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Build and Maintain **Better Connections**

SAP Application Interface Framework Improves Interface Implementation, Monitoring, and Error Handling

by Markus Gille, SAP AG

A critical step in every ERP implementation is building suitable interfaces to accurately and reliably transfer data from legacy systems into the ERP system, or from one ERP application to another. Since the interfaces are so diverse, building and monitoring them can be a time-consuming and complicated undertaking.

To help, SAP released **SAP Application Interface Framework**. This tool works as an add-on to existing SAP applications and allows users to build functional interfaces and reuse some components to streamline the interface development process. The result is faster, more reliable development, which creates user-friendly interfaces that business users, not IT personnel, can monitor.

Streamlined Interface Building Contributes to Cost Savings

Building an interface can be complicated, and the effort needed to build, maintain, and monitor interfaces is often underestimated — as is the overall business value of interfaces. At the most basic level, every interface needs data structures, data, and business logic. There are four key interface building blocks:

- **Structure mappings.** Often, the sending system and receiving system don't have the same data dictionary structures for their business objects or functions, so structure mappings are needed to map interface data from the source to the destination structure.
- **Value mappings.** The sending system and receiving system might have different values for an object or business value; a value mapping between source and destination solves this.
- **Checks.** To be sure that your interface data is correct, checks are needed to verify that the interface data is in the right format, that it is valid from a business perspective, and that it can successfully be interpreted by the application system.
- **Actions.** Last but not least, actions need to be triggered to do something with the interface data, such as trigger a call to a BAPI to create a purchase order.

SAP Application Interface Framework provides a structured framework that enables users to easily implement these four building blocks, providing ABAP customizing menus that allow an IT project team to start generically and then tailor the interface to business processes and the team's specific needs. This simplifies and standardizes the building and implementation process reducing development costs and time.

After these key interface components are built, they can easily be reused in other interfaces. For example, an interface may require that a validation be completed for a material number. SAP Application Interface Framework not only provides the steps to implement that validation as part of the interface, but also retains that implementation so the validation can be reused in other interfaces. Interface components can be assigned to name spaces — that is, grouped by functional area so users can easily access the components.

So rather than starting from scratch every time a new interface is required, users working with SAP Application Interface Framework can leverage their previous work, as well as the work of their colleagues, to streamline the process, reduce errors, and contribute to cost savings.

Improved Monitoring Capabilities Simplify Maintenance

In addition to development and implementation, interfaces require ongoing monitoring by an IT administrator to ensure that data continues to

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Note: SAP Application Interface Framework does not replace SAP NetWeaver Process Integration; it complements it, using SAP NetWeaver Process Integration as its central routing and messaging platform.

SAP Application Interface Framework: Benefits at a Glance

- Reduced time and costs for implementing and maintaining interfaces
- Streamlined error handling with alerts and intuitive monitoring
- Better compliance as a result of restricted access to interface data
- Enhanced data quality as a result of business users' ability to correct errors within related applications
- Improved governance of interface monitoring and handling

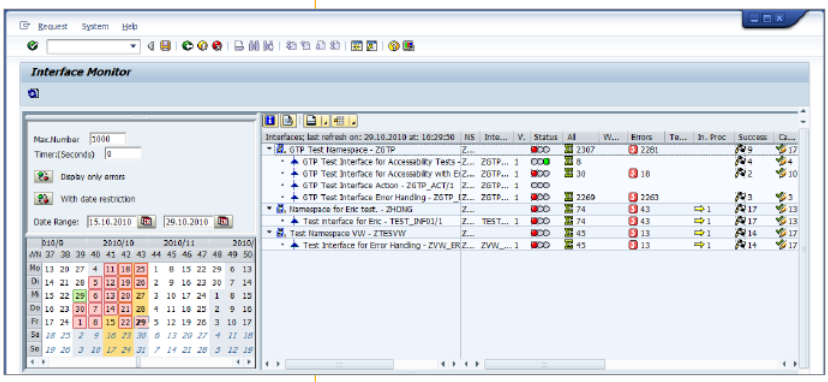
flow between applications without errors. If that flow is disrupted, the IT administrator must investigate the interface to identify and understand the error, and then typically consult a business user who understands the data to fix the error. This process can be costly and time-consuming, and sometimes there is no structured communication channel between IT and business to identify and contact the business user responsible for a certain business process.

To address this challenge, SAP has developed interface monitoring and error-handling capabilities within SAP Application Interface Framework that are aimed at the business user or someone in IT with a functional background. With the tool's interface monitor, users gain a quick overview of the status of interfaces (see **Figure 1**). When the system detects an error while processing the interface implementation in SAP Application Interface Framework, an alert can be sent to the designated business user to make him or her aware of the need for review and analysis.

This business-focused interface implementation and monitoring allows organizations to decouple technical and business aspects of interface monitoring, enabling business users to perform certain error handling, such as correcting errors in financial transactions, on their own. The advantage here is that the user can usually evaluate and repair data errors more quickly than an IT contact could. Normally, only the business user has the process and business background to be able to do so. Giving the business user direct access via a user-friendly interface lets him or her schedule reviews and repairs at a convenient time. It also requires fewer people, reducing the time and cost required to remedy problems.

SAP Application Interface Framework also provides mass error-handling capabilities that allow users to fix repetitive errors at once through a "find and replace"-type function. This functionality significantly streamlines the interface error-handling process.

FIGURE 1 ▼ Interface monitoring capabilities allow users to easily view the status of various interfaces



Customized Access Improves Interface Security

Another challenge to monitoring interfaces is controlling and tracking who has access to them. Overseeing access to interfaces is important not only for companies in regulated industries, but also for any company that needs to fulfill its own compliance rules or legal requirements.

SAP Application Interface Framework addresses this pain point with customizable authorizations for interface access, which let administrators enforce compliance rules and define who can and cannot access each interface created with the tool. The access can be restricted based on the interface implementation, and even interface data can be used as additional criteria for access restrictions. In case a user has been allowed to change and correct interface data in the interface monitor, the system tracks all changes and allows you to trace which user made a certain change. Even during interface implementation, it is possible to create multiple versions of an interface. This allows for easier handling of changes or ongoing maintenance of interfaces inside a complex system landscape and also supports reuse of interfaces or interface components in roll-out projects.

Conclusion

Streamlining interface processes creates a more reliable SAP environment and increases long-term return on IT investment. SAP Application Interface Framework can benefit any SAP customer, large or small, that has multiple interfaces in its SAP landscape. ■

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