Focused Build

A Focused Solution for SAP Solution Manager

Michael Klöffer, Chief Service Architect, SAP SE
Marc Thier, SVP Solution Management, SAP SE
Marc O. Schäfer, Director Product Management, SAP SE

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VERSION

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1 FOCUSED SOLUTIONS FOR SAP SOLUTION MANAGER

Focused solutions on top of SAP Solution Manager deliver ready-to-run solutions for specific sub-market needs. Despite being specific, they still provide an industry standard and thus avoid costly custom code for customers. Focused Build for SAP Solution Manager provides an out-of-the-box, and integrated, tool-supported methodology to manage requirements and software development in large, agile innovation projects like SAP S/4 HANA implementations.

With its release 7.2, SAP Solution Manager has evolved into a stable and robust platform that offers integrated end-to-end processes to its well-over 15,000 customers. Customer feedback as well as analyst reports show that SAP Solution Manager is seen among the market leaders in the IT management industry. However, there always is room for improvement, and of course we continuously strive to perfect our offering.

The long tail dilemma
As the maturity of processes and scenarios is perceived to be very high, the challenge is how to deliver innovation on top of SAP Solution Manager 7.2. When customers have special innovation needs and we deliver this innovation with the standard product, we face the danger of creating long tail in the product. This means that there is a growing portion of software that is not relevant to all customers but perhaps only to 300 or 500 customers. At the same time, the product will necessarily get more complex – and this complexity has to be shouldered by the entire customer base, whether they need the innovation or not.

Downside of custom code
The alternative is refrain from delivering processes that do not cater to the needs of a vast majority of customers. But there is a downside here, too: If you as a customer had a special need for SAP Solution Manager, you would have to develop the functions as custom code on top of SAP Solution Manager on your own. This would entail costs for coding, documentation, training, and onboarding of your staff as well as costly maintenance activities. With an upgrade, you would have to develop the software all over again. The same arguments hold true for solutions outside SAP Solution Manager: Here, you face the same risks plus you have to factor in the additional license cost.

Benefits of Focused Solutions
This is where the new concept of focused solutions can help. Focused solutions (FS) deliver solutions for special customer needs on top of SAP Solution Manager, avoiding costly custom code, or partner solutions. The benefits are quite obvious:

- You do not face any coding cost as SAP delivers a standard solution. This is very important, as it also eliminates the variety of processes by a standardized reference process. Tools to support this process come with the solution.
- There is significantly less training cost for your projects as SAP delivers all knowledge required with the focused solution.
- The upgrade risk is eliminated as SAP delivers standard upgrades. This means that you license the focused solution once and SAP promises to keep this solution running also on future releases – which is a major differentiator in the industry.
- As the licensing model is very simple through rental licenses, it is easy to adapt the number of licenses to your needs. There is no risk of licensing shelf-ware.
- There are no integration issues because SAP delivers focused solutions based on the proven SAP Solution Manager standard.
- Needless to say, the focused solutions are fully integrated in SAP Solution Manager 7.2.

2 FOCUSED BUILD IN DETAIL

With Focused Build, SAP is delivering a seamless tool-based requirements-to-deploy process within SAP Solution Manager. The solution includes business demand and requirements management, integrated risk management, and clear-cut collaboration features that allow to orchestrate business and IT units as well as global development teams remotely. This methodology and approach was ideated in large SAP MaxAttention engagements and, since its successful market introduction, has been established as the standard implementation method for SAP S/4HANA projects with a high innovation ratio.

In summary, Focused Build covers:

- The entire process from requirement to build, test, deploy, go-live, and run in an integrated methodology and tool set
- The single source of truth for business processes and applications
- Measurement of value realization by linking the customer's strategic business KPIs to the productive usage in the software solution. Also, SAP Solution Manager provides real time transparency into the solution readiness for the PMO without tiresome manual work
- Automation of test plan generation, transport management and reporting
- Control of the scope change management process and full visibility of which requirements were added in which project phase
- Tracing requirements (related to process and application landscape) down to work packages, testing and transports
- Agile build with constant business feedback in waves and sprints
- New, easy-to-use interfaces. All project members work with efficient and simple user interfaces
- Integration with the delivery cloud to manage collaboration in virtual project rooms between the onsite team with the Mission Control Center and remote factories
- Simple consumption as it available as a preconfigured image in the cloud or on-premises

To sum it up: We now have the perfect SAP Solution Manager to manage transformational engagements.

Agile software engineering methods
It is important to understand that the approach does not rely on traditional waterfall models, but uses agile software-engineering methods. This means that progress is measured in terms of working functions or products. There is no traditional blueprinting, but rather, a prototype-based methodology, which breaks tasks into small increments and iterations that have short time frames (sprints). Multiple iterations may be required to release a product or new features, as changing requirements are welcome, and documentation is pragmatic and kept to a low level. This means that the project team does not need to understand each and every business requirement to the last level of detail. Instead, you focus on a part of the end-to-end solution, prototype it, get the customer buy-in, and extend the scope in iterations from there.

Automated reporting
As the methodology and processes are ready-to-run and preconfigured, the reporting is completely automated and the project teams have full visibility of the projects progress and status at all times.

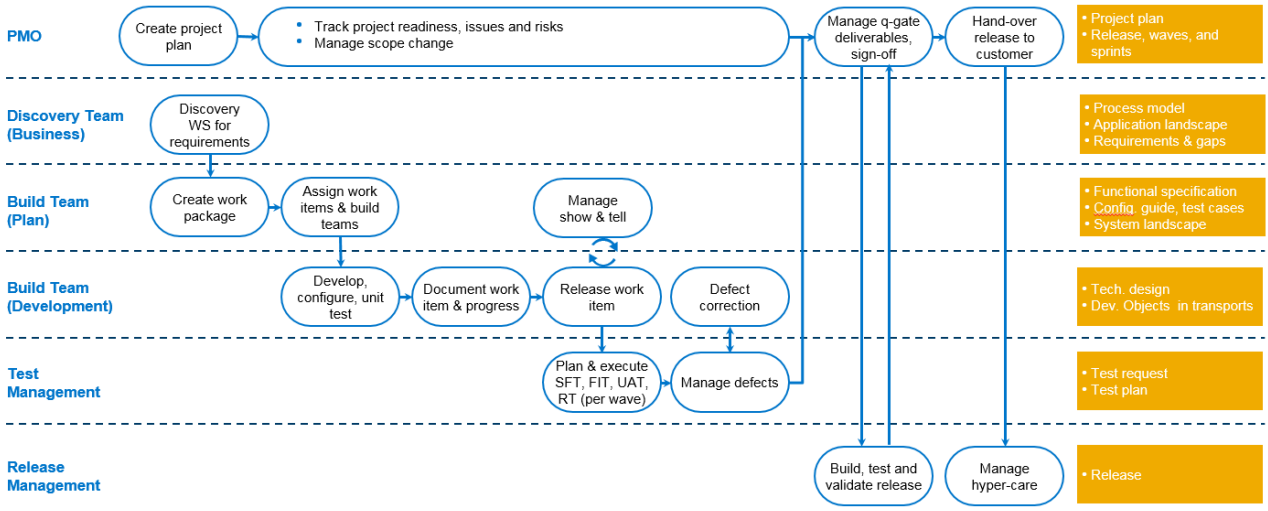

Figure 1.1: The end-to-end process of Focused Build for SAP Solution Manager

Figure 1.1 shows the high-level overview of the end-to-end process as delivered with Focused Build. The discovery team starts with a discovery workshop, where you define the process model and the application landscape. Very importantly, you also capture requirements and gaps, and in doing so, define the scope of your project. From the requirement you create work packages and then assign the work packages to build teams. These can be on-site teams or remote teams that you subcontract for your project. In the Focused Build approach, these teams are called Remote Factories.

Build the solution
Once you have assigned the build team, a development architect slices the work packages up into work items and then assigns the developers. Now the development process runs according to the status schema that is also delivered as part of Focused Build. At all times, the work progress is documented and tracked in the so-called solution readiness dashboard.

Execute testing and manage defects
After the build is finished with a successful unit test, the developers release their work items and the resulting changes are automatically transported into the quality assurance system. This is where the testers execute single functional tests, functional integration tests, user acceptance tests, and regression test. Of course, a fully integrated test plan as well as reporting dashboards for the test suite are part of the solution as well. During the testing activities, defects that testers report are corrected by the developers responsible.

