



„A modular and scalable design structure that uses bus-technology and individually modifiable adapters makes agosense.symphony a technology for the future. This is completely in keeping with our priorities here at Amadeus Germany.“

Bernd Hellwig, Manager Software Engineering Unit

The Amadeus IT Group provides technology solutions for the global travel and tourism industry. The firm is based in Madrid, and has branches all over the world, including Nice, Erding, Miami, Buenos Aires and Bangkok. Their customer base includes not only travel companies, airlines and hotels, but also travel agents and in-house travel purchasers.

In Germany, the Amadeus group is represented by its 100% owned subsidiary, Amadeus Germany GmbH, which is the subject of the following case study. The company was founded in 1971, and is the largest of the 73 local Amadeus Commercial organisations operating worldwide providing sales, customer service and support.

The portfolio consists of comprehensive IT solutions for the sale of tourism packages, for example, sales platforms, ticketing and booking systems for hotels, flights, vehicle rentals and ferries. In Germany, the highly developed Amadeus System allows bookings with approximately 425 airlines, over 110 000 hotels, 30 car rental companies, approximately 230 travel and bus companies and many other providers.

Starting Point

To ensure coordinated software development and support, the just under 140 developers at the subsidiary's headquarters in Bad Homburg work with a range of Application Lifecycle Management tools.

In the area of requirements, testing and change management, these tools include PTC Integrity, Atlassian Jira and their own internally developed tool, Win@proach. Additional tools, such as HP Quality Center, IBM Rational ClearCase or Subversion are also used depending on the needs of individual project.

This Case Study focuses particularly on the tools PTC Integrity and Win@proach. Win@proach provides a central request and troubleshooting ticket system - for all subsidiaries, i.e. approximately 10 000 employees across the globe. Customers also have access and can enter their requirements, change requests and error reports directly into the system. The system additionally serves as a statistics and business intelligence platform for management, generating key performance figures. In contrast, PTC Integrity functions as a central tool for change and configuration requests in the software development area.

GOALS

- Seamless integration of the PTC Integrity change management system and the internally developed request system Win@proach
- Automated synchronisation of change requests between these tools
- Transparency across the whole development workflow - from the original request through to the implementation of the software application

ADVANTAGES

- Standardised, automated data exchange
- Complete transparency of work processes
- Full documentation at the touch of a button
- More reliable process due to removing manual stages

Development and maintenance at Amadeus is coordinated using PTC Integrity. Requirements, desired changes and error reports are however maintained using Win@proach. This results in a split, with developers working in PTC Integrity, while product managers and customers use Win@proach.

Prior to the introduction of agosense.symphony, communication between customers or product management headquarters located in Nice and the development team in Bad Homburg were controlled manually. Relevant data was copied and synchronised from Win@proach into the developers’ systems by hand, or through a diverse range of independently developed solutions.

Problem Areas

The search was on for a long-term centralised technology solution, which would provide continuous reliability and transparency of workflows - guaranteed from the making of the original requirement or request through to the actual changes being made to the application. In this, generating full documentation of the changes flowing into the development area were of key interest: All changes, when they were made, the reason why they were made, and the person who made them, should be visible at all times. In addition, product managers and customers were seeking better transparency in the development process, i.e. optimal reporting - that transcended individual tools - to provide project relevant information at any time, fully automated and without any further time or expense. This information should go towards answering a broad range of questions, such as „Which requests are currently being processed?“, „Implementation is planned for which release?“, and „When can we expect delivery?“, at any time, and without delay.

The Search for an Effective Solution

The many years of experience working with PTC (previously known as MKS), one of agosense GmbH’s partner companies, meant that a solution was within easy reach. Bernd Hellwig, manager of the Software Engineering Unit played a significant role in finding and implementing a new, meaningful solution: „The modular and scalable design structure that uses BUS technology and individually modifiable adapters makes agosense.symphony a technology for the future. This was totally convincing for us, and is one of our core values.“

Implementation with agosense GmbH

As Win@proach is an internally developed tool that is not commercially available, agosense GmbH was first charged with developing a compatible adapter based on the adapter framework of the integration platform agosense.symphony. Adapters for standard tools such as PTC Integrity and others were already available for the symphony platform.

