cadence®

Migrating OrCAD Capture Designs to Allegro® X System Capture

Product Version 23.1
September 2023

Cadence Design Systems, Inc. (Cadence), 2655 Seely Ave., San Jose, CA 95134, USA.

Contents

1

Translating OrCAD Capture Designs

This document is meant for designers and organizations migrating their designs from OrCAD Capture to System Capture. This document:

- Describes the differences in the way both applications work and their use models
- Lists the OrCAD Capture features that are not supported in System Capture and the impact on the translated designs
- Explains the changes made to OrCAD Capture design elements
- Lists the areas that you need to review in the System Capture design before continuing your schematic design tasks

In this document, the term source is used for the incoming design from OrCAD Capture and destination is for the System Capture design.

Prerequisites

Before working with any OrCAD Capture design in System Capture, ensure the following:

- There must not be any packaging errors in the source design

  Packaging involves translating your logical design (schematic) captured in OrCAD Capture into a physical design ready for placement and routing using Allegro PCB Editor.

  Using a design that has been packaged eliminates the possibility of the translation process reporting errors because of basic problems in the source design. Such errors do not show up in OrCAD Capture unless the design is packaged, but System Capture packages designs in real-time, so packaging errors are immediately flagged. Some examples are: any mismatched interface port definitions, missing block definitions, incorrect pin definitions for a part, and so on.

- Design should not use symbols from external libraries (OLB) for hierarchical blocks present and defined in the design.

  Importing such designs into System Capture is not supported. Before importing such OrCAD Capture designs, replace the externally defined symbol instances with hierarchical block instances, that are defined in the OrCAD Capture schematic design.

- In case you are importing OrCAD Capture designs that have variants, ensure that OrCAD Capture uses a CIS license as the default license.

- Set the following CPM directives in `site.cpm` under the `CANVAS` section for default grid and spacing settings. For example, to set the unit as millimeter, pin-to-pin spacing as 2.50 millimeter, and the electrical grid also as 2.50 millimeter, add the following to the `site.cpm`:

  - `GRID_UNIT_MEASURE 'MILLIMETER'`
  - `GRID_PIN_PITCH '2.50'`
  - `GRID_SNAP_FRACTION '1.0'`

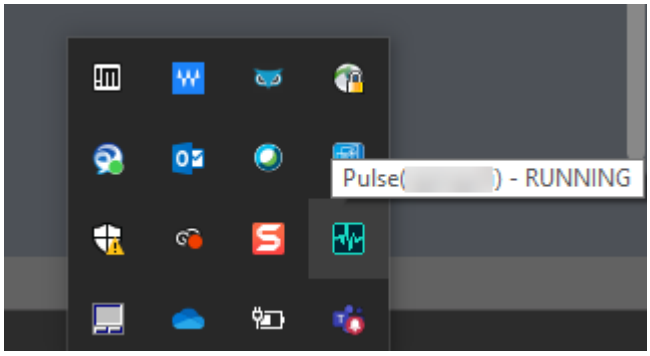
- Pin-to-pin spacing for the new designs.

  - By default, the new System Capture project has the same pin-to-pin spacing as the OrCAD Capture source project it is based on.
  - To override the source pin-to-pin spacing with a site-level setting, add the following directive to the `site.cpm` in the `canvas` section:

    ```
    IMPORT_SOURCE_AT_SITE_UNIT 'YES'
    ```

- Pulse must be in the *`RUNNING`* state.

Pulse starts automatically when System Capture is launched. Hover the cursor on the Pulse icon in the system tray and ensure Pulse is running.



- Ensure that there in no *`Indexing in progress`* message in the Violation window.
- Review the Differences in Use Models section to understand how System Capture follows a different methodology for managing the same design elements.

Methods to Reuse OrCAD Capture Designs

Important

Only `.DSN` files can be imported. `.OPJ` files are not imported.

There are two ways to reuse OrCAD Capture designs:

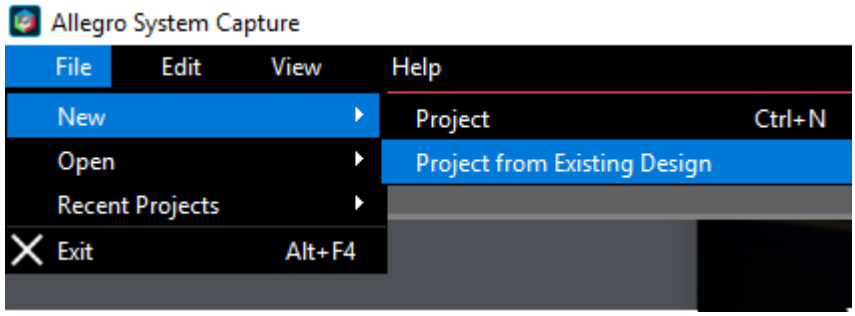
- Creating Designs Based on Existing OrCAD Capture Designs
- Importing a OrCAD Capture Design as a Block

Note: The import sheet feature is not available for OrCAD Capture designs.

