

# COPRA 2002 is coming – with 69 new features



a „Major Update“

the most important highlights  
are marked with **2002**



## COPRA 2002 is available for

- ✂✂ AutoCAD 14 / Mechanical Desktop 3
- ✂✂ AutoCAD 2000 / Mechanical Desktop 4
- ✂✂ AutoCAD 2000i / Mechanical Desktop 5
- ✂✂ AutoCAD 2002 / Mechanical Desktop 6
  
- ✂✂ and **NEW!** as StandAlone Windows Application

## Common features

1. COPRA 2002 is Multiple- Document (MDI) –aware. This means, that several drawings can be opened in one session. You can edit the flower in one drawing and in another drawing you can display the simulation results simultaneously. In all open drawings the same project is automatically the current one. **2002**
2. COPRA 2002 provides of toolbars for all modules, being faded in or out dynamically, whatever function is needed. Thus all available commands are shown on the screen. **2002**
3. The permitted symbols for the filenames are according to Windows convention. Files and paths can include e.g. lower case letters.
4. The numeration of the flower can be placed at the left, the right or at both sides optionally or can be faded out. The length of the lines in each pass can be adjusted to avoid the crossover of the numbers.
5. During the initialisation of COPRA 2002 two new help layers are inserted automatically: **0-CAD-Polylinie** and **0-Helpline**. During the design in AutoCAD you can work very fast and effective with this layers, because they are connected with the option **Clear also COPRA-help layer when updating screen** in the COPRA settings.
6. COPRA 2002 provides an **Undo** - function. It is possible to undo the last 5 commands, one command can be restored (analogue to the AutoCAD - command **Redo**). **2002**
7. In the COPRA defaults additional paths can be defined for:
  - ✂✂ a COPRA project main folder. Allows to introduce a company specific project structure.
  - ✂✂ a COPRA default directory. Herewith you can assign specific defaults to each project. Thus it is possible to recall all project specific default settings at any time.
8. For each project automatically project subdirectories can be created where all the design data are placed. Additional subdirectories are available for archive files, info files, assembly plans, roll detail drawings, DXF-roll outlines and CNC-production files. This makes it easier to find specific files within a project.
9. a project can be saved in an predefined time frame. Although COPRA supplies a very safe data model, with this option the risk of loosing data gets even smaller.
10. via the settings the roll number can be placed inside of the roll now. The position of the text is aligned automatically.
11. the dimension of spacer rings can be shown automatically.
12. optionally profiles and rolls can now be inserted to the data base or deleted from the data base at the same time. Using this feature will avoid that the pass numbers of sections and rolls are dis-aligned.
13. COPRA 2002 supplies a roll browser, the CRF Explorer. The CRF Explorer can be switched on or off on demand. A pass can simply be activated and displayed by picking it in the CRF Explorer. The data of the single stations can be made visible by opening an extra window. When changing to another project the CRF Explorer can be updated with the Icon „initialise COPRA“. **2002**
14. because of the use of toolbars the screen menu of COPRA is now obsolete, but it is still available for those who still want to use it.

# COPRA 2002 is coming – with 69 new features



a „Major Update“

the most important highlights  
are marked with **2002**



## COPRA Data Base

15. For the pass selection the complete station or only parts of it (top-, bottom, side rolls, profile, axis, all rolls of an axis) can be mirrored (horizontally, vertically), moved or converted. **2002**
16. The conversion of the data base is possible with an adjustable factor (not only from millimetres to inches and vice versa)
17. When switching to the next or previous station by using the „+“ or „-“, key and modifications have been made to the current pass you will be asked automatically if you want to save the pass. Also while switching between the individual modules COPRA will check if the design was modified.
18. When inserting passes in the data base COPRA makes a difference between passes and stations as defined in the settings. This makes sure that sections and rolls are inserted in the right place.

## Project Manager

19. During the creation of a new project the current date and the login name of the user will be inserted automatically in the dialogue window.
20. While copying a project you can copy optionally either the setup- and archive files only or the complete project directory including all subdirectories.
21. COPRA 2002 allows the creation of several project main folders. With this option you can create e.g. a project main folder for each customer, so that you can only see those projects that have been made for that specific customer.

## Profile Editor

22. When loading the section design module all functions are faded in dynamically via toolbars. **2002**

## Flower Design

23. When loading the flower design module all functions are faded in dynamically via toolbars. **2002**
24. During the definition of the section folding point (plane of unfolding) any point on the contour of a section entity can be selected.
25. The numeration of the cross sections can be done like defined in the options according to pass number, i.e. the final section is pass no. 1, or according to stations like in the machine.
26. If a cross section was modified you will be asked to save the cross section when the keys „+“ and „-“ are used to scroll through the individual passes of the flower.
27. The function „modify thickness“ was completely updated. On the one hand the reference line that never changes (outside contour, centerline or inside contour) can be defined, on the other hand you can determine which radius of a profile should be kept constant. Together with the function „adjust unfolding“ you can create any similar cross section from an existing flower. **2002**
28. During the automatic calculation of the unfolding steps of a trapezoidal section the bending sequence will be saved and shown in a comment. In case of a modification the comment will be automatically updated.
29. During the automatic unfolding of a section similar entities can be joined automatically.
30. Each selection of entities selected can be inverted automatically. During the selection of the entities the angle filter can be defined as absolute.

