

White Paper

SAP Solution Manager

Much More Than a System Administration Tool

WP0114 | November 2013



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Gavin Richardson and Neil Start are SAP-certified ALM experts who specialize in SAP Solution Manager and associated 3rd party ALM tools. They are two of the founding members of Rapid ERP (www.rapid-erp.com); providing high quality, innovative SAP consulting services to clients who want to maximise the value that ALM can bring to their SAP operation. With over 35 years of combined experience, Rapid ERP provides the marketplace with the industry's most experienced and knowledgeable SAP ALM consultants.

All too often when we broach the subject of SAP Solution Manager with our customers we find that it is perceived as a toolset for the 'Techies', something that is forced upon them by SAP in order to get support with guaranteed service levels or worse still we receive a simple look of bewilderment. The truth is that Solution Manager is a comprehensive Application Lifecycle Management (ALM) toolset, providing functionality to reduce the Total Cost of Operation of the SAP solution; from Governance through to Operations. It is the only software product that is certified to support all 15 core ITIL processes (*Figure 1*). That's four more than BMC Remedy ITSM v8.1 (Pink Elephant, 2011).

The best news of all is that this functionality is available free of charge to the vast majority of SAP customers since it's included as part of the SAP enterprise support agreement; even those on standard support contracts still benefit from the core functionality which can deliver significant and tangible benefits.

So, if all this functionality of Solution Manager is free of charge to SAP Enterprise Support customers, why is so little known about it and why is there seemingly such little uptake? In our opinion, the biggest barrier to greater adoption of the tool is a fundamental lack of knowledge of what Solution Manager has to offer, how it can be exploited, and the real business benefits it will bring. Simply put, customers don't know what they're missing out on.

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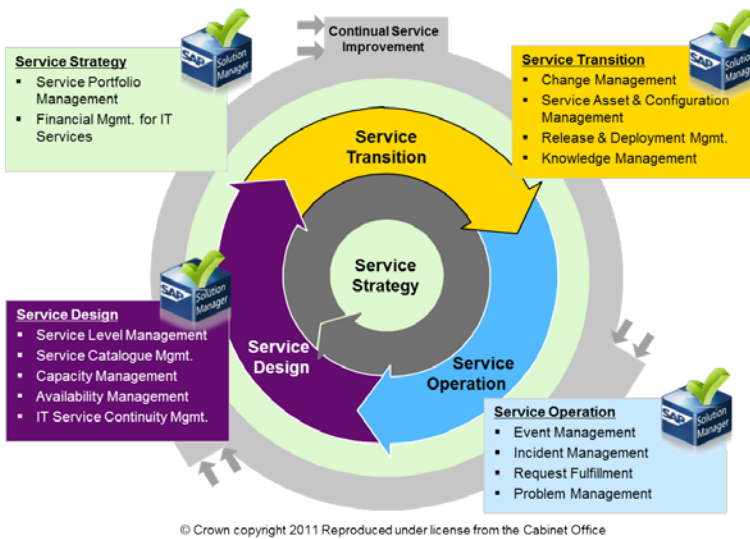


Figure 1: SAP Solution Manager ITIL certified (Hauk, 2013)

This white paper cannot even begin to cover all of the capabilities of Solution Manager in detail, but we will attempt to lay some of the common misconceptions of the product to rest and show that it is much more than just a System Administration tool.

SAP Solution Manager – The Little Known Powerhouse of Innovation

In simple terms, Solution Manager is SAP’s Application Lifecycle Management tool. It holds a wealth of functionality to cover all aspects of the ALM methodology; from initial requirements gathering and blueprinting, through to operations and continuous improvement. If we visualize the ALM lifecycle it’s then easier to paint a picture of the functionality Solution Manager has available for customers to exploit it to their advantage (Figure 2).

