

CENG 492



DIGIMOD Test Specifications

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1. INTRODUCTION

Digimod is written for designing and simulating field programmable gate arrays. It consists of three main modules, and it is implemented by the Manas Yazılım development team. Testing will then be carried out according to the test plan and test procedures stated in this Test Specification. This document for the Digimod, gives a general overview of the Test Specification of the system.

1.1 Goals and Objectives

Testing is the process of exercising a program with the specific intent of finding errors prior to delivery to the end user. Before releasing the final version of the software, a series of tests is designed and carried out to achieve high quality of software with a detailed Test Specification. To assist the Project team in developing a strategy to deal with any errors, the Test Specification counters difficulties that may impact the development and the future performance of the software.

1.2 Statement of Scope

An overall plan for the integration of software and specific tests are described in this section. There are two kinds of tests that will be carried out to ensure the quality of our product.

- **Unit Testing:**
- **Interface Testing:**

2. UNIT TESTING

We will use the unit testing for Classes of our program. With the help of unit testing the low levels of our program will be tested. We will use write test codes for each public methods in every class. Tests will be done by giving the necessary valid and invalid inputs and compare the expected results with the ones that the methods produce after the test code running.

Expected results are the ones the methods will produce with valid inputs. We will use these results when comparing the results after testing.

When all the individual tests are successful the unit tests will be successful.

3. INTERFACE TESTING

Test Case #	Description	Test Steps	Expected Results
1	New canvas*	User opens a new empty canvas	A new empty canvas must be opened
2	Open*	User opens an existing file	An open dialog box must appear and selected file must be opened and displayed
3	Close	User closes current canvas	Currently selected canvas must be closed
4	Save*	User saves current canvas	If canvas is not saved before, a save dialog box must appear and currently selected canvas must be saved as a file to selected directory with given name and format, otherwise canvas is directly saved under previous file
5	Save as	User saves current canvas with different name or format	A save dialog box must appear and currently selected canvas must be saved as a file to selected directory with given name and format
6	Save as macro	User saves current circuit as a macro	A save dialog box must appear and current circuit must be saved as a macro with given inputs and outputs
7	Print*	User prints current canvas	A print dialog box must be opened and current canvas must be printed out using printer
8	Print as PS	User prints current canvas	A print dialog box must be opened and current canvas must be printed to a ps file

9	Print as PDF	User prints current canvas	A print dialog box must be opened and current canvas must be printed to a pdf file
10	Exit	User exits the program	Program must terminate
11	Undo	User undoes last action	Last action must be undone in the program
12	Redo	User redoes last undone action	Last undone action must be redone in the program
13	Cut*	User cuts the selected part of the circuit from canvas	Selected part of the circuit must be copied to clipboard and deleted from the canvas
14	Copy*	User copies the selected part of the circuit from canvas	Selected part of the circuit must be copied to clipboard
15	Paste*	User pastes the circuit part in the clipboard to canvas	Part of the circuit available in the clipboard is pasted into the canvas
16	Delete*	User deletes the selected part of the circuit from canvas	Selected part of the circuit must be deleted
17	Zoom in*	User zooms in to the canvas	Canvas must be displayed with larger items
18	Zoom out*	User zooms out to the canvas	Canvas must be displayed with smaller items
19	Script console	User opens the script console	Script console must be displayed
20	Library	User opens the library	Library must be displayed
21	Add circuit element**	User adds a circuit element	Selected circuit element must be added to canvas

* These actions are both available in menu bar and toolbar. They share same test cases

** This test case is valid for all circuit elements (and, or, not, etc.)