# COPRA® RF 2021

# Release Notes

## COPRA® RF
## State-of-the-Art
## Roll Forming
## Design

data M
Sheet Metal
Solutions
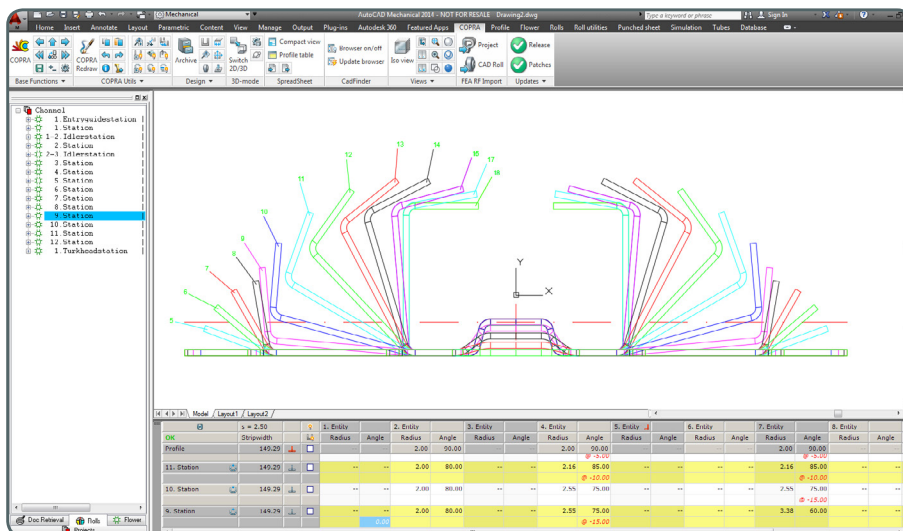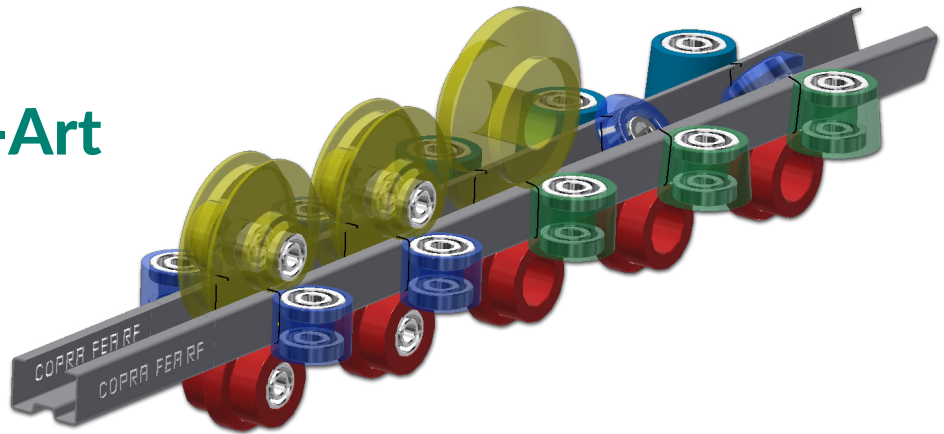
# COPRA® RF

# What´s new in version 2021

COPRA® RF has been global market leader in the field of roll forming software for some years now, with the latest release of COPRA® RF 2021 our team have worked on new features tailored to the requirements and needs of today's roll forming designers. These new features improve the workflow, making it more efficient and dynamic further still.

| NEW | *SpreadSheet Virtual Station allows Multichange elements feature:* |
| --- | --- |

The new version of COPRA RF introduces the possibility to create a virtual station. A virtual station is only visible in the spreadsheet, meaning that it does not count as a station in the project. It allows the user to perform multiple changes to one profile element without the need to create additional forming stations.
A virtual station is indicated in the spreadsheet with a plus sign next to its station number.
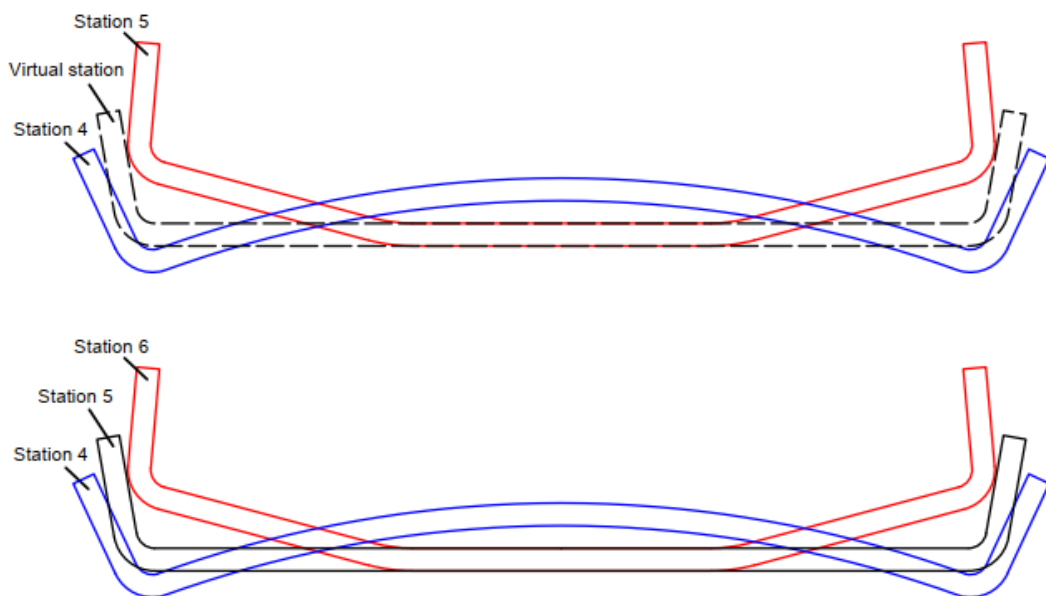


