

xDX Designer VX – Focus on Ease-of-Use

- Lowering the bar for new and casual users
- Focus on the engineering task
- Simplification
- Automation
- Key areas:
 - Usability
 - Connectivity



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Usability



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xDX Designer - Usability Improvements

- Continuation of the effort started with EE 7.9.4.
 - EE7.9.4 generally well received in the market
 - Extensive feedback from Xpedition VX and PADS Beta programs
 - Enable the user to focus on product development and not tool usage
 - Reduce the learning curve
 - Increase Productivity
 - Address the needs of casual users

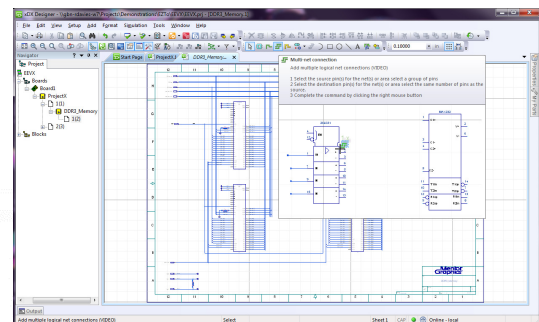


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xDX Designer - Usability Improvements

- Extended/progressive tool tips with animated video How-to's for out-of-the-box ease-of-use
 - Get help at designer's finger tips when needed
 - Look for '(VIDEO)' in the Tool Tip
 - Minimize learning curve
 - Eliminate the need for extensive training
 - Lowers the bar for re-entry for casual users

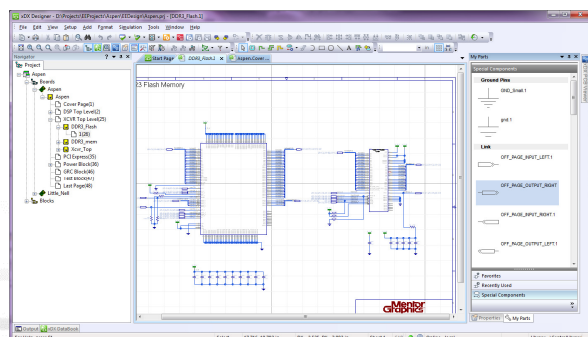
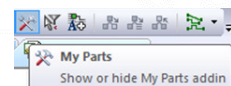


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xDX Designer - Usability Improvements

- My Parts
 - New Placement mechanism with Panes
 - Enables Fast Efficient Placement based on Favorites and Recently Used as well as easy recognition for placement of special components
 - Favorites
 - Recently Used
 - Special Components
 - FPGAs



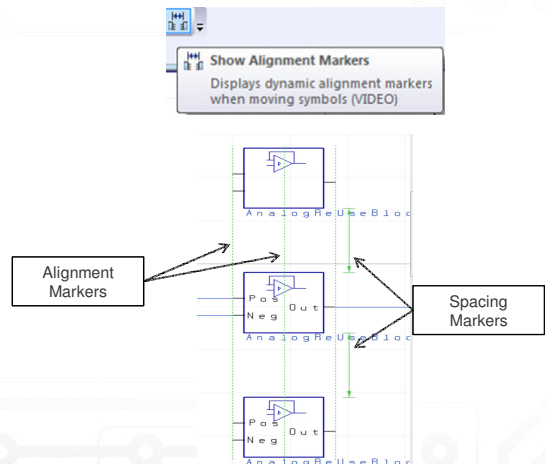
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xDX Designer - Usability Improvements

■ Dynamic Alignment

- Provides alignment markers to aid in symbol placement
- Spacing Markers for equal spacing between symbols as well as top/bottom and centre marks
- Supports Mixed Symbols with Text
- Saves hours in tidying up Schematics



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xDX Designer - Usability Improvements

■ Objects Highlighted on hover

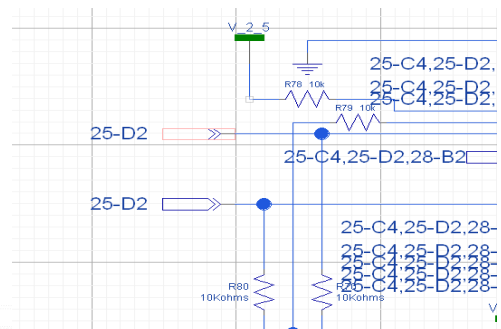
- Indicates which object is under the cursor – click to select
- Useful when selecting pins in particular

■ Direct Insertion of text

- Add annotation text by single click and typing directly on the drawing sheet

■ Ghost image on cut & paste

- Don't need to click the left mouse after Paste to see the pasted object



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xDX Designer - Usability Improvements

■ Key Modifiers

❑ Area Select

- Alt + Area Select (mouse) – switches between Fence and Overlap Mode
- Toggles between default and alternate mode

