



# Quick Start Guide

## For Quartus II Software

This *Quick Start Guide* will show you how to set up a Quartus® II project, enter timing requirements, and compile the design into an Altera® device.

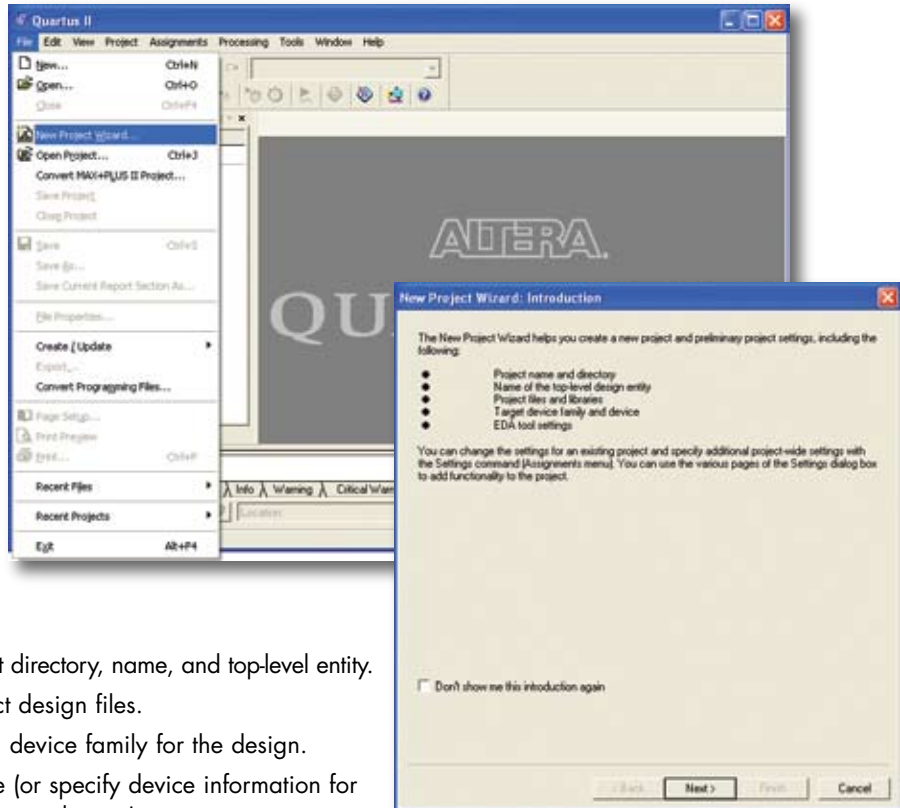


# QUARTUS® II

# Three-Step Design Compilation in Quartus II Software

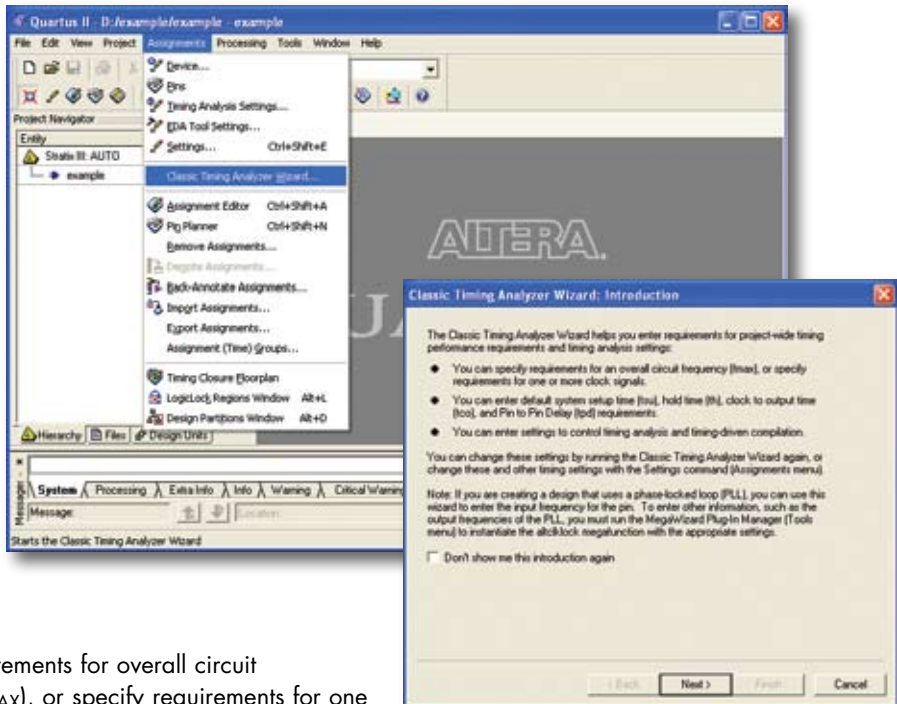
# 1

## Run the New Project Wizard (File Menu)



- Specify project directory, name, and top-level entity.
- Specify project design files.
- Specify Altera device family for the design.
- Specify device (or specify device information for automatic device selection).
- Specify other EDA tools to be used for this project.
- Review project settings.

