Overview of the Design System

The UTMC Mentor Graphics Design System provides software tools to help you design ASICs using UTMC cell libraries.

This proven UTMC software is fully integrated into the Mentor Graphics design environment, making it familiar and easy to use. UTMC tools support Mentor functions such as cross-highlighting, graphical menus, and design navigation.

After creating a design in the Mentor Graphics environment, you can easily verify the design for electrical rules compliance with the UTMC Logic Rules Checker. Testability can be verified with the UTMC Tester Rules Checker. Both of these tools are fully integrated into the Mentor Graphics Environment.

When you have completed all design activities, UTMC’s Design Transfer tool captures all the required files and prepares them for easy transfer to UTMC. UTMC uses this data to convert your design into a packaged and tested device.

Advantages

- The UTMC Mentor Graphics Design System is among the most powerful and respected tool systems in the industry.
- UTMC customers have successfully used the UTMC Mentor Graphics Design System to produce ASIC designs for more than five years.
- UTMC’s Logic and Tester Rules Checker tools allow you to verify partial or complete designs for compliance with UTMC manufacturing practices and procedures.
- The Design System accepts pre- and post-layout timing information to ensure your design results in devices that meet your specifications.
- The Design System supports Leonardo, and database transfer between Synopsys and Mentor.
- The Design System supports powerful Mentor Graphics ATPG capabilities.
This Tool in the UTMC Mentor Design System... Performs This Task...

<table>
<thead>
<tr>
<th>Tool</th>
<th>Task</th>
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<tbody>
<tr>
<td>Design Flow Tool</td>
<td>Helps you navigate the Mentor tool environment.</td>
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<tr>
<td>Design Entry Tool</td>
<td>Allows you to enter your schematic.</td>
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<tr>
<td>Logic Rules Checker</td>
<td>Makes sure the design meets loading and connectivity rules.</td>
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<tr>
<td>Tester Rule Checker</td>
<td>Makes sure the design can be tested on UTMC testers.</td>
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<tr>
<td>Design Transfer Tool</td>
<td>Collects your design files for easy transfer to UTMC.</td>
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<tr>
<td>UTMC Autologic II Library Support</td>
<td>Allows you to perform top-down design.</td>
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### Design Flow in the UTMC Mentor Design System

#### Tasks
- Design
- High Level Design Simulation
- Perform Logic Rules Checking
- Simulate Design
- Perform Tester Rules Checking
- Transfer Design to UTMC
- Provide customer with SDF back-annotation file

#### Tools
- Design Idea
- Synthesis Tools
- Schematic Analysis Tools
- Mentor QuickSimII
- UTMC Mentor Design System
- Production