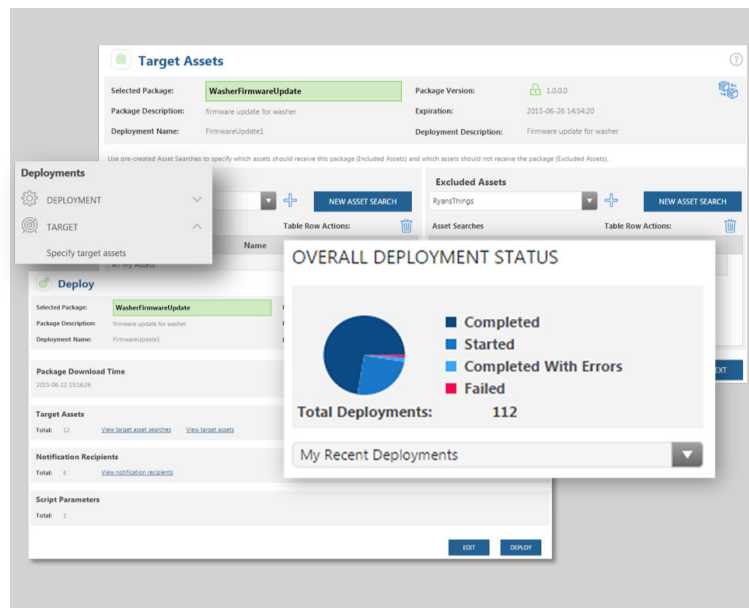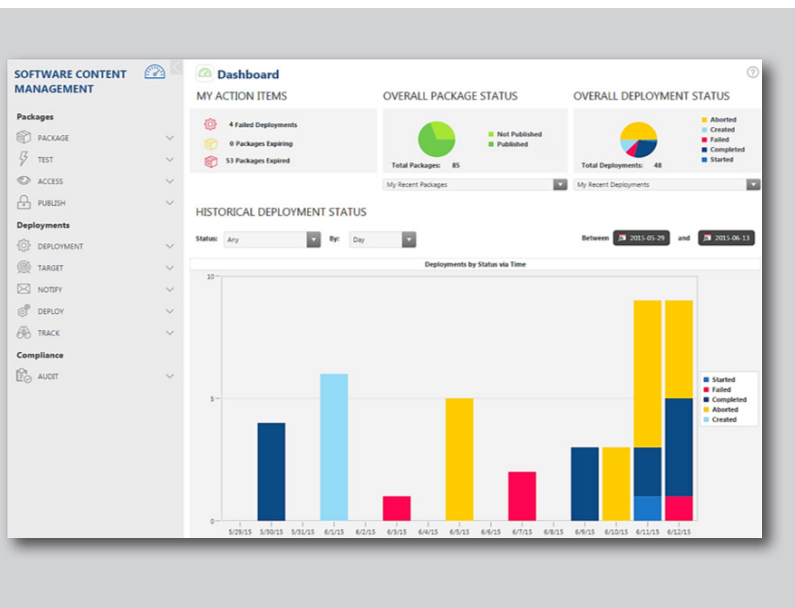# ThingWorx
# Software Content Management

ThingWorx Software Content Management provides a secure, reliable interface to remote assets to reduce the complexity of mass software distribution and management. A single, centralized location enables administrators to simplify software and file management processes, ensure all devices are running current software versions, automate software content distribution, and deliver security patches quickly.



## Why ThingWorx Software Content Management?

**Simplified Deployment and Installation**
Easily create, package, test, deploy, and manage software packages for distribution

**Centralized Administration**
Schedule, track, and record remote distributions from a single user-friendly dashboard

**Optimized Asset Performance**
Monitor assets and track distributions with full audit trails to ensure the entire asset population is current

**Integration with Microsoft Azure**
Connect to Microsoft Azure IoT Edge devices to update content at scale, simplifying the user experience

## Key Features

ThingWorx Software Content Management (SCM) provides a robust set of features and functions that simplify the administration of software distribution to create a streamlined experience and minimize potential for errors.

### Software Content Process:

| define | test | publish | target | schedule | track | audit | purge |

| Create | Deploy | Manage |

### Software Package Creation

From the SCM dashboard, software content and updates are packaged and configured for distribution. Testing of package deployments can be done with a single connected asset or several, after which the package is published for general use to administrator-designated users and groups.

### Package Deployment

Target devices for deployment are determined using asset filtering functionality. Software packages can be scheduled for immediate deployment or for a future time and are deployed using ThingWorx Edge technology or the Microsoft Azure IoT Hub Connector for Azure Edge devices. Progress is easily tracked from the dashboard to ensure completion.

### Content and Distribution Management

Centralized management provides real-time visibility of entire population of connected devices to ensure revision levels are current and enable targeted updates. Search and audit tools enable distribution details to be viewed in real-time or historically, to track and record software deployments and to use in future planning.

### User and Data Security

SCM includes patented firewall-friendly communications, data security, and user authentication mechanisms. All packages are sent compressed and encrypted using Transport Layer Security (TSL) technology.

### User Authentication

Administrators can specify who can create or use packages. Packages do not become available to the public until published by the creator.

### Audit Trail

Every action and cause is recorded to an audit log, satisfying reporting, training, business improvement, regulatory, and non-repudiation requirements.

### Content Management APIs

APIs are used to customize processes that integrate third-party applications. Supported APIs include: upload package, create package, create deployment, and monitor/audit delivery.

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