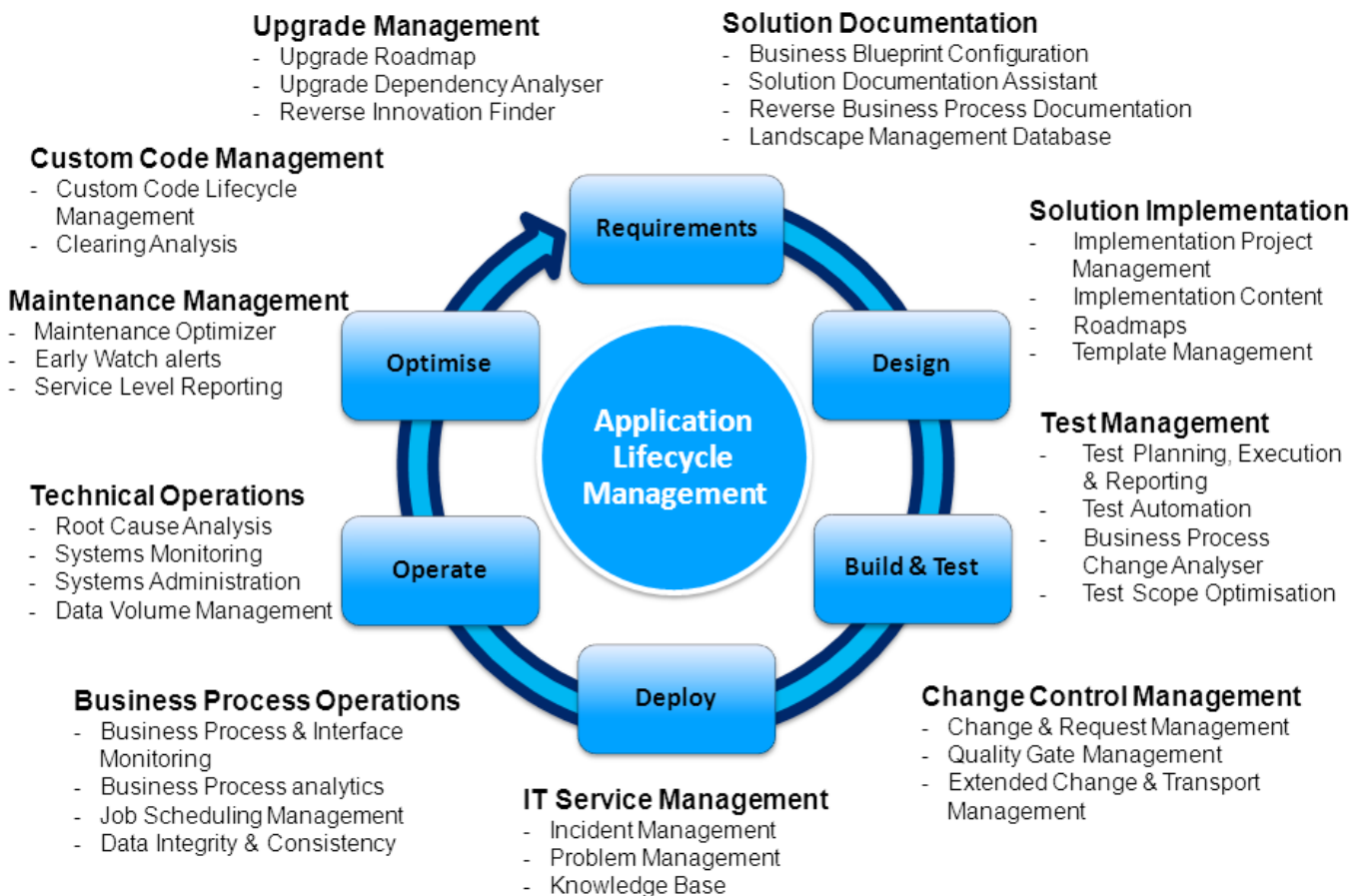


Figure 2: SAP Solution Manager ALM functionality

There is a lot of innovative, but relatively unknown, functionality available within the tool that can truly bring a reduction in the Total Cost of Operation of the SAP solution. In brief, the core functionality is described below (Table 1).

