all the ranges of a multi range annotation.

Schedule

- The schedule output now supports weight reports and weight summary reports. The reports can be generated based on the whole project, selected drawing sheets or selected releases.
- An option has been included to allow a weight summary to be appended to the end of the schedule when it is created or edited.
- A schedule can now be un-issued to the previous revision at any time. Alternatively the entire revision history can be removed by using the Delete Revision History command.
- The schedule template can be configured to display the rebar bend category value such as Heavy or Light.
- The Shape diagram in the schedule can be regenerated with the updated shape image DXF file using the *Refresh Shape image* command available in the schedule view.
- The shape image in the schedule can be displayed with the coupler symbols attached to the rebar end.
- An additional option to create a schedule based on the host category has been included.
- Custom sorting alongside sort ascending and descending has been added to the schedule for the Sort Properties.
- The shape image placement option in a schedule can be edited any time after creating a schedule.
- Combining the rebar data in the schedule for similar bar marks across selected parameters is now possible while creating a schedule.
- Significant performance improvement is possible while placing the schedule with the shape diagram attached to the rebar data.

- A fix has been introduced for the schedule where an error message appeared if the “CADS_Total page weight” parameter was used in the schedule.
- A fix has been introduced for the schedule in which the “No of Mbrs” field reported incorrect data in specific sequences.

Rebar Audit

- The Audit command can be used to identify rebars that have legs that are below the specified minimum bar leg length. The minimum bar leg lengths are configured in the Project Settings by bar type and material.
- An additional check has been introduced for Frozen Rebar. If frozen rebar have been copied outside of the CADS RC3D environment it will be automatically set to frozen. The Frozen rebar audit check will remove the frozen lock from these copied rebar when the project is audited.

Splice rebar

- Rebar to rebar constraint has been automatically added to the spliced rebar sets which keep the lap length intact between the spliced rebar.
- A fix has been introduced for the Crank lap functionality in which the hook direction was incorrectly placed after splicing the rebar using this command.
- A fix has been made for the splice rebar functionality which spliced the rebar with incorrect lengths while using lap lines in a specific sequence.

Match rebar

- The user can identify and match rebar of similar size, shape and length based on a tolerance value configured in the project settings.

Step taper for varying ranges

- The step taper functionality for varying/tapered ranges has been updated to support bent bars.
- A fix has been made for the varying range free form for the spacing value not being updated correctly and the bar mark suffix value not being generated correctly in specific sequences.

Productivity tools

- The Edge rebar function now supports the edge rebar placement in curved and irregular shaped walls.
- A fix has been made to the Copy Host to Host command which didn't work properly in some cases.
- The Edit Rebar dialog now supports multiple rebar selection, the number of assemblies/rebar selected is shown on the top right of the dialog. Where properties differ between Rebar the word 'Varies' will be displayed.
- The Edit Rebar dialog now displays the shape code image of the selected rebar. Adding/editing couplers to the rebar end and specifying coupler symbols are now supported. The user can also control the hooks and several other parameters including custom parameters through this dialog.

- A bug in the Edge rebar placement tool which did not work in wall elements with multiple openings has been fixed.
- The Native Revit Edit group command can be used to add or remove rebar from the CADS Group rebar.

Miscellaneous

- CADS RC3D Suite (Including RC3D, Rebar Extensions and Markup Tool) can be silently installed without user intervention during the installation.
- The project settings file (*.crs) has been deployed with the product which includes the default type (grade and size) and length settings corresponding to ACI standards.

Version 2021.0 for Revit® 2021 & 2020.2 for Revit® 2020 & 2019.6 for Revit® 2019

Release – April 2020

Revit Support

CADS RC3D 2021.0 for Revit® supports Revit 2021.

CADS RC3D 2020.2 for Revit® supports Revit 2020.

CADS RC3D 2019.6 for Revit® supports Revit 2019.