Creating Designs Based on Existing OrCAD Capture Designs

To create a System Capture project that reuses an OrCAD Capture design:

1. Choose *File – New – Project from Existing Design*



2. Specify the OrCAD Capture design.

   System Capture starts scanning the input design.

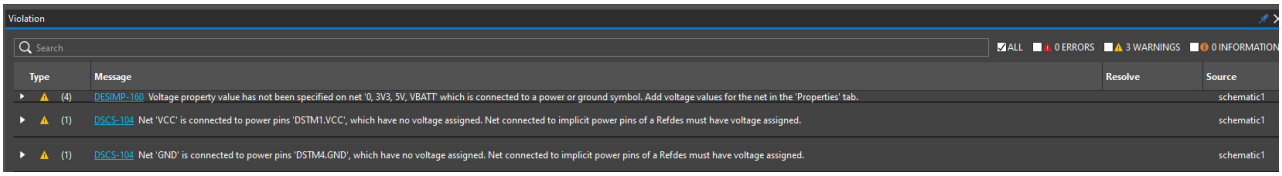
Caution

Only designs that have compatible grid units, settings, and pin-to-pin spacing can be imported. In case the selected design cannot be imported, a message is displayed that describes why the design could not be imported.

The design is opened in System Capture and a summary of all the changes gets reported:

- In the *Violation* window, such as voltage missing on power symbols.

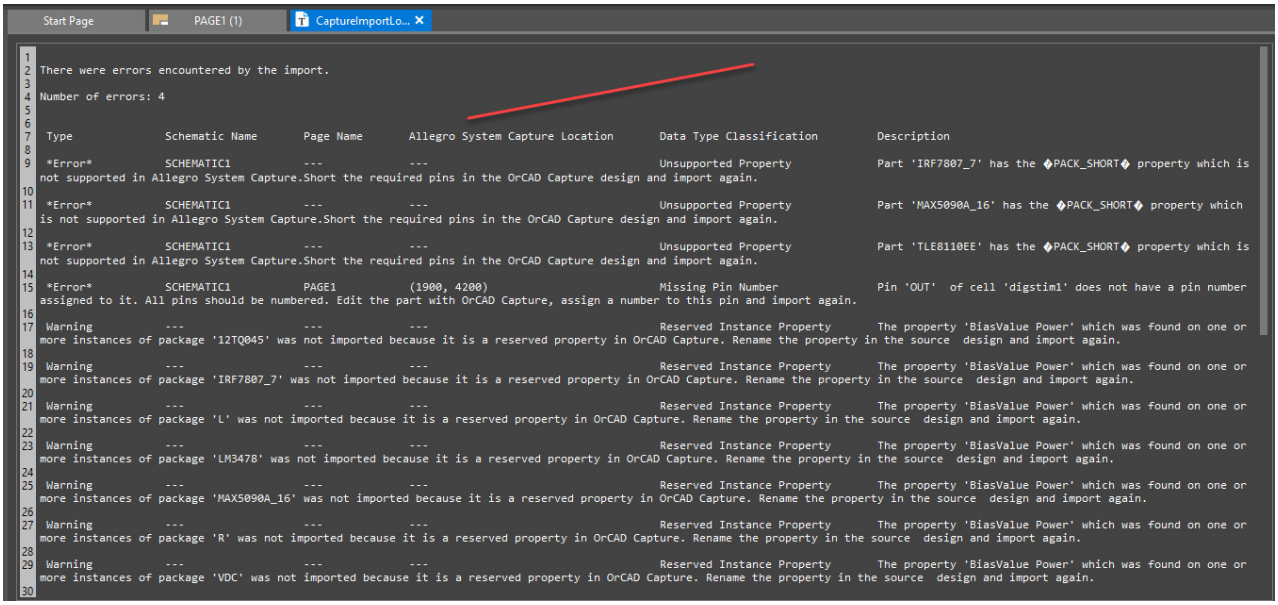
  This is because in System Capture, power symbols must have voltage values.



