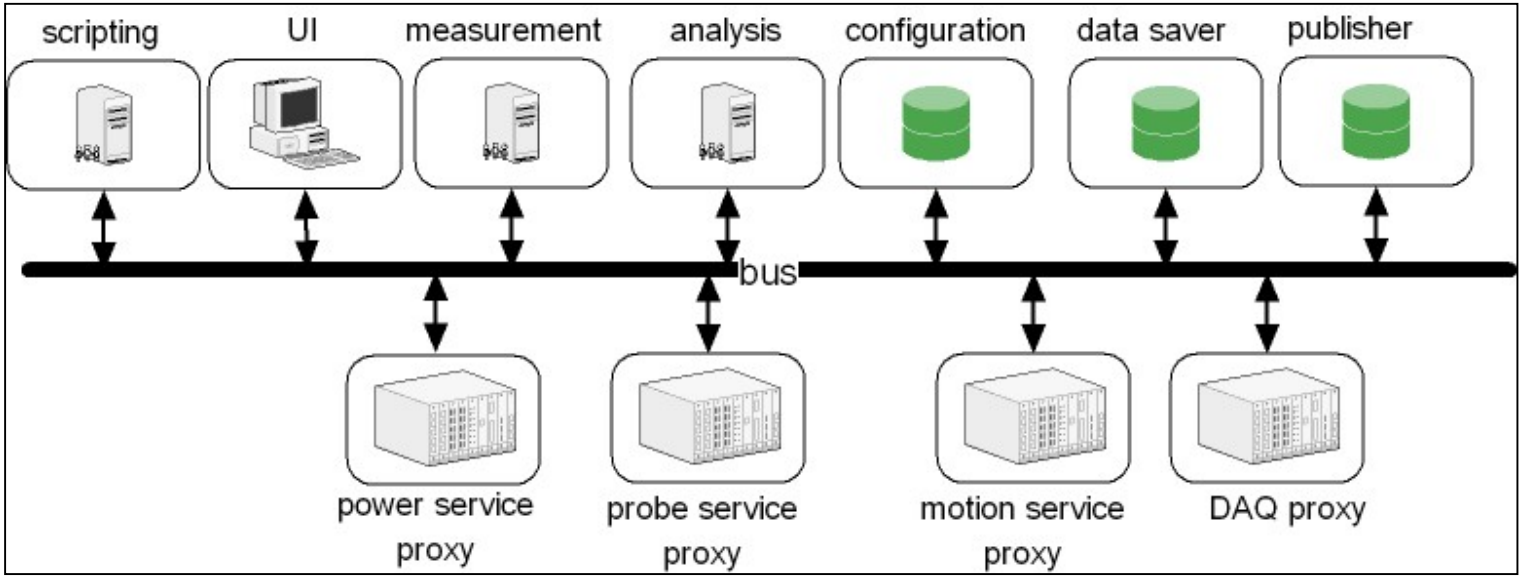
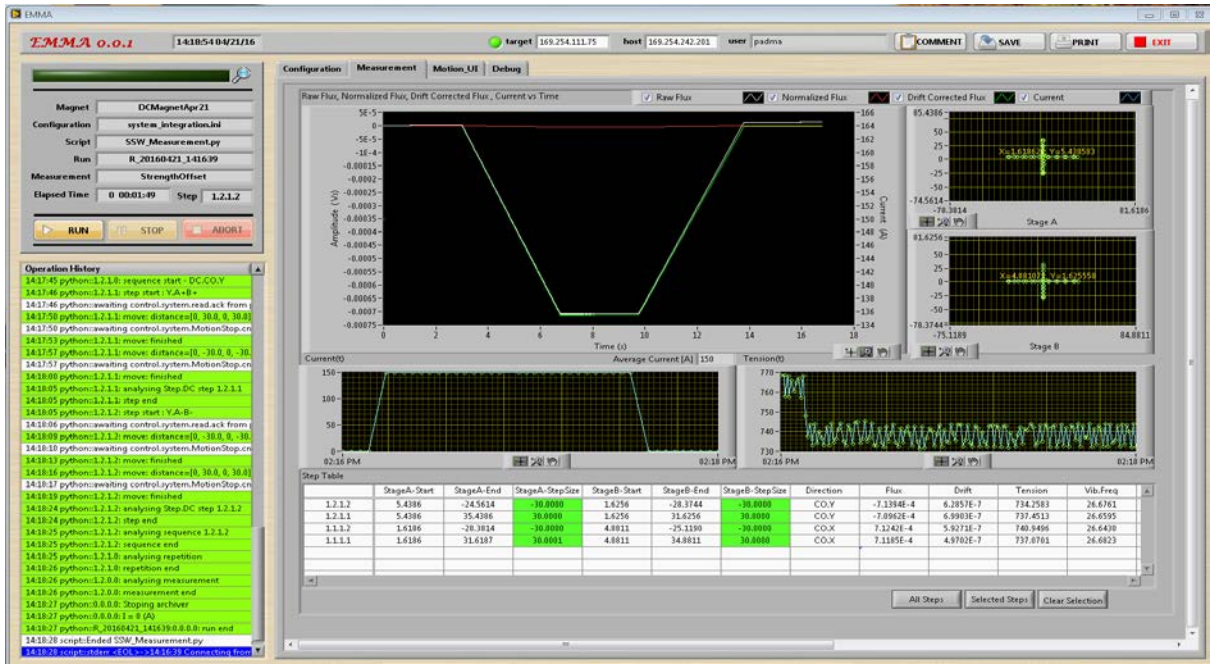
EMMA: Architecture



- **EMMA is a component-based framework for building measurement and test systems. Components, both local and remote, communicate via a publish-subscribe bus.**
- **EMMA-based systems are configurable. A configuration specifies the components that make up the application, properties that customize behavior and functionality of the components, and define the initial state of these components.**
- **Measurement automation is implemented with parametrized Python scripts coordinating components with Control and Property messages. Components can further coordinate their actions by communicating with other components.**

EMMA: Features



- **<u>Extensible</u> – new scripts, components, or their versions are easily added.**
- **<u>Composable</u> – recombinant components can be selected and assembled in various combinations for different measurements and analysis.**
- **<u>Flexible</u> – component behavior is tailorable via properties, components and their versions are selectable, and parameterized scripting provides automation.**
- **<u>Loosely coupled</u> components**
- **<u>Instrumentation</u> interface- <u>agnostic</u> (e.g., PXI, cRIO, GPIB, LXI)**