Lesson 7: Creating Parts from a Spreadsheet

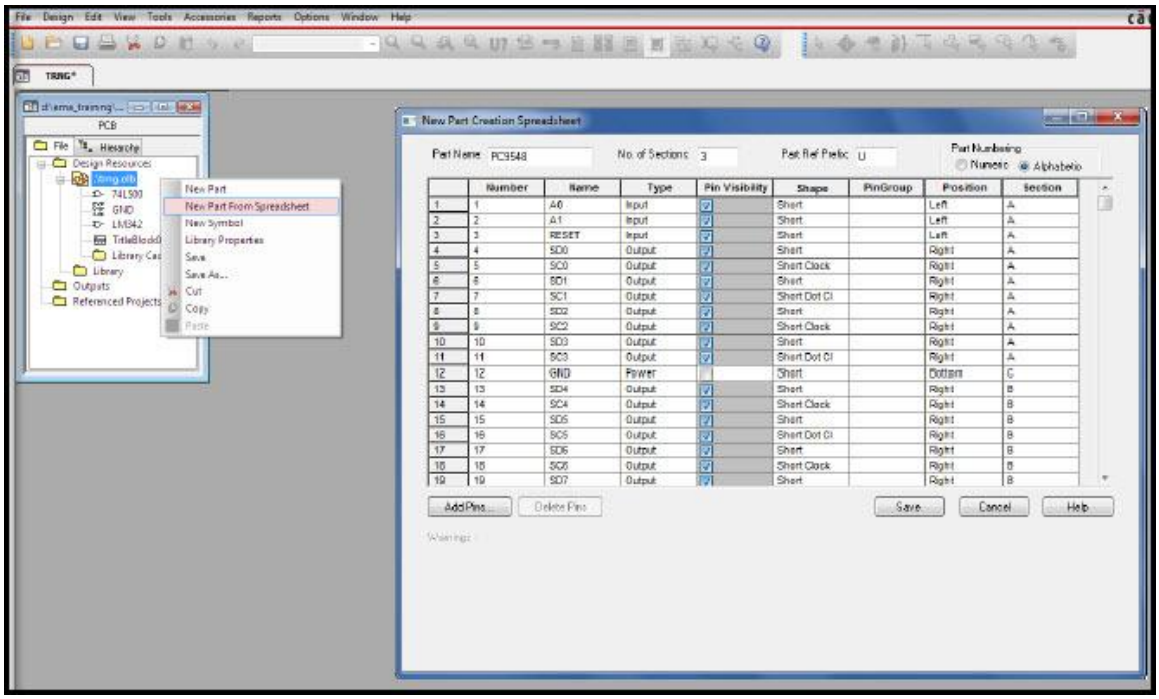
Lesson Objectives

After you complete this lesson you will be able to:

- Create a Part using the spreadsheet

Creating a Part from a Spreadsheet

OrCAD Capture can simplify the creation of very large parts in an active library. You can use the New Part from Spreadsheet to create new parts. The New Part from Spreadsheet has a spreadsheet-like interface that allows you to enter the data from a part data sheet to the spreadsheet.



Split Part Symbol Generation

The ***Split Part*** command found on the pop-up menu on the active library will allow you to create a multiple part package out of an existing part. You can specify the number of sections (multiple parts) to split the part into, and choose the numbering format for the sections. Using a drop-down list, you can associate specific pins to a section.