- In log files

  All changes that have taken place are reported, such as spaces in property names replaced with underscores.

The log file is opened in a tab.



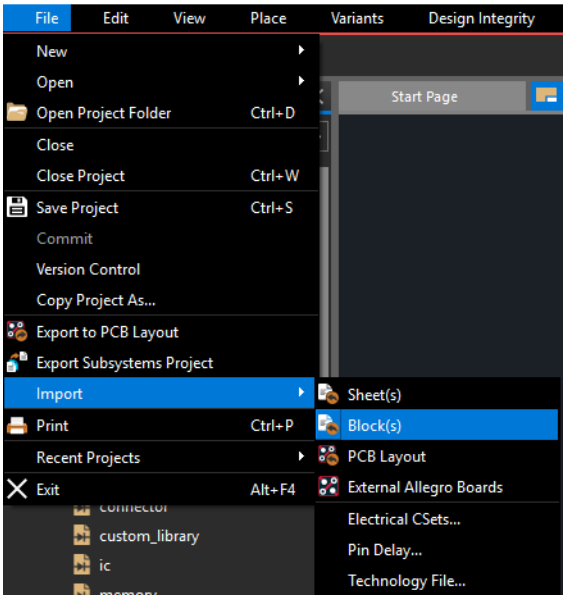
- ❑ Some features are not supported and if the source OrCAD Capture design has these features, the designs are not imported. This is explained in the Designs that Cannot be Imported section.
- ❑ The internal use models followed by System Capture are different so modifications are made to the design elements. See the How the Import Process Works section to understand the changes.

3. Analyze the log file.
4. Review the design.
5. Continue the design tasks.

Importing a OrCAD Capture Design as a Block

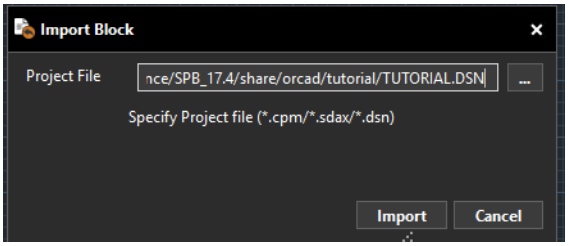
To import an OrCAD Capture design as a block, follow these steps:

1. Choose *File – Import – Block(s)*.



The *Import Block* dialog is displayed.

2. Browse to the project.
3. Click *Import*.



The changes made are also reported.

4. Correct the problems, as needed.
5. Continue the design tasks.

Differences in Use Models

While all schematic design tasks can be accomplished in both the applications, there are some fundamental differences in how the applications treat and manage the design components, such as nets and buses, and features, such as aliasing, connectivity, and Physical Net Name (PNN) generation. Here are the areas where you will notice changes:

- RefDes Names
- Pin Types
- Names of Unnamed Nets
- Buses Handling
- Pin-to-Pin Connectivity
- Aliases for Nets
- Names of Physical Nets
- Value field
- Names of Ports Connected to Named Nets
- Properties without Values
- Variants
- Special Symbols (capsym.olb)
- Multi-Section Parts

RefDes Names

System Capture and OrCAD Capture follow different Ref Des naming conventions. For example: `U1A`, `U1B` in OrCAD Capture gets shown as `U1 sec=1`, `U1 sec=2` in System Capture.

Pin Types

System Capture classifies pins as *IN*, *OUT*, and *IN/OUT* (*IO*) on the canvas while OrCAD Capture supports nine types of pins.

After translation, the `chips.prt` has all the pin type information, but as the System Capture schematic only supports *IN*, *OUT*, and *IN/OUT* (*IO*), each component pin type gets mapped to these three types as listed in the following table:

Pin Type in OrCAD Capture	Converted to
PASSIVE	*In/Out*
INPUT	*In*
OUTPUT	*Out*
BI-DIRECTIONAL	*In/Out*
OPEN COLLECTOR	*Out*
TRI-STATE	*In/Out*
OPEN EMITTER	*In/Out*
POWER - VISIBLE	*In*
POWER - INVISIBLE	Not shown on the canvas

Names of Unnamed Nets

When nets are not explicitly given names by designers, both applications assign unique system-generated names internally to these unnamed nets. The naming convention for system-generated net names in OrCAD Capture is `N<five-digit number>` such as `N00345`, and the convention System Capture follows for unnamed nets is `_N<number>` such as `_N7`.

