



NewsLetter 8 – CivilCAD 2004/Ver 2.0 The new generation...

4 months ago we launched CivilCAD 2004 which created a new standard of work. Now, after an adaptation period, we are releasing its new version, version 2.0. Releasing a new version in general, and releasing a new software in specific (CivilCAD 2004 Vs. CivilCAD 2000), creates a double difficulty: (1) Difficulty for the user in adjusting to the new environment and outlook, and (2) "Injuries time" – the time period where as the software passes the user's test in his daily work, including old files adjustment and testing the software in extreme situations. We have made great efforts in order to overcome these two issues; we have kept on similar windows and operation methods as been used in the previous software; we have checked the new software in highly standard quality assurance tests. The importance of the new version, version 2.0, except for its innovation, is its capability of standing these high standard tests.

We are recommending all our customers that are still using the old environment (CivilCAD 2000) to step into our new world, upgrade to CivilCAD 2004, and start taking the advantages of using the new environment.

General announcements

We are about to finish the new user manual (including the On-line-help) which will include all the changes and improvements been made in the CivilCAD 2004 software. The manual will be sent to you in a PDF format and as an On-line-help file, free of charge.

Innovations, improvements and changes

Roads:

1. **Horizontal alignment tools** – One of the major improvements in the new version is the advanced set of tools for the design of the horizontal alignment. From now on, geometry alignment design, including transition curves design is easy than ever. The new set of tools includes: curves design (multi definition) between two lines; tangents design, including transition curves, between two curves; Re-curves

design; curve with two attached transition curves (arc length = 0); several options of curves and tangents creation in an fast and easy way and more. Enclosed to this document attached is an explanation file on the new set of tools and its operation method.

2. **Improvements in blocks insertion in the cross sections** - we have made several improvements in blocks insertions in the cross sections:
 - Inserted blocks will also appear in the software's cross sections window.
 - Cross sections creation (DXF and in Paper space sheets division) will not be bound to any use of DWT file.
 - You can now add blocks to the edges of the cross section (side-sticks). To define blocks at the edges, use the "Cover" column of segments -40 and 40 of the "Designed G.L" table.

3. **Flow directions in side-ditches** – arrows have been added to the side-ditches in the layout, showing the direction of water flow.

4. **Changing side-slopes in the edges segments (side-sticks segments)** – A new table has been added to the cross sections, enabling definition of slopes changes in the side-slopes (edges segments). To enter data into the table, select "Changing SideSlopes" from the list of tables in the lower window of the cross section screen. The table is divided into left and right, cut and fill situations. In the Depth/Height column, define the height (interval) whereas the change in slope will take affect from, according to the following rules:
 - A positive value- the change in slope will start at the interval from the existing G.L.
 - A negative value- the change in slope will start at the interval from the Designed G.L (sub-grade).In the slope column, define the slope ratio after the change (the slope before the change will be defined regularly in the side-slopes fields of the Design G.L). In the space column you can define the space to create a step (berm) between the two slopes. The space will be defined in meters.

5. **Cross sections presentation in the layout and the vertical alignment in wanted steps only**- One of the problems been fixed in the software is the capability of presenting cross sections in the layout and vertical alignment, in every desired step, without connection to the real existing sections. Taking a road, for example, of designed cross sections every 25M, can be presented with cross sections each 100M only, and that, without changing the actual designed cross sections in the project. To control the distance between the cross section, follow these steps:

- Enter into the Horizontal alignment window.
 - Press the option button on the right.
 - Press the Define sections button (a white paper button).
 - In the new window, switch to "Show sections by steps".
 - Enter the distance for presentation (will not affect the existing cross sections of the project) in the "Distance between sections" field.
 - Press "OK" to finish, and "OK" again in the Options window.
- Recreate the layout (press "Apply" and "OK" in the window).

Tip: In order to control the distance between cross sections, in the vertical alignment, use the "Data interval" field in the Options window.

6. **Changing cross sections names** – Until now, if the entire cross sections design has finished, changing cross sections names has been possible in a manual way only (changing each name in the cross section's table). In the new version, when the "Define sections" button will be pressed, the software will check for existing cross sections. For each cross section (a cross section that its station is already in the table), the software will ask the user to choose one of the 3 following options:

- Rename sections- to change the section's name to its new name.
- Overwrite section- to erase the existing section and redefine the new section instead.
- To leave the section as it is.

The user will be able to choose either to confirm the selected action (OK), confirm to do the action for the entire sections (OK to all) or Cancel.

General:

7. **Adjusting the software to Portuguese – phase A** – The current version includes completion of phase A in the adjustment of the software to the Portuguese language. The adjustment includes: (1) using Comma (",") as the decimal point symbol (instead of "."); (2) ability to work with Portuguese regional settings.

Pipes:

- 8. Setting the distance between the pegs along a water-supply profile** – The current version enables setting the distance between the pegs, as they will be presented in the profile of the water-supply pipeline (default is each 20M). To change the distance between pegs: from the Pipelines sections window, enter to the Options window and change the "Data intervals" value to the wanted distance (in meters). Press "OK" to close the window and "Apply" to receive the new section.

Note: The "Data intervals" will affect the distance between pegs both in the profile and the layout.

Fixed problems

In the new version we have invested a lot of time and efforts to improve and fix problems that have been raised by customers. Hereinafter are some of these problems:

- Contour lines creation in designed planes each 0.1 M did not work well in some of the projects. The problems has been monitored and fixed.
- Profile's sheets division into DXF (not Frames Maker) – the problem of division using Custom has been fixed.
- Misclosure report - in some of the situations, the software did not locate all the unclosed sections. The problem has been fixed.
- The following problems regarding road's layout have been fixed:
 - The problem of incorrect plotting of slopes in a complex layout (a layout with many changes).
 - Presentation of extra lines in the layout such as the break-line in the ditch's edge.
- The software did not always locate roads' intersections inside a transition curve (clothoid). The problem has been fixed.
- New messages to the user for locating problems in designed planes have been added- location of exceptional heights, location of planes that are out of topography borders, location of illogical planes.
- Editing road's heights (Blocks mode) – the problem of editing blocks of road's heights in the layout has been fixed. From now on you can edit the block using AttEdit, you can explode the block, and the block's insertion point is in the center.