Schedule Revision management

- The user can now include the shape diagrams to the rebar data while creating the schedule.
- The Schedule template files (*.RST) can be now created from the excel schedule template files (xltx).
- The Schedule template file now supports the inclusion of the logo images in the schedule header.
- A new schedule field to calculate and report the total weight of rebar per page is now available for the schedule template customisation.

Edit Rebar

- The “Edit Rebar” command now allows the users to modify the rebar properties through a dialog box.

Edit Bar Mark

- Use the “Edit Bar Mark” command to control the bar mark numbers of the rebar in the project.

Splice rebar improvement

- The Splice rebar functionality with the “Split by stock length” option, now allows the users to select a rebar layout to specify whether the make-up bar is placed at the end or divided and placed as the first and the last bar.
- An option has been included to specify the maximum dimension for the “over length” bar that can be used while splicing.



- The Splice rebar functionality has now been updated to consider the stock length inclusive of the hook lengths.

Project settings

- The user can now set the default tag families and types using the Annotation configuration setting and also specify whether they have a leader, if the left and right annotations are the same to be used by the Annotation commands.

Search Rebar

- The Search rebar functionality now supports the multiple levels of filters which enhances the search operation.

Audit

- An additional option is now available in the audit command to select one or more views for rebar audit.

Production output

- The Soule (XML) production output file now supports the coupler attachment to the rebar.
- Users can now export the rebar data to the Soule (SLE) production output file format.
- The user can now export the rebar data to the SteelPAC (SDI) data output file format.
- The Soule and the aSa production output file now supports the gross length calculation of the rebar shape.
- A configuration setting has been included to control the reporting of the bar marks in the production output files for straight bars.

Other improvements and defect fixes

- An additional parameter in Rebar Bar type has been included to specify a nominal diameter value for each rebar type (size).
- Additional rebar parameters have been included to report the actual weight and the nominal weight of the rebar.
- Additional material properties have been included such as “CADS_Rebar Grade” and “CADS_Coating” which were used in the production output files.
- More annotation tag families and types have been included to support the alternative rebar label styles.
- A fix to the annotation functionality, in which the tag could not be placed in certain cases if the visible leg dimension was smaller than another leg of a rebar.
- A fix to the “ASA” and “Soule” production output commands which did not work if the reinforcement rounding was disabled in Revit.
- A fix to the group rebar functionality which reported incorrect quantities in specific sequences.
- The varying range annotation which did not work in the section views has been fixed.
- The “Display first sort item in first line only” option which did not work in the excel output from the revision schedule has been fixed.
- Several defects while annotating the “CADS group rebar” option have been fixed.

- A fix in the “Ticks and Tag” feature which showed an error when editing the detail item family.
- A fix to the “Trim rebar” and the “Split rebar” functionalities which deleted the rebar in specific sequences.
- A few more defect fixes in the schedule placement and the excel export functionalities have been included.

Version 2020.1 for Revit® 2020 & 2019.5 for Revit® 2019

Release – November 2019

Schedule Revision management

- The CADS Rebar Schedule can now be issued, subsequent editing to the rebar will be marked with a revision in the schedule. Different revisions of the schedule can be retained for historical purposes.
- Users can now “Issue” the rebar schedules and track revision changes.
- Rebar deleted from the project will be marked with a strike out line in an issued schedule.
- CADS RC 2D schedule on drawing templates (.xml template files) can be imported into CADS RC3D and used as schedule templates.
- Schedules placed on the drawing will show the revisions and strike-outs.
- Schedules can be output to Excel with the revisions and strike-outs.

Edge bar lap

- This new command allows the selection of bars in opposite faces and the specification of the lap distance. The edge rebar are placed side by side with the selected rebar.

Auto Update bar marks

- The bar marks are automatically updated in the model while creating/editing rebar which improves the performance when working with the central model.

Bar reference placement

- More placement options are now available when placing and editing the bar references for a set/group of rebar.