# 2 Run the Timing Wizard (Assignments Menu)



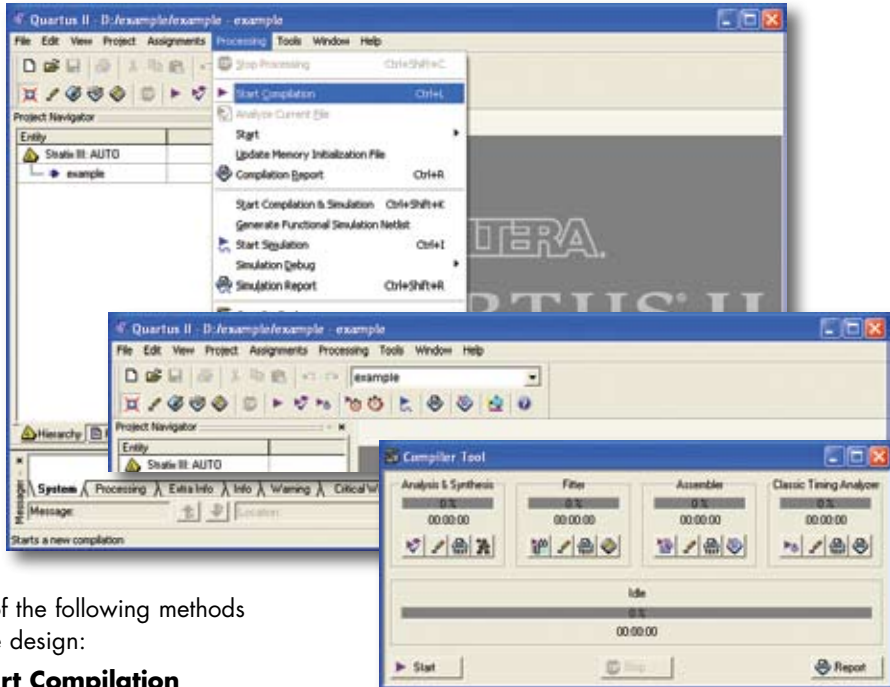
- Specify requirements for overall circuit frequency ( $f_{MAX}$ ), or specify requirements for one or more clock signals.
- Enter project-wide system set-up time ( $t_{SU}$ ), hold time ( $t_H$ ), clock-to-output time ( $t_{CO}$ ), and pin-to-pin time ( $t_{PD}$ ) requirements.
- Specify default external delays to and from device pins.
- Enter settings to control timing analysis and timing-driven compilation.

The Quartus II Assignments menu organizes all settings and assignments commands for the project. Choose **Settings** (Assignments menu) to view an expandable list display with access to all Quartus II settings options.

Choose **Convert MAX+PLUS® II Project** (File Menu) to facilitate migrating a project from MAX+PLUS II software to Quartus II software.

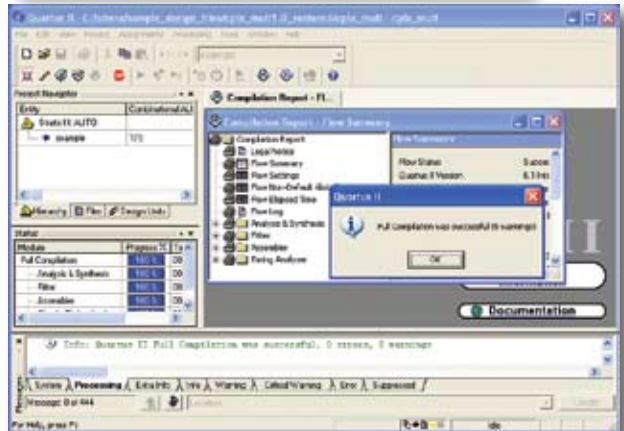
# 3

## Compile the Design (Processing Menu)



- a. Choose one of the following methods to compile the design:
  - i. Choose **Start Compilation** (Processing menu)
  - ii. Use the shortcut on the menu toolbar
  - iii. Click **Start** from the **Compiler Tool** (Processing menu)
- b. When compilation is complete, refer to the Compilation Report window to view information on compiler settings, resource usage, and compilation equations.

