CADS RC3D for Revit®
Release notes

Contents

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 2024.4 for Revit® 2024, Version 2023.7 for Revit® 2023

Release – October 2024

Country Specific Shape Code Libraries

Users can now install country-specific shape code libraries (SDL) and incorporate shape definitions into their projects. The SANS country code library (SANS282-2004.SDL) is now available for installation, enabling users to create rebar using the standard shapes specific to South Africa in their Revit projects.

Version 2025.0 for Revit® 2025

Release – June 2024

Revit Support

CADS RC3D 2025.0 supports Revit® 2025.

New features and Improvements

Country Specific Shape Code Libraries

Users can now install country-specific shape code libraries (SDL) and incorporate shape definitions into their projects. The SANS country code library (SANS282-2004.SDL) is now available for installation, enabling users to create rebar using the standard shapes specific to South Africa in their Revit projects.

Version 2024.3 for Revit® 2024, Version 2023.6 for Revit® 2023, 2022.7 for Revit® 2022

Release – May 2024

New features and Improvements

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Range place

The *Range Place* command now supports the placement of the linear rebar ranges along with the Alternate and Staggered range placements. This command can be used to place the rebar in multi range arrangements which include the fixed pitch and the multi pitch rebars.

Linear Fixed Pitch Multi Range
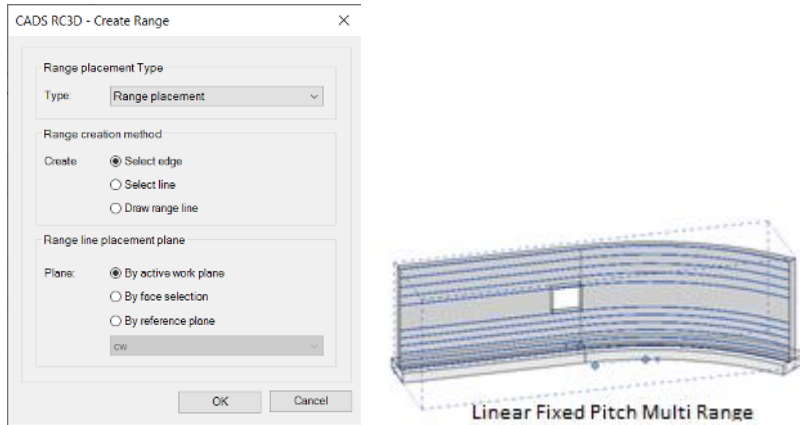
Smart Detailer

The *Smart Detailer* command enables users to apply pre-defined rebar arrangements to structural elements. It includes a library of pre-defined Rebar Arrangements tailored for specific structural elements. Users select the desired Rebar Arrangements from the dialogue, and the command then pastes them into the selected structural elements.
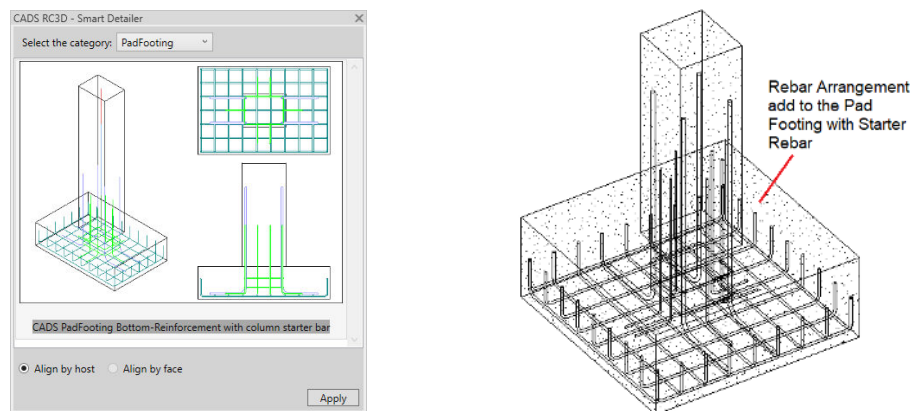
Draw Rebar

The *Draw Rebar* command has been enhanced to simplify the rebar shape placement work flow.
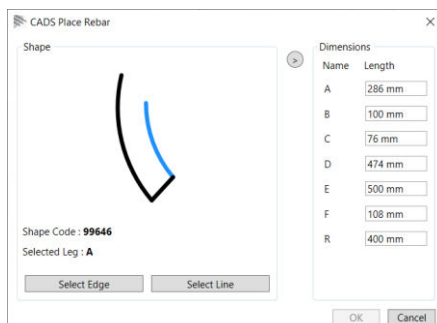
Annotation support for multi range groups

Users can now place annotations for rebars with multi-range arrangements alongside the range texts for fixed pitch and multi-pitch rebars as shown below.

