
White Paper

IT Operations Management

Fast-Track Enterprise Service Management Applications with Codeless Configuration

Micro Focus Service Management Automation X

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This whitepaper discusses the requirements for and benefits of codeless configuration; it also illustrates how codeless configuration with Micro Focus Service Management Automation X (SMAX) streamlines and simplifies application creation.

Executive Summary

Driven by the move to a digital enterprise, increasing business demands and new use case scenarios, IT must deliver new, innovative solutions within short timelines and tight budgets.

While IT organizations traditionally leverage and extend out-of-the-box best practices to control license, deployment, and operational costs, meeting new demands requires a new approach—and one way to achieve this is with codeless configuration. Through codeless configuration, IT can quickly and efficiently customize and extend service management solutions to meet the organization's unique requirements.

This whitepaper discusses the requirements for and benefits of codeless configuration; it also illustrates how codeless configuration with Micro Focus Service Management Automation X (SMAX) streamlines and simplifies application creation.

The New Standard

For enterprises today, change has become the new standard, driven by numerous disruptive technologies, as well as the ever-growing trends toward globalization and digitalization. To remain competitive and enable growth, enterprises must deploy innovative solutions that enable them to respond to change quickly and efficiently.

IT plays an important role in enabling the business through IT service management (ITSM) and enterprise service management (ESM). In many cases, however, service management solution deployment is slow and costly. IT needs to deploy feature-rich ESM and ITSM solutions that deliver business value by:

- Responding to changing business requests quickly
- Driving down service management deployment and operations costs
- Combining best practices with easy extensibility into non-IT areas

Traditional service management solutions are often limited to IT use cases, preventing organizations from extending the value of IT service management into non-IT business functions such as human resource and facility workflow management. Or, if they are able to, these solutions might require additional licenses, resulting in higher cost.

A new approach is required—one that leverages advanced automation, analytics, machine learning, and out-of-the-box best practices, enabling the solution to be extended into non-IT areas. This is regardless of the organization's unique requirements and situations, including whether the organization has a dedicated IT department.

To meet these requirements, most software solutions can be modified or extended via code changes. This is an effective approach if the coding occurs outside the software, using a programming language and APIs to integrate the software with other solutions.

In most cases however, this approach is insufficient because the solution itself needs to be extended to suit a particular application. For that reason, coding is a poor choice. Instead, the requirement is to enable modification or extension of the software using native, built-in tools, such as wizard-driven expressions or user interface options. Configuration occurs within the software itself, with no coding required. Thus, “codeless configuration.”

For many organizations—and for many reasons—modifying or extending a service management solution without making code changes is the preferred approach. Let’s examine those reasons.

Simplifying a Complex and Expensive Process

Software customization can be a complex and time-consuming process that increases a solution’s overall total cost of ownership (TCO). Customizing software often requires coding, which leads to the following pain points.

- Relies on experts for scripting and programming
- Ties companies to old software versions due to the difficulty of upgrading, with the code failing to work with new software releases
- Drives up maintenance costs because customizations are often undocumented, resulting in difficult knowledge transfers
- Is unsupported by the software vendor or requires special and expensive developer support
- Creates extreme barriers to extending the solution into areas beyond IT, such as HR and facilities management

Conversely, codeless configuration uses built-in tools and capabilities to eliminate these pain points.

Going Codeless with SMAX

Once an organization decides to move forward with codeless configuration, the next step is to evaluate the available solutions to determine exactly how “codeless” they really are. While many solutions claim to support codeless configuration, many do not live up to the assertion.

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Truly Codeless Solution?

Remember to choose a service management solution that:

- Comes with best practices out-of-the-box to fulfill all key service management needs
- Requires no coding and no programming skills for configuration or extension
- Places no limits on your ability to create and configure process-based applications
- Enables you to update to new releases quickly and easily, while preserving your user-defined applications

To determine whether a software solution is truly codeless, consider the following characteristics.

- **Delivers more with less.** Editors and wizards are used to configure the service management solution, including its out-of-the-box best practices based on IT infrastructure library (ITIL) processes. These processes account for a large percentage of day-to-day business requests related to IT service management.
 - Choose a service management solution that requires no customization to fulfill these requests. Also verify that these processes can be easily leveraged to create process-driven, non-IT workflows.
- **Requires no programming skills.** Customization often requires expensive software and programmers/developers. For codeless configurations, people such as business process owners with good problem-solving skills who understand your business and processes can complete the tasks.
 - Choose a solution that requires no programming skills for configuration or extension.
- **Supports entirely codeless configuration.** Traditional ESM and ITSM solutions include wizards and editors for configuring and extending the solution. However, these built-in tools fail to support user-defined workflows, user-defined actions, and integration into the solution without creating code.
 - Choose an entirely codeless solution that places no limits on your ability to create and configure process-based applications in a codeless manner.
- **Enables easy upgrades.** Customizing a typical service management solution is not a one-time-only undertaking. For every new release and upgrade of the software, you must redo complex and time-consuming customizations all over again.
 - Choose a codeless solution that enables you to update to new releases quickly and easily, while enabling painless movement of your user-defined applications and configurations to the new software release..

