
ITASDI PROJECT

Innovative Teaching Approaches in development of Software Designed Instrumentation and its application in real-time systems

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Course „Advanced LabVIEW Applications“

Laboratory no 1 - Sequential state machine

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1 Washing machine simulator

1.1 Goal

Create an application, which simulate the washing machine working.

1.2 General requirements

- The application should be hierarchical and scalable. Remember to use subVIs.
- Use the state machine design pattern with enumerated type control, queue or event structure.
- Avoid using the local, global or shared variables if it is possible.
- Close all opened references and handles.
- Application shouldn't crash. Inform the user about the errors using the error cluster or a dialog box.
- Remember to prepare well documented code. Especially remember about: labels on long wires, description showing in context help, tip strips of controls and labels of constant values.

1.3 Specific requirements

- The application should read the programs description from ini file called: programs.ini . When configuration file will be changed, the application should work without errors.
- The front panel should not be changed.
- The "Program 1", "Program 2", "Program 3" and "Program 4" strings should show the name of programs from configuration file.
- The "Lock Button" should be activated when user click "Play button" and deactivated when washing machine finishes working.

Please use the front panel from public folder.