Lab 7-1: Creating Parts from a Spreadsheet

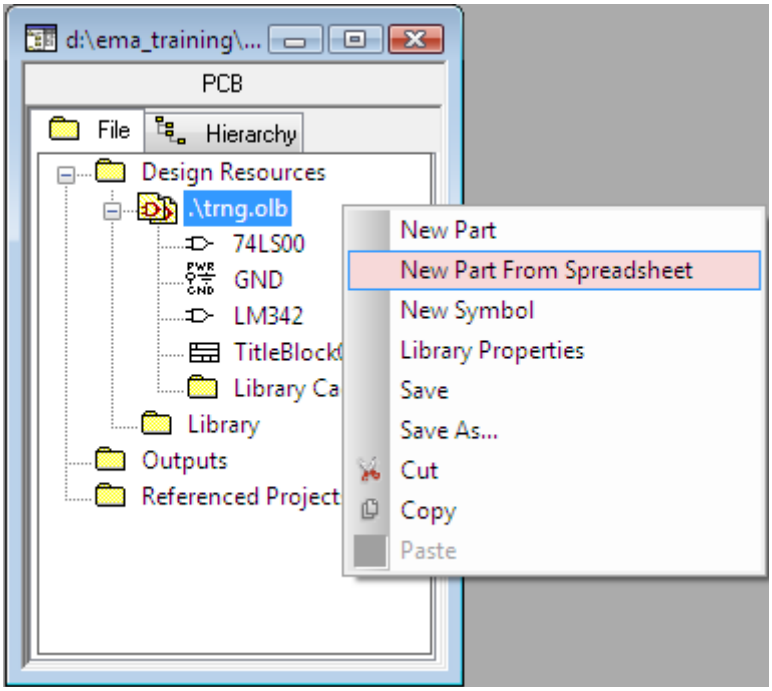
Lab Objectives

After you complete this lab you will be able to:

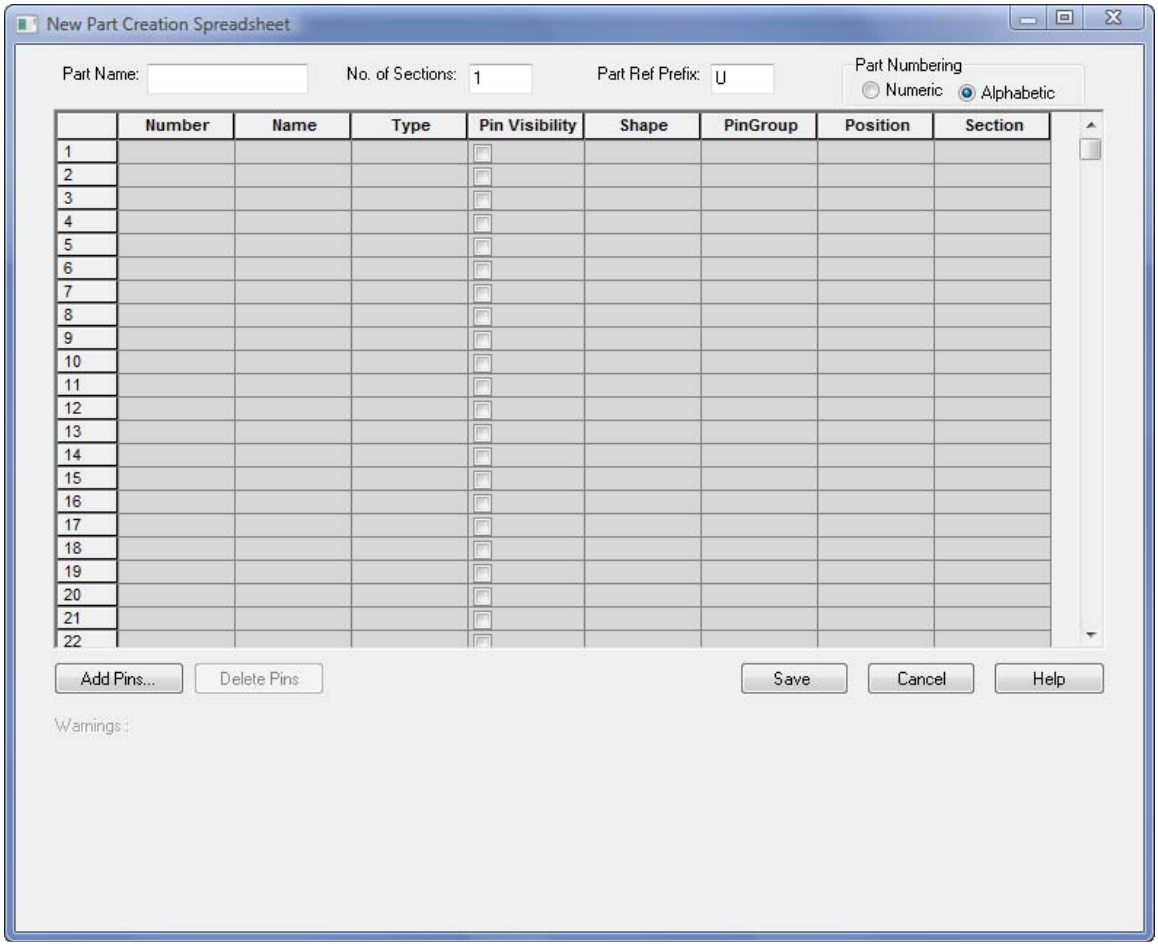
- Create large parts using a spreadsheet interface.
- Understand how to create and slit large parts in multiple parts packages.