Other improvements

- A new configuration option has been added to customise the shape name and dimension notations for the chair rebar.
- Bar marks can be generated based on the “Host category” parameter.
- Revit multi rebar annotation has been supported for annotating the CADS varying range, modelled as free form rebar. *(Not supported in 2019.5)*
- Rebar weights are now supported for the schedules with the Imperial units display.

Defect fixes

- A fix for the ticks and tags which were deleted when assigning rebar through viewport.



- The rebar visibility feature failed to turn off rebar layers in the 3D view in some specific cases has been fixed.
- The CADS varying rebar for the “CADS varying range bar mark” parameter value was not being retained in the rebar after converting the varying rebar to normal rebar.
- The annotation feature failed to annotate the varying range assembly that was created using the parallel to work plane option has been fixed.
- The Schedule on drawing and the excel export of the schedule now supports the rebar length display with symbols for the Imperial units.
- A fix to the “Assign Reinforcement Layer” command, which deletes rebar and other elements if included in the selection set.
- The problem with the Free form varying ranges that reported incorrect lengths in the schedule has been fixed.
- A fix in the schedule which reported incorrect bar mark suffix values for varying rebar in a specific sequence.
- A fix in the schedule which reported incorrect quantity of rebar in a specific sequence.
- A fix in the “Copy Rebar – Host to host” command which failed to copy grouped rebar.

Version 2020.0 for Revit® 2020 & 2019.4 for Revit® 2019 & 2018.5 for Revit® 2018

Release – June 2019

Revit Support

CADS RC3D 2020.0 for Revit® supports Revit 2020.

CADS RC3D 2019.4 for Revit® supports Revit 2019.

CADS RC3D 2018.5 for Revit® supports Revit 2018.

Defect fixes and enhancements

- A fix in the Soule production output “LineType” field, which reported an incorrect value for bent bars.
- A fix in the Soule production output “Weight” field in Imperial units, which reported an incorrect value.
- Added the Imperial units display with symbols in the Excel report and the schedule on drawings.
- A fix in CADS RC3D for Revit® for not returning the floating licences in certain cases.
- A new option for floating licence users to acquire the license automatically when opening Revit.

Version 2019.3 for Revit® 2019

Release – May 2019

- Improved the “Tick and tag” feature with automatic update of ticks and tags when editing the rebar lengths. Enhanced configuration option to update the tick and tag properties.
- An option to toggle the step taper location when creating varying rebar to bring it in the lap.
- A configuration option to specify rebar parameters for the “Search rebar” command including custom rebar parameters created by the users.
- An additional functionality in the “Audit” command to identify duplicate labels of rebar in the current 2D view.
- A new “Copy Rebar” command with a configuration option to specify parameters of those values that are excluded when copying.
- A new “Untagged rebar” command to tag only the untagged rebar in the view.
- The schedule “Sort” option now includes all rebar parameters including the custom shared parameters.
- A warning message is displayed if the lap length is insufficient when splicing.

Defect fixes

- A fix in the offset values of the “Chair rebar” functionality, which incorrectly modifies the chair rebar dimension.
- A fix for the Trim/Extend Rebar and the Join Rebar command to avoid couplers being removed from the other end of the rebar.
- A fix for the application crash when deleting the Revit views.

Version 2019.2 for Revit® 2019 & 2018.4 for Revit® 2018

Release – January 2019

- New Search Rebar command to search and select the rebar in the current view based on specific parameters.
- Additional functionality has been included in the Audit command to identify the untagged rebar.
- Additional CADs rebar tag types included that allow the user to place labels with the CADs reinforcement layer information.
- New Chair/Standee command to place Chair/standee rebar. *(Not supported in 2018.4)*
- New configuration option to place varying ranges as free form rebar or a rebar assembly. *(Not supported in 2018.4)*
- CADs varying range tag and group annotation tags updated to report spacing value.
- Users can now generate ASA and Soule production output files.