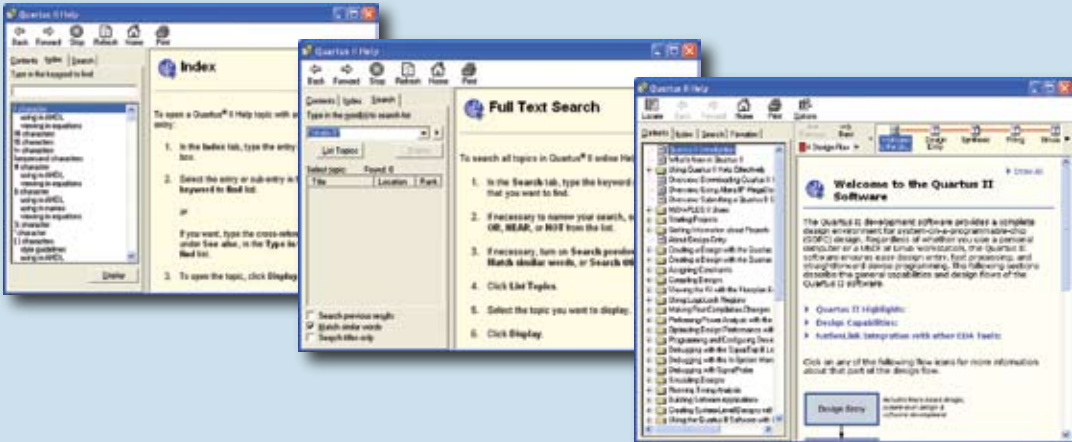
Timing analysis is also performed during compilation on the current design, and the Compilation Report window includes the timing information.



# Get Quartus II Help and Information

## Refer to the Quartus II Help

- Press F1 from a highlighted menu command or active dialog box for context-sensitive help
- Choose **Index** (Help menu) to view the index
- Choose **Search** (Help menu) to perform a search
- Choose **Contents** (Help menu) to view the contents

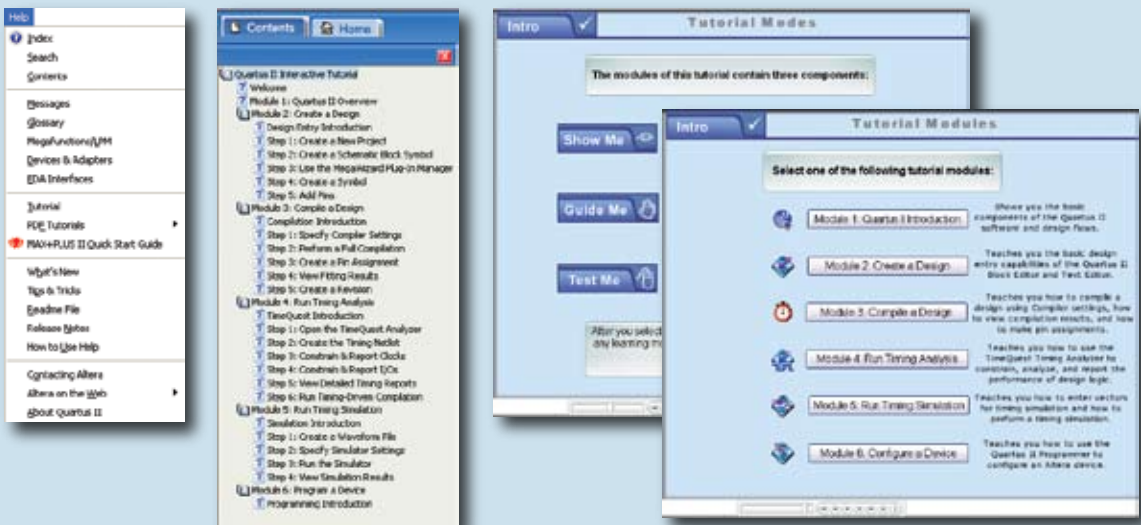


## Quartus II Interactive Tutorial

The Quartus II software includes the new flash-based Quartus II Interactive Tutorial. The modules of this tutorial teach you how to use the basic features of the Quartus II design software, including design entry, compilation, timing analysis, simulation, and programming.

This tutorial includes audio and Flash animation components, and is best experienced with a sound card and speakers and at least 1024x768 display resolution.

Once you start the tutorial, you can jump immediately to any tutorial module by clicking the Contents button. Once you select a tutorial module, you can click the ShowMe, GuideMe, or TestMe buttons at any time to jump directly to the tutorial mode that best suits your learning style.



## For More Information

### Quartus II Development Software Handbook

[www.altera.com/literature/hb/qts/quartusii\\_handbook.pdf](http://www.altera.com/literature/hb/qts/quartusii_handbook.pdf)

### Altera Technical Literature

[www.altera.com/literature/lit-index.html](http://www.altera.com/literature/lit-index.html)

### Technical Support

[www.altera.com/mysupport](http://www.altera.com/mysupport)

### Quartus II Online Demos

[www.altera.com/quartusdemos](http://www.altera.com/quartusdemos)

### Details on the Quartus II Design Flow

[www.altera.com/products/software/sfw-index.html](http://www.altera.com/products/software/sfw-index.html)

### Introduction to Quartus II Manual

[http://www.altera.com/literature/manual/intro\\_to\\_quartus2.pdf](http://www.altera.com/literature/manual/intro_to_quartus2.pdf)

### Quick Start Guide for the Quartus II Software

[www.altera.com/literature/manual/mnl\\_qts\\_quick\\_start.pdf](http://www.altera.com/literature/manual/mnl_qts_quick_start.pdf)



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