



## SMARTPLANT® ELECTRICAL – SMARTPLANT 3D CABLE MANAGEMENT INTERFACE

### IMPROVE DATA QUALITY AND REDUCE MATERIALS COSTS

Users can take advantage of the bi-directional interface between SmartPlant® 3D and SmartPlant Electrical to enhance design and deliverable accuracy and minimize materials costs. This workflow is successfully used by customers from around the world. The interface is part of the SmartPlant Enterprise.

### CABLE SPECIFICATION WORKFLOW

#### SmartPlant Electrical

1. Define cables in SmartPlant Electrical with respect to size and specification based on the load, estimated length, and routing condition (underground, in tray, etc.).
2. Establish the to-from by connecting the cable to the panel and loads – for example, the Motor Control Center (MCC) on one end and the motor on the other end.
3. Size the cable and/or check the size depending on the load and the length of the cable, which is estimated in the beginning of the workflow.
4. Publish cables with the to-from information to SmartPlant 3D.

#### SmartPlant 3D

5. Route the cable through the tray, trenches, conduits, and more.
6. Establish the extract length based on the plant layout and location on the equipment, tray routing, etc.
7. Publish the actual length and routing path back to SmartPlant Electrical.

#### SmartPlant Electrical

8. Validate the cable size and re-size the cable if the length is different than previously estimated and has affected the voltage drop, for example.
9. Optimize the cable length on the cable drums that come in standard length thanks to SmartPlant Electrical's drum management capability. This helps you minimize materials costs by avoiding the problem of having pieces that cannot be used. For example, if a drum is 1,500 meters, you can assign the cable number with length to the drums to benefit from the least possible waste length. This reduces costs and increases quality.

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