OrCAD What’s New 17.2- QIR #1
OrCAD Capture Enhancements in 17.2 QIR 1

• Capture Viewer on Web
  – Export complete design as single HTML

• Push button simulation and PCB Layout: PSpice and PSpiceAA libraries updated to have matching footprints
  – OrCAD Libraries includes
    – ~ 3300 unique footprints
    – ~ 34000 PSpice Models
    – ~ 15000 PSpice parts updated to have matching footprints

• Export Design Differences to MS Excel spreadsheet format

• Secure and Share Design - Protect your IP
  – Assign password to open design
Capture Viewer on Web

• Export complete design as single HTML
• Platform independent
  – Can be used with for review and collaboration across the teams and external design chain partners

fulladd.html
Other Capture/CIS Improvements for 17.2-2016 QIR 1

- New Utilities added - Replace Path in Design Cache, Show All Open Libraries and Designs, Customize New Page, Find And Replace Text
- Enable Display of user defined properties
- Ability to directly configure library and Place part from CIS Part Browser
- Descriptive error messages
  - Informative and exact error message for missing part against database record
- Stability : Save on loss of License
- CIS - Ability to search in a specific table or All tables
  - Faster search, narrow results
  - Better control on data – Very useful for large corporate database
- CIS - Improved ability to sort rows based on “numerical values” in part manager
  - Works for value stored using engineering notation (u, n, p etc.)
- Global Design Rule configuration
  - Consistent DRC setting across the project
  - Enable standardization of DRC setting across projects, sites and teams
- Capture Safe Launch Mode
  - Capture detects failed attempt of successful invocation and prompt for safe mode launch
Productivity Enhancements: Set of Utilities

- Replace Path in Design Cache
- Show All Open Libraries and Designs
- Customize New Page
- Find And Replace Text

Customer Value:
Do more in less time
Productivity Enhancement: Enable Display of user defined properties

- Set Display properties while creating new user defined property
  - One click operation now
  - No need to look for how to step for display properties

Customer Value:
Do more in less time
Productivity Enhancement

• Updated and flow wise property spreadsheet filters
  – Get a flow wise property list
  – No need to search for commonly use properties for a flow

Customer Value:
Be Productive
Get categorized list of properties
Productivity Enhancements: Single Library for Simulation and PCB Flows

• PSpice and PSpiceAA libraries updated to have matching footprints

• OrCAD Libraries includes
  – ~ 3300 unique footprints
  – ~ 34000 PSpice Models
    – ~ 15000 PSpice parts updated to have matching footprints

Customer Value:
Single library - ready to use for all flows
Push button Simulation and PCB layout
Productivity Enhancements: Export differences to spreadsheet format

- Export to MS Excel format
  - Quickly analyze large number of differences

<table>
<thead>
<tr>
<th>S.No.</th>
<th>TUTOR2</th>
<th>TUTOR2.DSN</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>✔</td>
<td>✔</td>
<td>Number of differences: 1</td>
</tr>
<tr>
<td>1-1</td>
<td>✔</td>
<td>✔</td>
<td>Number of differences: 1</td>
</tr>
<tr>
<td>1-1-1</td>
<td>R9</td>
<td>✔</td>
<td>✓</td>
</tr>
<tr>
<td>1-1-2</td>
<td>S3A</td>
<td>✔</td>
<td>✓</td>
</tr>
<tr>
<td>1-1-3</td>
<td>R2</td>
<td>✔ Value=22K</td>
<td>✔ Value=10K</td>
</tr>
<tr>
<td>1-1-4</td>
<td>C1</td>
<td>✔ Value=.022uF</td>
<td>✔ Value=.01uF</td>
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<tr>
<td></td>
<td>✔</td>
<td>✔</td>
<td>Number of differences: 4</td>
</tr>
</tbody>
</table>

Customer Value: Work with Global Teams
Productivity Enhancements: CIS

• Ability to configure library and Place part function from CIS Part Browser directly
  – Earlier one need to get out of part browser to configure the library

• Descriptive error messages
  – Informative and exact error message for missing part against database record

Customer Value:
Pinpoint configuration issues and fix it quickly
Productivity Enhancements: CIS

- Ability to search in a specific table or All tables
  - Faster search, narrow results

Customer Value:
Better control on data –
Very useful for large corporate database
Productivity Enhancements: CIS

- Improved ability to sort rows based on “numerical values” in part manager
  - Quickly find lowest or highest value component
  - Works for value stored using engineering notation (u, n, p etc.)

