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ESS Cable Naming Policies

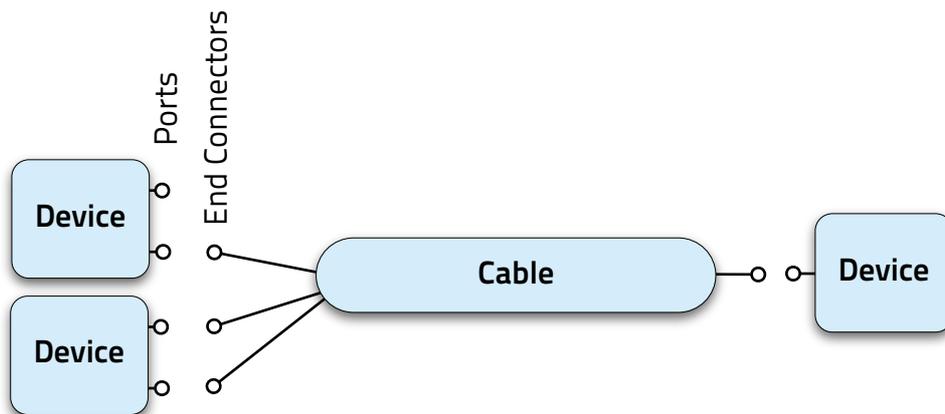
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1. Guidelines

A cable is a mean to connect equipment with each other.

Cables shall be named and labelled consistently to ease installation, integration, configuration and troubleshooting.

A cable can have two or several connecting ends. Each of the connector ends shall be labelled with the cable name, the end connector ID as well as the name of the device port it connects to.



2. Cable Names

Cable names shall be named the same way as devices according to the ESS Naming Convention.

Cables names shall indicate power and voltage level carried by the cable. The following generic device identifier DDDD are proposed:

- Cb1H High power, high voltage cable (> 1kV DC/1.5kV AC)
- Cb1M High power, low voltage cable (< 1kV DC/1.5 kV AC)
- Cb1S Low power, low voltage cable (safe)

The specific device identifier shall be used to more precisely specify the cable type.

Example

The second vertical dipole magnet (DV) in the third subsection of high Energy beam transport to target section (HEBT-3) belongs to the proton beam optics (PBO) discipline and is named

HEBT-PBO:DV-3b

The cable from this dipole to its power supply (PS) presumably belongs to PBO and can be named

HEBT-PBO:Cb1M-3bDV2PS

Long qualifiers in cable names should be avoided for practical reasons but is not an issue since there will be no process variables associated with cable names

3. Cable end connector names

Cable end connectors shall be named the same way as device ports:

DeviceName:P

where

DeviceName = SSSS-BBBB:DDDD-III

is the name of the device and P is the port identification on the device.

mapping

Each device port shall be paired with the connecting port in a one-to-one mapping in BLED.

4. Labeling

Each device shall be labelled with its device name SSSS-BBBB:DDDD-III. This also applies to cables.

Each device ports and cable end connector shall in turn be labelled with the name of the actual port or cable end connector. Cable end connectors shall also have an additional label with the name of the paired port. In other words, each cable end connector will have two labels attached.

The cable and cable end connectors shall be labeled prior to installation, except for the paired port labels that can be attached when the cable is connected to the devices.

Interfaces

Cables shall be named according to the system/subsystem of the group responsible for the cable. Nevertheless, to simplify and to encourage minimization of interfaces between different systems it will be allowed to omit the System/subsystem parts of in port labels if these are the same for the paired ports.

Example

Device SSSS-BBBB:Dev-1a is connected to cable SSSS-BBBB:CblS-1 through device port SSSS-BBBB:Dev-1a:In and cable end connector SSSS-BBBB:CblS-1:1

Since system and subsystem are the same the device port will be labeled Dev-1a:In, while the cable end will be labelled Dev-1a:In and CblS-1:1 as show in figure below.