Solution Manager Core Functionality	Brief Description	Summary of Benefits
Solution Documentation	Supports the documentation of the IT solution. This can vary from 'lean' documentation; comprising of just the installed SAP products and systems, to fully defined business processes and associated documentation	<ul style="list-style-type: none"> • Central repository of information describing the SAP Solution • Creates a long term knowledge base for the support organization • Serves as a foundation for future innovation projects and additional Solution Manager functionality
Test Management	Covers all aspects of testing, including; storage of Test Documentation, Test Planning, Test Execution, Results Recording, Defect Management, Comprehensive Reporting and Test Automation	<ul style="list-style-type: none"> • Transparent test documentation stored against the relevant business processes • Group tests together into a test plan • Test sequencing and dependency management • Real-time test reporting • Comprehensive defect management • Test automation and test script maintenance • Impact analysis functionality removes test redundancy and reduces cost of regression testing
Change Control	The Change Request Management (ChaRM) functionality provides a fully auditable SAP change management and change deployment process This is complemented by Quality Gate Management (QGM) which provides a 'lighter' change management toolset, more suited to large scale implementation projects	<ul style="list-style-type: none"> • Immediate visibility of all changes and their status in the SAP landscape • Fully auditable • Automated workflow • Integrated with the SAP landscape and the Transport Management System • Ensures no unapproved or untested changes can be imported into the productive system • Supports a variety of change types from 'normal' changes to 'urgent' fixes
IT Service Management	Certified ITIL-compliant Incident, Problem and Knowledge Management solution	<ul style="list-style-type: none"> • Centralized visibility of incidents and problems • Knowledge base support • Integrated workflow • Fully auditable • Comprehensive analytics
Technical Operations	A robust Technical Monitoring and Root Cause Analysis (RCA) suite for all SAP technologies and applications	<ul style="list-style-type: none"> • Proactive, automated monitoring and alerting solution • Centralized monitoring and alert inbox to collate all system issues together • Real time reporting of system status • Predefined system monitoring templates delivered by SAP • End to End RCA tools for monitoring workload, exceptions, changes and end user traces • Comprehensive reporting and analytics
Business Process Operations	A variety of tools to ensure the continued and smooth operation of the SAP business processes; incorporating proactive monitoring and alerting of process and interface execution, batch job management, data integrity and transactional consistency	<ul style="list-style-type: none"> • Monitors and alerts upon the health of the business process against specific Key Performance Indicators. • Provides Throughput and Backlog metrics • Identifies potential areas for Business Process Optimisation • Data Throughput, Backlog, and Trend Reporting
Maintenance Management	Functionality to support the correct patching and updating of the SAP estate, as well as informing of critical updates	<ul style="list-style-type: none"> • Systematic calculation of required downloads to patch the SAP systems • 'Hot News' proactively alerts of significant fixes

Table 1: Core Solution Manager Functionality

The cornerstone to this broad spectrum of functionality is known as Solution Documentation, and it's this that we will now discuss in more detail.

Solution Documentation – The Foundation for Future Exploitation

As previously discussed, for Enterprise Support customers, all the functionality mentioned above (and more) is available free of charge to those willing to invest a little time and effort in establishing a roadmap and putting the necessary building blocks in place. For much of this functionality, Solution Documentation sets the foundation from which the deployment of the additional elements can commence, but it is also a powerful toolset in its own right.

The Solution Documentation functionality allows you to create a central repository of information, describing how your SAP solution operates. This can be shared amongst both business process experts and the functional / technical IT organization; allowing for a common collaboration platform and a shared understanding of how the system should be built and operated to better align the IT solution with the real requirement of the business.

There are many approaches to documenting your IT solution; some of the more common methods that we adopt with our customers are as follows:

Lean Documentation

Simply registering the systems in your SAP landscape with Solution Manager will begin the documentation process. Each technical SAP system will then be visible, detailing important information about the product version, software components installed, database version and underlying operating system. This is regarded as the minimum documentation required before you can start to use many of the above tools.

