

Section 26 01 11
Electrical System Power Pathway Database and Reporting

1. General

- 1.1. Provide electrical system documentation and analysis software in completed form. Software shall provide information, analysis and reports related to the electrical riser of the building from service entrance point to the final power panel/major building equipment level. Data for the project facility shall be pre-entered prior to providing to the building owner.

2. Products

- 2.1. Software shall be Power Systems Pathways Base Version www.powersystempathways.com

2.1.1. Software shall be upgradeable to the Full Version without loss of previously entered data.

2.1.2. The Full Version shall provide for entry and analysis of IT equipment including dual powered IT equipment, physical position within cabinets, plug type and heat output.

2.1.3. Analysis Capability: 15 layers

2.2. Definitions

2.2.1. Device: A part of the electrical system path that provides, carries, or uses electricity, including major equipment using electric power such as HVAC equipment.

2.2.2. Layers: The number of devices in a power system pathway from service entrance to final load device.

- 2.3. Device categories shall include the following. Additional categories may be added.

2.3.1. ATS

2.3.2. Distribution Panel

2.3.3. Generator

2.3.4. HVAC Equipment

2.3.5. IT Equipment

2.3.6. Misc

2.3.7. Panelboard

2.3.8. PDU

2.3.9. Power Strip

2.3.10. Switch/Breaker

2.3.11. Switchboard

2.3.12. Transformer

2.3.13. UPS

2.3.14. Utility

- 2.4. Interconnections: Software shall allow entry of the input power source to each device.

2.5. Reports

2.5.1. Listing of all devices, categorized by type

2.5.2. Identification of all power paths to a specific device

2.5.2.1. Purpose: Should any specific device not have power, the report shall identify the power paths and devices potentially causing the device to be depowered. Devices

shall be listed in order as connected in the electrical pathway. The report identifies devices to check to restore power.

2.5.2.2. Identification of all devices and pathways affected if a device is off or to be turned off.

2.5.2.2.1. Purpose: If a device such as a panel or breaker is turned off, or to be turned off, the report shall identify power paths and devices that will be depowered. Devices shall be listed in order as connected in the electrical pathway.

2.5.2.3. Grouped listing of all devices affected if a device is off or to be turned off.

2.5.2.3.1. Purpose: If a device such as a panel or breaker is turned off, or to be turned off, the report shall list devices that will be depowered. Devices shall be grouped by device type as a management summary report of devices affected.

2.5.3. Panel directories

2.5.4. Inputs of a specific device

2.5.5. Listing of Devices that have multiple inputs

2.5.6. Listing of Devices without identified input connections

2.5.7. Listing of Devices identified as inactive

2.5.8. When upgraded, the following additional reports shall be available

2.5.8.1. IT cabinet layout

2.5.8.2. IT cabinet heat load

2.5.8.3. Listing of all devices in IT cabinets

3. Execution

3.1. Data Entry - Data shall be pre-entered into the database and shall be to the panelboard / final distribution level plus major HVAC and permanent UPS equipment.

3.2. Reports – The following reports shall be generated and provided to the owner

3.2.1. Devices report

3.2.2. No identified input report. If devices other than utility service and generators are listed as being without a named input, their interconnect data entry shall be corrected or added to remove device from this report.

3.2.3. Five (5) devices shall be selected at random and a fed from report for each shall be generated. The report data shall be compared with the project one line riser diagram and or panel schedules to verify proper entry and reporting.

3.3. Maintenance

3.3.1. Maintenance and upkeep of software shall be responsibility of the owner upon project completion. Title and ownership shall transfer to the building owner at that time.

3.4. Upgrade

3.4.1.1. Building owner shall have the option to upgrade to higher level software versions at building owner's cost as applicable. Database format shall allow entered data to remain during upgrade and not require re-entry after upgrade.