❑ Graphical Line

- CTL + Line – snaps to grid for straight/90/45 degrees

❑ Smart Selection

- Shift + Area Select (mouse)
 - Select one of the objects you're interested in
 - Shift + Area Select – only selects the same objects within the fence

■ Net Names Snap to Nearest Vertex

- Net names will anchor themselves to nearest segment vertex & mid-point as the name is moved (Idea D6867)



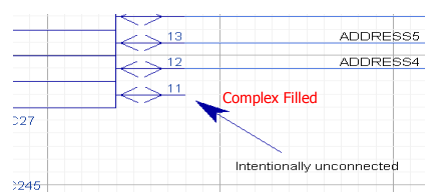
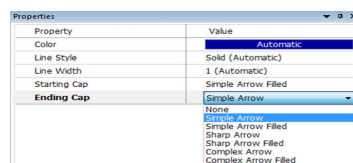
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xDX Designer - Usability Improvements

■ Enhanced Graphics – Smart Shapes

- Arrow heads for graphic lines (Idea D12187)



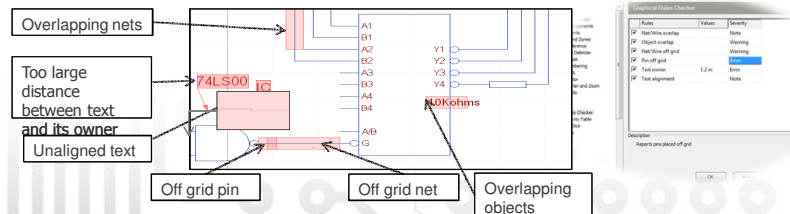
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xDX Designer - Usability Improvements

■ Dynamic Graphical Rule Check

- Follows a correct by construction approach
 - Eliminates manual time consuming correction of overlapping objects late in the design process
- Highlights Object overlapping with
 - Nets, Symbol Graphics, Properties and other Text etc.
- Allows object overlap but highlights problems
 - Note, Warning or Error controls



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Connectivity

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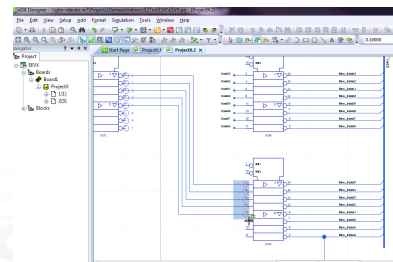
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xDX Designer - Connectivity Enhancements

■ Multi-Net Connections

- Minimizes the effort to connect symbols
- Ability to control how nets are routed
- Start Routing from ordered selection of pins
- Multi pin-to-pin connections driven by selecting two sets of pins
 - Pin selection by group or individual pins
 - Order of pins indicated by the selection box and displayed
 - Selection area with +/- modes with different colors (source & destination/target pins)



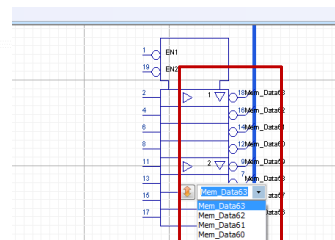
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xDX Designer - Connectivity Enhancements

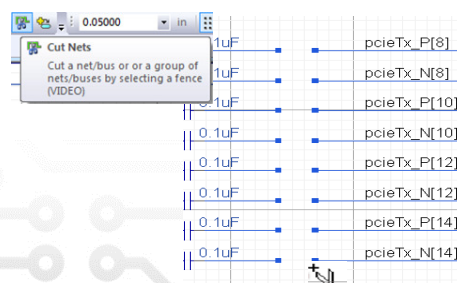
■ Component to Bus Connections

- Move a Component placed on a Bus,
Rips Nets and Routes them to the Component



■ Cut Nets

- Disconnect nets by area selection



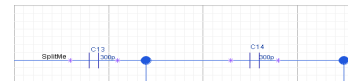
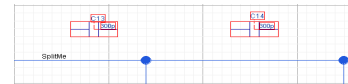
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xDX Designer - Connectivity Enhancements

■ Multi-net split

- Ability to drop one net on multiple already placed symbols and create/connect individual nets with one mouse click
- Ability to drop components on existing nets
 - Open nets and reconnect to dropped component
 - Reassign named nets by 'drag and drop'
- Huge productivity gain for both Digital and Analog design

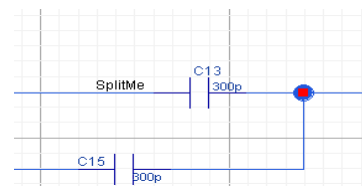


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xDX Designer - Connectivity Enhancements

- Connectivity Advisor for nets
 - Extended to net-to-net and net-to-bus connections
- Net grab handles
 - Easily move solder joints
 - Insert net vertex