Multi Spacing Group Annotation – showing range text for each assembly of rebar in the group.
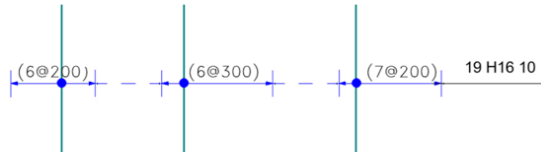
Fixed Spacing Group Annotation - showing range text for each assembly of rebar in the group.
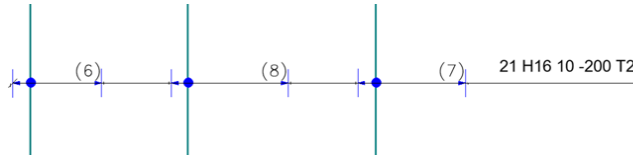
The ribbon UI enhancement

The ribbon UI has been rearranged to enhance the user experience.
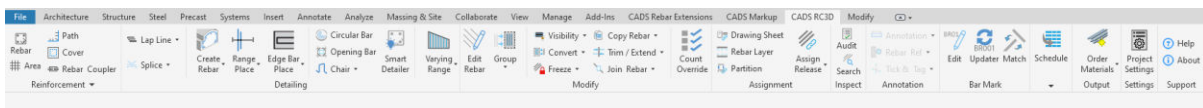
Support for rebar placements in curved path

The *Range Place* command now supports the placement of Alternate and Staggered rebar arrangements along a curved path.

Alternate Rebar Arrangement in a curved path
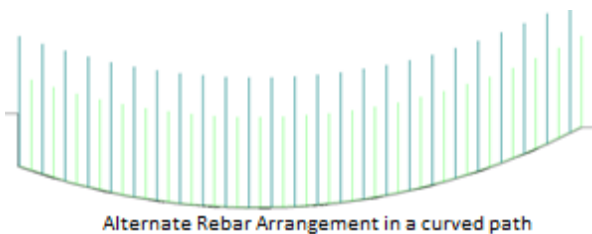
Search rebar enhancement

The *Search Rebar* command has been enhanced with additional operators to search for rebars based on the parameters with values or no values.
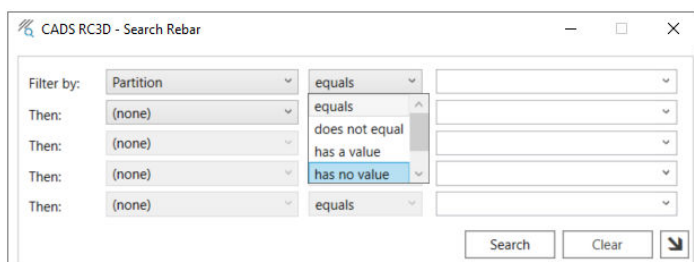
Assign rebar to partition

Users can now assign values to the partition parameter of individual rebars and groups of rebars using the exclusive *Partition* command within the Assignment panel.
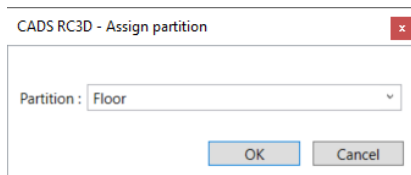
Count over ride by Partition

The *Count Override* command can be configured to override either the number of hosts (member titles) or partitions counted in the schedule within the 'number of members' column.
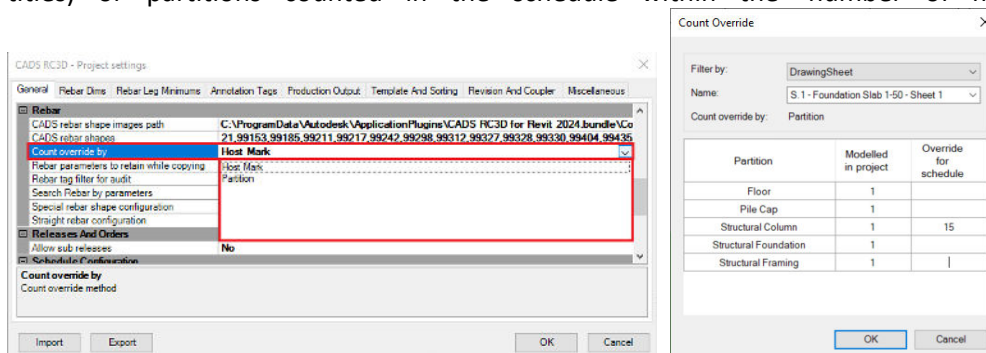
Audit command enhancement