- Bar marks number sequence generation can be configured to generate per Sheet/Release/Project.
- New Host Count Override command to override the number of hosts (members) counted in the schedule.
- New weight report excel template is now included for the user to generate the weight report along with the schedule.
- Users can now control the display of the group rebar set.
- The Rebar Visibility feature has been updated to include an option to view the rebar unobscured with/without Solid in 3D views.
- The Bar mark prefix is now updated from a new rebar parameter “CADS_Rebar Number Prefix” instead of updating it from the parameter “Partition”.
- New configuration option to include a separator between the bar mark and the bar mark suffix value for varying rebar to allow tapered bar marks of 1.1, 1.2 etc.
- New Add Rebar To Group command included to add additional rebar into a group rebar or to combine another group of the same bar mark together to make it a single group.
- Shape images in the schedule can be generated from the predefined DXF files present in the configured location.

Defect fixes

- Defect fixes in the group rebar functionality which displayed an error in certain cases.
- Defect fix in the Split rebar functionality to retain the layer information while splicing the rebar.
- Defect fix in the group rebar annotation to automatically update the group rebar spacing value and comments on the label.
- Defect fix in the schedule in which varying rebar of the same bar marks did not combine and were sorted incorrectly in certain cases

Version 2019.1 for Revit® 2019 & 2018.3 for Revit® 2018

Release – September 2018

- The Schedule -> Excel Output command allows the user to export the rebar schedule to excel (.xlsx).
- The Splice Rebar command has been enhanced for the user to toggle the start point of the lap.
- Users can now multi select rebar while using the Trim/Extend Rebar command.
- New “Barmark format” option included to report only the Barmark number (excluding the Partition parameter prefixed to the Barmark).
- The Rebar placement commands inside the Revit® Structure tab can also be accessed from within the CADS RC3D for Revit / CADS RC3D tab.
- Several other defect fixes and stability improvements.

Defect fixes

- The rebar layout (Maximum spacing/number with spacing etc.) is now retained after Splice/Trim/Extend/Split rebar set commands.
- A fix for the error reported in the visibility tool command while selecting rebar within an assembly.
- Several improvements in the Group Rebar and Group annotation commands.
- A fix in the Schedule > Place command for an issue displaying varying rebar.
- Several other improvements to the Schedule and annotation features.

Version 2019.0

Release – July 2018

Revit Support

CADS RC3D 2019.0 for Revit supports Revit 2019.

Version 2018.2

Release – April 2018

Features

- Use the Audit command to identify rebar which are not assigned to a drawing sheet or release. Also, identify rebar that are below the specified minimum bar length or are above the maximum specified stock length. The command can identify the rebar for the whole model or the current view by a selected drawing sheet or release. A report can be saved of the rebar identified to allow their ID numbers to be searched in the model.
- Project Settings dialog allows the user to configure the following rebar settings per Concrete grade/Rebar size
 - a. Actual diameter
 - b. Stock length
 - c. Minimum length
 - d. Lap lengths per lap types for normal and staggered laps as follows
 - e. Standard lap length
 - f. Tension lap for Good bond condition
 - g. Tension lap for Poor bond condition
 - h. Compression lap for Good bond condition
 - i. Compression lap for Poor bond condition
- Splice Rebar dialog - Lap values are now default from the project settings dialog. The user can select the lap values based on the lap type or can override the default value. Lap values are updated automatically based on the selected rebar size.
- The Crank Lap command introduces a cranked lap into the bar shape, so that the bars lap, top to bottom or vice versa.

- New “Group Rebar” and “Annotation > Select Group ” commands allows the user to group individual rebar of the same bar mark together to create additional range styles such as skewed ranges, circular ranges and Radial ranges.
- The “Convert > Split Rebar Set” command will split an existing range (assembly) of rebar into several segments.
- The “Convert > Revit Varying Set” command will convert an assembly of varying rebar created with Revit into individual rebar.