Opening the Part Spreadsheet

1. With the `TRNG.OLB` library still available in the OrCAD Capture session window, highlight the library name.
2. From the right mouse button, pop-up menu, select ***New Part from Spreadsheet.***



The ***New Part Creation Spreadsheet*** opens. It will look like the following figure:



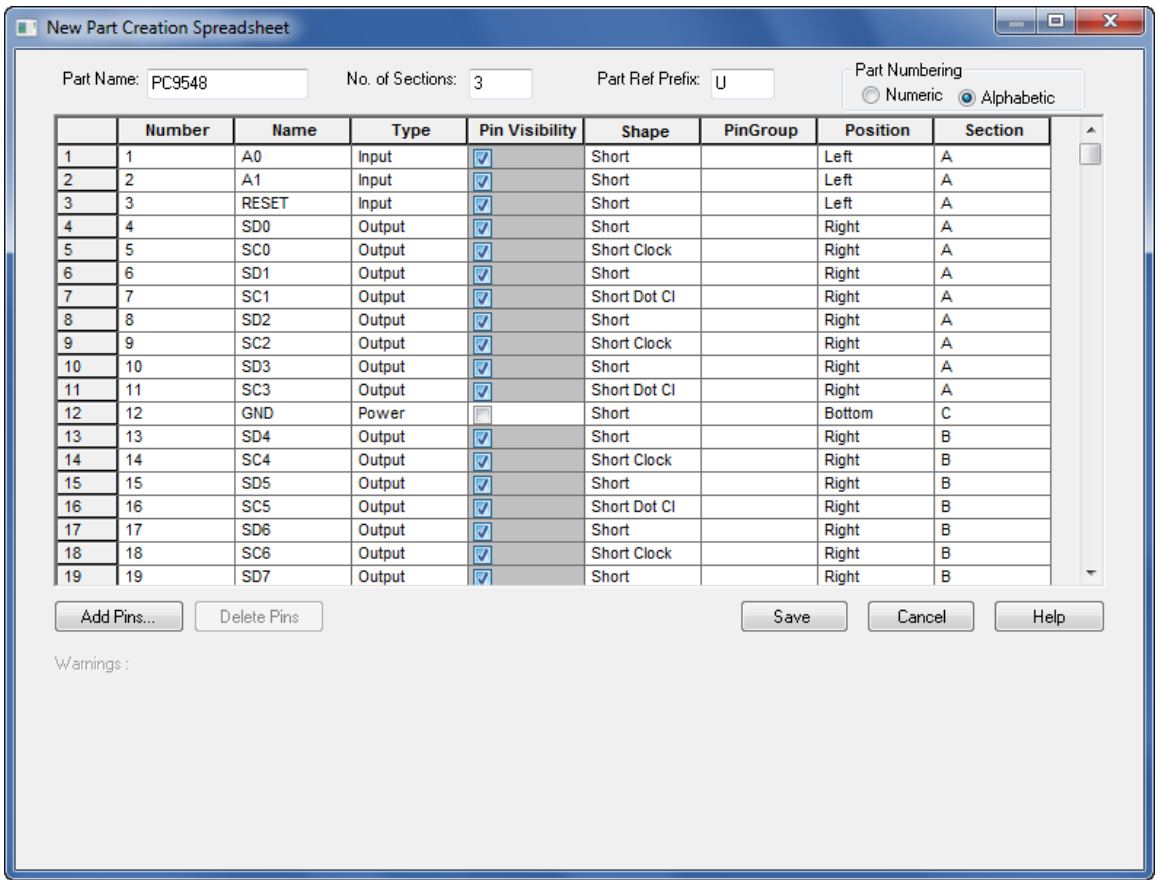
3. Enter ***PCA9548*** for the ***Part Name***.
4. In the ***No. of Sections*** box enter ***3***.
5. Using the following data, enter the values in the appropriate cells of the spreadsheet.