Customer Value:
Do more in less time
Usability Improvements:

- Customize Find and Browse windows results
- Ability to configure properties
- Accessible from Search Result and Browse Window – Context sensitive properties list
- Update directory selection dialog

Customer Value: Do more in less time
Global Teams – Managing configuration files

- Customization support for design configuration files

Customer Value:
Manage and control design flows/configuration
Global Teams – Global DRC Configuration file

- Global Design Rule configuration
  - Consistent DRC setting across the project
  - Enable standardization of DRC setting across projects, sites and teams

**Customer Value:**
Manage and control design flows/configuration
Global Teams – Secure and Share Design

- Assign password to open design
- Tamper proof protection
- No master key to bypass (recover) this protection

**Customer Value:**
Protect your IP
No need to have secure communication/sharing channels with global team
Stability : Safe Mode Launch

- Capture detects failed attempt of successful invocation and prompt for safe mode launch
  - Enable launch of Capture in corrupt user environment
  - Enable successful launch for corrupt workspace scenarios
  - Automatically repairs workspace
  - Enable quick identification and corrective action for invocation issues – ini or user scripts etc.

Customer Value:
Recover and troubleshoot configuration issues
Save critical hours
Stability: Save on loss of License

- Enable save in case of prolonged loss of license server
- Loss of connection to license server can be sudden and unexpected
  - Enable saving your work in such eventuality

Customer Value: Save your work in case of unexpected failures
Major PCB Editor Enhancements 17.2 QIR 1

• New 3D Canvas

• Group routing enhancements

• Find by Query function

• UI customizations
  – Toolbars
  – Font size
Introducing the New 3D Canvas

- New 3D engine
  - Higher degree of accuracy and clarity
- 3D to 2D cross probing
- Etch layer visibility controls
- Collision visibility
- Detection

3D PCB images courtesy of Parallel Systems - UK
Layer Visibility Controls

- Control visibility (on/off) of etch layers
  - Lines
  - Pins
  - Shapes
  - Vias

Bottom Layer Enabled
Symbol Visibility Controls

- Each component in the database is represented in the symbols
- Structure of UI
  - Top
  - Bottom
  - Embedded
- In the example, the top cover was disabled to improve the visibility of the top side components
3D Collision Detection

- Symbol-to-symbol conflict checking
  - Placebound or Step Model
- User can select Object in pane then use RMB
  - Locate function
- Issue represented by “Blinking Component” and blue graphical locator
Bend Editor for Flex PCB Designs

- User defines a bend line that represents the center of a bend area (coordinates or manually drawn)

- Once the line is defined, a bend area is created that visually displays the extents of the bend based on the bend

- The user also has the option to add Via keepout and Package keepout geometries based on the bend area’s outline geometry
Step Model Mapping to Device File

- New mapping mode: Device or package
- New information button “?” for the mapping mode
- New pane for current devices in design
- New mapping status for package (primary or secondary)
Group Routing Update

- New option “Control Trace” will shift adjacent routes from that respective anchor trace
- Default mode shifts routes outwards from the center trace
Shape Application Mode Updates

- **Add Notch support for Any Angle**
  - The Add Notch command now supports “any angle” options with default pull-down choices of 90 (default) as well as 45 and 135 degrees.
  - Alternatively, users can directly enter angle values from 1 – 179 in the new “Add Notch” angle field located in the Options Pane.

- **Assign Parameters to Multiple Dynamic Shapes**
  - It’s now possible to apply override parameters to a multiple selection set of dynamic shapes.
  - While in Shape Edit App Mode, select the shapes to be updated followed by a RMB – Shape – Parameters selection.

- **Slide IX/IY support**
  - The Shape – Slide command now supports the IX and IY commands during the active movement of an edge.
  - For example, an entry of IX 100 during the slide command positions the selected vertical edge 100 units in the positive X direction.
Find by Query

• The Find by Query function has been modernized to give the user quick query access to all design elements on the canvas

• Query engine supports logical, numerical expressions
  – AND/OR
  – < = >
  – And more …
Customizing the Size of Toolbar Icons

- **Toolbar Icons** – Icon size can be controlled by the user preference variable `tbiconsize` with values of small, medium and large.