Release management and transition to operations
When you want to import a release into the production environment, you have to pass the quality gate (q-gate) build-to-deploy. This means that the release manager can validate the release and deploy it. All the tasks necessary to complete the Q-Gate and, eventually, to close the project successfully are part of a preconfigured work breakdown structure (WBS), which is also part of the delivery. After go live, the build team stays available to manage the hyper care phase with the operations team. This transition to operations and support is prepared all along the build phase as the WBS contains tasks that have to be delivered in all the phases of the project. So, transition to operations is an integral parts of the implementation with Focused Build.

Roles concept and training curriculum
Focused Build does not only provide software enhancements to SAP Solution Manager and its methodology. Another important part is the pre-configured role concept and the training curriculum for the solution. The following table outlines the Focused Build role groups with the assignment of roles to skill profiles:

Role Group	Role Profile
PMO	Program & project management, methodology and tool knowledge, quality management, release management, ICC knowledge
Solution Architect/ Development Architect	Solution skills, technical knowledge, UX knowledge, data management, migration skills
Developer/ Consultant	Coding and configuration Functional & technical knowledge, UI design, development skills
Test	Test preparation and execution
IT Operator	IT infrastructure knowledge

For each of these role groups, dedicated training material is available as part of Focused Build, which facilitates onboarding of project teams. The curriculum is set up of nine chapters (see Figure 1.2), and each chapter, in turn, consists of the following materials:

- An overview presentation
- Overview videos with featured subject-matter experts
- How-to guides for each of the Focused Build applications

The overview material shows what you can do with the focused solution. It is an introduction and awareness training so that project members know what to expect from the methodology and tool set. Once they are on-site or working with Focused Build in a remote factory in actual practice, they can refer to the how-to guides which show click-by-click how to work with the individual applications. The curriculum is available at https://service.sap.com/sap/bc/bsp/spn/esa_redirect/index.htm?gotocourse=X&courseid=70306312.

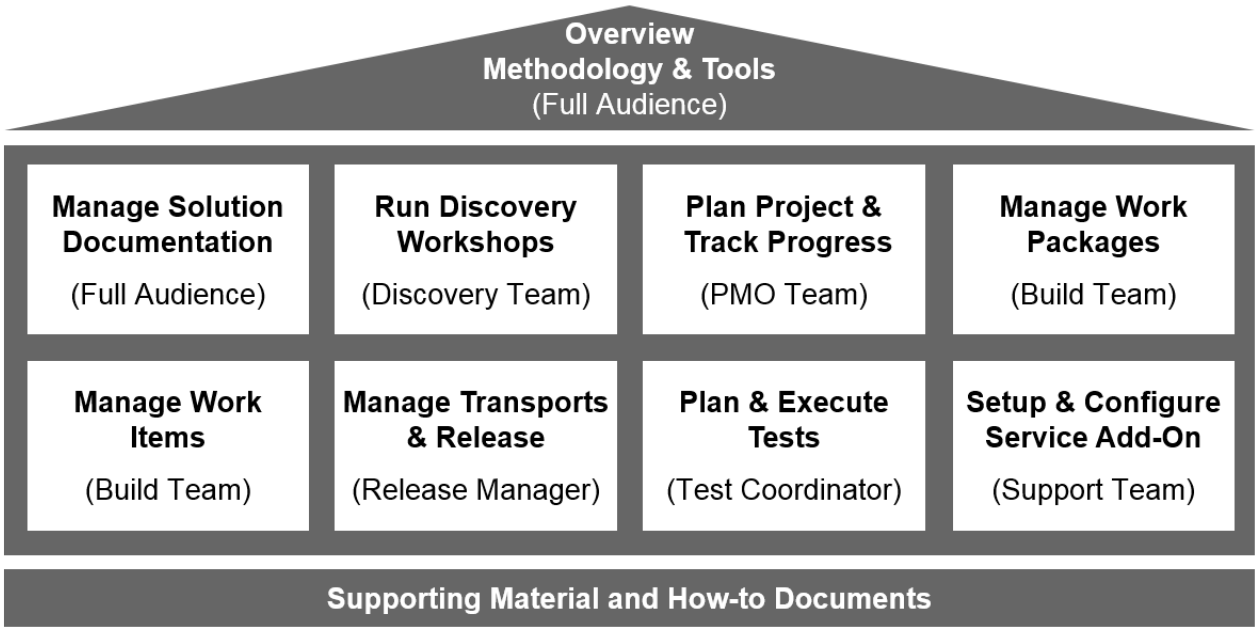

Figure 1.2: The Focused Build curriculum structure

2.1 PMO: Methodology and quality governance

Focused Build aims at premium quality. This section outlines the quality management and governance structure as well as the individual checks and actions, which are proven best practices based on our years-long experience of delivering software to customers. Of course, the preceding plan and requirements phases are highly relevant as predecessors but we do not discuss them in great detail in this chapter as the focus is clearly set on the build project. The same applies for the run phase. However, it is important to emphasize that Focused Build is fully integrated into all processes of SAP Solution Manager.

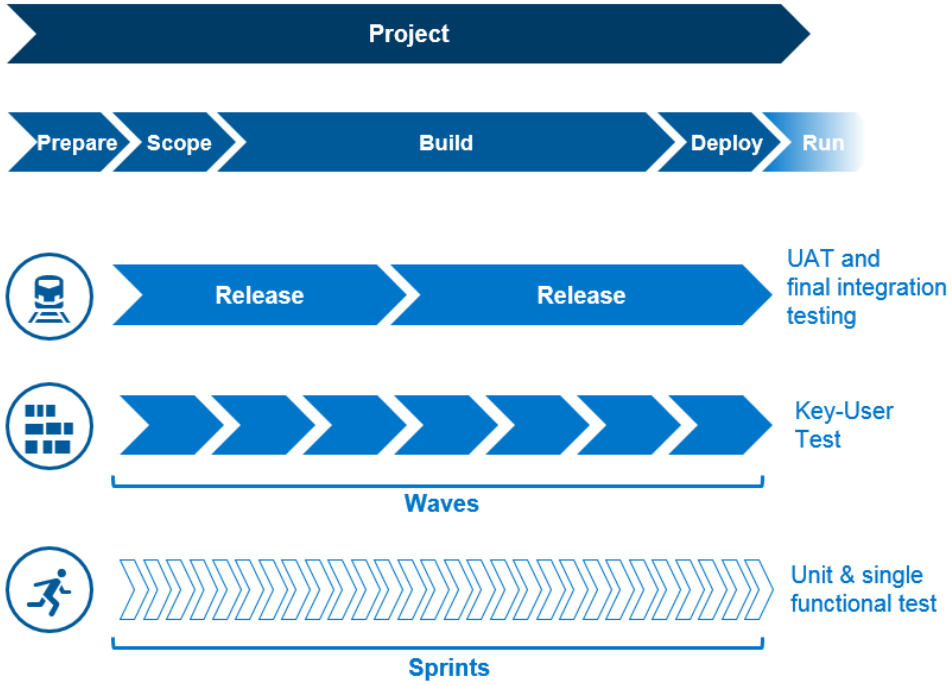

Figure 1.3: Structure elements of Focused Build-projects

Release management

The project management approach is structured in following three levels:

- Target release
- Waves
- Sprints

The topmost level is the target release of the project (see Figure 1.3). In a release, all information relevant for building and deploying the customer IT solution is captured and aggregated. A release is, most importantly, the entity that is shipped at the go-live date. Depending on your needs, you can have one or multiple releases per project.

Phases are distinct periods of time during a project that structure work streams and work packages so that at the end of an individual phase certain deliverables are expected. In Focused Build-projects the following phases are used:

- Prepare
- Scope
- Build
- Deploy
- Run

Release and wave

A release is subdivided into waves. A wave comprises a well-defined functional scope that customer key-users formally sign off and then propagate into the quality-assurance landscape.

Sprints
The lowest level, and thereby the finest granularity, is the sprint. In agile development, a sprint is a defined period of time (time-boxing) during which software development has to provide deliverables for review. The backlog of a sprint is based on the prioritization of backlog items, i.e. requirements.

