Wildfire 5 Quick Routing Procedure

Create Cabling Assembly

Using standard assembly best practices (use templates, leverage shared geometry, control references, etc), create a new assembly to contain all connectors, components, and harness parts. Assemble connectors, back shells, related cable hardware creating references or datums as needed.

Sketch Cable Pathways

Using standard sketched lines and curves, carefully sketch pathways wires and cables will follow using. Incorporate bend radii when possible. Keep sketches simple, yet meaningful. Sketches should capture design intent and leverage constraints to minimize dimensions.

Create Harness Part

Enter Cabling Mode (**Applications→Cabling**). Create a new harness part by selecting the icon shown. Name the harness part. The named harness appears in the model tree. All wires, cables, bundles, and networks are contained as *features* within the harness part.

Create Network

Creo Cabling uses a **Network** to automatically route wires and cables. Create the network by selecting vertices along previously created sketched pathways. Work carefully and deliberately connecting the network. View simple techniques for network creation online at Planet PTC Community* (see URL at bottom of page)
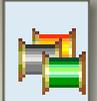
Load Logical Reference

Load a Logical Reference file in PTC Neutral Wire Format by selecting **Tools→Logical Reference→Import.** This file may be manually created or captured from another application (like Microsoft Excel). Details for creating and editing a logical reference file may be online (URL below).*

Create Spools

Create or load spool definitions using the icon shown. When a logical reference file containing spool data has been imported, spools can be created quickly by selecting the icon followed by **Create→From Logical→Select All→Done.**

Designate Connectors

Before routing begins, connectors and components (such as splices) must be *designated* by giving them a unique identifier. When a logical reference file containing connector definitions has been imported, the icon shown enables automated connector designation.

Create/AutoRoute Wires

The icon shown enables wire/cable creation and routing. These functions may be performed simultaneously if desired. Automatic harness routing is performed by selecting the icon shown to open the **Route Cables** window. Choose the **Find** command to select the wires to route . Select **OK** to see a routing preview. Select **Apply** to accept the routing.

Update Logical Reference

After the initial routing, changes to logical reference data can be propagated to the cabling assembly with these steps: (1) Delete all wires/cables from the previous harness being careful to leave the network intact (2) Import the modified logical reference file (3) Update the cabling assembly using the icon shown, (4) Re-autoroute to see the modified harness .

Cabling Icon Quick Reference (Wildfire 5 Edition)

Environment

- Ref Designators On/Off
- Show Thin Cables (Shows Networks)
- Show Thick Cables (Hides Networks)
- Internal Routing On/Off

Tools

- Compare Logical Reference
- Update Logical Reference
- Network Tools Fly Out

Network Tools Fly Out

- Check Continuity (Find Disconnections)
- Check Locations (Find Overlapping Locations)

Cable & Network Operations

- Create/Edit Harness Fly Out
- Create/Edit Spools
- Insert Splice/Component
- Auto Designate Connectors
- Route Wires/Cables
- Route Network
- Add Location
- Bundle Operations
- Cosmetic Features Fly Out

Create/Edit Harness Fly Out

- Modify/Edit Harness
- Create New Harness

Cosmetic Features Fly Out

- Create Marker
- Create Tape Feature
- Create Tie Wrap