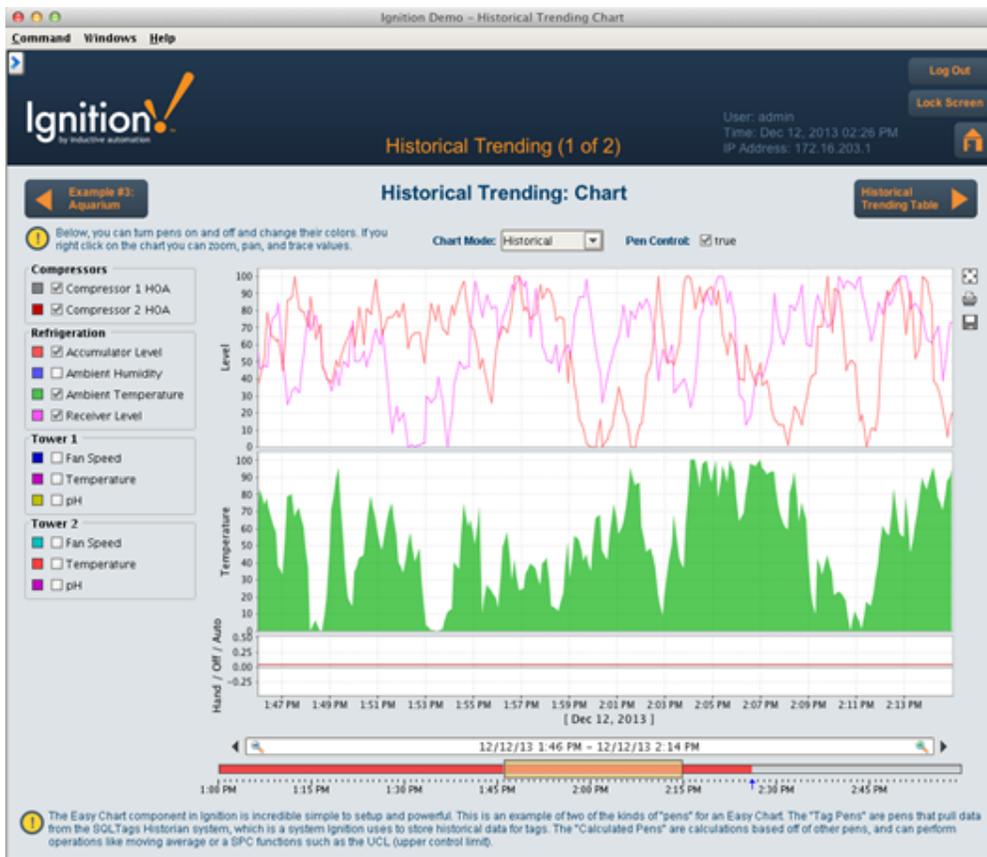# S

(S) **45** terms

SCADA Created Sep 28, 2016 (22:28)

Supervisory Control And Data Acquisition (SCADA) is a process control system that is used in countless number of applications, including manufacturing, communications, distribution (water, gas, power) and heating, cooling and security in buildings. A SCADA system collects data from sensors in local and remote locations and sends them to central computers to control local machinery.

SCADA systems range from simple configurations to large and complex projects. Most SCADA systems use HMI (human-machine interface) software that allows users to interact with and control the machines and devices that the HMI is connected to such as valves, pumps, motors, and much more.

SCADA software receives its information from RTUs (Remote Terminal Units) or PLCs (Programmable Logic Controllers) which can receive their information from sensors or manually inputted values. From here, the data can be used to effectively monitor, collect and analyze data, which can potentially reduce waste and improve efficiency resulting in savings of both time and money.

Ignition is a SCADA software solution

scalable **Created Sep 29, 2017 (19:01)**

Synonym(s): Scale, Scaling

Is referring to the ability to add more software or hardware to solve more demanding problems. This is very important as companies start to use Ignition on more processes in the facility, or if the facility grows over time.

Scale Up means to use a bigger single item (a faster/more expensive computer) as your requirements grow.

Scale Out means to add more small items (many cheap computers) as your requirements grow.

Scalable Vector Graphics **Created Mar 30, 2017 (22:24)**

See SVG.

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scan class **Created May 4, 2017 (23:58)**

Scan classes dictate how often an Ignition Tag will get new values (poll) from the PLC, and can be set to any rate you want. Generally a scan class will run every second, or something similar. There are several modes available, and ways to make changes to the poll rate on the fly.

You can learn more about scan classes here.

Scripting **Created Sep 28, 2016 (22:28)**

Synonym(s): Script, Programming, Coding

Scripting is writing code to complete a specific task. In Ignition, scripting means using Python in the event based system. Almost everything in Ignition supports scripting by right-clicking the object in the designer and selecting the "Scripting..." option. Scripting and Expression bindings are sometimes confused, but have completely different functions. Scripting is used to create complex logic, while an Expression binding is a single command that evaluates to a single value.