When OrCAD Capture designs are translated into System Capture, the OrCAD Capture system-generated names for unnamed nets are brought in without any changes and are treated as user-defined named nets in System Capture.

Buses Handling

A bus is just a graphical representation in OrCAD Capture. Whereas, in System Capture, it is a connectivity object, and each bus is checked for correctness and managed in System Capture.

- Vector notation for buses

  There is no vector notation for buses in OrCAD Capture. Net names such as *mybus1*, *mybus2*, *mybus3*, ...*mybus4* are considered as bus members in OrCAD Capture and get imported as members of a vector bus *mybus<1..4>* in System Capture, and their names become *mybus<1>*, *mybus<2>* and so on.

- Bus taps out of the bus range

  Assume there is a bus `mybus[0..7]` in OrCAD Capture and there is a tap out named `mybus8`, this net is imported as a simple scalar net with the name *mybus8*, but is not a member of `mybus<0..7>` in System Capture, because it is outside the bus range.

Pin-to-Pin Connectivity

Pin-to-pin connectivity between components and blocks to blocks is maintained in the imported design but for components that are connected to special symbols, the pin-to-pin connectivity gets modified.

In the source OrCAD Capture design, when a component is connected to special symbols, implicit nets get created between the pins of the component and special symbols. These nets have 0 length and are given internal names by OrCAD Capture.

The translation process brings the same net names into the System Capture design and increases the length from 0 to 1 unit. This shifts the special symbol by 1 grid space and also makes the implicit nets visible. For example, a pin of a component is connected to the pin of an offpage symbol. Meaning that there is an invisible net with length 0. After the translation, a net having length of 1 unit is added. The offpage symbol moves by 1 grid space.

Duplicate Pin Names

Power pins have same name in OrCAD Capture, such as `GND`. System Capture does not support duplicate pin names so the pin names change to `GND##1`, `GND##2`, and so on.

Important

There is no impact of the pin name change on connectivity because that is handled by pin numbers.

Aliases for Nets

Here are the different ways in which aliases are created in OrCAD Capture and how they are translated into System Capture.

- Assigning multiple names to the same net creates aliases in OrCAD Capture.

  For example, a net has three names assigned, *NetA*, *NetB*, and *NetC* and the net's PNN is *NetA*. System Capture does not support a net having more than one name.

  The translation process gets the PNN for the net to the System Capture design. That is, this net in System Capture has the name *NetA* and the other logical names *NetB* and *NetC* for the same net are lost.

  Note: The logical names of nets in the other parts of the same design reach System Capture but their PNN remain *NetA*.

- Adding offpage symbols with the same name to multiple nets makes them aliases in OrCAD Capture.

  For example. an unnamed net and two nets, namely *net1*, and *netz,* are connected to offpage symbols, with the name *FOO*.

  System Capture does not support named offpage and special bodies but the import process ensures that the aliases are not lost after translation by pushing the offpage name as the wining net name for all the nets that were connected to the offpage symbol with the same name.

Important

Properties on special bodies are not supported in System Capture. Any such properties assigned to special symbols in OrCAD Capture are brought into System Capture through the nets connected to these special symbols. Therefore, if special symbols are not connected to nets, then during import, the properties on the special symbol are lost.

Names of Physical Nets

When a schematic design is exported to a layout tool, all attempts are made to keep the net name the same in both schematic and layout. The naming conventions followed by both the applications are different, for example for unnamed nets and bus-bits, and consequently the physical net names (PNNs) generated are different in both the applications. Here is how the translation process handles the incoming PNNs from OrCAD Capture:

- To preserve the PNNs and ensure the netlisting does not fail, the translation process attempts to keep the OrCAD Capture PNNs as is in the System Capture design.

Important

Any further changes in the net name or net connectivity will change the net's PNN and the new PNN follows the System Capture naming conventions. This applies to cutting and pasting a net or renaming a net that originally came from an OrCAD Capture design.

- The translation process tries to keep the OrCAD Capture PNN the same as long as it does not conflict with an existing net in the destination System Capture design or the net name has characters that are not supported in System Capture.

  In case the incoming PNN is not unique or the net name has unsupported characters, the translation process changes the net name and PNN. To know more about the unsupported characters in net names and their substitution, see the Changes in Net Names section.

Value field

The *Value* field is not annotated to the schematic when a part is placed in a System Capture design. This is in contrast to the OrCAD Capture schematic, where the value of value property is displayed in the placeholder. Part placement will not match this behavior and it is not part of symbol generation.