On all three levels there are checkpoints that verify the quality of project deliverables. Moreover, the underpinning KPIs are used to continuously monitor the project progress with dashboards. In our methodology, there are two kinds of checkpoints:

Milestones
Milestones are used to mark specific dates in a project plan. These points may signal anchors such as a project start and end date, a need for external review or input and budget checks, among others. In many instances, milestones do not impact project duration. Instead, they focus on major progress points that must be reached to achieve success. Therefore, a milestone has a clearly defined due date.

Quality gates (Q-Gates)
A Q-Gate is a special milestone in a software build project. A Q-Gate is scheduled during the handover from one project phase or wave to the next during build. All project stakeholders review the deliverables of the previous phase or wave and decide collaboratively whether the project can move into the next phase or wave. The character of a Q-Gate is more formal than a review, for instance, as the availability of documents is checked rather than their content. A Q-Gate has a clearly defined due date. For customer acceptance, only the deploy-to-run Q-Gate is specifically important as this is where the go or no-go decision for the project's go-live is taken.

A wave starts with the scope definition and a preparation time. The goal of the preparation phase is to provide at least the functional specification required to start the first sprint (cf. Figure 2) and to get a concise picture of the architecture involved and deliverables in scope. You may complete the rest of the functional specifications at a later stage, in parallel to the follow-on sprints. However, we recommend strongly to complete the full scope of the functional specifications as soon as possible during the wave. The benefit of this approach is that the business process experts will be busy with functional integration tests at the later stages of a wave. By finishing the functional specifications early, you achieve the optimum balance of specifying at the beginning of a wave (when there is not so much to test yet) and thorough testing in the later sprints. The wave ends with the Q-Gate Wave exit-criteria fulfilment.

At the beginning of a sprint, solution architects define the sprint backlog. Developers create the technical design papers based on the functional specifications, develop the software, and execute unit testing. In parallel, business process experts can do the integration testing of last sprint's results, hold show and tell sessions with the customer if applicable, and prepare the backlog for the next sprint. You schedule a sprint review before the closing of the sprint to verify the deliverables. At the end of the sprint, the sprint is officially closed and a retrospective meeting held. This is also when you take the decision whether the results will be presented to the customer. At the same time, the sprint closing marks the beginning of the next sprint.

2.2 PMO: Automated reporting with the solution readiness dashboard

In the solution readiness dashboard, you get an automated project progress reporting based on live system data. The dashboard offers aggregated information on the current project.
From the dashboard (see Figure 1.4), you can always drill down into more detailed views, e.g. into the Work Packages tile. A click on this tile gives you an overview of the work package schedule. You see how many work packages are assigned to which wave of the build phase and what the distribution to the individual business process areas looks like. A click on the numbers brings you to the next-level drill down level.

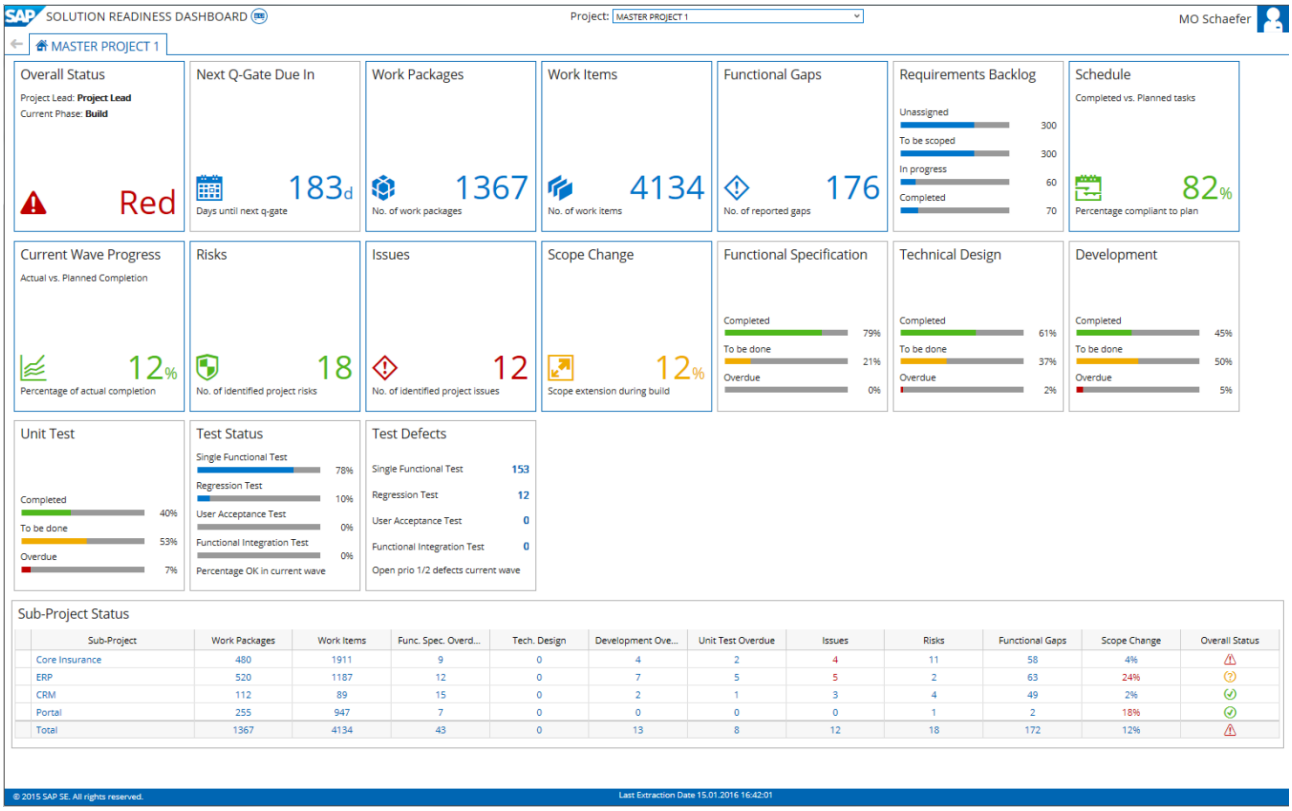

Figure 1.4: The Solution Readiness Dashboard of Focused Build

Generally speaking, the dashboard shows rated tiles according to thresholds that are preconfigured. However, you can configure the thresholds according to your projects requirements. The tiles that are not rated are shown in neutral blue.

KPIs and metrics on the Solution Readiness Dashboard in detail
The following overview gives you detailed information on what the KPIs on the Solution Readiness Dashboard mean and how they are calculated.

Overall Status
The Overall Status is read from the project in SAP Solution Manager Project Management that you selected in the dashboard. The tile shows the name of the responsible project manager as well as the current phase of the project. The project manager sets the status manually in the project in SAP Solution Manager Project Management.

Next Q-Gate Due In
Number of days available until the next Q-Gate is due. The information is derived from the project plan in Project Management of SAP Solution Manager. The KPI is not rated and therefore is displayed in neutral blue.

Work Packages
Number of work packages assigned to the project displayed in the solution readiness dashboard. The KPI is not rated and therefore is displayed in neutral blue.

Work Items
Number of work items assigned to the project displayed in the solution readiness dashboard. The KPI is not rated and therefore is displayed in neutral blue.

Functional Gaps
Number of functional gaps assigned to the project displayed in the solution readiness dashboard. The KPI is not rated and therefore is displayed in neutral blue.

Requirement Backlog
Number of requirements assigned to the selected project.

Schedule
Ratio of completed Project Management tasks in the project plan versus the planned ones.

Risks
Number of risks assigned to the selected project. The rating is done according to status, impact and probability. The KPI turns red if one or more of the risks assigned to the project have been triggered. It also turns red when there are risks with high impact and high probability that do not contain a mitigation plan.

Issues
Number of issues assigned to the selected SAP Solution Manager Project Management project. The rating is done according to the issues' priority. The KPI will show a red rating when there are one or more issues with priority very high that are not in status “Confirmed”.

Scope Change
Calculates the percentage of changed work packages vs. all work packages in the selected project. The KPI takes into account all work packages in status Handed-over to development that have scope changes assigned to them.