The *Audit* command now has the option to include or exclude the rebars which have been hidden using the "View unobscured" option inside the View Visibility States settings.
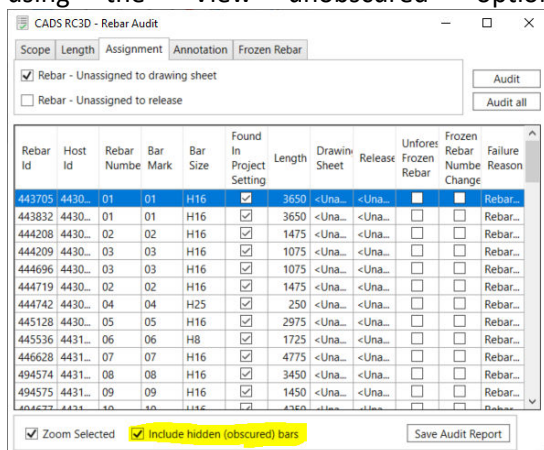
Option to report the number of Releases and Partitions in schedule

An additional field, "Member count," has been included in the schedule report customization to report the number of release for the release-based reports and the number of the partition for the partition-based reports.

Defect Fixes

1. A fix has been implemented for the weight summary report export to Excel, addressing the issue of incorrect weights and the number of bars being reported in specific sequences.

2. A fix has been implemented to resolve the error when opening the schedule in the model created with the older versions of CADS RC3D.

3. A fix has been implemented for the incorrect range line creation for rebars in radial arrangements.

4. A fix has been included to resolve the missing range texts when placing varying range annotation in specific sequences.

5. The defect where the Tick and Tag lost its format when the level changed for its rebar host has been resolved

6. A fix has been implemented to preserve the project parameters that were removed when freezing the rebars.

7. The error reported when generating the production output files due to the customized freeform rebars using Revit options has been resolved.

8. A fix has been implemented for the Convert Freeform command, resolving its failure when converting the freeform sets into individual rebars in specific sequences.

9. A fix has been implemented to the Match rebar command, which previously resulted in incorrect bar marks when matching in certain sequences.

10. Several other defect fixes and stability improvements have been included in this version.

Version 2024.2 for Revit® 2024, Version 2023.5 for Revit® 2023, 2022.6 for Revit® 2022

Release – November 2023

Defect Fixes

1. A fix has been included to the *varying range command* which failed to create the varying rebar set in a specific sequence.

2. A fix has been included to the schedule which reported incorrect or junk values for the rebars in a group in a specific sequence.

3. An error message reported when deleting a rebar within a group has been fixed.

Version 2024.1 for Revit® 2024, Version 2023.4 for Revit® 2023, 2022.5 for Revit® 2022

Release – September 2023

New features and Improvements

Draw Rebar

Use the new *Draw Rebar* command to place the special CADS Rebar Shapes in the project.
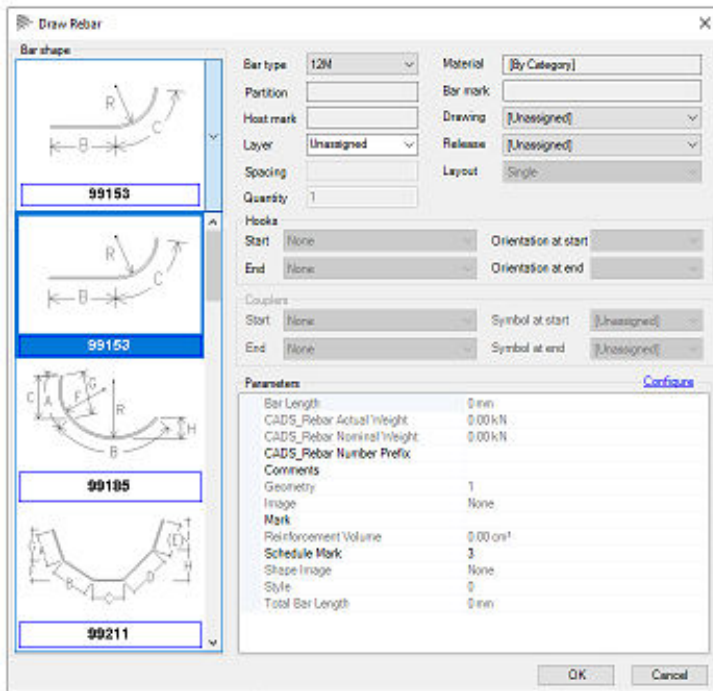
The CADS Rebar Shapes that are deployed along with the installation are either not possible or difficult to create using Revit's native rebar shape family file.

