



# Sequential Function Charts (SFC) Module

Ignition HMI/SCADA Software

Add sequential function charts (SFCs) to Ignition in order to streamline the creation, organization, and visualization of robust logic systems. The Ignition SFC Module's powerful visual programming language allows you to write complex logic in a simpler, more intuitive way. The SFC Module works seamlessly with Ignition<sup>1</sup>, and represents a leap forward in the capabilities of the software.

## Visual Logic Programming

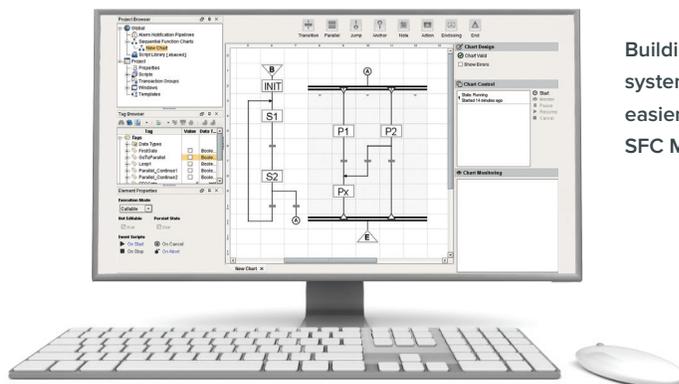
The SFC Module's visual, drag-and-drop programming tool makes the process of writing complex logic much smoother than using the basic Python scripts included in Ignition. Its standardized programming method, part of the IEC 61131-3 specification, will be familiar to many users who have experience in programming PLCs. With a simple visual interface, you can use steps, transitions, parallel blocks and other drag-and-drop elements to create complex charts. SFCs within Ignition can make use of scripts, tags, and other elements already available in the Ignition platform.

## Chart Monitoring

You can monitor charts visually in the Ignition designer and clients, watching each chart execute its logic, down to which specific step is currently running. You can even inspect the chart's internal variables as it runs. The visual nature of SFCs make them much easier to troubleshoot than Python scripts.

## Build Robust Logic

Now it takes far less time to build any type of robust logic your enterprise may need: long-running tasks, parallel tasks, tasks that pause for certain conditions before proceeding, loops, sub-charts, and more.



Building robust logic systems has never been easier with the Ignition SFC Module.

## Features

- Visual Logic Programming
- Chart Monitoring
- Build Robust Logic
- Hot Editability
- Multiple Chart Instances
- Long-Running Charts
- Powered by Ignition

## Supported Operating Systems (Gateway)

- Windows Server 2008/2012/2016
- Windows 7, 8, and 10
- Ubuntu Linux 12.04 or later
- Other Java SE-enabled OSes<sup>2</sup>

## Supported Operating Systems (Client/Designer)

- Windows Server 2008/2012
- Windows 7, 8, and 10
- Ubuntu Linux 12.04 or later
- Other Java SE-enabled OSes<sup>2</sup>

## Supported Databases

- Microsoft® SQL Server
- MySQL
- Oracle
- PostgreSQL

## Requirements

- Java SE 8 (server)
- Java SE 6/7/8 (client)
- 1024 MB RAM
- 1GB free HD space (requirements vary by usage)

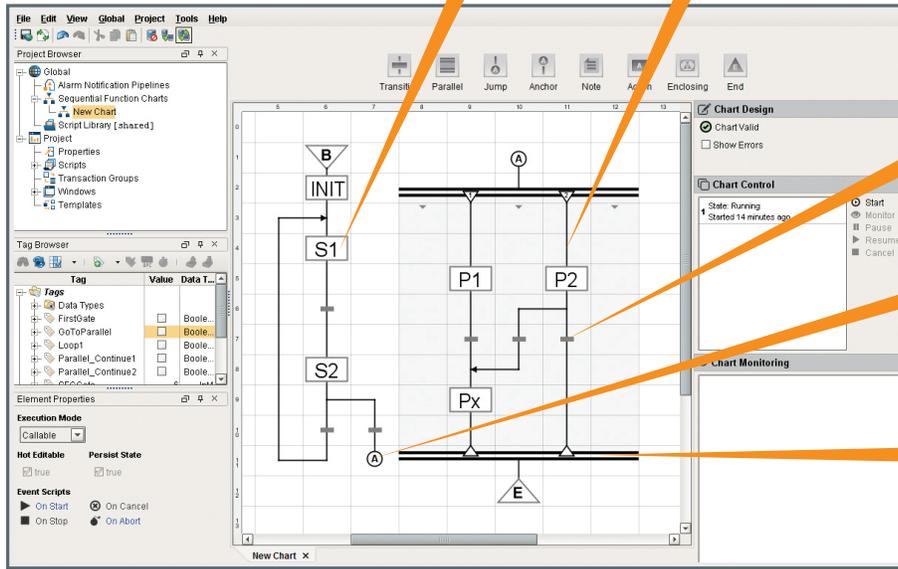
<sup>1</sup>SFC Module sold separately; requires Ignition v7.7 and later.

<sup>2</sup>Ignition is compatible with any Java enabled OS. Full support is only offered for listed OSes.

Drag and drop powerful components to create robust logic systems.

**Steps:**  
These elements perform a variety of useful functions.

**Directed Links:**  
Connect steps and transitions to each other.



**Transitions:**  
Conditions that evaluate to true or false, either allowing the flow to proceed or blocking it.

**Jumps:**  
Set up connections without crossing links.

**Parallel branches/syncs:**  
Use these to set up parallel actions.

## Hot Editability

In some circumstances, changes can be made to charts that are already running. This can be a powerful way to fix mistakes without requiring a chart to be restarted.

## Multiple Chart Instances

The module allows you to instantiate multiple instances of any chart. Each instance can be configured with different starting parameters, allowing the instances to be independent from each other.

## Long-Running Charts

Charts may be designed to run for a very long time. They can even keep running if a Gateway is restarted by pausing on shutdown and resuming

on startup. SFCs also support redundant Ignition setups to ensure the chart keeps running even if the primary Gateway fails.

## Powered by Ignition

The SFC Module is a SCADA module for Ignition, the powerful, award-winning, HMI, SCADA and MES software from Inductive Automation. The SFC Module integrates seamlessly with Ignition and with all other modules in the Ignition SCADA suite. Because the module is built upon the power of Ignition, it shares the same advantages, such as cross-platform compatibility, unlimited free clients, robust out-of-the-box SQL database support, and fast installation. Leveraging the full power of Ignition, it is a SCADA logic engine unlike any other on the market.



To learn more about Ignition, visit us at [inductiveautomation.com](http://inductiveautomation.com)