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

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