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Integrated Symbol Editor



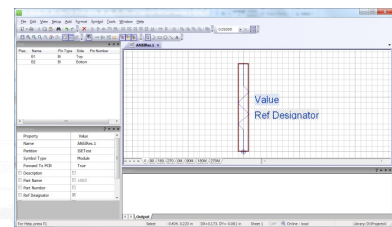
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xDX Designer - Integrated Symbol Editor*

■ Integrated Symbol Editor

- Built on xDX Designer
 - Identical Look and Feel
 - Same Settings, Fonts, Grids, Layered Graphics and Color Schemes
- Identical Graphical Rendering with common Graphical Settings
- Same editor engine, all xDX Designer functionality inherited by ISE
 - Grab Handles
 - Group/ungroup
 - Smart Shapes
 - Layered Graphics
- Full Support for OLE Objects as in xDX Designer
- Shared xDX Designer Automation Layer
 - VB Script
 - Java



* Controlled release in VX.0/VX.1

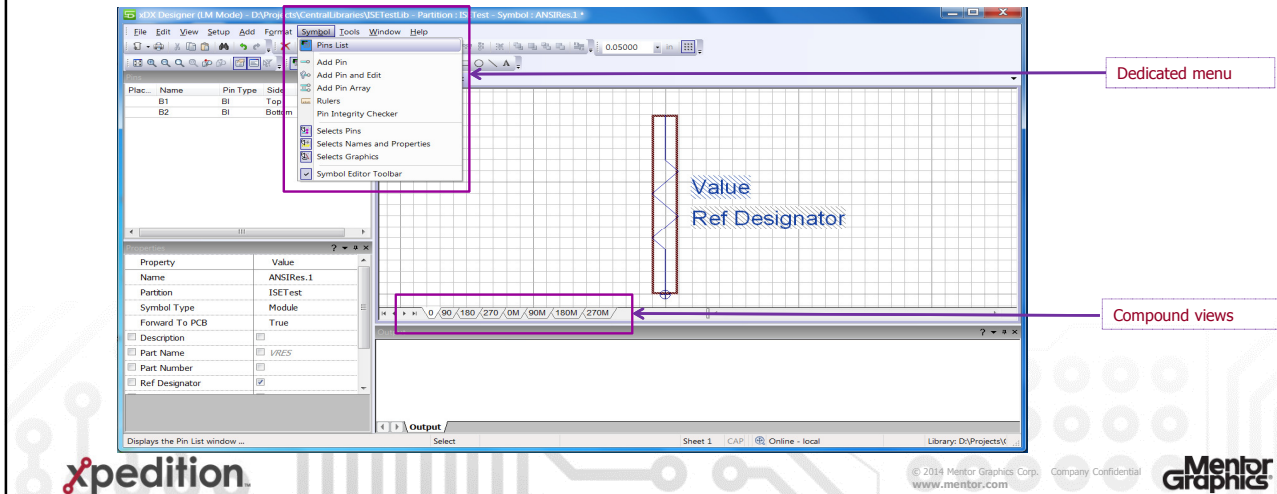


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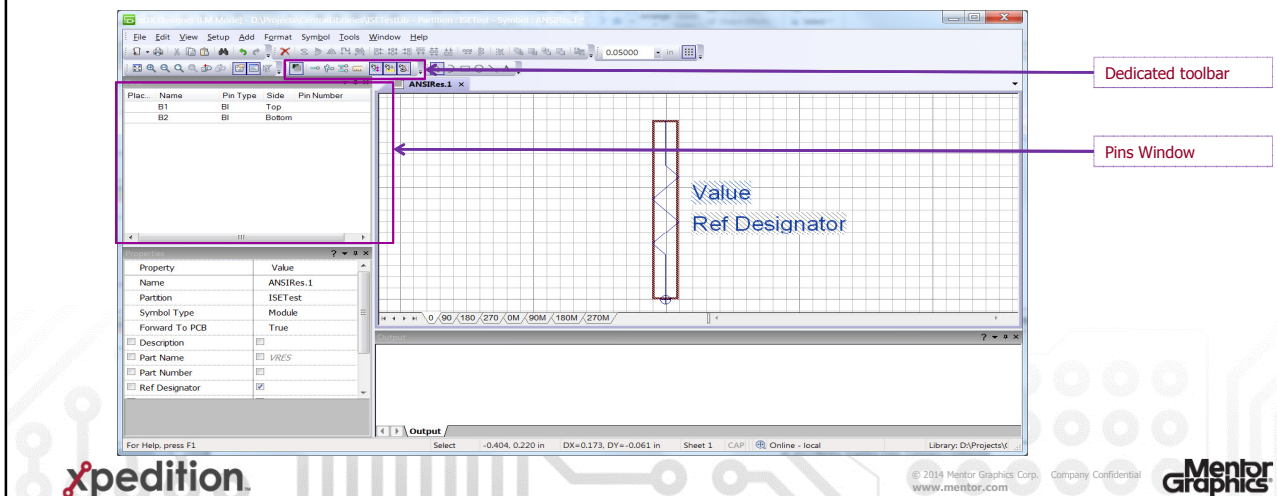
xDX Designer - Integrated Symbol Editor