**Top picture:** Virtual pass. After unbending the radius, complete flat area elements are joined together and the overbend of the complete base is created.
**Bottom picture:** In the previous versions multiple changes to the same cross section element were only possible by adding additional stations.

NEW

*Project search in CadFinder:*

The user has the possibility to search for projects in Cadfinder using a keyword, allowing a more efficient and smart access to the project database. If more than one project contain the searched keyword, the relevant projects will be listed and the user can easily browse from project to project and select the desired one.
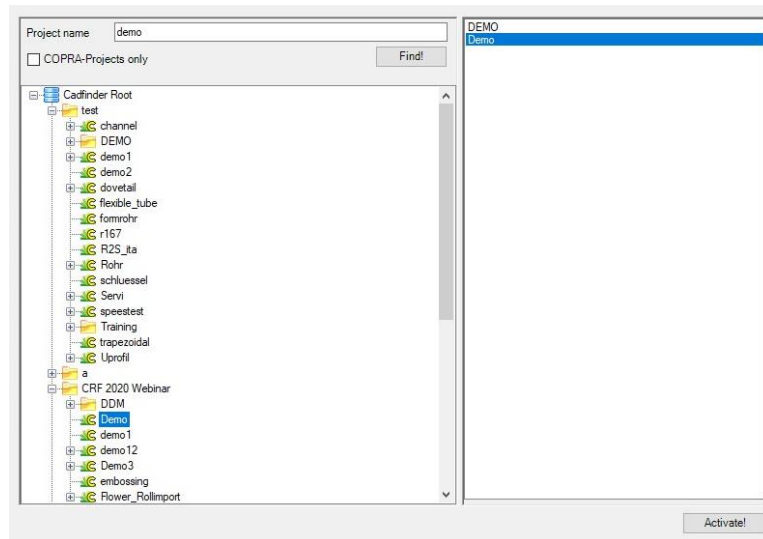


IMPROVED

*Expanded Smart Roll Possibilities:*

As in the last versions of COPRA RF, the Smart rolls functionality profits from a continuous improvement of its features. The current release will incorporate an enhanced, more efficient and user-friendly use of the copy and move feature.

Developments include:

- SmartRolls copy with clone option
- SmartRolls copy and move-> Multiselection of rolls, even from different axes is now possible
- SmartRolls copy and move across stations possible now

*Comparing of flower sequence from different projects:*

The user has now the possibility to browse projects and select the projects she/he would like to compare. The flower of the selected projects will then be visible in the working area, allowing a visual comparison of different projects.
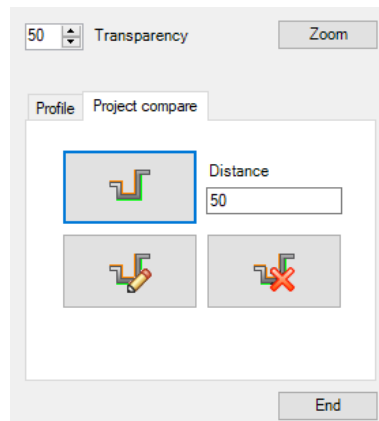
*New material database:*

A new material database was developed where the user can easily create an entry, with the relevant material properties, for each desired material. This database can be accessed at any time during the development of a project and with a click of a mouse button the material and its corresponding properties are assigned to the project.