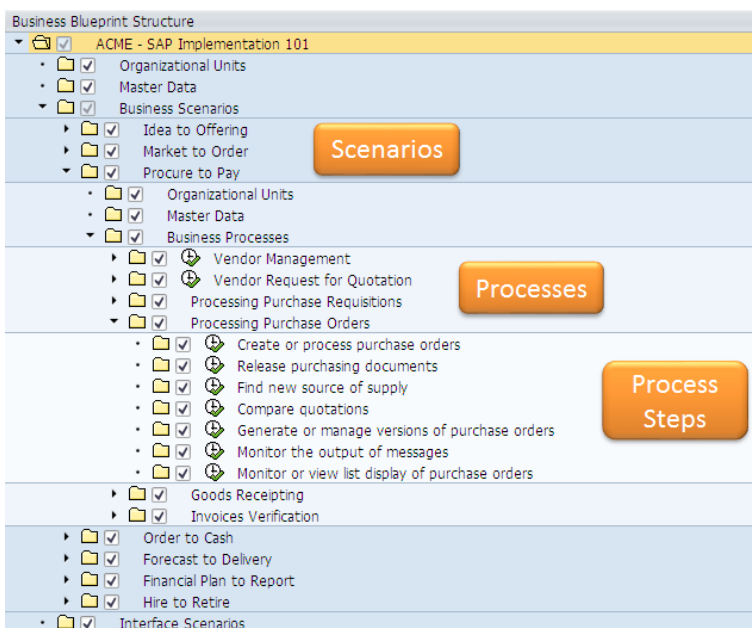


Figure 3: Business Blueprint Structure

Business Process Documentation

Solution Manager begins to offer significant value when it is used to store information pertaining to the business processes executed during operation of the SAP systems. Initially this documentation is created using the related Solution Implementation functionality, typically during a company's first SAP implementation project; however, it can also be created retrospectively via reverse business process documentation techniques.

The process information is represented in a three level hierarchical display, accessible via