Names of Ports Connected to Named Nets

In an OrCAD Capture design, when a port is connected to a named net, the net name and the physical net name (PNN) are shown. System Capture does not support names for ports.

OrCAD Capture shows PNN on the offpage/port but System Capture does not support names for ports. This name/PNN displayed on the port/offpage in the OrCAD Capture design is shown on the connected net in System Capture.

Interface Nets connected to Power Symbols

When nets connected to both IO port and power symbols are brought into System Capture:

- Net becomes interface net
- The net connected to the power symbol stays local

  For example, net *N1* connected to an IO port and GND in OrCAD Capture. After import into System Capture:

  - *N1* is an interface net
  - GND net is a local power net

Properties without Values

When a part properties without any values and the display attribute is *Value Only,* in ORCAD Capture, the names show as *<Property Name 1>*,*<Property name 2>* and so on.

Where as, in System Capture, they are displayed as <<NULL>>, <<NULL>> ...

This is because System Capture shows <<NULL>> for properties that do not have values defined.

Variants

When importing a design that has variants, you will notice the following restrictions:

- Empty variants are not imported

  In OrCAD Capture, designers often start with an empty named variant and then add parts to it, where as in System Capture, a variant starts as a copy of the base design and then the parts are modified. This leads to a situation where there could be an empty variant in the source OrCAD Capture design. Empty variants are not imported into System Capture because System Capture does not support this.

- Parts that are in multiple groups are not imported

  In OrCAD Capture, parts are added to groups that are then included in variants. In case a part is included in more than one group, OrCAD Capture flags it as an ambiguity. For such parts, the import process reports an error. The variant with ambiguous parts will not be imported.

Color Changes

The import process replicates the colors present in the source design. So if you import a design that was in the light theme into a dark theme System Capture project, you will not get the appropriate colors. It is recommended that you maintain the theme when importing. To customize the colors, perform the following steps:

1. Copy <INSTALL>/share/cdssetup/canvas/resources/colormap.tx

   to one of the following locations depending on the setup:

   - %CDS_SITE%/cdssetup/canvas/resources/colormap.txt

     for organizations where multiple designers share a common location

   - %HOME%/cdssetup/canvas/resources/colormap.txt

     for user-specific changes

2. Add the color map entries

Special Symbols (capsym.olb)

When a new design is made in System Capture for OrCAD Capture, the standard symbols, such as title block, are picked from capsym.olb shipped in the installation at:

<Installation>/tools/capture/library/capsym.OLB

In case you have a specific or customized capsym.olb for your OrCAD Capture designs, and you want that to be used, specify the path of the capsym.olb you want System Capture to use in the site.cpm with the following directive:

```
START_CANVAS
CAPTURE_SYSCAP_STANDARD_SYMBOLS_OLB '$CONCEPT_INST_DIR/share/cdssetup/canvas/
     resources/capture/ORCADLIB.OLB'
'D:\library/capsym.OLB'
END_CANVAS
```

Important

Do not remove '$Installation/share/cdssetup/canvas/resources/capture/ORCADLIB.OLB'. This is required for working with tap and NC symbols.

Multi-Section Parts

In case there are multiple sections of a part present in an OrCAD Capture design, they all must have the same property values for properties defined as the part's component definition properties. This is a mandatory System Capture requirement. If the value of component definition properties is different, the sections are not packaged together and violation messages are reported.

Additionally, in case of a hierarchical design, all sections of a part must be in the same package in both the master occurrence and all lower-level block occurrences.

For example, if three sections of a part are in U1 in the master, then in the context instances, all sections have to be in the same component. A situation like component Ref Des U1 has section 1 and a different component U2 has sections 2 and 3, is not supported.

System Capture will report packaging violations if this is found in an incoming OrCAD Capture design.

In a flat design, this restriction is not enforced. Each section can be in a different component. For examples, S1 in U1, S2 in U2, and so on.

Designs that Cannot be Imported

If System Capture finds any of the following in the source design, the import process stops. System Capture lists the issues that are preventing the import and you need to update the source design and then import it into System Capture.

