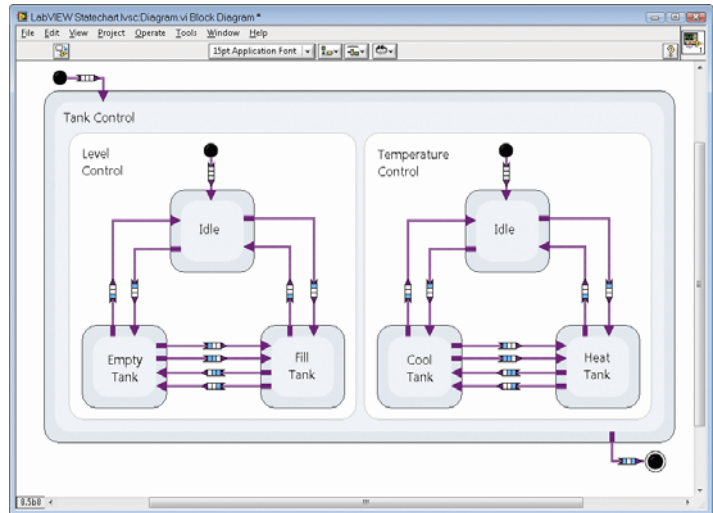


# NI LabVIEW Statechart Module for Designing Complex Applications

## What Is the LabVIEW Statechart Module?

The National Instruments LabVIEW Statechart Module offers a new programming model for designing applications at a higher, more abstract level than previously possible. Using the LabVIEW Statechart Module, you can develop statechart diagrams; define behaviors with LabVIEW dataflow programming; and execute the statecharts on desktop PCs, embedded real-time controllers and FPGAs.

LabVIEW statecharts are especially ideal for programming event-response applications such as intricate user interfaces and advanced state machines used to implement dynamic system controllers, machine control logic and digital communication protocols. Statechart diagrams also complement the existing LabVIEW models of computation, which include graphical data flow, interactive configuration, text-based math and dynamic system simulation diagrams to give you a full array of options for designing your applications.



## LabVIEW Statechart Module Features

The LabVIEW Statechart Module offers several features to help you design complex applications quickly including:

- Statechart diagrams to graphically design complex state machines
- Event-response support for states and transitions to respond to user and application events
- Interactive debugging to view and modify state behavior and transitions during execution
- Integration with the dynamic system simulation diagram to test control design algorithms
- Generation of code that can execute on multiple hardware platforms including desktop, real-time, FPGA, embedded and touch panel targets
- Concurrency for the design of state machines with simultaneous state execution to address parallel application requirements
- Hierarchical encapsulation of statecharts into substates to reduce programming complexity

For more information on the LabVIEW Statechart Module, visit [www.ni.com/statechart](http://www.ni.com/statechart).

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