PTC Integrity and Win@proach were linked via the integration platform agosense.symphony using an adapter. New requirements, desired changes or error reports were entered into Win@proach and automatically transferred to Integrity. This made the synchronisation process event-triggered, as within the symphony platform defined rules, any development job would be automatically

generated in Integrity. The development jobs within PTC Integrity remained linked with the original request entered into Win@proach. This means that progress in the development status or changes to the request made by the customer or product management team were synchronised according to defined rules in both systems. The result is that all parties involved have access to the same up-to-date information at any time, and can follow their own jobs without delays or breakdowns in communication.

Targeted Improvements

Linking the two tools provides transparency across the whole process from beginning to end. From the development perspective, for example, this means that there is full visibility with regard to which software changes stem from which request in Win@proach, how complicated a release is likely to be, and how many ‚lines of code‘ are behind it. From the other side of the process, product

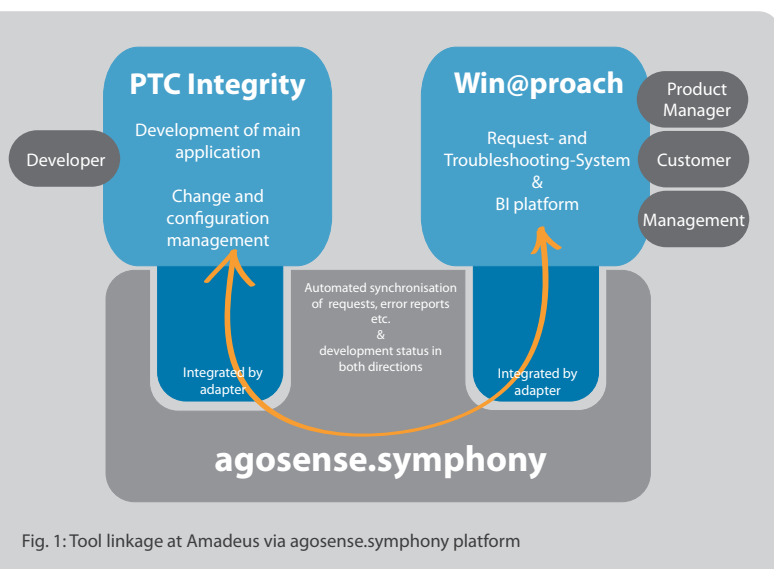


Fig. 1: Tool linkage at Amadeus via agosense.symphony platform

management has an up to date picture of the progress being made on open requests, and can more easily provide this information to customers based on reliable information. Bernd Hellwig summarised the advantages and improvements to the process as:

- Standardised, automated data exchange
- Complete process traceability
- Full information at the touch of a button
- Removal of manual steps makes whole process more reliable
- Every employee works in their own tool without needing to change applications

Future Potential

Bernd Hellwig sees a great deal of potential in the platform and the technology behind it. The availability of adapters for Win@proach mean that that tool can be linked to all necessary tools across the whole company - previously this could only be partially achieved through the use of self-written plug-ins.

In addition, consideration is currently being given to linking HP Quality Center, Atlassian Jira and Microsoft Team Foundation Server to allow all employees from other development and commercial areas of the business to integrate their workflows. At the present time this process is undertaken manually, and is not automated.

POTENTIAL

- Integration of Win@proach across the whole company, removing the need for individual plug-ins
- Linkage with additional tools worldwide, including HP Quality Center, Microsoft Team Foundation Server, Atlassian Jira etc.
- Direct linkage with customer systems beyond company boundaries (e.g. the requirement management system of an airline)

Hellwig also sees great potential in the direct linkage of customer's systems - ie, beyond company boundaries. This would allow Amadeus customers to integrate their own systems for requirements, change or defect management directly with Win@proach using the agosense.symphony platform, thus creating highly automated and rule based data exchanges.

Preliminary discussions with various customers have already taken place, revealing a great deal of interest in a potential linkage of their systems.