SUNDESIGN SCHEMATICS

What is a SunDesign schematic?

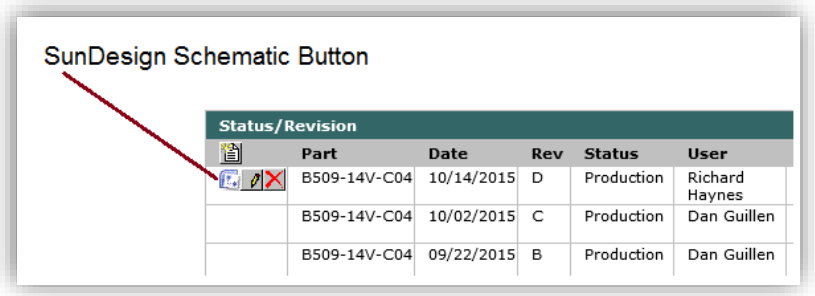
It is a SmartConnect schematic used by Sun engineers only, for custom assemblies that are not currently controlled by QD.

When is a SunDesign schematic used?

Only custom assemblies in a status like “In Design” or “Production” can have a SunDesign schematic. If the custom assembly is in “Quote” or “QuickDesign” status, the schematic can only be opened from the QuickDesign program.

How do I open a SunDesign schematic?

Open the Primedata config page and click on the schematic link in the Status/Revision section. The link will be visible only for designs that are not within the QD process. If the link is visible, you can open the schematic. Such a link will also be present in the NBOM Editor in the future.



What will happen when I open the SunDesign schematic for the first time?

The first time you open a SunDesign schematic, the system will perform the following steps in order:

1. If a QuickDesign schematic exists, a copy of that schematic will open.
2. If no QuickDesign schematic exists, the schematic will attempt to load the current Primedata PBOM for the custom (it will include only the features that have stamping, and no connections).
3. If no QuickDesign schematic exists and no PBOM exists, the system will attempt to load the BOM and stamping from QuickDesign
4. If steps #1 thru #3 above do not work, the schematic will initially be blank.

Can I use the SunDesign schematic with the NBOM Editor?

Yes. See the *Submit to SunDesign* section below.

Can the SunDesign Schematic be used to create or update data in Primedata? For example, can it update PBOM, Connections or BOM data in Primedata?

No, but it is possible to download the schematic data for use in the NBOM Editor. See the *Submit to SunDesign* section below.

What happens if there is a change to the BOM, NBOM or PROM in Primedata or if there are changes to the NBOM Editor? Does the schematic get updated?

No. After a SmartConnect schematic is initially created, it can be updated only by using SmartConnect.

What if I want to modify a QuickDesign schematic outside of QuickDesign?

If the design is currently in QD, move the custom assembly into "In Design" status. Then open the schematic (you'll get a copy of the current QD schematic)—you can change it however you like and it will not affect the QuickDesign schematic (in case you wish to return to QuickDesign status). See the *Submit to SunDesign* section below.

Can I save a SmartConnect SunDesign Schematic to my desktop?

You can download the .dwg or .dxf file to your computer, and you can edit that file with different software. But you will not be able to save those changes back to SmartConnect, which is a web application that works only on the server.

What happens when the custom assembly goes from one rev to another?

If the revision does not affect the schematic, nothing needs to be done. The schematic will apply to the current revision of the custom as revisions are created.

I click on the link but the schematic shows an error and won't load. What's wrong?

Contact a Primedata admin person. The design probably contains a feature that does not have a supported symbol or is otherwise unsupported in SmartConnect.

SUBMIT TO SUNDESIGN

What is the *Submit to SunDesign* process?

The process allows the user to capture information (cartridge, cavities, ports, connections) from a SunDesign schematic and use it in the NBOM Editor.

How do I run the *Submit to SunDesign* process?

Click on the *Submit to SunDesign* button at the top of the schematic page. You can press the button as often as you like. Doing this makes the data available to the NBOM Editor but does not automatically update the Editor.

What happens when the *Submit to SunDesign* button is pressed?

The button submits the schematic's information to a validation performed by Primedata. If the validation is successful, the user will receive a message saying that the data can be retrieved by the NBOM editor. The user will then return to the NBOM Editor and press the appropriate button to open/use the schematic data. No files are created by this process, though the NBOM Editor may create a file after it consumes the data.

Why is the Submit to SunDesign schematic validated?

This is to ensure that the NBOM Editor can use the data. To pass the validation, the schematic must have all valid and unique stamping, all connections, and all cartridges configured—this is the same level of validation that is required for QuickDesign submittals.

TECHNICAL SPECIFICATIONS

How to retrieve data from the *Submit to SunDesign* process using the *fnSunDesignXML* function

To retrieve the *Submit to SunDesign* schematic information and use it in the NBOM Editor, make a SQL Server function call to *fnSunDesignXML* using the custom assembly part number as the parameter. The call can be made at any time. It will return the last available data download from the *Submit to SunDesign* process.

fnSunDesignXML XML Syntax Example

```
declare @sxml xml
select @sxml = dbo.fnSunDesignXML('B606-070-QD0-QD1')
select @sxml
```

fnSunDesignXML XML output

Failure: When the request cannot return a result, it contains an "error" attribute, which should be displayed to the user, like this example:

```
<design partno="BXXX-070-QD0-QD1" error="Part number or schematic not
found." />
```

Success: When the request is successful, the output contains a series of "feature" elements containing "code" and "name" attributes for each feature. Each of the "feature" elements will contain one or more "port" elements with "chain" attributes—these are the net letter connection codes for each port. Each "feature" element may also contain one or more "part" elements, usually for cartridges, that apply to the feature.

Notice that the top-level "design" element contains two attributes: the part number and an "updated" attribute that shows the most recent date and time that the Submit to SunDesign button was pushed. Display the "updated" attribute to the user so that the user will know whether the data is current or needs to be refreshed. It is very possible that the user will forget to push the *Submit to SunDesign* button after making changes in SmartConnect.

```
 <design partno="B606-070-QD0-QD1" updated="Nov 21 2016  9:48AM">
  <feature stamp="CXFA" compid="CXFA" code="T5A" name="SUN STD T-5A
CAVITY">
    <port portno="1" chain="B" />
    <port portno="2" chain="A" />
    <part partno="CXFA" ext="XCN" />
  </feature>
  <feature stamp="P1" compid="P1" code="SA6" name="SUN STD S-129-6
PORT">
    <port portno="1" chain="C" />
  </feature>
  <feature stamp="R1" compid="R1" code="SA6" name="SUN STD S-129-6
PORT">
```

```
    <port portno="1" chain="B" />
  </feature>
  <feature stamp="RPEC" compid="RPEC" code="T10A" name="SUN STD T-10A
CAVITY">
    <port portno="1" chain="D" />
    <port portno="2" chain="C" />
    <part partno="RPEC" ext="LAN" />
  </feature>
  <feature stamp="RPEC-2" compid="RPEC-2" code="T10A" name="SUN STD T-
10A CAVITY">
    <port portno="1" chain="C" />
    <port portno="2" chain="A" />
    <part partno="RPEC" ext="LAN" />
  </feature>
  <feature stamp="S1" compid="S1" code="SA6" name="SUN STD S-129-6
PORT">
    <port portno="1" chain="D" />
  </feature>
</design>
```