■ Integrated Symbol Editor -UI



xDX Designer - Integrated Symbol Editor

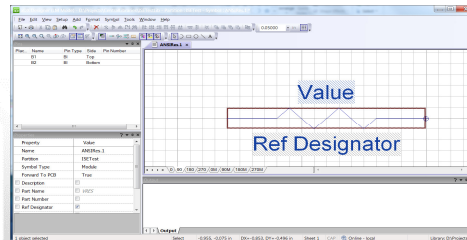
■ Integrated Symbol Editor -UI



xDX Designer - Integrated Symbol Editor

■ Compound Symbol

- Replace multiple symbol definitions (.1,.2 files etc) with single definition for all rotational views
- Negates need to 'reposition properties' after placement/rotate
- Base symbol for graphics (0 degree)
- Rotated views support modification of Properties only
 - Location
 - Origin
 - Orientation



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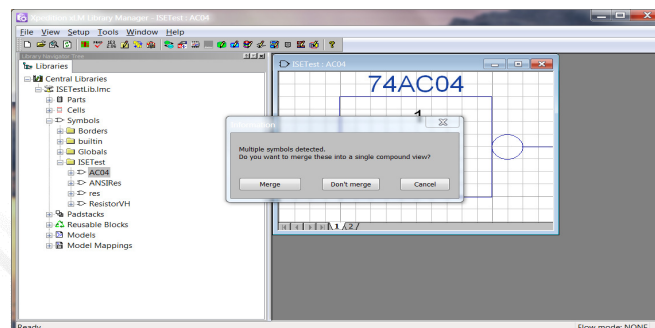
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xDX Designer - Integrated Symbol Editor

■ Creating a compound symbol

- On opening the symbol from library tools
 - Merge – create single compound symbol from multiple files
 - Don't merge – keep separate files (possibly different representations)



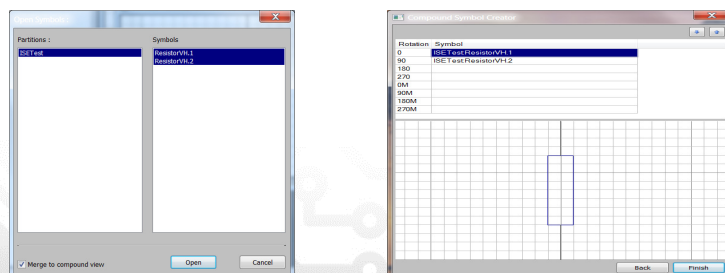
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xDX Designer - Integrated Symbol Editor

- Creating a compound symbol
 - Merging symbols
 - Select symbols to merge (minimum of 2)
 - Choose which is the 0 degree view (base)
 - Merge the symbols and edit

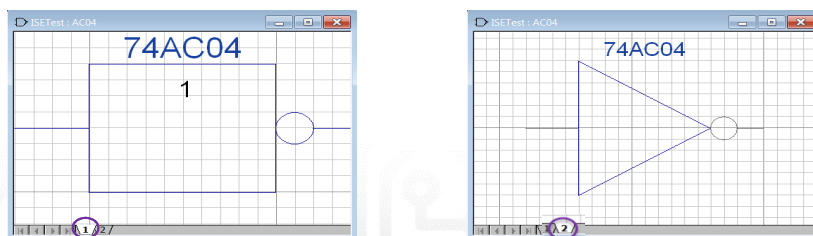


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xDX Designer - Integrated Symbol Editor

- Creating a compound symbol
 - Keeping separate symbols
 - Symbol definition for each is updated with separate compound views
 - Not prompted again by library tools

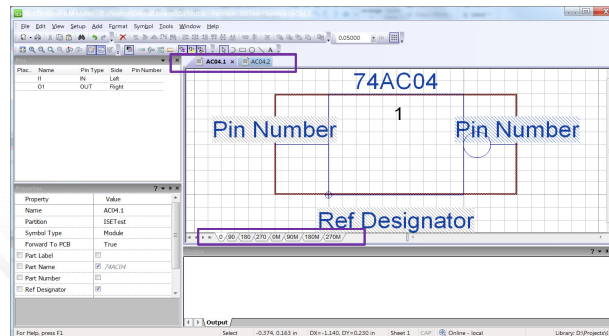


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xDX Designer Integrated Symbol Editor

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