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Working with Views

- Creating looking (up - down) structural plans.
- Setting the view range, creating plan regions.
- Underlay setting, hidden lines settings.
- Scope box, crop region settings.
- Creating and applying view templates to views.
- Duplicating Views.
- Adding Callout Views and detail views.
- Elevation views, framing elevation views.
- Section views and 3d sectional views.
- Legend views.
- Controlling visibility and graphics of categories in views.
- Controlling the visibility and graphics of elements based on conditions by view filters.

Creating Details

- Setting Up Detail Views.
- Adding Detail Lines and Symbols.
- Adding Detail Components - Repeating Details.
- Create a Detail Based on a CAD File.
- Creating filled regions and masking regions.
- Intro to detailing families.

Annotating Construction Documents

- Working with Dimensions - Text.
- Dimension styles - text styles.
- Adding Tags - Creating custom tag families.
- Multi-category tags - Tagging 3d views.
- Spot elevation - spot coordinates - spot slopes.
- Project origin - survey point.
- Beam annotations.

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Parameters and Schedules (BOQs)

- Creating structural column schedules.
- Creating foundations schedules .
- Creating Beams & slabs schedules.
- Creating Rebar schedules.
- Creating stair schedules.
- Creating graphical column schedules.
- Concrete material take off.
- Setting schedule appearance settings.
- Conditional formatting data to highlight extremes.
- Using filters, sorting and grouping tools to manipulate schedules.
- Creating formulas in schedules
- Controlling and modifying projects using schedules.
- Exporting schedules to excel.
- Creating schedule templates.

Sheets

- Setting Up Sheets.
- Modifying title block parameters.
- Creating new title block family.
- Placing and Modifying Views on Sheets.
- Splitting a view on more than one sheet.
- Printing Sheets and printing settings.
- Managing revision clouds.
- Exporting views and sheets to Autocad.
- Export to Autocad settings.
- Exporting the whole project to Html and Navisworks.
- Sheet lists, views lists and note blocks.

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Advanced concrete modelling

- Modeling inplace components.
- Modeling in place hosted items.
- Creating custom domes.
- Creating custom stairs and ramps.
- Creating parts (walls - floors - roofs).
- Dividing parts / parts settings.
- Scheduling and tagging parts.
- Creating assemblies and generating views.
- Using model groups and detail groups.
- Complex and double curved walls and roofs.

Steel structures modelling

- Steel columns and beams members.
- Generating members types based on global steel codes.
- Columns and beams join cutbacks and setbacks.
- Modeling member in 3d and hosted on inclined planes.
- Modelling horizontal bracing, roof bracings, joist and purlins
- Modelling vertical bracings.
- Modelling trusses - trusses settings and options.
- Creating custom truss families.
- Coping and notching members.
- Custom steel connections.
- Generating automatic steel connections.
- Linking Revit files to Advance steel softwares to make use of advanced steel modelling tools and generating part and assembly drawings.
- Adding structural deck profile to structural floors.

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Reinforcement

- Adjusting rebar (orientation plane - placement plane).
- Adjusting rebar cover settings.
- Creating rebar types (Egyptian code).
- Loading rebar shape families (Egyptian code).
- Rebar-set quantity and spacing.
- Sketching custom rebar shapes.
- Modifying rebar constraints.
- Varying rebar sets.
- Creating radial and circumferential reinforcement.
- 3D path reinforcement modelling.
- Reinforcing columns, Beams, footings and stairs.
- Area and path reinforcement layers and settings.
- Adjusting rebar splice settings.
- Reinforcing Walls, Slabs and slab foundations.
- Additional reinforcement in slabs - slab opening - slab corners and wall corners.
- Reinforcing retaining walls, parapets and piles.
- Visibility control of reinforcing bars .
- 3D rebar views.
- Using automatic reinforcement creation tools.
- Creating custom rebar families.
- Rebar schedules for calculating (weights - Lengths - quantities - shapes - shape ids - .....).
- Creating custom rebar schedule for each (Category - concrete part - rebar number - ...).
- Generating rebar shop drawing.
- Rebar detailing and annotations.
- Using our custom codes to facilitate rebar modelling.

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Structural analysis

- Visibility control of analytical elements.
- Creating analytical plans and 3D views.
- Checking the connectivity of the analytical model and solving the connectivity of member (Automatic - manual).
- Controlling the area analytical elements.
- Definition of load cases load combinations.
- Defining (point - linear - area) loads.
- Defining boundary conditions (supports).
- Checking consistency of the model.
- Performing analysis in cloud (Autodesk 360).
- Sending model from Revit to robot structural analysis.
- Performing analysis in robot structural analysis.
- Reviewing results in Revit and Robot structural analysis.
- Exploring the bidirectional link with robot.
- Linking with other softwares (Sap - Safe - Etabs - …).

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