Making Codeless Configuration a Reality

Meeting every requirement for entirely codeless configuration, Micro Focus SMAX is the first software solution for ITSM, ESM, and IT asset management (ITAM), built from the ground up to include machine learning and analytics. Out-of-the-box integrations include the market-leading configuration management system (CMS), Micro Focus Universal CMDB, and Discovery.

SMAX is built on a container deployment foundation which includes in-place-updates with minimal downtimes, built in scalability to handle demands of your business, and utilizes reusable micro-services and REST APIs. This containerized architecture also provides deployment flexibility allowing a customer to deploy on bare metal, virtual machines or on public or private cloud, or SaaS.. For those customers wanting to reduce their maintenance requirements, they can leverage managed Kubernetes services from AWS, Azure and Google cloud.

How SMAX Codeless Configuration Works

Some say codeless equals weak and rigid, but the opposite is true: codeless configuration is powerful and flexible. SMAX combines entirely codeless configuration with extensible, built-in best practices for IT and non-IT use cases. With SMAX, you can:

- **Easily configure and use existing applications including incident, problem, and change management.** Based on best practices gleaned during years of customer implementations, these out-of-the-box applications eliminate the need for heavy design workshops and customization.
- **Create new user-defined, process-based applications with no programming.** Application creation via the SMAX user interface is easy and intuitive, so business process owners can develop applications on their own, without knowledge of a programming language.
- **Define and edit an application's tables, fields, forms, business rules, processes, and notifications.** In addition, you can import data, define custom actions for new or existing applications, define service level targets, and more.
- **Easily update to new software releases.** Deployed on a container deployment foundation with the latest container deployment technology, SMAX enables fast and easy product updates. With SMAX, you receive easy access to the new features and capabilities in each software release, without compromising the integrity of your existing user-defined configurations. This also drives down the solution's TCO. If consumed via SaaS, SMAX customers will get these quarterly updates automatically.

Codeless configuration allows businesses to create process-based applications separate from the product's code. Separation from the product's code base ensures that software updates have no impact on user-defined configurations.

Delivering Greater Value and Benefits

Codeless configuration allows businesses to create process-based applications separate from the product's code. Separation from the product's code base ensures that software updates have no impact on user-defined configurations.

In addition to enabling user-defined configurations, this approach also preserves the ability to easily incorporate changes in existing and new applications into future product updates.

Codeless Configuration:

Requires no coding or programming skills to create new applications, speeding time-to-value to minutes, not days

- Enables easy product updates with minimal downtime, resulting in lower TCO (deployment and operational costs), as compared to other solutions
- Configures out-of-the-the-box applications and workflows or creates new ESM applications for IT and non-IT use cases with a single digital user experience

Creating a new process-based application in SMAX is entirely codeless and easy to do.

Micro Focus SMAX in Action

Let's consider how SMAX can be used to create a user-defined application for security management. This sample security vulnerability application allows users to easily report any suspicious activity, such as a non-employee entering a building with an employee (aka tailgating). In this situation, an employee submits a report via the security vulnerability application. The security officer immediately receives an email with a link to the report. The security officer reads the report, and then initiates further actions as appropriate.

Creating a new process-based application in SMAX is entirely codeless and easy to do. Figure 1 illustrates the five steps for creating the user-defined security vulnerability application from our example.



Figure 1. Five simple steps for creating an application with SMAX

Design the New Application

This step requires a person with knowledge or understanding about business problems that need to be solved, such as a business process owner. In this example, the person is probably a facility manager who knows how to manage security vulnerabilities, understands the workflow required, and knows what data is involved for handling a tailgating incident.

This is a standard design approach—at this early stage of application development, the SMAX tool is not yet used.

Define the Data Model

The example security vulnerability application requires fields to input an incident's title, description, type, impact, risk, etc.

Once the data fields and types have been identified, the next step is to use SMAX to create the data model, which is as easy as selecting from a list of data types such as text, rich text, numbers, lists, links, and so on. With links, you can refer to any existing data in SMAX, such as personal data. You can set input fields as mandatory or read-only, or you can enable fields for sorting and searching, as appropriate. SMAX also enables you to create calculated fields and associations.

Build the Forms

The next step is to define how users enter information into the application. You select data from the previously defined list of data, and easily arrange it on a form. You can change the fields' display properties as needed, add or remove fields from the form, as well as change the order of fields as they appear. In addition, a form can include multiple sections for the various phases of the new application's workflow.