Design Feature	Reason for Failure	Corrective Action
Heterogeneous (asymmetrical) parts with the same name from different libraries in the OrCAD design	If the pin type (input, output, bidirectional) is different for parts with the same name, then the design cannot be imported.  *Important* Difference in pin types is the only case where the design import stops. Other scenarios of parts with the same name are explained in the Cells with same name from many libraries section	Use the *Replace Cache Part* command in OrCAD Capture to replace all part instances with the same OLB part/path.
Both the source and destination designs have the same block names	System Capture does not support duplicate block names	Remove the identical block names by modifying the schematic block names either in the source or in the destination design.
Part and block have the same name	System Capture does not support part and blocks having the same name	Ensure names are not duplicated

Design Feature	Reason for Failure	Corrective Action
Shorted ports in schematic block	Shorted ports are not supported	**1.** Remove the port shorting in OrCAD Capture and then import it. **2.** Add an alias body between these two ports in System Capture.

How the Import Process Works

When importing designs from OrCAD Capture into System Capture, the areas where user intervention is needed can be sorted into the following categories:

- Design Imported Without Unsupported Features

  Design is imported but some design elements are not brought into System Capture.

- Imported with Modifications

  Design gets imported with minor visual and naming changes and no connectivity loss. You can review the sections reported in the `CaptureImport.log` file. This file is available in the *<current project location>*/`temp` folder

Design Imported Without Unsupported Features

As of the current release, the following elements and aspects of an OrCAD Capture design are not supported in System Capture and have to be recreated in the System Capture design.

Table 1-1 Unsupported features

Design Feature	What is Expected/Reason	Corrective Action
NetGroups	NetGroups from OrCAD Capture are not supported in System Capture and get deleted. Notes are added to the imported design at the locations of the NetGroups. Additionally, the physical net name (PNN) of the members get modified.	Add NetGroups as required, especially for hierarchical designs where port mismatch errors are reported.
Constraint data	Constraints are not imported	Recreate in System Capture
Cross-references		Must be generated in System Capture
Physical reuse blocks in OrCAD Capture	Logical blocks are imported but the physical files are not brought in	

Table 1-1 Unsupported features

Design Feature	What is Expected/Reason	Corrective Action
Overlapped Pins	System Capture does not support overlapping pins. The upper pin gets imported and the hidden ones are not.	Fix in the source or redo in destination.
Properties on pins of hierarchical blocks	Not supported in System Capture. Properties on pins will be lost	None
Fill color for shapes	Fill color for symbols is not supported in System Capture. Fill color information is lost	None
Shorting of power symbols	Logical names of the power nets are not retained. Shorting of power symbols is not supported	None
OLE objects	The OLE functionality is not supported in System Capture. Only the image of the OLE object is available in the System Capture design. The double-click to open in associated application behavior is not available.	None
Any variables defined in the Title Block occurrence section in OrCAD Capture	Not supported in System Capture	None
Pins with `NC_PINS` property	Not supported in System Capture	Fix in the source design. Short the required pins and then import.
Bus connection to H-pin	System Capture does not support connection between pins and vector net with different widths.	None

Imported with Modifications

This section lists the changes that are made to design elements from the OrCAD Capture design to make them compatible with System Capture.

- Design Elements
- Unsupported Characters in Names
- Reserved Property Names
- Title Block Custom Variables

Design Elements

The following table lists the design elements that are checked and modified.

Feature	Behavior
Cells with same name from many libraries	OrCAD Capture supports cells with same name, for example *Res*, from three libraries. A combination of library and part name is maintained. In System Capture, a part can be from one library only. The translation process checks all the parts in the OrCAD Capture design cache. ■ If they have the same electrical hotspots, the first part instance is used throughout the design. ■ If the parts with the same name are not identical, that is the electrical hotspots are not the same, the second part gets renamed with an underscore and number, however the connectivity remains unchanged. For example *Res* gets renamed to *Res_1*, third to *RES_2* and so on. *Caution* ***If there is difference of pin types, the design import process stops. See the Designs that Cannot be Imported section for more details.***

