Fast-Track Enterprise Service Management Applications with Codeless Configuration

Micro Focus® Service Management Automation X
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Executive Summary

IT organizations play a vital role within the digital enterprise. Driven by 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—namely, 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. Instead, 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 fail to adequately meet business requirements. They are often limited to IT use cases, which means they are ill-suited for non-IT usage such as human resource and facility workflow management. To support these use cases, typical service management 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, effectively extending the solution into non-IT areas.

Such a service management solution must also meet each 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.

- Depends on IT 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 enterprise 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.
To determine whether a software solution is truly codeless, compare it to 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. 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 if done right. 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.

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-box applications and workflows or creates new ESM applications for IT and non-IT use cases with a single digital user experience
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, such as escalating the situation.

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 used in our example.

![Figure 1. Five simple steps for creating an application with SMAX.](image)

**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 person 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.

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. You can also add other functionality to the application, such as a report that shows the number of unauthorized entrances per location and over time.
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.

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 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 requires no coding, and it 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.

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