SDK **Created Sep 28, 2016 (22:28)**

A Software Development Kit is a tool set that allows your to write code to add functionality to existing software. In Ignition, the SDK allows you to create whole new modules. These modules can include new scripting functions, components, and much more. For more information about Ignition's SDK, see our Ignition SDK Programmer's Guide.

Security **Created Mar 22, 2017 (23:50)**

A system that grants access to view or interact with certain aspects of Ignition based on roles. These roles are defined ahead of time and can be assigned to users as needed.

Serial **Created Sep 28, 2016 (22:28)**

Synonym(s): Serial Device

A communication type that many older PLCs and other devices use. They have a specific cable (i.e., RS232) that must attach the device to a computer to allow communications.

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server Created Sep 29, 2017 (19:03)

A server is a computer stored somewhere (either on-site or in the cloud) that is intended to run non-stop for as long as possible and be available to other computers on the network. These are usually special computers that are much more powerful than a common desktop computer. Often referred to as a "Server Class" machine. These computers will hold the main Ignition installation, a database, and ERP system, or anything else that needs to be available at all times.

You often see servers referenced based on the software they are running (such as an email server). In this case we are referring to the software that is constantly running, which may or may not be on a dedicated computer.

Server Software Created Sep 28, 2016 (22:28)

Server software is designed to be operated and managed on a computing server. Server software is often always running in the background, regardless of whether users are interacting with it. Contrast this with client software that resides in a user's desktop or mobile computer and is only used when needed.

Example: Websites are hosted on a server and are always available. A browser like Chrome or Firefox is run from your computer only when you open it.

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setpoint Created Oct 30, 2018 (22:25)

Abbreviation(s): SP

A setpoint is a single value that represents the target for another part of the process. This could be an ideal temperature, fan speed, etc. that the PLC is trying to match.

Siemens Created Sep 28, 2016 (22:28)

Siemens is a company that makes many things, but in Ignition we are commonly referring to their PLCs. Their devices are used around the world and have names like S7-1500. Ignition has a modules that has drivers for several types of these PLCs.

SIP Created Sep 28, 2016 (22:28)

Session Initiation Protocol (SIP) is a communications protocol. It is most commonly used for voice and video calls through the internet. Ignition requires a SIP connection when using the Voice module to dial out to users when alarms activate.

SMS Created Sep 28, 2016 (22:28)

Short Message Service (SMS) is the protocol that is used by text messaging systems. In Ignition, SMS referrs to the SMS Notification Module, which gives to the ability to connect to an SMS device and send text messages in response to alarms through Alarm Notification Pipelines.

SOAP Created Sep 28, 2016 (22:28)

Simple Object Access Protocol (SOAP) is a way for web services to communicate. It uses HTTP and XML to transfer information.

SPC Created Sep 28, 2016 (22:28)

Statistical Process Control (SPC) is a system by which one can sample and inspect the output of a process to determine if one needs to adjust the process to bring the items or goods into an acceptable quality standard. SPC packages analyze the collected data using statistical math procedures and can present results with various types of graphs. SPC works along side Quality Control, but is an analysis tool for existing samples.

SQL Created Sep 28, 2016 (22:28)

Structured Query Language (SQL), pronounced as sequel or S-Q-L, is designed to manage data held in a relational database management system (RDBMS). SQL is particularly useful in handling structured data where there are strict relationships between related sets of data.

SQL is considered a standard language, but there are variations in syntax and functions across all database brands (MySQL, MSSQL, Oracle, etc).

Examples

```
SELECT Firstname FROM Contacts WHERE Lastname = 'Smith'
INSERT INTO Contacts VALUES ('Joe', 'Smith')
UPDATE Contacts SET Lastname = 'Howard' WHERE ID = 1
DELETE FROM Contacts WHERE Lastname = 'Smith'
```

SSL Created Apr 27, 2017 (23:41)

SSL is a widely used security protocol for data as it goes across a network or the internet. In Ignition, you have the option to enable SSL, which means traffic to and from the Ignition Gateway will be encrypted just like any website with sensitive data. For example, almost every bank uses SSL to protect your information.

stack Created Mar 30, 2017 (21:45)

Synonym(s): software stack

This is a common term for a system that uses multiple programs to support it, usually diagrammed as each resting on the previous piece.

In Ignition, the stack we are usually referring to is that the Ignition modules use the Ignition platform, which runs on Java, which runs on the

Operating System.

standalone Created Mar 24, 2017 (22:54)

Something that works without any other pieces. In Ignition, this means a single install that can do everything you need, but having multiple modules in one install is still a standalone system. This is one of our possible architectures.

standard web technologies Created Mar 24, 2017 (23:58)

This is referring to commonly used formats and protocols on the internet. Things like Ethernet, TCP communications, web servers, and more that have been incorporated into Ignition. All this really means is that we are using proven technology that already exists in your facility.

Store and Forward Created Sep 28, 2016 (22:28)

Store and Forward refers to a system in Ignition that allows it to store data accurately in a database even if communications are not constant. It stores data locally on the computer that Ignition is installed on and forwards it to the database when a connection is valid.