Feature	Behavior
Graphics for special symbols	For many commonly used special symbols, such as ground, the graphics are different in both applications, while the names and electrical behavior remains the same. You will see the System Capture graphics in the translated design.
Arrows on pins / symbols	The arrows are not the part of symbol but are added by OrCAD Capture when the component is placed on the schematic. System Capture does not show these arrows.
Text overlaps	The font rendering engines and bounding boxes behave differently in OrCAD Capture and System Capture. Efforts have been made to maintain the appearance of design components in the System Capture design as close as possible to the OrCAD Capture design, but still you might see visual differences in text placements in a few situations, such as: ■ Pin names overlaps in symbols ■ Property overlaps in parts ■ Ref Des overlaps the wire
Hidden Pins	In OrCAD Capture, pins can be hidden without being connected. When an OrCAD Capture design is imported: ■ Power-pins that were hidden in the OrCAD Capture design remain hidden and connectivity is maintained ■ Non-power pins that are hidden in OrCAD Capture, become visible in System Capture **Note:** There is no loss of connectivity but some overlaps might be seen
Net names on special symbols	■ Offpage symbol or port is placed but not connected to any net, the net name will not be shown ■ Offpage symbol connected to wire/net, net does not have a user-defined net name, then in System Capture, the name of the port is assigned to the net and is displayed next to the port and not on top of the net itself. ■ Offpage symbol or port is connected to a named wire/net, then in System Capture, the net name is displayed on top of the net. And, the name associated with the port is not displayed.

Unsupported Characters in Names

System Capture supports a finite character set for names of components such as pins, nets, buses, designs, and pages. Names of components in an imported OrCAD Capture design are modified by the import process. The following sections list the changes made to the design elements.

- Changes in Page Names
- Changes in Part Names
- Changes in Pin Names
- Changes in Net Names
- Changes in Bus Names
- Changes in PNNs for Nets
- Changes in Design Names
- Changes in Property Names

Changes in Page Names

Non ASCII characters from page name are replaced by space.

For example, em-dash and en-dash are replaced by space:

- *06 — Audio* would show as *06 Audio*
- *17 – History* would show as *17 History*

Changes in Part Names

The part names from the source design are renamed in System Capture designs based on the following file:

`...\share\cdssetup\canvas\resources\orcad_import\import_character_mapping.txt`

For example:

In OrCAD Capture	In System Capture
\	_u+005c_

In OrCAD Capture	In System Capture
#	_u+0023_
.	_u+002e_

In case you need to change the conversion character set, modify this file.

Changes in Pin Names

Character		Changes to
~	Tilde	_T
‘	Acute	_Q
!	Exclamation	_E
(	Open parenthesis	_LA
)	Close parenthesis	_RA
:	Colon	_C
;	Semi-colon	_S
“	Double Quote	_DQ
‘	Single Quote	_A
<	Less than	_LA#[PIN_NUMBER]
>	Greater Than	_RA#[PIN_NUMBER]
,	Comma	_CO

Note: Hierarchical pins follow net name rules instead of pin names.

Changes in Net Names

The following characters are changed in net names.

Character		Changes to
!	Exclamation	_
“	Double quotes	_

Character		Changes to
‘	Single quotes	_
{ }	Braces	_
[ ]	Square brackets	_
( )	Parenthesis	_
< >	Angular brackets	_
/	Forward slash	■ _ if the net name starts with / For example, */abc* changes to *_abc*. **Note:** In case the net name starts with / and has more / characters in its name, all the / get changed to _. For example, */a/b/c* will change to *_a_b_c* ■ No change if / in any other location For example, *a/bc* remains as is.
;	Semi-colon	_
:	Colon	_

Changes in Bus Names

The following characters are changed in bus names.

Character		Changes to
~	Tilde	_
!	Exclamation	_
#	Hash	_
$	Dollar	_
( )	Parenthesis	_
{ }	Braces	_
[	Opening square bracket	Not supported in OrCAD Capture
]	Closing square bracket	_

Character		Changes to
|	Pipe	_
\	Backslash	_
/	Forward slash	_
:	Colon	_
;	Semi-colon	_
"	Double quotes	_
'	Single quotes	_
<	Less than	_
>	Greater than	_
,	Comma	Character is skipped
	Space	Character is skipped

Changes in PNNs for Nets

The following characters in net names are brought into the System Capture designs but are removed from their PNNs. The resulting name is made unique in the design with minor changes, for example a_b, a_b_, a_b_2 and so on, if required by System Capture.

~	Tilde
$	Dollar
\	Backslash
|	Pipe
,	Comma
;	Semi-colon

Changes in Design Names

Only lower-case letters, hyphen, and underscore are allowed for design names in System Capture. Block names are automatically made lower-case by the translation process.

Changes in Property Names

In OrCAD Capture	Changes to
Space in name	_ Underscore
Lower-case name	Uppercase property name

Changes in Variant Names

The following characters in variant names get changed to underscores.