Version 2018.1

Release – January 2018

- Use the Trim and Extend Rebars commands on rebars to change their overall length to a selected boundary. The boundary can be a concrete host, a detail or a model line.
- The Step Taper function groups rebar into stepped lengths within a varying rebar assembly.
- The Place Rebar Reference command adds a bar mark reference to a 2D view for the selected rebar.
- Splice Rebar and Annotation commands supports Revit’s “Free Form Rebar” type.
- Rebar data export to BVBS file format (*.abs) for bending machines.

Version 2018.0

Release – September 2017

| Command | Description |
|-----------------------|--|
| Lap Line | Use the Lap Line command to specify the position of the splices in the rebar. |
| Splice Rebar | Use the Splice Bar command to split the modelled rebar into the required stock length. Use this command in conjunction with the lap lines or on its own without lap lines. |
| Edge Bar Placement | This tool places U bars or L bars along the edges of slabs and walls. |
| Opening Reinforcement | This command models the reinforcement around rectangular and circular openings in slabs and walls. |
| Join Rebar | There are two commands available to join rebar together to form a new shape code, By Moving and By Trim & Extend. |
| Rebar Visibility | This command controls the visibility of the Rebar in each of the views of the structure. It manages the Revit view visibility states using several |

| | |
|----------------------------|--|
| | commands such as Hide / Show Rebar, Hide / Show All Rebar and Show Rebar By Layer. |
| Assign Reinforcement Layer | The Assign Reinforcement Layer command available from the CADS RC3D for Revit tab in the Detailing Panel, assigns rebar to preconfigured or specified layer names. The layer names assigned depend on the type of rebar selected. |
| Copy Rebars | The Copy Rebars command available from the CADS RC3D for Revit / CADS RC3D tab in the Detailing Panel, has two options: Host to Host and Along a Path. The user can copy rebar from one identical host to another. The command will accommodate the second host to being at a different rotation than the original. It will also copy rebar along a path. |
| Bar Marking | CADS RC3D for Revit manages the bar marks assigned to each bar set. |
| Bar Mark Updater | The Bar Mark Updater notifies the user when the bar mark numbers in a project need refreshing. |
| Releases | Assign rebar to a release using the Assign Releases command so that the rebar can be ordered for production. You can create releases in CADS RC3D for Revit; assign the release a name, a description, and a release date. When the rebar is ordered, the release is locked to prevent further rebar being assigned. The user can generate bar lists and production output files based on Releases. |
| Assign Drawing Sheet | The Assign Drawing command is located in CADS RC3D for Revit in the Annotation Panel. Use this command to assign rebar in the project to a predefined drawing sheet. |
| Annotation | <p>The Annotation command is used to change the representation of the ranges of bars to the standard 2D industry graphical format for the different styles of range. Instead of showing all the bars associated with a range, a single or double indicator bar is shown with a range line, a leader, and its associated bar label. If an individual bar is being annotated it will be shown with its leader and a bar label.</p> <p>Use the Annotation command on individual rebar/ranges of rebar, a selection of</p> |

| | |
|------------------|---|
| | rebar/ranges of rebar, all the rebar in one or multiple hosts. |
| Varying Range | The Varying Range Annotation command is used to group bars of the same shape, bar grade and bar diameter into one varying bar mark. |
| Tick and Tag | This feature annotates the end of the rebar with ticks and tags. Options have been added to the functionality to control the position and visibility of the ticks and tags. |
| Schedule | The CADS Schedule enables users to customise the appearance and content of the schedule to their own specification, using standard Revit family files. The schedule can be placed on a view sheet using the 'Place' command, or a set of sheets can be created for printing using the 'Print' command, or a sketch diagram can be placed using the 'Diagram' command. |
| Schedule Diagram | You can place shape code diagrams on the same Revit sheet as a "Placed" schedule. |