| Name | Young's Modulus | Poisson's Ratio | Yield Strength | Ultimate Tensile Strength | Elongation at Break A80 | Roll Material | Strip Material |
|------|-----------------|-----------------|----------------|---------------------------|-------------------------|---------------|----------------|
| Material 1 | 210000 | 0.3 | 460 | 600 | 21 | not usable | usable |
| Material 2 | 210000 | 0.3 | 650 | 800 | 12 | not usable | usable |
| Material 3 | 210000 | 0.3 | 700 | 860 | 10 | not usable | usable |
| Material 4 | 210000 | 0.3 | 900 | 1090 | 5 | usable | usable |
| Material 5 | 210000 | 0.3 | 960 | 1150 | 7 | usable | usable |
| Material 6 | 210000 | 0.3 | 900 | 1200 | 8 | usable | usable |

# Additional Developments and Notes

*+ AutoCAD 2021 support*

*+ Inventor 2021 support*

*+ DXF-Contour for individual rolls*

*+ Improved general usability*

# SR01 – BugFixes

- **Updater**
  Available updates were not shown because of a wrong Web adress.
- **CAD-Interface**
  Changing the language in the SolidWorks CAD-Interface did not work.
- **Archive**
  When loading an archive into a different project, the fixed roll attributes where replaced by the default roll attributes.
  SpreadSheet disk was red after loading an archive.
- **Change project**
  When changing a project, the performance has improved. If many projects are existing in the same level in the CadFinder project tree, the loading was delayed.
- **Assembly station drawings**
  Station names of the assembly station drawings in CadFinder in some cases got a wrong station name.
- **Converting rolls**
  Converting spacers to rolls and vice versa the roll-/spacernames were not updated.
- **Station type**
  New station type straightener was not translated to English.
- **Rollnumber position**
  When setting "rollnumber inside at bore" the rollnumber was placed at the wrong postion.
- **Forming sequence**
  When showing the forming sequence with rolls, all axes were drawn at one position.
- **Creating profile**
  When creating profile via profile entities, in some cases the preview of the profile was wrong.

# SR02 – BugFixes

- **Updater**
  Switching to another security protocol.
- **CadFinder**
  When changing the project the speed is again increased.
- **Spring back**
  When using Biswas as spring back method, the data from the new material settings are taken into account.
- **Duplicated profile contour**
  The contour of the profile was drawn twice.
- **Colour of visible edge**
  The colour of visible edges was not set.
- **CAD-Interface**
  Starting the CAD-Interface in old COPRA® 2013 projects might cause a crash.
- **Spacer rings**
  Wrong numbering of spacer rings is fixed.
- **Converting database (mm->inch/inch->mm)**
  Problems with cloned rolls fixed
- **Clone rolls**
  For some clone operations all roll attributes were fixed
- **Get&Show**
  Selected pass was displayed only after manual screen refresh, foil of the "old" pass was not hidden.
- **Reading archive**
  Problems when loading a parametric archive into a non-parametric project are fixed

## SR03 – Enhancements

- **AutoCAD 2022**
  Is supported
- **AutoCAD Mechanical 2022**
  Is supported
- **Inventor 2022**
  Is supported
- **SmartRoll-Copy**
  Additional option „Original" to bring the roll contour back into the original position.
- **SpreadSheet**
  When inserting new profile elements, the profile automatically will be displayed in full size. For each action the option „Undo/Redo" is available.

## SR03 – BugFixes

- **Scale Project**
  Drawing dies will be scaled.
- **Clone rolls**
  Fix attributes only if on different axes.
- **Assembly plans**
  Assembly plan with new inserted station overwrote wrong station of an earlier created assembly plan in CadFinder.
- **Single roll dimensioning**
  Run CadFinder-Browser-Update only once, not for each roll.
- **Hatch**
  Correct hatch of a roll with locking rings without bore chamfer.
- **Delete roll**
  Take also rolls on accessory axes when using „delete all rolls".
- **Tubemill**
  Crashes when selecting more than 22 lines from the roll parameter list with empty stand list.
- **Tubemill**
  Bugfix: Chamfer or fillet at the roll edge.
- **Options**
  Additional setting to be able to exclude the attributes from the mirroring when copying rolls mirrored.
- **Display**
  Bugfix: Profile numbers are not visible in element mode.
- **Display**
  Bugfix: The active profile element is not marked immediately after the start.
- **Display**
  Bugfix: If you select an element by tapping a profile element, the new element is not marked.
- **Display**
  Bugfix: Bore contour for left side rolls with locking rings.

- **Display**
  Bugfix: In 3D-mode the transformation for mirrored rolls is wrong.
- **NC-Code DXF**
  Bugfix: In the case of side rolls, the contour is mirrored in relation to the bore.
- **Classic projects**
  Bugfix: Partly wrong pass numbering in classic projects.
- **Classic projects**
  Bugfix: Partly wrong bandwidth calculation.
- **Assembly plan**
  Bugfix: The same profile is shown for each pass.
- **NC-Code**
  Bugfix: Bore with locking rings.
- **Move roll**
  Bugfix: Moving rolls on horizontal accessory axes with classic functions.
- **SpreadSheet with splitted table**
  Bugfix: If the table is splitted, only the selected elements from the active part of the table are now taken.
- **CadFinder**: Drop of URL links in Cadfinder via Drag&Drop now possible.
- **SmartRolls**: Dialog size now variable (In certain display constellations, not the entire dialog was displayed).
- **Assemblyplan**: Pre-pass and post-pass can now be faded in again
- **Single roll dimensioning**: With certain screen resolutions the radii were not dimensioned
- **CadFinder**: The station index is now displayed in the roll browser

# SR04 – Enhancements

**CadFinder**

- Editing of document numbers is now possible.