Functional Specification
Percentage of functional specifications according to status and due date. The KPI takes into account whether a functional specification with the correct document type and expected status has actually been assigned to a work package.

Technical Design
Percentage of technical designs according to status and due date. The KPI checks whether a technical design with the correct document type and expected status has been assigned to a work item.

Development
Percentage of work items according to status and due date.
Completed means: Work items are in status Hand-over to test and the milestone Build finished is not yet reached.
To be done means: Work items are not in status Hand-over to test but the milestone Build finished is not yet reached.
Overdue means: Work items are not in status Hand-over to test and the milestone Build finished has already passed.

Unit Test
Percentage of work items according to status and due date.
Completed means: Work items are in status Unit test successful and the milestone Unit test finished is not yet reached.
To be done means: Work items are not in status Unit test successful but the milestone Unit test finished is not yet reached.
Overdue means: Work items are not in status Unit test successful and the milestone Unit test finished has already passed.

Test Status
The Test Status is extracted from the test management dashboard. It takes into account all test types for the selected project for the current wave. The tile shows the percentage of successful tests for

– Single functional test
– Functional integration test
– User acceptance test
– Regression test

Defect Details
Data for this tile is extracted from the test management dashboard. It takes into account all test types for the selected project for the current wave. The tile shows how many priority 1 or 2 defects are open for the current wave for

– Single functional test
– Functional integration test
– User acceptance test
– Regression test

The Sub-Project Status at the bottom of the dashboard shows you on master project (or program) level what the status of the sub-projects is and whether key deliverables are overdue.

Drilling down from master project to sub-project
On the sub-project level, you find the Process Area Status that shows the status per process area of the project and indicates which documents or activities are behind schedule (overdue), and thus lets you know what items you have to look at most urgently as a project manager.

The only exception to the automated reporting of the other tiles in the dashboard is the Overall Status tile. It shows the project status set manually by the project manager in Project Management of SAP Solution Manager. The benefit is that the project manager can override automatic reporting that he or she thinks is misleading, and raise a “stop sign” to indicate that there is a problem. This is especially important in instances when issues occur in areas of project management that are explicitly and consciously not tracked by the Focused Build methodology like organizational change management, or cost management.

What’s in it on top of standard SAP Solution Manager?
Focus Build brings a number of capabilities in addition to the SAP Solution Manager standard delivery for Project Management. In summary, these are:

- The preconfigured WBS in SAP Solution Manager Project Management with the wave and sprint concept, all the milestones and q-gates optimized for agile build projects
- Risks as an entity of SAP Solution Manager that you can use to report, assess, and mitigate risks. In addition, you can define risk strategies and assignments.
- The solution readiness dashboard with pre-defined KPIs and metrics.
- The tight integration of the WBS with work packages, issues, scope change, risks, and the solution readiness dashboard.

2.3 Discovery Team: Collaborative process design and model companies

Model companies as innovation catalyst
In the Prepare phase of innovation projects, we jump-start the discussions with the business using model companies. These are industry best practices that are the basis for discovery workshops with the business to document requirements. In case of SAP S/4HANA, the content packages of SAP Activate are a big accelerator, of course.

Understand new business models
The business process experts describe their new business models and new operating models in use case documents that define their requirements. These might be related to business processes but do not necessarily have to be. This is why we chose the more generic term requirement. The project team, in turn, documents the big picture: A key value chain diagram in SAP Solution Manager Process Management illustrates how the customers will improve their business processes.
In design thinking workshops, we collaboratively define innovative business models with the customer. It is important to involve senior business process experts who are experienced in business design decisions at this point. The resulting solution landscape maps all dependencies, from the end-to-end process down to the applications and, eventually, capabilities (see Figure 1.5).

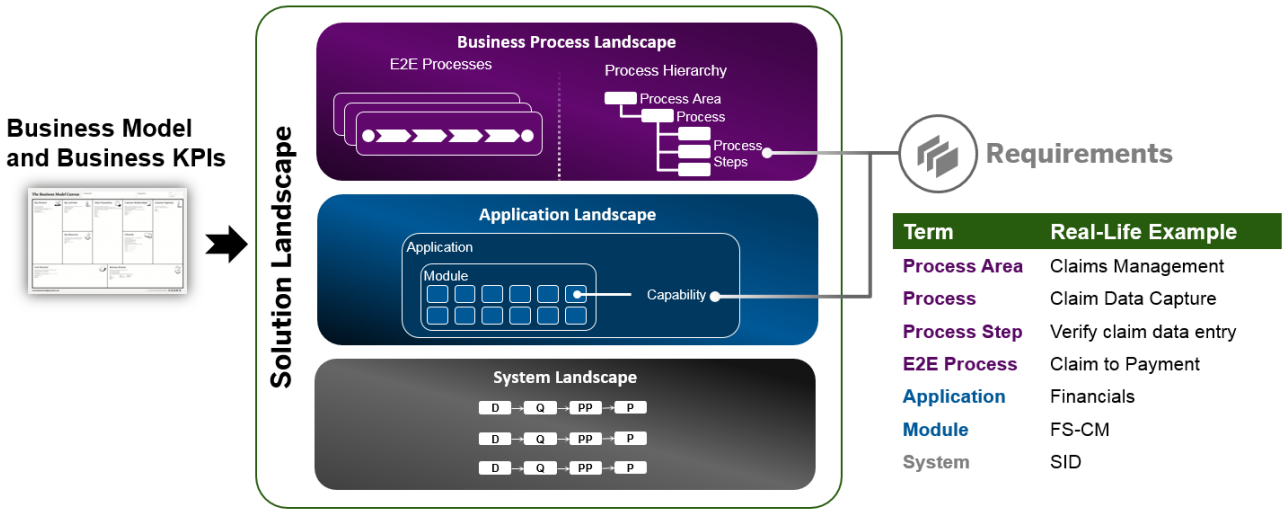

Figure 1.5: Solution landscape in SAP Solution Manager

Understand new target operating models
In collaboration with the subject matter experts, the solution architect translates the use case documents into a design proposal for the business process experts. The design proposal includes:

- End-to-end business processes, and a diagram of the key value chain
- Processes, process steps, and requirements
- Assignment of organizational units to business processes and process steps
- An impact analysis showing how the new target operating model will affect existing parts of the IT infrastructure, especially legacy systems

It is crucial to emphasize that Focused Build is a highly pragmatic approach that integrates into the solution wherever possible. The operating target model is a role-based business process modelling notation (BPMN 2.0). Each swim lane in a BPMN diagram equals a role. If the software exists, you map the existing transaction or process.

You use the process diagrams for business-facing discussions and collaborative process design. Comments and clarifications can be achieved collaboratively with the customer business in SAP Solution Manager. In multi-national projects, support for multiple languages is always a challenge, of course. This is why the models can be translated and displayed in different languages in Focused Build. The content is translated in-place during the modeling process.

What's in it on top of standard SAP Solution Manager?
Also for this phase of a project, Focus Build brings a number of capabilities in addition to the SAP Solution Manager standard delivery for Requirements Management. As the scope for requirements management in Focused Build is set on large, agile implementation projects with massive amounts of requirements, we decided not to use the business requirement in the standard SAP Solution Manager 7.2.

Requirements Management in SAP Solution Manager 7.2 offers the capabilities to centrally store business requirements that facilitate the communication and negotiations between business and IT. It is a way to integrate requirements management with change management as the requirement serves as a predecessor to a request for change. With the so-called business requirement, business process experts can easily raise and manage their business requirements. They can also intuitively submit their requirements for approval. On the other hand, the IT requirement serves to document and design a solution for the business requirement. This process is geared towards requirements and changes in a maintenance mode, this is why the requirements process in Focused Build is built-up differently as there are large amounts of requirements in innovation projects. Focused Build offers the following:

- Discovery workshops with customers for delta identification (fit/ gap analysis)
- Multi-language support for requirements
- Requirements integration into process models with customer handover to build team
- The tight integration of the requirements with the solution landscape, process models, work packages, work items, solution documentation, and the solution readiness dashboard

2.4 Build Team: SAP UI5 Apps for the Build Process

At the beginning of the build phase of the project, the solution architect decomposes all requirements for the project into work packages. In the work package (see Figure 1.6), you get an immediate overview over all relevant data in scope. Apart from header data and information about the required timeline you see who is responsible, what processes, functional specifications, and work items are required.

