Hochschule Esslingen
University of Applied Sciences

Campus Göppingen

Migration of LabVIEW into the Test of magnetic Properties

Marc Schnaitmann, Till Schwaderer, Smiljan Mahkovec, Jan Philipp Grünewald, Christian Meier
Prof. Dr. Helmut Förschner, Uwe Weidlich, Markus Salamon – SS 2017

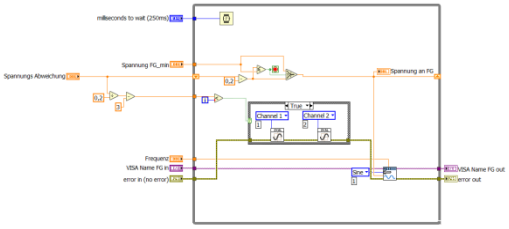
Summary

This project deals with the migration of a measuring-system for magnetic properties in a new environment. Main task of this project was the mapping of Pascal-Code into the graphical coding language of LabVIEW. Further work was done regarding enhancing the program by code optimizations as well as the implementation of some new features (e.g.: overcurrent protection, graphical user interface …).
The result is a more user-friendly and reasonable code for the latest hardware that can be used to identify the main characteristics of transformer sheets.

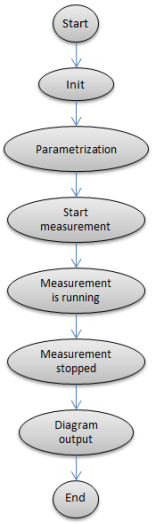
The Project

Subroutines Virtual Instruments

- Hardware communication
- Mathematical operations
- Plotting

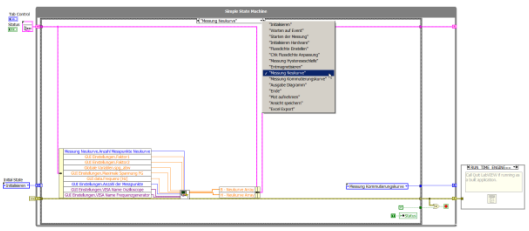


Flow Chart



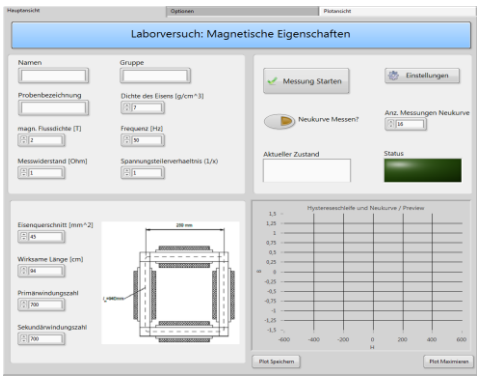
Simple State Machine

- All states set up according to the flow chart
- Used for triggering events



Graphical User Interface (GUI)

- 3 tabs (main view, options, plot view)
- Fully functional without the LabVIEW software



Plot View

- Overview of the chosen properties
- Can be saved in different ways