CADEO SLAB AUTOMATION

Quick start guide

Six steps from RAM export to production drawings and later changes.

For structural engineers using the software for the first time.

Click a section below to go straight to it. Every page has a Contents link; PDF bookmarks provide the same navigation.

01	Export the reactions DXF from RAM
02	Specify the typical reinforcement
03	Run the pipeline
04	Adjust the reinforcement in Delimiter Editor
05	Transfer to production drawing sheets
06	Make changes

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Assembly image supplied by the user. The reference manual also includes the RAM visibility screenshot. Other diagrams are simplified illustrations.

1. Export the reactions DXF from RAM

Follow these six steps from RAM export to a checked production drawing and bar bending schedule (BBS). The User reference manual contains the detailed instructions.

- Open the intended ULS/strength **Reactions Plan** in RAM Concept. In **View > Visible Objects > Mesh Input**, show slab areas (thicknesses, elevations, concrete mixes, priorities), beams with dimensions/properties, openings with numbers/priorities, and relevant columns above/below with dimensions. On **Element**, show column/wall footprints, including round columns.
- Model **construction joints (CJs) and pour strips as dashed User Lines on the Reactions layer in RAM** so the software can pick them up. Turn on **User Lines** and include them in the reactions DXF export.
- Show **Fz**, applicable **Mr/Ms** moments, column centres and local **R/S** axes. Check **View > Plot** filters. Keep RAM's **default colours, layers and label positions**; a missing nonzero moment may be read as zero.
- Use **File > Export Drawing > DXF**. For metric jobs, export mm, kN and kNm, including zero elevations. Keep the original; select a **working copy** in a separate project/level folder because loading can rename or convert it.

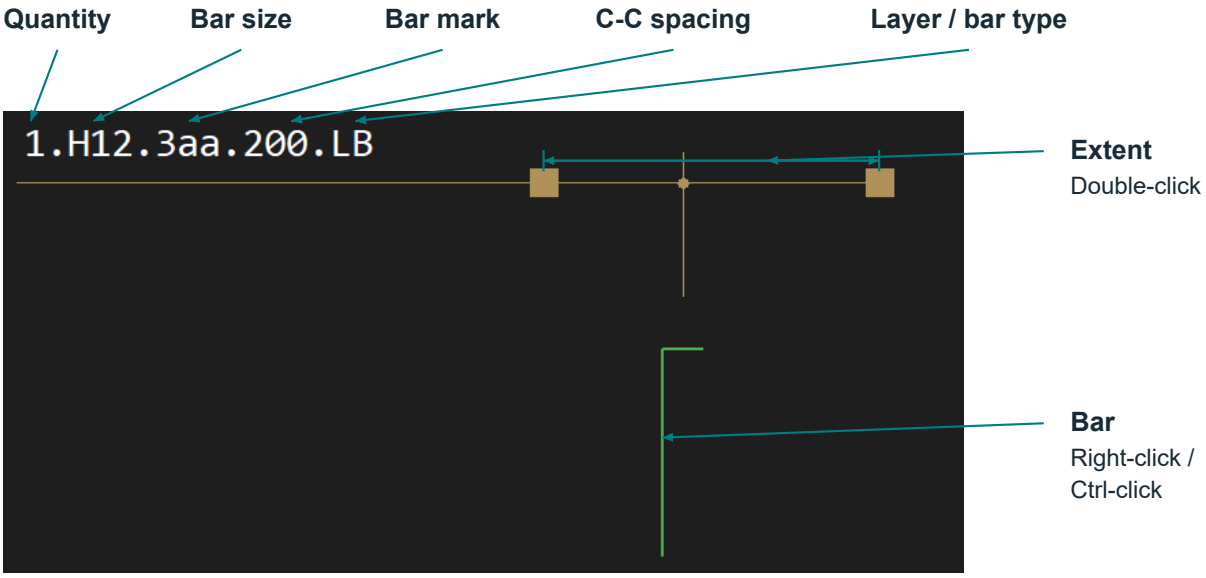
2. Specify the typical reinforcement

- Open **Slab Automation**. On **Pipeline**, enter project number/level and browse to the working DXF. Confirm **METRIC (UK/EU)** for EC2 or **US / IMPERIAL** for ACI 318, then select **Suspended** or **Ground** and enter covers/area loads. Dead load excludes slab self-weight.
- In **Reo Parameters**, select **RC slab (no post-tensioning)** for RC, or check the tendon type for PT. Choose mesh or scheduled loose bars under **BOTTOM MAT MODE** and **TOP MAT MODE**.
- Set typical **B1/B2** bottom and **T1/T2** top sizes/spacings for X/Y directions. Metric **H12.200** means 12 mm at 200 mm centres. Check any zones that override these choices.

3. Run the pipeline

- On **Pipeline**, select the required shear, top and bottom drafting outputs and their **BBS** boxes. Click **RUN ALL PHASES**.
- Answer the depth, geometry and reinforcement review windows. Read completion warnings; if a phase stops, correct the cause shown in its log before retrying.
- Check extracted reactions, dimensions, depths and openings against RAM. Review punching results, finished drawings and schedules in the reported output folders before editing.

4. Adjust the reinforcement in Delimiter Editor



Assembly parts and callout fields. C-C = centre-to-centre.

- In **Delimiter Editor**, **Browse** to the drawing and click **LAUNCH EDITOR**. Select an assembly; use **Delete Selected**, **BAR SIZE** or **SPACING**.
- Use **ADD BAR** to place a template; **Tab** rotates and **Esc** ends placement. Check shape/location/extent. Duplicate assemblies with Delimiter Editor; **do not copy assemblies in AutoCAD**.
- **SAVE**, then run **BBS Re-link** with the saved drawing and its **matching existing workbook**. Check marks and quantities; saving alone does not update the BBS.

5. Transfer to production drawing sheets

- **Use the software transfer; never copy reinforcement assemblies into production in AutoCAD.** Keep the previous drawing/BBS because transfer changes the destination DWG in place.
- Under **TRANSFER TO PRODUCTION DRAWING**, tick **Transfer to Production DWG**, select the correct production DWG and reviewed source for each face, then click **TRANSFER TOP NOW** or **TRANSFER BOTTOM NOW**. Check alignment and existing-reinforcement prompts.
- Alternatively, supply destinations and enable **Auto-transfer after Phase 3** before running. After edits, transfer again. Check the production drawing, retain **_SHADOW_GEO**, and run **BBS Re-link** with its matching workbook before issue.

6. Make changes

- Keep the previous issued drawing/BBS. For reinforcement-only changes, edit in **Delimiter Editor**, save and relink the matching BBS. Transfer an updated pipeline source to production.
- For changed geometry, export fresh reactions and run Phases 1-3 in a **separate folder**. Check results; open **Change / Merge** with OLD/NEW drawings and revision number. Keep the matching **BOTTOM REO** or **TOP REO** .xlsx workbook beside each old drawing.
- Adjust/delete existing bars against the new slab. Right-click needed new bars > **Port to workspace**. Use **Finalise (Save + BBS) for each face separately**, then check revisions, marks/quantities and update production sheets. **Save Workspace** alone does not update the schedule.