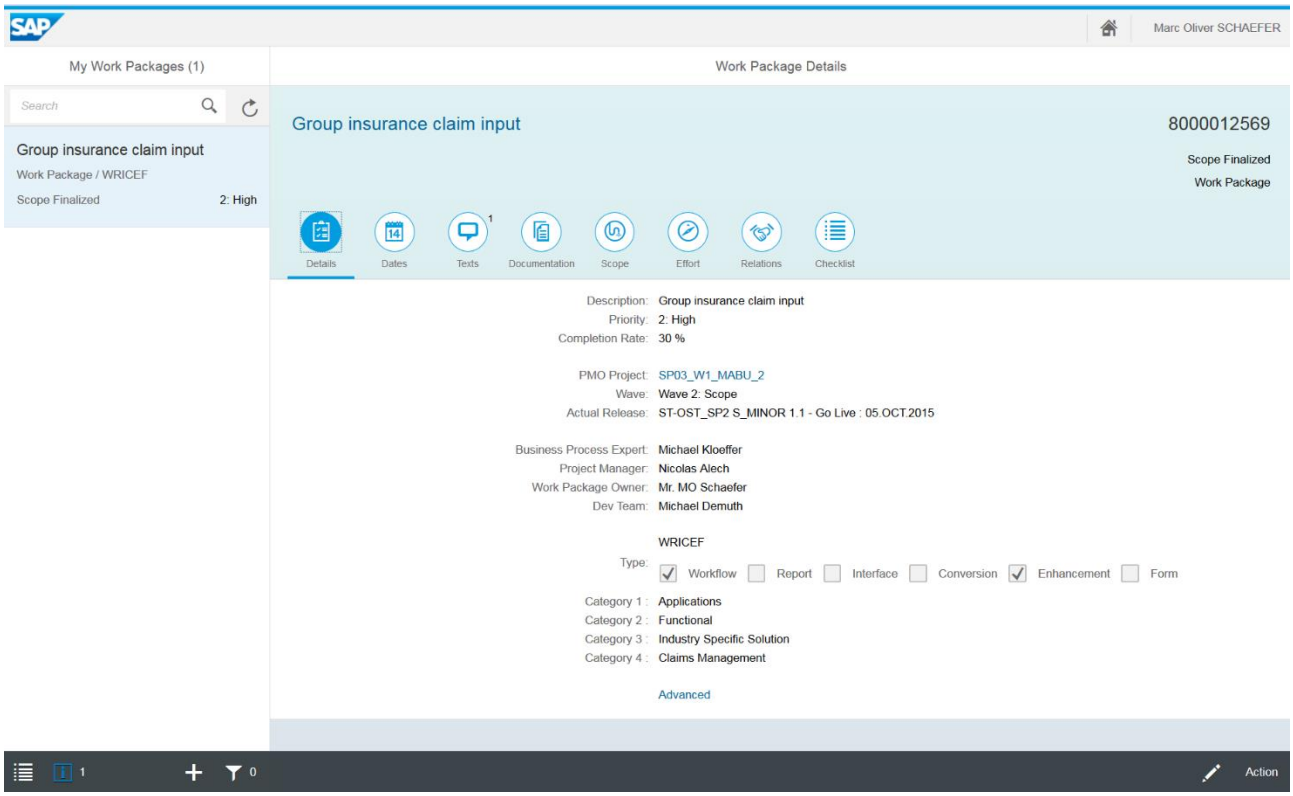

Figure 1.6: Work package SAP UI5 app of Focused Build

On the Details tab, you can see the classification of the work package. You can clearly distinguish whether a work package is

- A fit, which means that you only need to configure the software , e.g. customizing has to be executed or master data have to be put into the system
- Or a gap that needs to be addressed by a development factory
- Or a WRICEF , meaning that a build team actually writes coding
- Or a non-functional work package for administrative work

On this overview, you also find the requirements that the work package relates to. By this, the developers in the build or development factories always have the full context of process and requirement.
From a timing perspective, you also see for which wave the work package is scheduled. Simply by assigning the work package to a wave, all the due dates of the key deliverables, e.g. the due date for the functional specification are automatically retrieved from the projects work breakdown structure. The project from which the scheduling is derived is visible in the PMO project field.

On the Text tab, you see the original requirement in order to have a chain of information without any media breaks. On the Scope tab, you assign work items to individual sprints. Once you have done this, the developers can start working on the work item, i.e. writing a technical design for the changes based on the functional specification and start coding or configuring.

Orchestrating development teams
Perhaps most importantly, you see which remote factory is responsible for the work package and to what degree the work package has already been completed. Any system integrator (SI) or external resource that has an active part in the build process is controlled from one central place.
As mentioned before, the build team has everything in the work package that they need to complete a work package successfully: Everything down to the process and requirement to understand the context of the work package and the transport containers that later will be used to propagate the results of the work package into the follow-on systems of the landscape. All software logistics is fully automated.

Simplified solution documentation with DropDoc
Another capability that is available exclusively with requirements to deploy, is the simplified solution documentation feature DropDoc for SAP Solution Manager. This feature has been integrated into the SAP UI5 apps for work packages and work items.
During the build process you need to attach documents like functional specifications, technical designs, and test cases to the process structure and application landscape. With DropDoc, you can assign documents to the business process structure by simply dragging and dropping them on a structure node. What is more, you cannot only do this with single documents but also with multiple documents in one go.
Focused Build contains templates for all required project documents, from technical design to test case templates. However, the project team can also choose to use their own document templates.
Successor/predecessor relationships

Work packages in Focused Build also offer the possibility to define sequences of work packages. This means that you can define the successor/ predecessor relationships of wok packages easily. This give solution architects as well as project managers the unique possibility to assess the impact of changes to work packages as you see which successors are impacted by this change.

What's in it on top of standard SAP Solution Manager?
Focus Build brings a number of capabilities in addition to the SAP Solution Manager standard delivery for the build process and solution documentation. In summary, these are:

- Simplified solution documentation with Dropdoc
- Templates for functional specifications, technical design documents, test cases, etc. to accelerate build projects
- SAP UI5 apps for work packages and work items
- In-place reporting on Solution Documentation status
- Remote factory and JIRA integration
- The solution readiness dashboard with pre-defined KPIs and metrics.
- The tight integration of the WBS with work packages, issues, risks, and the solution readiness dashboard
- Integrated release management
- Role-based effort planning with link to Project Management

2.5 Test Team: SAP UI5 Apps and Test Management Dashboards

Test activities are of pivotal importance to a successful project. In Focused Build some specific enhancements have been added to the SAP Solution Manager standard capabilities.

Test plan assignment to project plan
A unique integration point is that you can assign test plans to the project plan in SAP Solution Manager Project Management. This feature enables unprecedented transparency during the test phases of Focused Build-projects. This clear assignment is possible because in requirements to deploy we have identified one process variant and method that the entire project team complies with. Due to the needed richness and flexibility of process variants within the SAP Solution Manager standard delivery, this assignment is not part of this delivery.

Work-package-based test plan generation
Based on the work packages described in the earlier sections of this chapter, it is also possible to take advantage of another integration point that is unique to Focused Build. As all work packages are assigned to a project, and the project schedule is fixed in its WBS, you can easily identify which work packages are in scope of the current wave. With this information, the test manager in a Focused Build project can now generate a test plan. For Single Functional Tests and User Acceptance Tests this generation is fully automated. What is more, they can analyse the test plan coverage of work packages for all the test types, i.e. where there are test cases missing in the test plan scope.

Interlinking Defect and Defect correction
Another powerful development has been interlinking of a defect to a defect correction. Focused Build contains a new transaction type for defects which enables the context of test execution such as project, wave and release to be captured automatically. In case a coding or configuration change is required a defect correction can be created as a follow up from a defect. The tester can update the text in a defect and it will be available as text to a developer in the defect correction automatically. This ensures that the tester needs to follow up only on defects and developers need to work only in defect corrections. SAP Solution Manager ensures seamless passage of information between defect and defect correction. Closure of a defect correction will update the status of the defect to *Proposed solution* which the tester can confirm. This reduces overhead for the project team to minimum and developers know which release to use when creating defect corrections

Test Management Dashboard
Focused Build includes a Test Management Dashboard. The advantage is the entry point for navigation is not Test Plan or Test Packages but Projects and waves. The Test Management Dashboard consists of three major building blocks (see Figure 1.7). The Overview tab shows the larger context of test activities in the project. This is why all test plans belonging to the project and the current wave are displayed on this tab. You see on the Test Plan tile how many test plans are open for tests in this wave. On the Test Cases tile, you also see immediately how many test cases were not tested successfully. The Defects tile shows how many test defects of priority 1 or 2 are still open.

