IBM adds BMS Connectivity to IoT Platform with SCHAD Automation for TRIRIGA

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At a glance

SCHAD Automation for IBM(R) TRIRIGA(R) V1.0:

- Connects operational control systems to IBM Watson™ IoT Platform and to TRIRIGA for condition assessment, work task creation, and building energy optimization.
- Enables more efficient preventive maintenance that is based on asset condition.
- Extends the Watson IoT Platform to ingest data from building management systems.

Overview

As enterprises seek new ways of using Internet of Things (IoT) information from their building management systems to optimize their maintenance processes and optimize energy usage, SCHAD Automation offers connectivity between many BMS systems and the Watson™ IoT Platform for use with IBM TRIRIGA. Information such as usage meters or gauge values can be recorded in TRIRIGA which enables preventive maintenance to be planned according to the actual usage or condition of the asset. SCHAD products will also enable the gathering of energy related data to assist with optimizing energy usage in the building.

Key prerequisites

Supports Microsoft™ Windows™ operating systems.

For details, refer to the Hardware requirements and Software requirements sections.

Planned availability date

September 6, 2016

Description
SCHAD Automatic Meter Reading (AMR) for TRIRIGA

SCHAD Automatic Meter Reading (AMR) is a software product that connects automated systems into Watson IoT Platform which can augment TRIRIGA for improved capture of asset performance, providing significant cost-savings through enhanced maintenance practices and reduced downtime. It also provides real-time equipment information that can be used by TRIRIGA to optimize energy usage.

Any environment which includes automated equipment, from manufacturing production lines through to the kind of people-moving equipment, air conditioning and lighting found in any modern building, will have thousands of data points that can provide vital clues to the performance of assets, including values calculated in PLC programs (for example, run hours and run state) and physical sensors that measure voltage, current, temperature, humidity, and vibration.

Many organizations already recognize the value of capturing key measurements from building assets into TRIRIGA which, when used with the condition assessment capability in TRIRIGA, can be used to drive sophisticated preventative maintenance regimes based on actual asset behavior. This generates substantial cost-savings over a run-to-failure approach or simple time-based maintenance scheduling, both in terms of ensuring "just-in-time" maintenance of working assets (eliminates or reduces wasted maintenance of assets working well or not in use) as well as taking a big step towards the goal of zero downtime. Without this vital database of performance data, assessing the condition of equipment is a much more time-consuming process.

Taking measurements of facility assets typically involves assigning a technician to a work order, having the technician read values from equipment, and then having the technician record those values into a meter. Ideally this work is performed through a user-friendly mobile product, and recorded directly into TRIRIGA in real-time.

However, even when using a mobile app, recording readings can be a time-intensive exercise that necessitates low-frequency readings (perhaps once per week or per month) resulting in a reduced number of measurement points. Data based on such low frequencies are of limited use for identifying trends in behavior that occur before a failure. The better a trend can be identified and assessed, the better the failure can be predicted and prevented.

This is where the SCHAD AMR product comes in: AMR connects directly to existing Building Management Systems (BMS), SCADA, OPC Servers, or PLCs and collects data at whatever frequency is most appropriate for the data point. Filters and conditions can be applied to to set the frequency of meter readings based on a schedule (to limit reading to production hours only, for example) or value ranges (perhaps we want more frequent readings once a temperature exceeds a certain threshold). This ensures that the most relevant data is captured without the need to keep millions of unnecessary records in TRIRIGA.

In addition to automatically capturing measurement data to understand asset condition for optimizing maintenance, AMR can also provide interval sensor data to IBM TRIRIGA TREES Impact Manager, which can then be used to identify areas where energy may be wasted.

AMR is highly scalable, capable to measuring millions of data points across multiple sites into your existing TRIRIGA system or into the Watson IoT Platform.

<table>
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<th>Program number</th>
<th>VRM</th>
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<tr>
<td>5737-A44</td>
<td>1.0.0</td>
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Offering Information
Product information is available on the IBM Offering Information website.

More information is also available on the Passport Advantage® and Passport Advantage Express™ website.

**Publications**

None.

**Services**

**Global Technology Services**

Contact your IBM representative for the list of selected services available in your country, either as standard or customized offerings for the efficient installation, implementation, or integration of this product.

**Technical information**

**Specified operating environment**

**Hardware requirements**

An internet connection is required.

**Software requirements**

**Operating platforms**

SCHAD Automation for TRIRIGA is designed to run on a standard Microsoft Windows platform and requires a Microsoft SQL Server database.

**Operating system**

- Microsoft Windows Server 2003 Standard 32 bit
- Microsoft Windows Server 2003 R2 Standard 32 bit
- Microsoft Windows Server 2008 Standard 32 bit
- Microsoft Windows Server 2008 R2 Standard 32 bit

64-bit operating versions are also supported by using 32 bit-compatibility mode.

**Database**

- Microsoft SQL Server 2005 SP3+
- Microsoft SQL Server 2008 SP1+
- Microsoft SQL Server 2008 R2

The instance used for SCHAD Automation for TRIRIGA must support mixed mode authentication and the TCP/IP server protocol must be activated. The "free of charge" Express versions are supported up to a maximum of 5.000 parameters and a maximum of 5 users.

**VM operation**

SCHAD Automation for TRIRIGA can be run in a virtualized environment. Multi-processor assignment can be deployed to enhance system performance. Recommended virtualization systems are VMware ESX or ESXi, Citrix Essential, or Microsoft Virtual Server.
The program's specifications and specified operating environment information may be found in documentation accompanying the program, if available, such as a readme file, or other information published by IBM, such as an announcement letter. Documentation and other program content may be supplied only in the English language.

**Planning information**

**Packaging**

This offering is delivered through the Internet. There is no physical media.

This program, when downloaded from a website, contains the applicable IBM license agreement and License Information, if appropriate, and will be presented for acceptance at the time of installation of the program. For future reference, the license and License Information will be stored in a directory such as LICENSE.TXT.

**Ordering information**

For ordering information, consult your IBM representative or go to the [http://www.ibm.com/software/support/pa.html](http://www.ibm.com/software/support/pa.html) website.

Product: SCHAD Automation for TRIRIGA (5737-A44)

**Passport Advantage**

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**Charge metric**

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**Data Point**

A Data Point is a unit of measure by which the Program can be licensed. A Data Point is a stream of machine-readable information that is supplied to the Program by an external entity. A single Data Point includes a stream of incoming machine-readable information representing a single data variable (for example, temperature, vibration) over time for the purpose of communicating current equipment status.
Licensee must obtain an entitlement for every Data Point which provides data to the Program.

Site

A Site is a unit of measure by which the Program can be licensed. A Site is a single physical location, including the surrounding campus and satellite offices located within 10 kilometers of Licensee's site address. Licensee must obtain an entitlement for each Site at or for which the Program will be used. Licensee is permitted to deploy an unlimited number of copies of the Program within the Site. An entitlement for a Site is unique to that Site and may not be shared, nor may it be reassigned other than for the permanent closing of the Site.

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Volume orders

Not applicable

Educational allowance

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Prices

For all local charges, contact your IBM representative.
Passport Advantage

For Passport Advantage information and charges, contact your IBM representative. Additional information is also available on the Passport Advantage and Passport Advantage Express website.

Announcement countries

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