`	Acute
@	At
#	Hash
$	Dollar
%	Percent
^	Caret
&	Amphersand
(	Open paranthesis
)	Close parenthesis
+	Plus
{	Open brace
}	Close brace
[	Open Bracket
]	Close Bracket
|	Pipe
"	Double quotes
'	Single quote
<	Less than
>	Greater than
.	Dot
	Space

Reserved Property Names

The following table lists the properties that are not brought into System Capture by the import process if they have these names because these are reserved names in System Capture:

Object	Ignored Properties
Nets	■ BUS_NAME ■ PHYS_NET_NAME ■ NET_NAME ■ IREF ■ BIASVALUE_CURRENT ■ BIASVALUE_VOLTAGE ■ BIASVALUE_POWER ■ BIASVALUE

Object	Ignored Properties
Parts	■ LOCATION ■ REFERENCE ■ SPLIT_INST_NAME ■ SEC ■ CDS_SEC ■ CDS_LOCATION ■ CDS_ERR_LOCATION ■ SIZE ■ HAS_FIXED_SIZE ■ PART_NAME ■ CDS_PART_NAME ■ IREF ■ BIASVALUE_CURRENT ■ BIASVALUE_VOLTAGE ■ BIASVALUE_POWER ■ BIASVALUE ■ HDL_POWER
Ports	■ NAME ■ IREF ■ NET_NAME ■ BIASVALUE_CURRENT ■ BIASVALUE_VOLTAGE ■ BIASVALUE_POWER ■ BIASVALUE

Object	Ignored Properties
Offpage Connectors	■ IREF ■ NET_NAME
Power Symbols	■ IREF ■ NET_NAME ■ HDL_POWER
Hierarchical Ports	■ IREF ■ NET_NAME
Hierarchical Blocks	■ PART_REFERENCE ■ PCB_LIBRARY ■ PCB_FOOTPRINT ■ VALUE

Title Block Custom Variables

The following tables lists how the custom variables in the title block from OrCAD Capture are processed by the import process.

Variable	Imported into System Capture?	As
DesignCreateDate	No	
DesignModifyDate	No	
DesignCreateTime	No	
DesignModifyTime	No	
PageCount	Yes	TOTAL_DESIGN_SHEETS
SchematicName	Yes	CON_DESIGN_NAME
SchematicCreateDate	No	
SchematicModifyDate	No	
SchematicCreateTime	No	
SchematicModifyTime	No	

Variable	Imported into System Capture?	As
SchematicPageCount	Yes	CON_TOTAL_PAGES
SchematicPageNumber	Yes	CON_PAGE_NUM
PageNumber (in Design)	Yes	CURRENT_DESIGN_SHEET
PageSize	No	
PageCreateDate	No	
PageModifyDate	Yes	CON_LAST_MODIFIED_DATE
PageCreateTime	No	
PageModifyTime	Yes	CON_LAST_MODIFIED_TIME

Impact on System Capture Features

Before continuing your work on the design, review the following information:

- Importing OrCAD Capture is not supported with the Vista Pulse Server. Only a individual standalone System Capture deployment supports importing OrCAD Capture designs. As the Vista server-based implementation is not supported, System Capture features that are available only in the multi-user setup, such as the Team Design functionality, are not available.
- System Capture does not support browsing the design cache, therefore, you cannot use Unified Search to add parts from the design cache. If you need to add a part, you need to add it from the reference libraries that the `capture.ini` points to, or copy and paste an existing part.
- Changing block packaging options does not change the Ref Des

  All components in a System Capture design can have Ref Des from one of two sources.

  - User-specified
  - Assigned by Packager

  System Capture does not modify user-specified Ref Des (hard Ref Des). Only system-generated Ref Des that are assigned by the Packager (soft Ref Des) are changed or modified when the block packaging options are specified. All Ref Des in an imported OrCAD Capture design are treated as user-specified (hard) Ref Des and are not updated in System Capture.

  To change the user-specified Ref Des to system-generated, use the `changeRefDes` command. Type the following in the Command window to learn details.

  ```
  Tcl> help changeRefDes
  ```

- Part Manager might shows some parts as requiring *Auto Sync*

  When a design is imported into System Capture, only the part instantiated in the design is brought into the new design. In case you set the source design's library (.olb) as the project library, Part Manager might report a cell definition mismatch.

  This is because an alias/primary model placed in the `.dsn` does not populate the cache of a design with the complete definition, that is all the aliases, in the form of primitive names in the cell definition.

  Running Part Manager updates the cell definition in the System Capture design cache with respect to the reference libraries.