The next two tiles are familiar from the Solution Readiness Dashboard: The Test Status tile that shows the percentage of test cases with the Tested successfully result for the various test types, and the Defect Details tile, showing priority 1 and 2 defects that were detected in these tests.

Below the header of the dashboard, you get a selection of helpful diagrams that show you different views on the same project and wave selection:

- Test execution status by test plan
- Test execution progress by projects, which is very relevant if you have a master project with various subprojects
- Open defects by priority
- Open defects by priority and status
- Defect timeline shows you how many defects in status Created/ In Progress you have versus the ones in status Closed/ Confirmed.
- Defects across projects

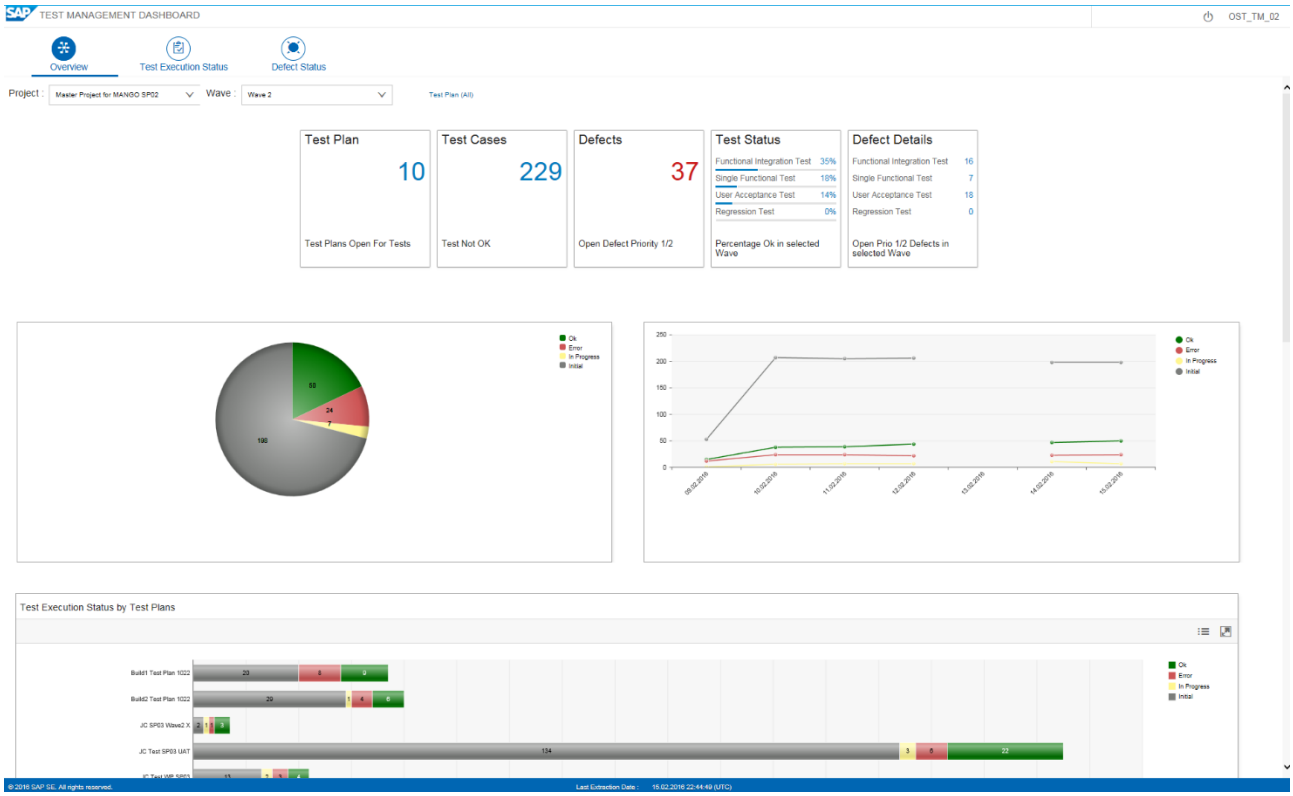

Figure 1.7: Test Management Dashboard in SAP Solution Manager 7.2

Test Execution Status
The Test Execution Status is a more detailed view on one specific test plan. This is one difference in comparison to the Overview tab, another is that the status information is more detailed here as well. Where the KPI on the overview aggregates the test packages status OK, OK with reservations, and Retest OK to simply OK, the Test Execution Status shows each status individually. The tab lists the following KPIs in diagrams:

- Test Package Status Overview per test package and status
- Test Package Status Detail shows details on each test package with status, assigned testers, and report defects.
- Test Execution Progress shows test cases in status OK, Error, In Progress projected on the timelines of the project.

Like the Test Execution Status, the Defect Status tab shows information on one dedicated test plan. Here, four tiles show you the numbers of

- Open defects
- Open priority one defects
- Open priority two defects
- Number of defects that need to be retested, or the one where the retest has not been confirmed yet

This tab also visualizes various dimensions of defects that are essential for the test managers and coordinators.

- Open Defects by Priority shows all priorities of defects reported in the current wave.
- Defects by Priority and Status
- Defect Progress shows the development of status on the timeline of the current wave.
- Defect Status Statistics and Open Defect Status Details show a list of defects with additional data that allow for drill-downs or download into Microsoft Office Excel spreadsheets.

Unprecedented UX with SAP UI5 for app testing
To facilitate test management in requirements to deploy, we not only invested in unprecedented user experience (UX) for test managers but also for the testers. For this audience, we introduced an SAP UI5 app (see Figure 1.8). The app allows to search for test packages in the left-hand pane, and shows the header data on the Info tab. The Test Cases tab, you get an overview of which test cases are assigned to the test

package selected. You can open the test case you are interested in, but the app shows you also whether the test case is ready to test, if the test has ended already. In case you have maintained test sequences, then this will also indicate which tester is assigned. Moreover, you see what status the test cases are in and how many open defects there are.

