FEATURE

SAP Build Phase - Technical Development of Applications and Process

This issue builds on last month's description of the eight key work streams in the Build Phase. It gives a behind-the-scenes look at the SAP Technical Development (Customization) process, guiding principles and best practices for application configuration and the RICEFW (reports, interfaces, conversions, extensions, forms, and workflow) development objects.

What is Customization and How Will it Work?

Customization is the process of customizing and enhancing standard SAP functionalities, and involves application configuration and RICEFW objects. During the design phase, the WBSCM team developed a design blueprint which is a group of business process scenarios that contains the details of how WBSCM team will enhance SAP applications based on the user requirements. These business process scenarios contain a combination of configuration and RICEFW objects list.

What is Configuration?

Configuration is one of the standard approaches provided by SAP to customize SAP applications. Configuration is not development and does not change the SAP source code. Instead it permits the customization of SAP best practice business processes while preserving SAP Out of the Box (OOB) functionality.

❖ Example of Configuration: Creation of new document types and item types, to control the integration between procurement or inventory management and the resulting general ledger entries that are made automatically when the transactions are executed.

What's a RICEFW Object?

When configuration alone cannot meet WBSCM's requirements, there's a **gap**. Filling this gap requires custom software development (RICEFW objects) built to "specifications" or "functional specs" written by the functional teams and "technical specs" written by the technical development team using SAP's environment and tools. These gaps fall into six types:

❖ **Reports—**SAP OOB comes with many reports. Some custom reports will be built to address specific WBSCM business requirements. (e.g., The Ocean-Freight Differential (OFD) Report can be run on-demand (in foreground or background); capable of being downloaded, printed, and should display the output of OFD calculation)

❖ **Interfaces—**Interfaces are used to exchange data between SAP and other systems. These systems could be other USDA SAP systems, other non-SAP USDA systems, or external systems. Some of these interfaces could be setup as batch jobs to run on a set schedule; others will occur in real time. (e.g., WBSCM interfaces with VAROLII to send out recall notification messages)

❖ **Conversions—** Conversions bring legacy data into the SAP products. The conversion can be for master data (e.g., customers, materials) or transactional data (e.g., purchase orders, sales orders). These conversions are typically done only once before the system is ready to go-live.

❖ **Extensions—** Application extensions are made when an SAP OOB process does not meet a business requirement. These extensions will contain additional logic and functionality specific to USDA. (for e.g., Extension to support multiple cost components required to support market price differential pricing)

❖ **Forms—** SAP OOB provides general forms and the WBSCM agencies have specific business requirements on the content and format of these printed forms. SAP provides tools to develop these forms. (e.g., A PDF/ Web based Request for Bid form for non-USDA vendors)

❖ **Workflows—**Workflows in SAP automate business processes. They integrate tasks across business units, applications, and system boundaries. For example, Workflows notify users or user groups when they have a task to perform and facilitate performing that task. Steps that do not require user action will be carried out automatically. (e.g., Workflow for subcontracting plan: reviewed, approved, electronic document saved to database, document linked to appropriate vendor, vendor site, or Contract/PO).

Configuration vs. RICEFW

Configuration	RICEFW
Implemented by Functional Teams	Functional Specs written by the Functional Teams Technical Specs written by the Tech Development Team Technical Specs Implemented by Technical Teams
Changes are SAP Out Of Box Functionality (OOB)	Changes are SAP Custom Development Objects
Examples: Creation of separate purchase requisition types for Commodities vs. Services	Examples: Report to track movement of goods through third party processors; an interface with Central Contractor Registration (CCR) to retrieve vendor information

Recap of the Customization Process

The following steps are completed in the Design Phase:

1. Functional teams identify configuration objects to tailor SAP to the WBSCM business requirements
2. Functional teams identify gaps where configuration cannot meet the WBSCM business requirements
3. Functional teams write RICEFW functional specs to fill the gaps
4. Technical team reviews the functional specs of the RICEFW objects

The following steps will be completed in the Build Phase:

1. Technical team members prepare technical specs of the RICEFW objects.
2. Technical team develops the RICEFW objects, and performs unit testing to validate the accuracy of each object
3. Functional teams setup the configuration objects

Tech Dev Guiding Principles & Best Practices

❖ Follow the System Development Lifecycle (SDLC) and SAP development methodologies

❖ Maximize full use of SAP's standard OOB functionality, and modify as little as possible. Adapt business process to the best practices standards

❖ First attempt to address the business requirement with configuration before concluding a RICEFW object is needed

❖ Design and build RICEFW objects without modifying SAP source code

❖ Modify SAP screens when configuring or custom developing RICEFW objects to enhance ease of navigation and use

STATUS CORNER

❖ The team finished the last integration cycle session; completing "Ship to Pay" and "Other Processes"
❖ The team delivered the final Disaster Recovery Plan (DR) F.04
❖ The team delivered the final Technical Architecture Design Document (TAD) F.26
❖ The team delivered the Release 1 Design Document F.46
❖ The team conducted the Preliminary Design Review/ Final Design Demo (PDR/FDD)
❖ The team kicked off the Build Phase in early July
❖ MITRE continues to assist USDA with the Human Capital Transition (HCT) process

DID YOU KNOW?

USDA provides 1.9 billion pounds of nutritious commodity foods yearly to state distributing agencies (SDAs).

…The US is on track to increase export of bulk commodities like corn in 2008 – projection of 63 million tons of corn!

… $ 59 billion for nutrition assistance programs accounts for over half of USDA's annual budget.

ED CORNER

❖ Here is the latest sample of the new "WBSCM dictionary:" You can access the full WBSCM terminology guide on our program Web site.

WBSCM Terms

ABAP: Advanced Business Application Programming Language and methodology for developing SAP systems.

Application Toolbar: Located beneath the Standard Toolbar at the top of the SAP screen. This Toolbar contains "shortcut" buttons (icons) for additional functions based on the screen displayed or task being performed in SAP.

IMG: Implementation Management Guide: Lists all actions required for implementing SAP with tools for controlling configuration including documentation needed for the implementation for various components such as, Materials Management, Sales & Distribution, and Financial Accounting etc.

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NEXT MONTH

We will continue to report on the progress of the Build Phase and feature the various teams' build activities, roles, and responsibilities.

ASK US

We'd appreciate your thoughts and feedback! Please email any WBSCM questions or suggestions you have to:

WBSCM@kcc.usda.gov

You can find more WBSCM information on the WBSCM Program Web site.