These shapes are supported with CADS RC 3D schedule reports and production output files.
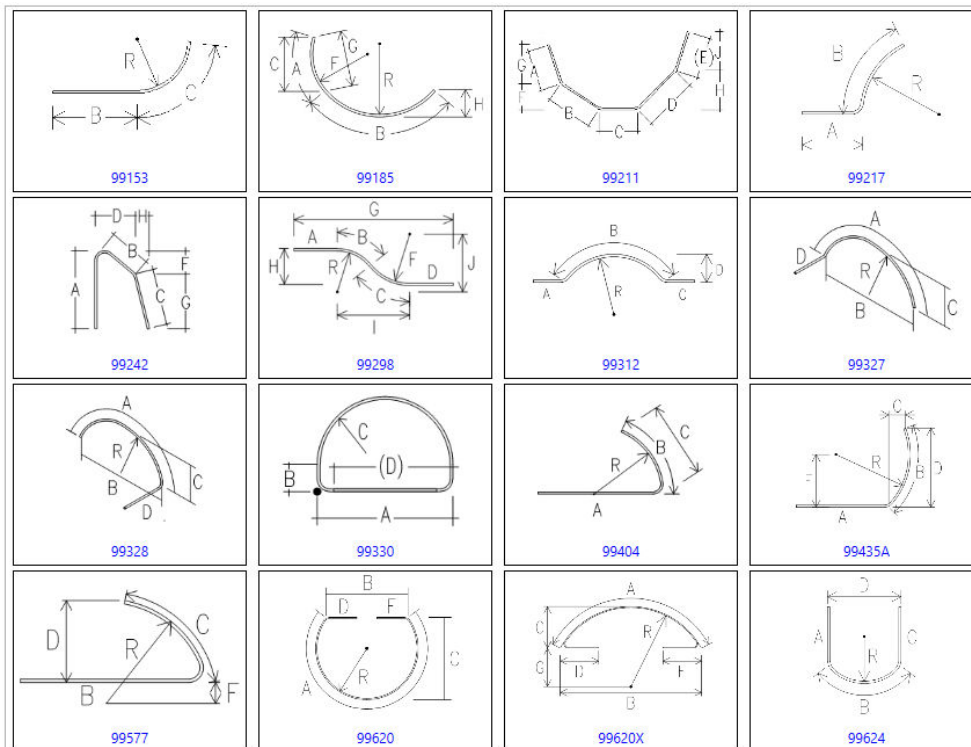
Rebar Range Placement

Use the new *Rebar Range Placement* command to create either Alternate or Staggered Rebar Groups from a Single Rebar.
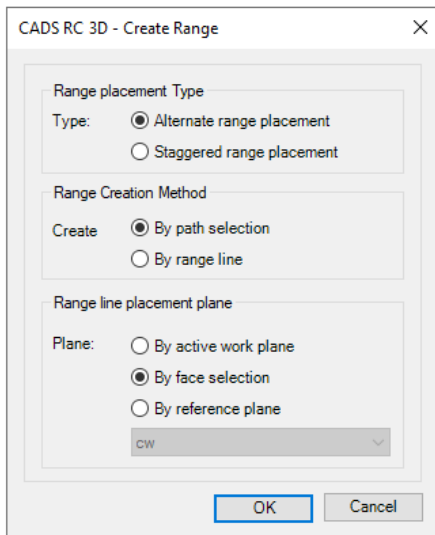
Range Placement Type - Use the Rebar Range Placement *Create Range* command to create a Staggered group of rebar from a single bar or Alternate group of rebar from two single bars in the model.

Range creation method - The path/range of rebar within a group shall be defined either by selecting an edge of the host or by using a model line that intersects with the rebar.

Range Line Placement Plane – This option allows to specify a working plane for the range group creation. This option allows to use the active work plane or define a work plane by selecting a face of the host element or by selecting an existing reference plane for the creation of the grouped rebar.
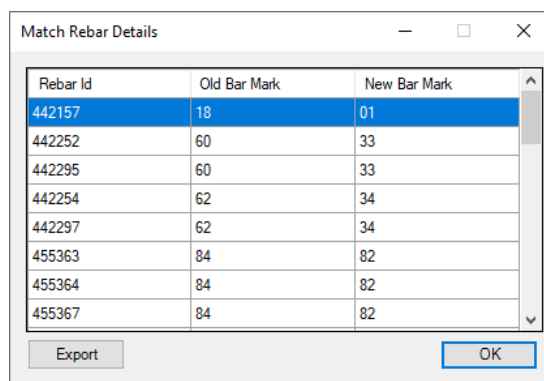
Use the new *Edit Range* command to swap the start and end rebar of the alternate and staggered range groups. This command also allows the user to modify the c/c spacing value of the rebars within the CADS Range groups.
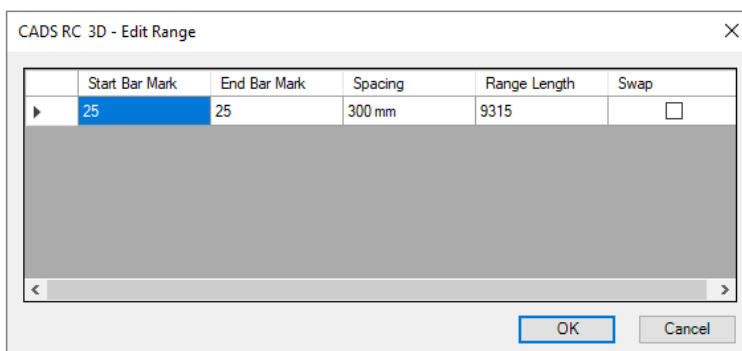
Match Rebar Improvements