## Roll Design

# COPRA 2002 is coming – with 69 new features



a „Major Update“

the most important highlights  
are marked with **2002**



31. When loading the roll design module all functions are faded in dynamically via toolbars. **2002**
32. If a selection of rolls is to be deleted (e.g. only top rolls) it is possible to select the passes.
33. It will be checked if modifications are already saved. If modifications are not yet saved this can be done automatically.
34. The function “rotate side roll axes” was completely modified. A parallel rotation is now possible with the same rotation point origin.
35. If a station was modified you will be asked to save the rolls when the keys „+“ and „-“ are used to scroll through the individual passes. In addition it will be basically checked for any modifications.
36. The selection of the filenames for the function „**store roll set / read roll set**“ can now be made via a dialogue window.
37. If the diameter of a cone entity is modified on both sides, the reference side for the modification (left or right) is the side being closer at the picked point.
38. When the angle of a cone entity is modified with the function „modify entity“, the tangential transition to the adjacent entities will be maintained. Neighbour entities not being radius entities can also be adjusted automatically. **2002**
39. With the function „driving diameter“ the root diameter can be adjusted for side rolls, too. The new diameter may be defined by any reference point.
40. The function „delete radius“ is extended in a way that combinations like straight – bend and bend – bend can also be handled.
41. With the new function „copy and paste“ all rolls can be copied into the clipboard. A reference point needs to be defined. The rolls can be pasted in any pass. The same applies for parts of a section. **2002**

## Roll Data Base

42. The COPRA Roll Data Base is provided with a new driver and runs thus very robust and fast under AutoCAD 2000 / 2000i and AutoCAD 2002.
43. The user environment of the COPRA Roll Data Base (CRDB) was designed completely new. This makes it very easy to use. There is e.g. no longer a temporary data base which has always lead to misunderstandings in the past. **2002**
44. The COPRA Data Base is now available in a „Professional Edition“ and a „Standard Edition“. The „Professional Edition“ is the still well known solution for the data base administration of roll sets. Complete projects can be transferred to the data base and reloaded again. With the considerable cheaper „Standard-Edition“ you can transfer, search and delete single rolls to the data base. The searching function of the „Standard-Edition“ disposes of the same efficiency as the „Professional Edition“. The „Standard-Edition“ is perfect for the assignment of individual roll numbers and materials.
45. The rolls measured with the COPRA RollScanner can be transferred to the data base directly and can be retrieved with the respective search commands.

# COPRA 2002 is coming – with 69 new features



a „Major Update“

the most important highlights  
are marked with **2002**



## Single Roll Dimensioning

- 46. The automatic single roll dimensioning was completely redesigned and provides absolute new possibilities especially in terms of dimensioning strategies as well as in the creation of manufacturing drawings. **2002**
- 47. The allowed symbols for the automatic definition of filenames are now according to the Windows specification.
- 48. Each automatically dimensioned roll can be placed in a customer specific drawing frame with title block. The scale can be predefined or can be adjusted by the user in the drawing afterwards. **2002**
- 49. Different scales can be predefined. If the roll does not fit into the frame in the selected scale the next smaller scale is used automatically.
- 50. The roll drawing can be saved in paper space or model space.
- 51. The informations referring to the drawing like project name, roll number, machine, roll material, roll weight or roll type need to be defined as attributes in the drawing. The roll attributes will be updated automatically in the title block during the dimensioning. This way the creation of manufacturing drawings by the „press of a button“ has become reality. **2002**
- 52. The dimensioning strategy can be user defined. So the contour intersection point or the entity intersection point can be selected as the point to be dimensioned. Optionally the centre points of radii can be dimensioned, too.
- 53. When dimensioning contour intersection points between a radius and a straight line the base of the calculation can be the extension of the contour lines or the tangent line at the end points.
- 54. On demand the centre points and / or quadrant points of radii can be added to the width and diameter dimensions.
- 55. For the selection of a reference point for the width dimensioning eight different possibilities are available – e.g. on the left or right side, at the smaller or the bigger diameter or with the split point at the biggest diameter. In this case the width dimensioning is done from the left and the right side to this point.
- 56. The split point for the diameter can be user defined or determined automatically.
- 57. The dimensions can also be placed inside the roll.
- 58. The roll number can be displayed in the drawing.
- 59. The dimensioning can be done roll by roll, axis by axis or fully automatic.
- 60. The distance of the dimensions to the roll and between the dimensions itself is now adjustable.
- 61. The rolls can be drawn and dimensioned in manufacturing- or operating position.

## Automatic Assembly Plan Dimensioning

- 62. In the assembly plan the rolls can be completely dimensioned. **2002**
- 63. Assembly plans can be automatically placed in a drawing frame
- 64. The content of title block of assembly plans can be automatically updated

# COPRA 2002 is coming – with 69 new features



a „Major Update“

the most important highlights  
are marked with **2002**



---

## NC-Data

- 65. The position of the reference point can optionally be selected at the smaller or bigger diameter.

## CutList

- 66. Rolls from the COPRA Roll Data Base appear in the cutlist with the roll number assigned.

## Simulation (DTM)

- 67. The fading in and out of the rolls is now controlled by a dialogue window.
- 68. For the representation of the rolls a rotation angle can be defined.

## StandAlone Version

- 69. COPRA is now available as a StandAlone Version without AutoCAD – and nevertheless all needed CAD functions are on your disposal. The CAD functionality provided is based on the functionality of AutoCAD 2000i .

**2002**