

AVEVA Cable Design 12.0

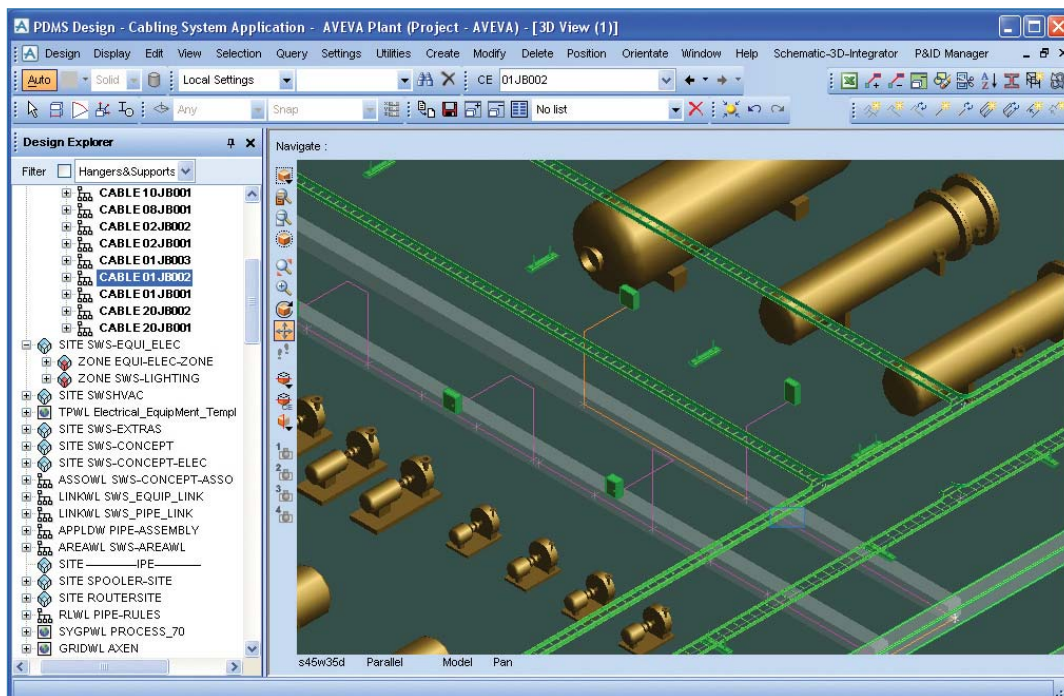
Automated 3D cable routing, advanced checking utilities, comprehensive reporting

An integral part of plant and marine design is the design and routing of cables and cableways. AVEVA Cable Design facilitates this process by providing efficient tools for the 3D modelling of the cableways network, for automatic or manual routing of cables, and by creating useful production information for cable cutting and cable installation.

AVEVA Cable Design includes a sample electrical catalogue, and cable attributes are recorded during design that allow the production of accurate Cable Length, Weight, Centre of Gravity, and Material Take Off or Bill of Materials reports. Because it runs in the same technology environment as the AVEVA 3D modelling applications, Cable Design has access to all the database and functional capability of the environment.

Business Benefits

- Reduced design time, through the automatic routing and checking of cables and cable trays as part of the complete project model.
- Reduced material costs, thanks to accurate calculation of cable length and precise ordering.
- Reduced construction time, as a result of accurate pre-cut cable lengths, ready for installation.