- The "Write station" function now also accepts public RLM rolls.

- Running station index in roll browser.


# SR04 – BugFixes

**General**

- When scaling a project, the absolute values of split elements were not scaled.

- In material selection, selecting unsaved material could cause problems.

- There were problems when creating a new springback material.

- When deleting a side axis with roller(s) in the full section view via the classic "Axes l/r" dialog, the roller remained visible in the project floating freely

- In a parametric project with a mirrored flower, the bandwidth in the classic dialog differed from the bandwidth in SpreadSheet.

- It was not possible to show passes using the classic function.

- In the NC code of the side rolls in 2013 projects, the bore was mirrored in comparison to the contour.

- When creating a roll with the "Axis to roll" option, the position of the roll was incorrect.

- In 2015 projects, the axis was not positioned when saving a free-defined roll with the "Axis to roll" option.

- There was a crash when changing roll width on side axis.

- "Mirror side rolls" creates copies of the source rolls with default attributes for non-database rolls.

- All colors for grouped rolls could get lost in the settings.

- Deleting an assigned roll set number from the roll attributes was not possible.

- Progress display in roll lists (e.g. parts lists and search results) no longer worked.

- When changing the work set number of a roll, a default roll number was not generated again.

- Added bore groove information to drill sheet.

- Show user query Auto-Archive-Save only with appropriate setting (for classic 2013 projects).

- RLM roll search reference points were lost when the user changed rolls in the search result.

- Allocation of drill sheets via minimum widths.

- Automatic spacers for nested rolls.

- Deleting side axes did not delete associated roll contours from the view.

- Also accept URLs from Edge.

- Bug fixes for Undo/Redo.

**CadFinder**

- When saving the project, also update the sheet thickness in the Cadfinder project data.

- Unreferenced RLM projects remain in the database. Under certain conditions, it was possible for RLM projects to be saved multiple times in the database.

- A Cadfinder database name beginning with a number was not possible.

- Automatic archives are no longer saved to Cadfiner.

- In dimensioned assembly plan, the last station drawing was missing in the Cadfinder.

**Crimps/Craws/Infoparts**

- While creating, the distance dimensioning and the foils were not locked.

- The existing crimps were not deleted when the screen was regenerated.

- With a mirrored profile, the position was wrong when referencing in the middle of the profile.

**Foils**

- When calculating the position of foils in the last element, any additional material was not taken into account.

- If the start/end point of a foil was inside an arc unfolded by "constant length of neutral line", the position was calculated incorrectly.

**SpreadSheet**

- If an unfolding plane set by the user triggers a split from the element, the unfolding plane was deleted when the project was imported if it was identical to that of the previous profile.

- When a pass is deleted, the unfolding plane has also been deleted. The set unfolding plane is now retained. However, existing data will NOT be overwritten.

- If a profile was created automatically using templates and the unfolding plane should be at the end of the profile, the unfolding plane was not set correctly.

**Tubes and Pipes**

- Fillet across elements.

- Crash when changing roll width on side axes.

- When using the COPRA 2015 format, the 3-roll welding station of the pipe system did not work.

- Same gap for top and bottom roll.

- After changing the axes distance in the rolls interactive dialog, the value for D2 is displayed incorrectly in the dialog.

- Contours of side rolls.

**Wire**

- Set layer names of special rolls in the DXF export according to FEA convention.

# SR04.1 – BugFixes

**General**

- When loading an archive into a new COPRA®-Project, the fixed roll numbers were lost.

- When creating a copy of a roll, the roll number and the toolset number are now set to default.

- The selected profile element is marked again.

- Roll numbering:
  With the option "Count rolls with specific roll number" only the first rolls were taken into account for DB-rolls and referenced rolls.

- CAD-Export:
  Special characters "<>:"/\|?*" in roll numbers are replaced by a minus sign "-".

- Project compare:
  Comparing is now also possible if the project is loaded by another user.

- Cadfinder
  The browser gets updated after revision operations.

- RLM:
  In the sawinglist the comment was shown at the wrong roll.

- SmartRolls:
  The „Clone roll" option will be set correct when switching passes.

- Bill of material:
  The roll raw weight was always calculated with the density of steel.

- RLM:
  When „grouping rolls"a roll was sometimes assigned to the wrong group.