The Bar Mark numbers before and after matching are displayed in a dialog at the end of the command.

Use this dialog to navigate through the changed rebar to ensure that their position has not been moved during the Match Bars command. The list of rebar can be exported to a CSV file to review the modified rebar at a later time.

The rebar can be located using the Revit® ID No and the Revit® Select by ID command.

Search Rebar Improvement

The Search Rebar command now allows to identify the CADS Chair rebar using the shape name parameter.

Convert Rebar Improvement

The Convert Freeform rebar now converts the freeform rebar set into individual freeform rebar if the conversion to normal rebar fails.

License Improvement

Activate the License of CADS RC3D from inside Revit® using either the cloud licence number or the User Credentials. Depending on the type of subscription you choose, CADS will provide either an 18-digit license code or a combination of a username and password (in the case of Account Based Licensing - ABL) via email.

Other improvements and defect fixes

- A fix has been made to display only the main leg dimension for the rebar in the schedules and production output files when the arc rebar is reported as straight.

- A fix has been made to the Edge rebar functionality which incorrectly placed the rebar in the elements with a varying profile.

- A fix has been included to correctly annotate the curved free form varying rebar.

- A fix has been included to the schedule functionality to combine the staggered rebar quantity.

- A crash reported in a specific sequence when using *Annotate by Host* command has been fixed.

- A fix has been included to the *Assign Release* command which failed in a specific sequence.

- A fix has been included to the BVBS output files which reported incorrect lengths for arc rebars which are reported as straight.

- A fix has been included to the *Release* functionality which failed to create new releases after freezing a rebar in a new project.

- A fix has been included for the error when assigning the reinforcement layer for a rebar set with the multi-pitch custom annotation.

- A fix has been included to the *Audit* command which failed to execute in a specific sequence.

- A fix has been included for the range text functionality which generated the range suffix incorrectly when annotating in a specific sequence.

- A fix has been included to the *Splice rebar* functionality which created incorrect laps in the rebar in a specific sequence.

- An error reported in a specific sequence when opening the schedule and when opening the project settings has been fixed.

- Performance improvement when executing the *Audit* command has been included.

- Several defect fixes have been included to the Annotation feature which failed to annotate properly in specific sequences.

- Stability improvements have been included to the schedule functionality.

Version 2024.0 for Revit® 2024

Release – April 2023

Revit Support

CADS RC3D 2024.0 supports Revit® 2024.

Version 2023.3 for Revit® 2023, 2022.4 for Revit® 2022, 2021.5 for Revit® 2021

Service pack Release – March 2023

Defect fix

- A fix has been included to the schedule for the dimension display in imperial units which reported incorrect dimensions when the "reinforcement rounding" settings was applied.

- A fix has been included to the schedule excel export which failed when appending the weight report along with the rebar schedule report.

- A fix has been included to the Soule production output file to not report the bend type name for straight bars.

Version 2023.2 for Revit® 2023, 2022.3 for Revit® 2022, 2021.4 for Revit® 2021

Release – January 2023

New features and Improvements

Opening Reinforcement Tool support to detail a group of openings

The Opening Reinforcement tool now supports adding continuous reinforcement to a group of openings if the openings are within a specified distance. The opening proximity distance is configured in the Project Settings under the Miscellaneous Tab.