Create the Workflow

To create the workflow, you define and add the desired phases, identify the relationships between the phases, and create the business rules for transitioning between the phases. You can add user-defined actions that call business rules, approvals, and notifications, as well as define service level targets (SLTs) for new process-based applications with configurable start, stop, and suspend conditions.

A simple checkmark makes the new application visible in the user interface. You can also add the application to the self-service portal so that end users have easy access to the new application via the web or any mobile device.

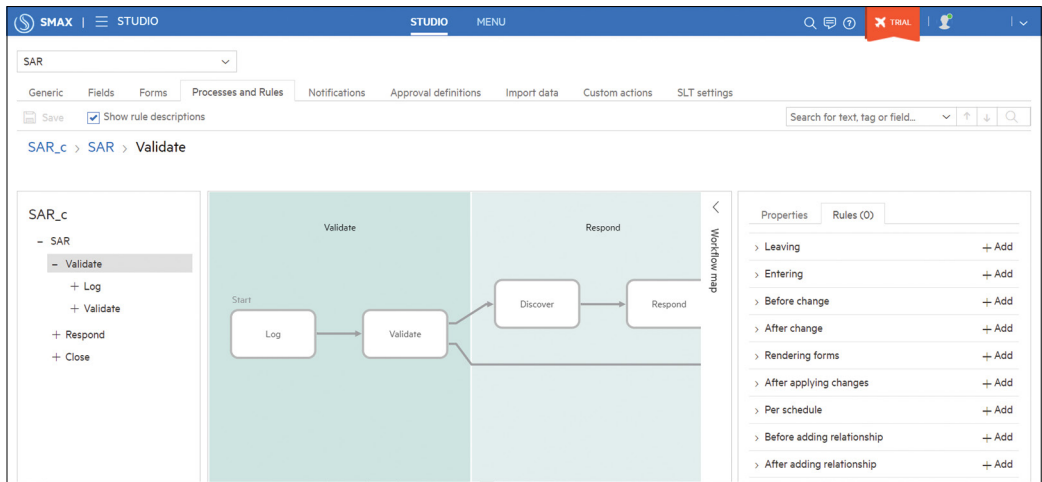


Figure 2. Easily create a workflow with SMAX

Activate the New Application

A simple checkmark makes the new application visible in the user interface. You can also add the application to the self-service portal so that end users have easy access to the new application via the web or any mobile device. Additional functionality can be added to the application, such as a report that shows the number of unauthorized entrances per location and over time.

Codeless Will Be the New Standard

Gartner reports that more than half of all B2E mobile apps will be created by enterprise business analysts using codeless tools. Apps that resist this change will be bypassed and promote shadow IT.*

Use SMAX to Develop a New Application in Minutes, Not Days

This simple scenario reveals how quickly and easily a user with no programming skills can create a process-based, user-defined application with SMAX. In fact, the entire process—from design to activation—can be completed in minutes.

Once activated, for example, SMAX applications can be easily extended to:

- Automatically create incidents
- Send notifications or reminder emails
- Add transition rules for different phases
- Provide statistics via the dashboard

Figure 3 illustrates the new security vulnerability application as seen by the user. From here, a user can report a security vulnerability.

The screenshot shows a web interface for reporting a security vulnerability. The page title is "REPORT SECURITY VULNERABILITY". Below the title, there is a sub-heading "REQUEST DETAILS" and a text area for "Business justification" with a rich text editor. The text area contains the text "I just saw this person follow me into the data center with no badge!". Below the text area, there are several dropdown menus: "Preferred contact method" (set to "Email"), "Service" (set to "Employee"), "What type of security issue are you reporting?" (set to "-- Select an item --"), and "In what location did this occur?" (set to "-- Select an item --"). There is also an "Add attachment" button at the bottom left. On the right side, there is a "SUPPORT" sidebar with the text "No relevant support offerings found".

Figure 3. User experience—security vulnerability reporting form created with SMAX

*www.gartner.com/newsroom/id/2939217

ITOM Marketplace

Applications developed with SMAX can be easily packaged and published on the Micro Focus ITOM Marketplace. This is a community for Micro Focus, its partners and customers to share and leverage content to continuously extend the solution.

Conclusion

Entirely codeless configuration is a mandatory requirement for any ESM or ITSM solution, enabling digital enterprises to focus on their business and services, rather than on service desk implementation. Codeless configuration is complemented by out-of-the-box best practices for standard processes and workflows—resulting in fast time-to-value and low TCO through easy, low-cost updates to new product releases within IT and other organizations.

Learn More

For more information on Micro Focus SMAX, visit <https://software.microfocus.com/en-us/products/service-management-automation-suite/overview>.

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