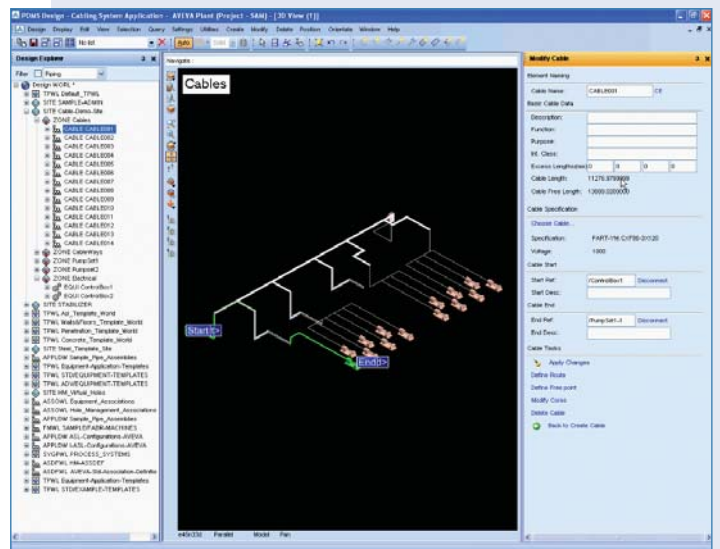
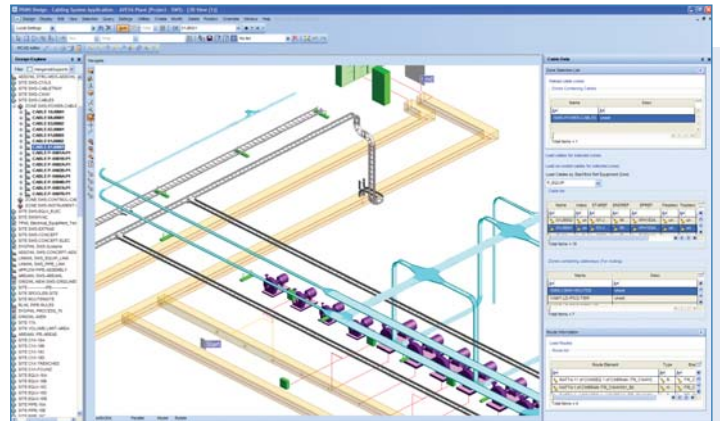
AVEVA Cable Design integrates with AVEVA PDMS and AVEVA Outfitting for efficient electrical installation design.

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Key Features

- Cable Design provides a sample electrical catalogue, conforming to industry standards, and containing attribute information that permits accurate weight, centre of gravity and Material Take Off reports.
- AVEVA Cable Design can reuse cables created in single-line cabling diagrams using either AVEVA Instrumentation, AVEVA Diagrams or AVEVA P&ID, including the automatic naming and annotation of cables and equipment for 3D routing.
- Cables and equipment can also be imported from other electrical systems in the form of a cable schedule in Microsoft Excel, or as a comma separated (.csv) file.
- Using the standard functionalities of AVEVA PDMS or AVEVA Outfitting, Cable Design users will be able to reserve a spatial volume called a cableway. Then, in Cable Design, cables either coming from AVEVA Diagrams or imported from an external system can be routed automatically through these cableways. Using PDMS or Outfitting, the cableways can later be detailed with physical cable trays, including all Material Take Off and production details.
- Routing rules are provided to control the appropriate selection of cableways and their maximum fill levels, and to avoid potential cable interference problems between cable types that need to be on different cableways.
- Cable Design supports an iterative workflow whereby users may at any time evaluate the result of a routing and manually reroute selected cables into another cableway if necessary. They can also insert a preliminary routing point into the cable to force the route through the point.
- Users can also benefit from the complete 3D model being in the same database, and easily reroute and recalculate cable lengths and properties whenever cableways and/or equipment locations have been modified.
- After routing, the cable lengths are automatically calculated and their cutting lengths determined, with the addition of any excess length defined at either end of each cable.
- Mark points for installation can be set on a cableway. Each cable that passes a mark point will be updated with information regarding the length from each end to that point. This enables accurate installation, by pulling a cable into its route until the mark points on both cable and cableway are aligned.
- Cable Design can check cable, cableway and penetration attributes, the compatibility of each cable with the function of its tray, and cable connectivity. A visual representation of fill level, configurable by the user, is provided for displayed cable trays.



Clear and intuitive tools for reviewing and editing cable information.

- Cable Design allows cableway penetrations to be defined and placed. Penetrations may be aligned with a cableway or offset from a cableway.
- Cable Design provides user-configurable cable, cableway and cable penetration report listings. These reports can include: cable lengths, with and without excess lengths; lengths to mark points; the cable route; and calculated values, such as weight and centre of gravity.

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