The Anchorage values for the trimmer and diagonal bars are automatically obtained from the configured Project Settings when using the Opening reinforcement command.
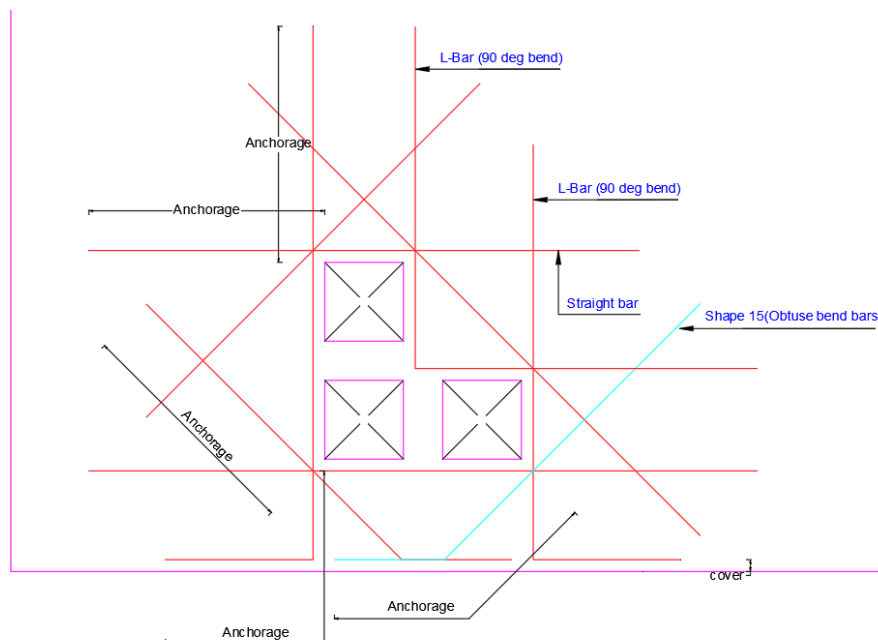
Bar Mark enhancement for Chair Rebar

A new option has been included to specify whether the bar mark for the chair rebar follows the regular bar marks or to separate the chair rebar bar marks with a prefix attached to it. This can be configured in the Project Settings under the General Tab.

New Chair Rebar Shape included

A new Chair Rebar Shape code has been included, as shown below, in addition to the existing chair shape code.
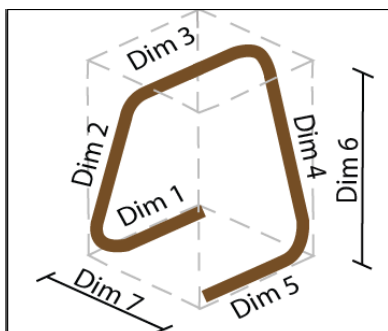
Edge Rebar Tool enhancement

The Edge Rebar Tool has been enhanced to support other structural elements such as beams, columns and foundations etc.

Specify start bar mark for varying ranges

The user can now specify a start bar mark (a) or (1) for varying ranges when creating varying ranges in 3D views.

Arc Rebar to be reported as straight based on the radius

The Arc/curved bars can be configured to report as straight bars based on the radius and bar lengths for each size.

Supress reporting of the leg dimensions for straight rebar in the schedule

An option is included to specify whether to report or supress the leg dimension for straight bars in the schedule.

Match Rebar Tolerance

The Match Rebar command dialog box now displays the tolerance values from the default values configured in the project settings. The tolerance values can be modified for every instance of the match rebar command.

New Shape Family files deployed

The existing USA Shapes are updated as per the latest CRSI standard and are deployed separately with the installation in the USASTD2018 sub folder.

Alternate Shape Name for Rebar

The user can now specify an alternate shape name to report in the schedules and the production output files. The Edit Rebar tool has been optimised to report the shape name from the "CADS_Display Shape Name" parameter if available.

Unit string settings for the aSa (.CAD) production output has been automated

The Unit String text field in the aSa (.CAD) production output is now automatically updated based on the Revit unit settings and rebar types used.

Other improvements and defect fixes

- A message has been implemented to warn the user if the access rights are not available when editing the project settings.

- The Tick and tag family file is now loaded from the project if available instead of loading it from the installed location.

- The user can now sort the schedules in the schedule tree view.

- The Italic and the Underline text styles are now supported in the schedule templates (rst).

- A fix has been added to the schedule bar mark sort functionality which sorted the bar marks incorrectly in certain cases, namely where the bar marks exceeded 100.

- A defect has been fixed for the users who are unable to place the tick and tag if access rights to project information are not available when working with the central model.

- A fix has been included for the error message "Third party updater-Rebar Group Updater" when updating Bar mark in specific cases.

- A fix for the Object reference error triggered when executing the Audit command has been included.

- A fix has been added in the copy host to host command to place the rebar with reference to the element profile instead of the analytical line of the structural element.

- Incorrect tag placement for the varying ranges if only a single rebar of the varying range is visible in the view has been fixed.

- A fix has been included in the Audit Command to resolve the discrepancy when copying rebar that have been frozen using the RC3D Freeze Rebar command.