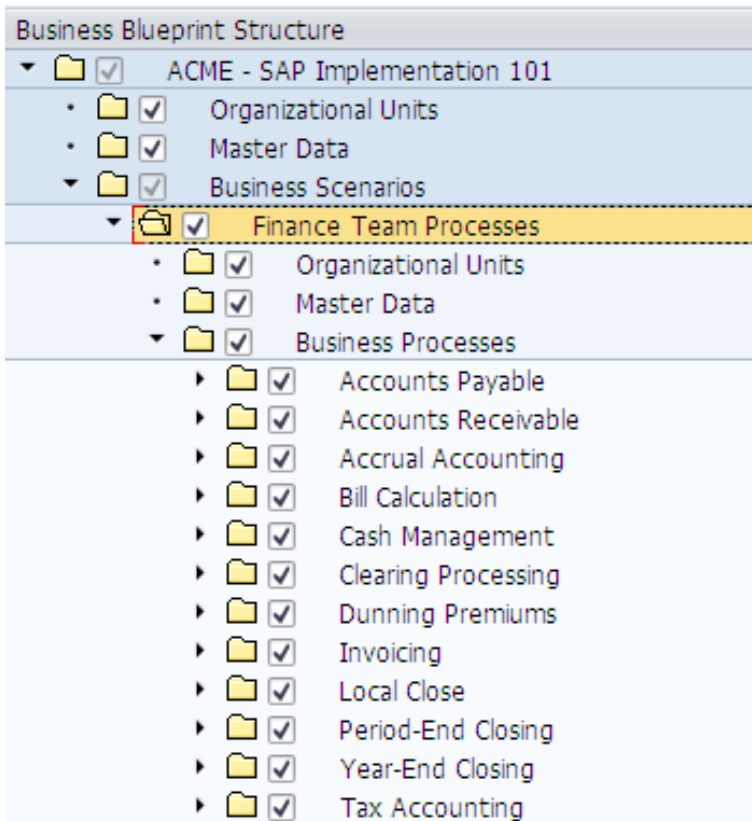


Figure 4: Modular Approach to Process Documentation

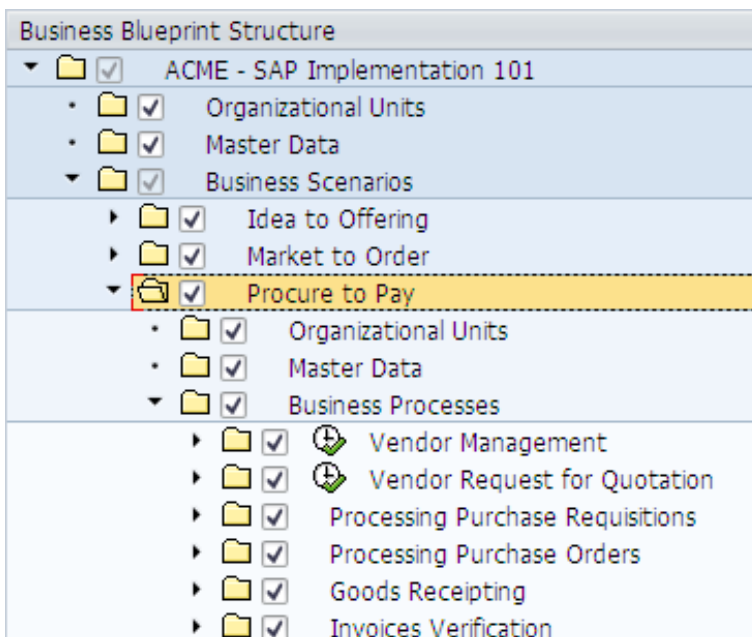


Figure 5: End to End Process Documentation

the Business Blueprint transaction. This allows a company to represent the business scenarios, processes and process steps that are either already used or are going to be implemented (Figure 3).

The process structure can be organized in a number of different ways. Some customers choose a module-oriented approach, where all of the business processes that are linked to one functional area of SAP are grouped together under a single scenario; for example, a scenario holding all the processes relating to Finance (Figure 4).

Whereas others choose to create a collection of 'End to End' business scenarios; in this case one scenario may span multiple functional areas, thus being truly representative of the sequence and dependencies for related business processes (Figure 5).

Complete Business Process and Configuration Documentation

In addition to being able to hold a hierarchical library of business processes, the functionality is enriched further by providing a complete document management solution. Various document formats (complete MS Office Integration and additional file types) are supported and can be stored against the documented business process structure (Figure 6).

Name	Documentation Type	Person Responsible	Status	Bluepri...
BPD - P2P - Purchase Order Design Document	Business Blueprint	John Doe	In Processing	<input checked="" type="checkbox"/>
F001 - P2P - Output Form Functional Specification	Solution Design Documentation	Ann Other	Released	<input type="checkbox"/>
BPP - P2P - Purchase Order Clearing	Business Process Procedure	John Doe	Review	<input checked="" type="checkbox"/>

Figure 6: Process Documentation

Each document can be assigned a document type and various other metadata in order to allow for easy searching and retrieval in the future.

As you would expect from a comprehensive document management solution, Solution Manager supports document version management, digital signatures for document sign off, status recording to allow for tracking and reporting, secure document storage, and it also provides the ability to publish external URL's to any stored document.

The structure can be further enriched through the inclusion of a variety of other information, including SAP transaction codes, configuration items (to describe how the system was implemented), test documentation, associated business roles, interfaces and development objects (*Figure 7*).

The main advantage of this approach is that technical information is given immediate business context by being stored against the relevant business process. This is of vital importance to the SAP functional support teams when they are attempting to understand the impact of changing a specific program or investigating a system support issue.

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Figure 7: Transaction Code mapping in the process structure

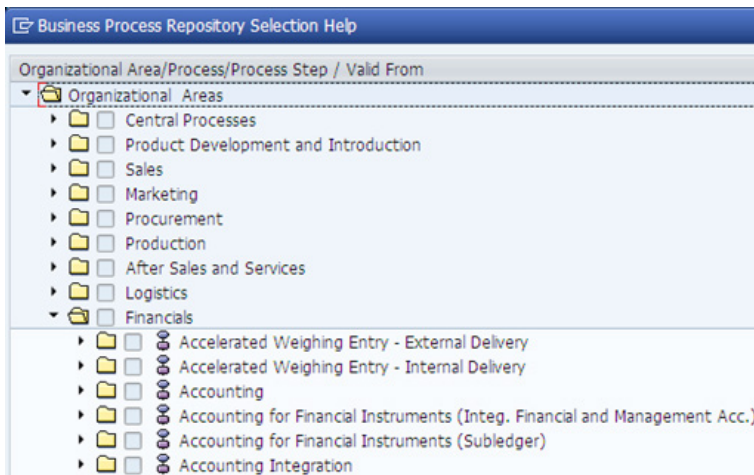


Figure 8: SAP Business Process Repository

Expedient Solution Documentation with SAP Solution Manager Accelerators

Whilst businesses often see the value in documenting their SAP Solution, a common misconception is that this would require a huge investment in time or resources, or that it would be very difficult to document the SAP solution in sufficient detail because the system is live and the implementation team have long since departed. Solution Manager has numerous tools to help address these concerns and accelerate the documentation activity.