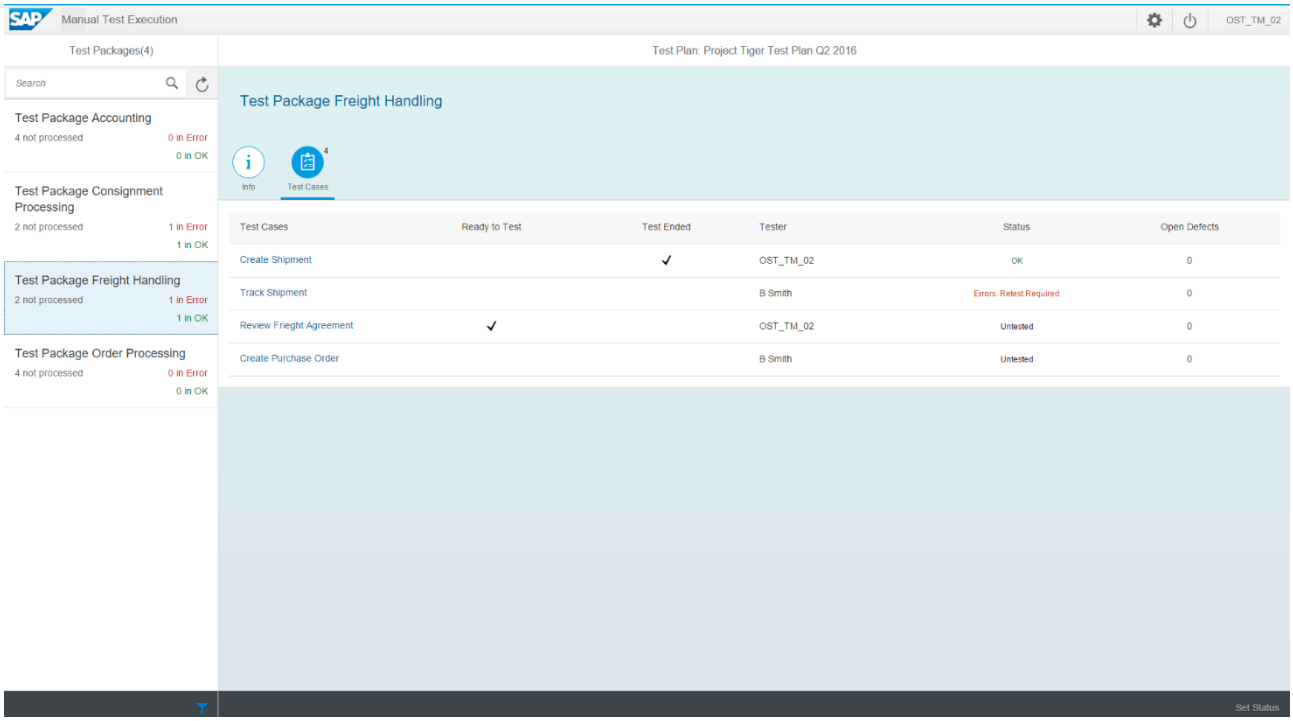

Figure 1.8: SAP UI5 app for testers

During testing, testers can set the status of their test cases directly from the app choosing the Set Status link at the bottom right of the screen.

What's in it on top of standard SAP Solution Manager?
Focus Build brings a number of capabilities in addition to the SAP Solution Manager standard delivery for the Test Suite. In summary, these are:

- SAP UI5 apps for testers
- Automatic generation of test plans for single functional tests and user acceptance tests based on work packages in scope
- Test coverage reporting
- The Test Dashboard and Defect Dashboard with predefined KPIs

2.6 Typical Integration Scenarios

In Focused Build, there is a core set of processes that cannot be changed or adapted. This is the tight integration from requirements to Solution Documentation and the entire build process. However, there are three scenarios that can deviate from the standard Focus Build process flow (see Figure 1.9):

- Gathering requirements externally
- Modeling processes externally
- Extend remote factory integration

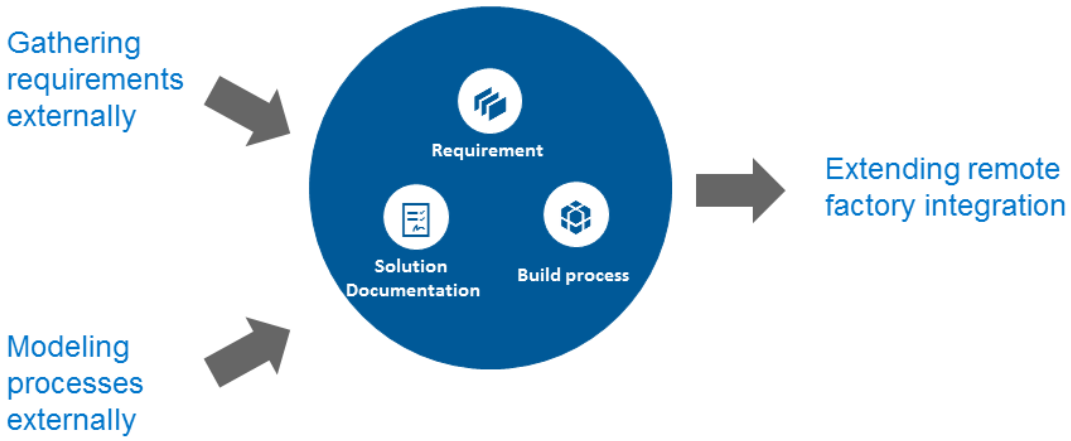

Figure 1.9: Integration Scenarios for Focused Build

Gathering requirements externally
In many projects, requirements are gathered in spreadsheets like MS Excel. If you have gathered your requirements already, or your team is simply used to this approach and you do not want to change it, you do not have to with Focused Build. The solution offers an engineering service that you can use to upload your requirements to SAP Solution Manager once your requirements list is completed. After this, you can start with the Focused Build process.

Modeling processes externally
Should you already have process models available in a third-party tool like ARIS, for example, you do not have to re-model them in SAP Solution Manager. Here also, an engineering service is available to import external process models into SAP Solution Manager.

Extend remote factory integration
As Focused Build delivers an engineering extension with software development tools like JIRA or MS TeamWork, you can extend the collaboration with remote factories and build teams to fit your needs.

2.7 How to Get a Focused Solution for SAP Solution Manager

The first step before buying a focused solution is to decide whether the offering suits your needs, of course. This is where the learning map (see section 11.1) helps you to understand the process and the underpinning tool set. But you do not have to buy a pig in a poke: You can actually try the solution out in the SAP Cloud Appliance Library. SAP offers a completely pre-configured image for each focused solution.

Ready to buy
After you reassured your need, you can simply go to the SAP Store, select how many licenses you need, and simply purchase them with your credit card. Should you not have a company credit card, you can hand in your expenses for reimbursement later.

Pricing
It is important to emphasize that you only need to license users who actually work with the solution. This means that if you have a team of ten on your project you only have to license these ten users. The price when writing this book was set to € 250 per user per year (see Figure 1.10).

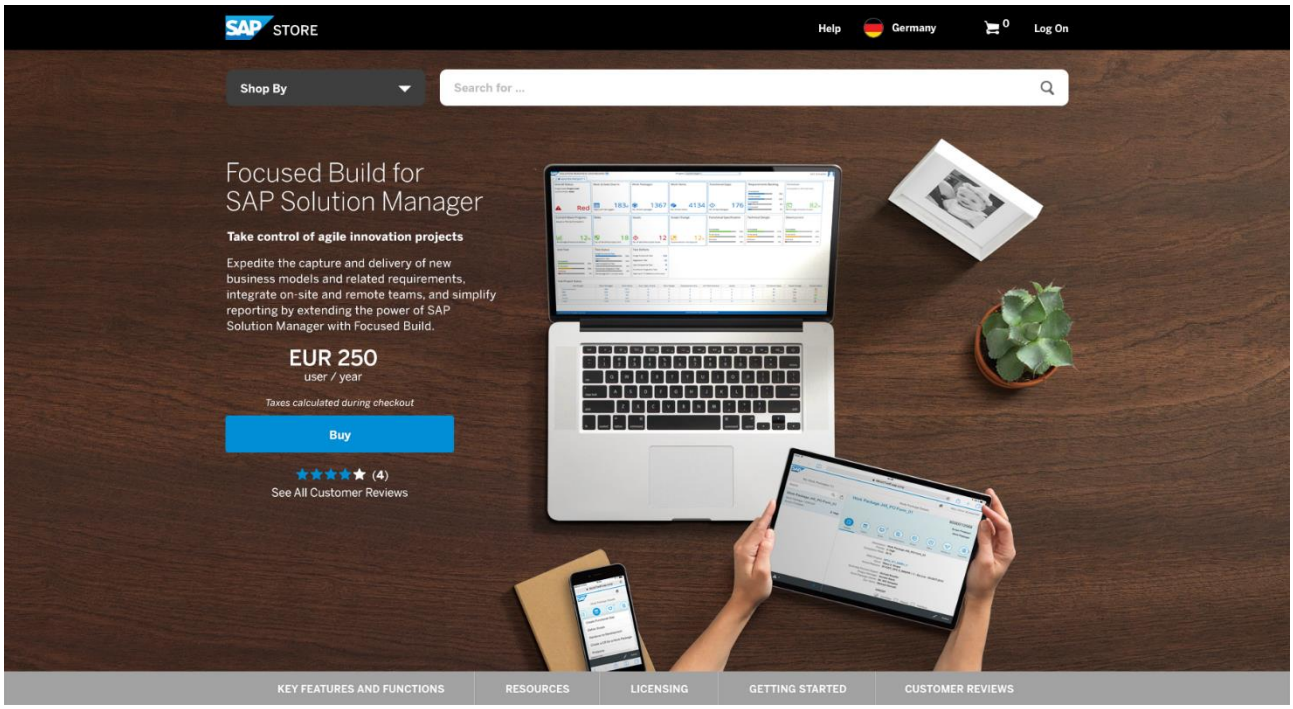

Figure 1.10: Focus Build product details page in the SAP Store

As you deploy focused solutions on your SAP Solution Manager, there are certain prerequisites that you may need to fulfil before the software is really ready-to-run when you buy the licenses. The prerequisites are listed in the product details page on the SAP Store.