- A fix for the error message triggered when using the Untagged rebar command in the Elevation views has been included.

- A fix to the Annotation command which failed when annotating the group rebar if it is constrained with the dimensions has been added.

- A fix to the Annotation command which failed to annotate the Radial groups in some cases has been included.

- A fix to the Annotation command for the object reference error triggered when the tag family is not loaded into the project has been added.

- A fix for the error message triggered when aligning custom annotations has been included.

- A fix has been included for the Staggered rebar groups which were listed as "untagged" in the rebar Audit tool if annotated.

- The rebar which had been assigned to a different release in a specific sequence has been fixed.

- A fix has been added to the rebar which was modelled outside 20 miles from the origin point and listed as Untagged in the rebar Audit tool.

- The rebar which are spliced incorrectly for all shapes other than the straight bar have been fixed.

- A fix has been added for the incorrect placement of Range dots for the Multi-pitch Custom Annotation in the Elevation and Section views.

- A fix has been added to the Freeze Rebar command for the rebar which has been frozen but unfreeze in specific sequences when working in the collaborate mode.

- A fix has been included to the Freeze Rebar command for the error message triggered when freezing the rebar after generating the production output file.

- A fix has been added in the report/summary reports which failed to display the weights if the weight report/summary reports are created with the "Host Count Override" in a specific sequence.

- A fix has been included to the Schedule for some of the rebar, the Leg dimensions and Bar Length values incorrectly shown as "Varies".

- Option to Check for Software Updates included on the About dialog.

Version 2023.0 for Revit® 2023, 2022.2 for Revit® 2022, 2021.3 for Revit® 2021 & 2020.5 for Revit® 2020

Release – April 2022

New features and Improvements

Circular rebar arrangement tool

A new tool to place rebar in circular arrangements inside circular elements. The Circular rebar arrangement tool helps to detail circular foundation slabs or floors automatically. This tool also includes an option to automatically splice the rebar according to the stock lengths specified and the transport width of the rebar.

This tool supports slabs/floors created either using the "structural floors" or the "structural foundation slab" commands. It also supports elements created using the model in-place option with categories set as 'Floors' or 'Structural foundations'.

Opening reinforcement improvement

An additional option to bend the trimmer rebar and the diagonal rebar to keep them within the structure, if the openings are close to the edge of the slab.

Range text annotation

A new feature to place the range text annotations along the range line. Annotation configurations have also been enhanced to allow the users to control the range text parameters and their positions.

Auto update of annotation tags

The staggered annotation tags will be automatically updated to alternate annotation tags and vice versa if the rebar group are modified.

Enhancement while annotating a single rebar

When placing the annotation to a single rebar, the program will now prompt only for a single point to position the tag.

Splice rebar improvement

The Splice rebar tool now supports curved/arc lines as lap lines for splicing. The existing standard detail lines can now be converted as the lap lines for splicing the rebar.

Sub release in the release dialog

The additional "sub release" field in the release dialog allows releases to be split based on the sub releases.

ASA RDX production output file

The ASA RDX production output file can be generated for a selected release from CADS RC3D 3D.

Extended format support for ASA Production output file (*.CAD)

The extended format of the existing ASA (*.CAD) production output file is supported. The user can now choose to produce the ASA production output file either in the standard format or in the extended format.

Parameter update while opening a Revit model

When opening a new Revit model with CADS RC3D, the default parameters required by the program will be loaded only after the first use of the CADS RC3D 3D command.

Support for Move/Remove rebar in a set functionality in Revit 2022

The move/remove rebar option newly included in Revit 2022 has been supported in the CADS RC3D rebar editing tools.

Edge rebar tool enhancement

When detailing rebar using the Edge rebar tool, the group rebar spacing parameter will automatically calculate and display the spacing value.

Highlight rebar

An additional option to highlight the selected Rebar in a suitable View in the Project.

Defect fixes

- A defect when working with a BIM 360 model where CADS RC3D was not working with the existing BIM 360 models has been fixed.

- Several defect fixes have been included in the schedule functionality which failed to open in certain sequences.

- A fix to the rebar references which had issues while placing in the section views.

- A fix to the annotation command which failed to draw the range lines for the groups created using the edge rebar tool in sloped surfaces.

- A fix to the Trim rebar command which failed to trim rebar in the bottom layers of the element, where multiple rebar are selected.

- A fix to the annotation command which failed to place the multi range annotation if the rebar layout is set to "Fixed Numbers".