Style Customizer Created Sep 28, 2017 (23:02)

The Style Customizer is used with many components and lets users define a set of visual styles that are based on a single driving property, often a custom property, that focuses attention to the user.

SUDS Created Sep 28, 2016 (22:28)

SUDS is surprisingly not an acronym, but it's the name of a lightweight SOAP client (web services) for Python. It is common to use the SUDS libraries in Ignition because it uses Python.

SVG Created Sep 28, 2016 (22:28)

A Scalable Vector Graphic (SVG) is an XML-based vector image format for two-dimensional graphics with support for interactivity and animation. In Ignition, SVGs can be used by simply dragging them onto an open window in the designer.

SVG is an open standard developed by the World Wide Web Consortium (W3C). SVG images and their behaviors are defined in XML text files. They can be searched, indexed, scripted, and compressed. Any text editor and most drawing software, can create and edit SVG files.

Symbol Factory Created Apr 27, 2017 (23:48)

This is the name of a module in Ignition and the name of a product from a company called Software Toolbox. Either way, it refers to a collection of Images that is available in Ignition.

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system Created Jun 29, 2017 (23:59)

Synonym(s): systems

This term depends on the context it is in, but generally means we are talking about a group of things that make up a whole. Sometimes a "system" is in reference to a complete project or chunk of an operations. For example, a SCADA system would be referring to all of the computers, PLCs and other controls that allow your factory to run. On the other hand, an Ignition system could be referring to an installation of 1 or more copies of Ignition that are controlling a process, factory, or enterprise.

System Tags Created Sep 29, 2017 (18:42)

System Tags provide comprehensive status and diagnostic information about the Gateway and Clients. Read more about Systems Tags here.

Script Modules Created Oct 13, 2017 (16:18)

A Script Module is a user defined library of scripting functions. They can either be Shared Script Modules or Project Script Modules. The shared modules are available in the whole gateway, including Project Scopes of all projects and the entire Gateway Scope. The project modules are only available in the project they are created.

Scoping Created Oct 31, 2017 (22:55)

Synonym(s): Scope, Scoped

There are two different types of scopes in Ignition: Gateway Scope and Client Scope. Where a script runs determines what scope it is running in, what system functions can be run, what resources the script can interact with, and where the output will be written to. Gateway Scopes execute on the Gateway and do not have access to any Client level resources such as windows or components. Client Scope scripts execute only on a running client and in the Designer, in Preview Mode. Its values are isolated to the client, and the output will be displayed on the Designer/Client console. They do not have access to the Gateway's file system.

SQL injection attack Created Oct 30, 2018 (22:23)

SQL injection attack is a code injection technique used by hackers to attack data driven applications for the purpose of stealing data.

SFC Created Oct 30, 2018 (22:23)

Sequential Function Charts (SFC) are a visual programming language that provides a way to write complex logic with a simple drag-and-drop programming tool. The SFC Module's standardized programming method, part of the IEC 61131-3 specification, will be familiar to many users who have experience in programming PLCs.

Scalable Vector Graphic Created Oct 30, 2018 (22:27)

A Scalable Vector Graphic (SVG) is an XML-based vector image format for two-dimensional graphics with support for interactivity and animation. In Ignition, SVGs can be used by simply dragging them onto an open window in the designer. SVG is an open standard developed by the World Wide Web Consortium (W3C). SVG images and their behaviors are defined in XML text files. They can be searched, indexed, scripted, and compressed. Any text editor and most drawing software, can create and edit SVG files.

Supervisory Control and Data Acquisition Created Oct 30, 2018 (22:27)

See SCADA.

Structured Query Language Created Oct 30, 2018 (22:27)

See SQL.

Session Initiation Protocol Created Oct 30, 2018 (22:28)

See SIP.

Short Message Service Created Oct 30, 2018 (22:28)

See SMS.

Simple Object Access Protocol Created Oct 30, 2018 (22:28)

See SOAP.

Scalable Vector Graphic Created Oct 30, 2018 (22:27)

See SDK.

Statistical Process Control Created Oct 30, 2018 (22:29)

See SPC.

Secure Socket Layer Created Oct 30, 2018 (22:29)

See SSL.

SECS Definition Language Created Nov 2, 2018 (16:57)

See SDL.

SDL Created Nov 2, 2018 (16:58)

The SECS Definition Language (SDL) file is where SECS messages are defined. See also SECS/GEM.

SECS/GEM Created Nov 2, 2018 (16:58)

The SECS/GEM (SEMI Equipment Communications Standard/Generic Equipment Model) is the semiconductor's equipment interface protocol for equipment-to-host data communications. Developed by the SEMI (Semiconductor Equipment and Materials International) organization, the standards define a common set of equipment behavior and communications capabilities. In Ignition, the SECS/GEM Module enables Ignition projects and third-party applications to communicate with semiconductor fab equipment.

SEMI Equipment Communications Standard Created Nov 2, 2018 (16:59)

See SECS/GEM.

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L	M	N	O	P	Q	R	S	T	U	V
W	X	Y	Z	.						

(S) **45** terms