3D CABLING AND HARNESS DESIGN

Route your cables three dimensional with

SPACECABLE

With SpaceCable you can quickly design your cable harness, verify its function and drive the downstream processes. You can create components and connectors, define different types of wires and cables for connections. You can group wires into cables, group cables into bundles, define shielding and assign properties such as material and color.
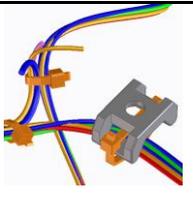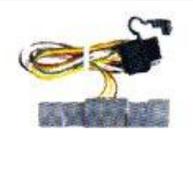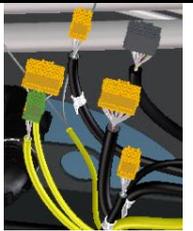
The design of wire harnesses for modern electrical systems is becoming extremely complex while the competitive pressures facing manufacturers continue to multiply. Designers today are looking for ways to automate segments of the design process that allow them to adhere to strict time-to-market deadlines and increase the product quality.

SpaceCable provides a data-bridge between the electrical and mechanical world.

This sharing of data provides accurate 3D digital virtual prototypes and allows designers to evaluate design decisions within the overall electromechanical environment.

This integrated, multi-discipline approach eliminates errors and accelerates design completion.

SpaceCable is used for the design of cabling systems for electro-mechanical, aircraft, automotive, railway, shipbuilding and consumer goods industries. SpaceCable Harness and Cabling includes high-end routing tools with user definable and industry standard design rules.

Once the 3D wires and cables are routed and optimized, the user can generate all the necessary cable manufacturing and nail-board drawings by unfolding the 3D Harness (including Bill-of-Material reports and additional manufacturing information).

The Use of cable harness systems allows engineers to completely develop a design in the virtual state, rather than having to build prototypes and then route cables through the completed machine.

Virtual routing within your SpaceCable model can save hundreds of hours normally spent trying to find places to run wires once the rest of the mechanical design is complete.

Running as a module inside of PTC Creo Elements/Direct, SpaceCable can import a netlist from a wiring diagram package for input. Therefore, it is advisable to include the Wiring and Schematic Diagram Design package for designing the 2D schematic or wiring diagram to generate the input data for SpaceCable (all Electrical CAD packets could prepare the input for SpaceCable, if they are capable of exporting cable information's).

Wires, cables and splices are assigned to physical bundles. Physical design characteristics such as diameter, maximum bend radius and maximum wire lengths could be directly calculated inside SpaceCable.

Another harnessing possibility is the direct manual design with the help of the special cabling functionality of SpaceCable.

Wires may be interactively routed between pins of physical components. Splices are created when multiple wires are connected together.

Multiple wires and cables may also be routed to a common pin, which create a multi-termination. Several cable types such as round, flat, shielded etc. may be defined.

A general library of components is delivered together with SpaceCable. Special wires, cables, bundles and components can be added to the SpaceCable's library management system easily.

The same harness could be installed in different locations, with different topology and the position of components (variants). SpaceCable can manage these different topological variants of the same harness and takes automatically the corresponding harness for this location.

SpaceCable provides standard checks to verify that wires, splices and cables have been properly defined.

These checks identify problems prior to physical manufacturing.

Production reports such as bill of materials (BOMs) and wire "From-To" lists are automatically generated and may be customized with user defined formats.

The 3D model can be automatically unfolded to generate accurate 2D formboard assembly drawings for harness manufacture. Automatic user-definable data extraction and formatting features generate reports and automatically annotate formboard drawings with speed and precision.
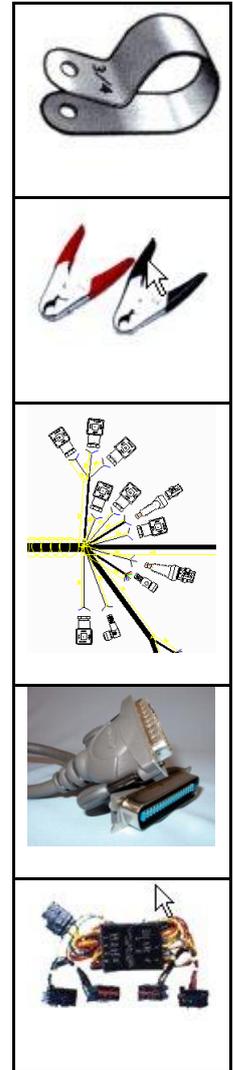
Supported Platforms

Windows 10, 8, 7 both for 32 / 64 bit

Available Languages

English

German

Russian

Turkish

Japanese

Chinese

Ordering Information's

M355L	SpaceCable License
M355Y	SpaceCable Yearly Maintenance
M355Z	SpaceCable Subscription
M955T	SpaceCable Intro training
M956T	SpaceCable Advanced training)

More information could be obtained from http://www.spacecable.com, from e-mail info@mip-group.com or from the following MIP offices

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