Pin Number	Pin Name	Pin Type	Pin Shape	Position	Section
1	A0	Input	Short	Left	A
2	A1	Input	Short	Left	A
3	RESET	Input	Short	Left	A
4	SD0	Output	Short	Right	A

5	SC0	Output	Short-Clock	Right	A
6	SD1	Output	Short	Right	A
7	SC1	Output	Short Dot-Clock	Right	A
8	SD2	Output	Short	Right	A
9	SC2	Output	Short Clock	Right	A
10	SD3	Output	Short	Right	A
11	SC3	Output	Short Dot-Clock	Right	A
12	GND	Power	Short	Bottom	C
13	SD4	Output	Short	Right	B
14	SC4	Output	Short Clock	Right	B
15	SD5	Output	Short	Right	B
16	SC5	Output	Short Dot-Clock	Right	B
17	SD6	Output	Short	Right	B
18	SC6	Output	Short Clock	Right	B
19	SD7	Output	Short	Right	B
20	SC7	Output	Short Dot-Clock	Right	B
21	A2	Input	Short	Left	B
22	SCL	Input	Short Clock	Left	B
23	SDA	Bidirectional	Short	Left	B
24	VDD	Power	Short	Top	C

To COPY column information use ***CTRL+<insert>***.

To PASTE into a column use ***SHIFT+<insert>***.



	Number	Name	Type	Pin Visibility	Shape	PinGroup	Position	Section
1	1	A0	Input	☑	Short		Left	A
2	2	A1	Input	☑	Short		Left	A
3	3	RESET	Input	☑	Short		Left	A
4	4	SD0	Output	☑	Short		Right	A
5	5	SC0	Output	☑	Short Clock		Right	A
6	6	SD1	Output	☑	Short		Right	A
7	7	SC1	Output	☑	Short Dot Cl		Right	A
8	8	SD2	Output	☑	Short		Right	A
9	9	SC2	Output	☑	Short Clock		Right	A
10	10	SD3	Output	☑	Short		Right	A
11	11	SC3	Output	☑	Short Dot Cl		Right	A
12	12	GND	Power	☐	Short		Bottom	C
13	13	SD4	Output	☑	Short		Right	B
14	14	SC4	Output	☑	Short Clock		Right	B
15	15	SD5	Output	☑	Short		Right	B
16	16	SC5	Output	☑	Short Dot Cl		Right	B
17	17	SD6	Output	☑	Short		Right	B
18	18	SC6	Output	☑	Short Clock		Right	B
19	19	SD7	Output	☑	Short		Right	B

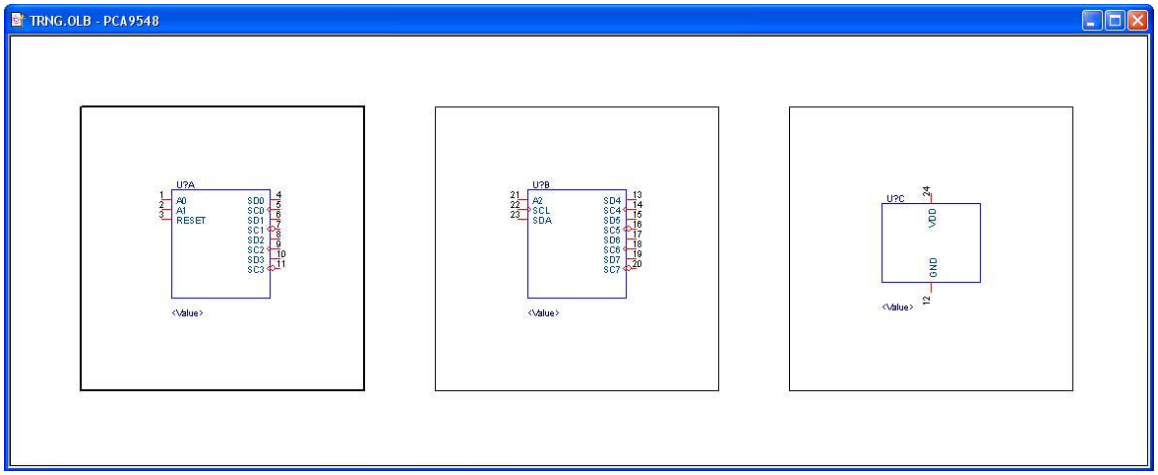
When you have finished entering the data in the previous table, your spreadsheet should look like the picture above.

6. Select ***Save*** to apply the data and create a new part.

If you receive a warning, select ***View Warnings*** to display the potential errors for the part. After viewing, select ***Hide Warnings*** to close the Warning list. Select ***Save*** then ***Continue*** to apply all the input and create a part.

7. The new part will appear in the Library window. Open the Part ***PCA9548*** by double clicking on it.

8. Now view the Package image. Select ***View - Package***.
9. It should resemble the following graphic:



10. You could move the pins to the desired locations if you wish. User Properties could also be added at this time.
11. ***Close*** and ***Save*** the new part.