SAP Business Process Repository

Directly addressing the concerns of the time and effort requirement, SAP have provided a comprehensive library of business process documentation that can, and should, be used as the starting point of any business process blueprint activity. This is known as the SAP Business Process Repository (*Figure 8*).

This reference content is structured by Organizational Area (e.g. Sales, Marketing, Finance, etc.) and also by the SAP Application (e.g. SAP ERP, SAP NetWeaver). This helps the user to search for and locate the relevant content, such as business scenarios and their constituent business processes. Once the user has identified the relevant information, this is copied into the business blueprint structure where the nomenclature can be modified into something more specific and appropriate to the business. In addition, the created structure can then be supplemented with customer specific processes and documentation.

The advantage to this approach is that for each process created in this manner, the business process structure will be automatically enriched with information such as transaction codes, configuration nodes, SAP process documentation, and, in some cases, example test cases; without any additional effort. This allows you to quickly establish a very detailed representation of the relevant SAP processes.

Solution Documentation Assistant

In the scenarios where the SAP business processes are already being used and the goal is to retrospectively create the business process documentation, Solution Manager contains functionality known as Solution Documentation Assistant (SoDocA). This functionality analyzes the usage of the productive SAP system to calculate the business

processes that are actually being performed. This information can then be used to automatically create a new business process structure, or can also be used to validate an existing structure to show where the system is being used differently than expected, including identifying potentially redundant processes.

Template Management for Process Standardisation

A common use case for the Solution Implementation functionality is by those customers who are aiming to achieve process standardization across multiple geographical locations. The core set of processes are documented in a template project, which is then used as the baseline for each regional implementation. The 'Global' process set is then documented and implemented in a consistent manner, supplemented with new or changed requirements which are specific to that region. If the regional process variants offer value to the global template, these can be rolled back into the template and published for future projects to use.

Conclusion

This paper has shown that Solution Manager is much more than a System Administration tool. Containing functionality spanning the full ALM framework, it is positioned to bring real business benefit, without requiring additional investment in a comparable separately licensed platform such as HP ALM or IBM Rational suite.

By beginning the ALM journey with Solution Documentation, you can ensure that the foundation to effective utilization of other areas of the tool is in place from the outset. In addition, having documented business processes offers significant value in its own right; the documentation is centralized and available for the lifetime of the SAP solution, not just for the duration of any implementation project. This is an invaluable asset to SAP support teams, who often have not been involved in the initial rollout of functionality. Via Solution Manager they can have central access to all types of documentation: design specifications, configuration documentation, SAP transaction codes, test scripts, etc. All of which is stored against the relevant business process, adding real context to any related incident or problem. Future implementation projects will also benefit by having a documented baseline, from which they can then extend.

This paper has gone some way to explain the capabilities of SAP Solution Manager, but with so much rich functionality on offer it is hard to do justice to the subject in one outing. Look out for additional papers in the near future.

Additional Information

[1] ITIL ver.2011 with SAP Solution Manager;

<https://websmp104.sap-ag.de/~sapidb/011000358700000993472013E>.

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[2] SAP Business Process Repository Catalog;

<https://implementationcontent.sap.com/bpr>.

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Pink Elephant. (2011). PinkVERIFY 2011 Toolsets [online]. Available: http://www.pinkelephant.com/PinkVERIFY/PinkVERIFY_2011_Toolsets.htm. Last accessed 12th Oct 2013.

Hauk, T. (2013). SAP Solution Manager - ITIL certified [online]. Available: http://wiki.scn.sap.com/wiki/download/attachments/333545842/SolMan_ITIL_verified.png?api=v2. Last accessed 12th Oct 2013.

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