Version 2022.1 SP1 for Revit® 2022, 2021.2 SP1 for Revit® 2021 & 2020.4 SP1 for Revit® 2020

Service pack – December 2021

Defect fix

A defect in the Schedule Feature has been fixed where the user was unable to open the schedule once the model was upgraded to the latest version when the Revit Families used in the schedule were already in an editable state during the migration.

Version 2022.1 for Revit® 2022

Release – September 2021

Revit Support

CADS RC3D 2022.1 for Revit® supports Revit 2022.

Defect fix

A defect in the schedule has been resolved where the user was unable to open the schedule if additional parameters were configured as schedulable parameters.

Version 2022.0 for Revit® 2022, 2021.2 for Revit® 2021 & 2020.4 for Revit® 2020

Release – August 2021

Revit Support

CADS RC3D 2022.0 for Revit® supports Revit 2022.

CADS RC3D 3D 2021.2 for Revit® supports Revit 2021.

CADS RC3D 2020.4 for Revit® supports Revit 2020.

New features

Splice rebar support for Freeform and curved bars

The Splice Rebar command now accommodates the splicing of Freeform Rebar and Shape Drive Rebar.

Staggered splice support for inclined/sloped surface

The Splice Rebar command now supports splicing rebar in inclined and sloping surfaces. Specify whether the staggering lap arrangement is placed in the same plane or in multiple planes.

Splice rebar with couplers

Couplers can be added to rebar as part of the Splice Rebar command. The appropriate coupler type can be selected along with the symbols for the start and end of the rebar.

Multi annotation custom tag support

A configuration option is included to specify whether to use Revit's native tag family types or CADS RC3D custom tag family types for the fixed pitch multi range annotations.

Arc rebar annotation support for rebar which includes varying, staggered and alternate arrangement

The annotation of curved/arc shapes are now supported in CADS RC3D including varying, alternate and staggered annotations.

Multi user support for schedule creation and editing

Multiple users can work on schedules at the same time when working with a central model. Individual schedules can be created separately. While syncing changes to the model, the schedules that are checked out will be automatically relinquished and synced.

Shape image configurations for presentation in schedule

An additional configuration options are available to control the shape diagram attachment to the schedule. The user can specify whether the shape images are to be attached only to the coupled rebar or to special bars and coupled bars.

Override revision mark

The revision mark of an issued schedule data line can be overridden to any of the previously issued revision level using this command.

Place shape diagram table on drawing sheet

A new command to place the shape diagram table (not dimensioned sketches) on the drawing sheet is now available from the view schedule dialog box.

Search functionality while creating schedule

A search option has been added in the create schedule dialog box to make locating the drawing sheet/release/host mark/host category easier when creating a schedule.

CADS Nominal diameter parameter support for production output files

The CADS nominal diameter parameter, introduced with the previous release of CADS RC3D, is now supported in all the production output file types, including the BVBS output. The user can specify whether the weight calculation reported is for the "Bar Diameter" or "Nominal Bar Diameter".

Varying range support for BVBS

The BVBS output now supports the varying freeform and the Revit varying set.

Multi direction hook support in RC3D commands

The new functionality introduced in Revit 2021 to rotate hooks is now supported with all CADS RC3D commands such as Splice rebar, trim/extend, Join rebar etc.

Untagged rebar placement improvement

The positioning of tags while using the un-tagged rebar annotation command has been improved to help prevent clashing with other annotation in most cases.

BS 8666:2020 shapes, minimum length configuration settings and schedule templates

Shape family files, configuration settings for minimum lengths and the schedule templates to comply with BS8666:2020 standard have been included. The new detailing standard can be configured in the Project Standards dialog using the Import button.

Defect fixes

- The trim rebar functionality which failed while splicing the channel shaped rebar has been resolved.

- A fix has been made to resolve the bar mark inconsistency in specific cases due to the discrepancy between the CADS rebar number and the Revit rebar number.

- A fix has been made in the installer for installation failure when overriding the existing installation in silent mode.

- A defect in the splice rebar command where the user was unable to splice rebar while working in the central model has been fixed.

- A defect for the Bar mark updater message popping up when deleting a Rebar group with the coupler in a specific sequence has been fixed.

- A fix has been introduced when placing the bar reference where the references are placed for the first and last rebar only of the rebar assembly.

- A fix to the rebar annotation has been made where the annotation tags fail to get placed in specific cases.

- A defect in the Edge rebar placement tool which did not work if the "variable" setting was enabled in the host type has been fixed.

- A defect in the Edge rebar placement tool which failed to create the rebar in the irregular shaped walls other than the curved wall has been fixed.

- A defect in the splice rebar command for the spacing value changes after splicing with the rebar layout set to "minimum spacing" has been fixed.

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 barmark 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	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. Use the Annotation command on individual rebar/ranges of rebar, a selection of 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.

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