All steps required are explained in detail in the confirmation mail that you receive after purchasing a focused solution for SAP Solution Manager.

3 GLOSSARY

Term	Definition
Application landscape	A description of the structure of all relevant applications components as groups of capabilities that provide key business functions. It is structured in applications, modules, and capabilities.
Build factory	The build factory is a remote group that builds custom-specific development packages (WRICEFs).
Build project	The project in Project Management of SAP Solution Manager that is used to govern the actual build process in a FOCUSED BUILD project or program.
Business process landscape	The business process landscape consists of the process hierarchy and end-to-end business scenarios which are assembled from processes of the hierarchy.
Capability	An ability that an organization, person, or system possesses. Capabilities can be existing or planned technical objects like Transactions, Reports, User Interfaces, web services or others provided by the application components that support the business process.
Defect	Describes an error found during testing.
Development factory	The development factory is an SAP group and provides the framework and workforce for projects to realize the requested developments. Main task of the development factory is to build the solution for perceived functional gaps (PFGs). If there is free capacity, the development factory can also be used to build custom-specific development packages (WRICEFs).
End-to-end process	Cross-functional and cross-organizational processes that reach from the customer through the entire company back to the customer. Can be used to define integration tests.
Functional integration test	Functional software validation of business processes (process hierarchy and end-to-end business processes).
Functional test	Functional software validation at process step or single feature level.
Functional specification	A functional specification in software development is the documentation that describes the requested behaviour of solution. In the document, a solution architect describes what is required by the solution. A functional specification is more detailed and more technical than the process description. In the scope phase, the functional specification is handed over to the development architect who in turn writes the technical design based on the functional specification. The functional specification is also a very important input for the creation of test cases.

Gap	A gap can be a functional part of the solution missing in a model company which is found out during a discovery workshop. Or a work package that during the scoping process is identified as a part of the solution which should be included into the SAP standard and is therefore classified as a gap and handed over to the development factory.
ICC	The control center approach from SAP comprises three levels: the Innovation Control Center (ICC), Operations Control Center (OCC), and Mission Control Center (MCC). The ICC and OCC are located at a customer's site, while the MCC is located at an SAP remote facility. Each is designed to complement the other and provide high-level support throughout the various stages of an SAP-centric solution's lifecycle.
Issue	In SAP Solution Manager, these allow you to manage problems threatening to compromise your business processes together with the solution to the problem. You are also shown how to organize the way in which this problem is handled and to subsequently analyze the problem-solving process.
Master project	A project whose tasks are realized as separate subprojects. Depending on the customer, a master project can also be called a program.
MCC	The control center approach from SAP comprises three levels: the Innovation Control Center (ICC), Operations Control Center (OCC), and Mission Control Center (MCC). The ICC and OCC are located at a customer's site, while the MCC is located at an SAP remote facility. Each is designed to complement the other and provide high-level support throughout the various stages of an SAP-centric solution's lifecycle.
Milestone	Milestones are used to mark specific dates in a project plan. These points may signal anchors such as a project start and end date, a need for external review or input and budget checks, among others. In many instances, milestones do not impact project duration. Instead, they focus on major progress points that must be reached to achieve success. Therefore, a milestone has a clearly defined due date.
Mirrored task	A task that is linked to a task of a different project (original task). The dates of the original task must be taken into account in the existing project (dependent project) as fixed dates.
Model company	Model companies are complete and state-of-the-art reference landscapes combining the latest SAP applications with related best practices and comprehensive documentation made available over the cloud.

Model industry solution	A model industry solution is a co-engineering project between the customer and SAP. During the project a solution is built that reflects standards in a given industry. When the model industry solution is ready, it may be used as a model company for othe projects.
OCC	The control center approach from SAP comprises three levels: the Innovation Control Center (ICC), Operations Control Center (OCC), and Mission Control Center (MCC). The ICC and OCC are located at a customer's site, while the MCC is located at an SAP remote facility. Each is designed to complement the other and provide high-level support throughout the various stages of an SAP-centric solution's lifecycle.
Process	A process represents a sequence of activities that together achieve a specified outcome, can be decomposed into sub-processes, and can show operation of a function or service (at next level of detail). Processes may also be used to link or compose organizations, functions, services, and processes.
Process area	The top-most level within the process hierarchy. The process area comprises processes of a common functional domain or area, e.g. financials or claims management.
Process landscape	The process landscape combines all process documentation including the process hierarchy and end-to-end processes.
Process description	A document generated automatically comprising all the requirements defined in the processes in scope.
Process hierarchy	The process hierarchy is the structure of process information within the process architecture. Each level of the process hierarchy serves to structure the process information in a way which makes navigation manageable and logical, from a functional perspective. The most granular level of detail is contained within the process steps level. All process information within a level should be of the same granularity. To identify at which level the user is navigating, each object within that level conforms to a specific naming convention.
Process step	An individual action within a business process. The process step uses a capability to yield the desired results of the step.
Quality gate	A q-gate is a special milestone in a software build project. A q-gate is scheduled during the hand-over from one project phase or wave to the next. All project stakeholders review the deliverables of the previous phase or wave and decide collaboratively whether the project can move into the next phase or wave. The character of a q-gate is more formal than a review, for instance, as the availability of documents is checked rather than their content. A q-gate has a clearly defined due date.

Regression test	Regression testing is a type of software validation of priority 1 processes to verify that developments do not negatively impact processes.
Release	State of a software component that represents an important milestone or a considerable enhancement of a software component's functionality.
Requirement	What must be delivered to provide or increase a company's business value. Requirements are gathered during the discovery workshop. They can be linked to processes, process steps, capabilities, modules or end-to-end processes. There are also requirements that are not linked to any other artefacts.
Risk	An event or condition that, if it occurs, could have a negative effect on one or more project objectives. (PMI)
SAP standard development	The development group at SAP that develops standard software under the leadership of Bernd Leukert.
Single functional test	Test of individual business-process steps.
Solution Readiness Dashboard	In the solution readiness dashboard, you get an automated FOCUSED BUILD project reporting. The dashboard offers aggregated information on the current project in SAP UI5 tiles. From the dashboard you can always drill down into more detailed views, e.g. into the Work Packages tile. Clicking on this tile will give you an overview of the work package schedule. You see how many work packages are assigned to which wave of the build phase and what the distribution to the individual business process areas looks like. A click on the numbers will bring you to the next-level drill down.
Sprint	Waves are subdivided in sprints. In agile development, a sprint is a defined period of time (time-boxing) during which software development has to provide deliverables for review. The backlog of a sprint is based on the prioritization of backlog items, i.e. requirements.
Summary task	A task in Project Management in which certain data from the subtasks is displayed in an aggregated form (for example, confirmed times and required qualifications). However, you cannot enter these values in the summary task.
System landscape	Any required systems and clients, their meaning and the transport routes for implementation and maintenance processes. Relevant tools in this context include Client Copy and the Change and Transport System. The system landscape may, for example, comprise a development system, a test system, and a production system.
Task	A generic term for all elements within the project structure. A project task can represent the project header or a phase, task, or milestone.

Technical design	A description of the proposed system architecture in a company following introduction of the system landscape.
Test case	A document that describes what shall be tested, how the test sequence is to be executed by the tester, and what results are expected at the end of the test sequence.
Test package	Part of a test plan containing all test cases assigned to a tester. A test package contains all the test cases a tester is to perform within a specific time period.
Test plan	Set of test cases used at a particular time for a particular purpose. Test plans are based on one or more test catalogues.
Test request	
Transport request	Document for copying corrections between different system types. A transport request records released corrections. When the request is released, the transport is performed. For example, you can transport corrections from an integration system to a consolidation system.
Unit test	Performed by developers using ABAP Unit for ABAP-based applications and JUnit and/ or Selenium for non-ABAP applications. Unit tests can be executed in a self-contained fashion using the stub approach. ABAP Unit is fully integrated into the ABAP development environment leveraging ABAP Workbench, Test Data Container and ABAP Test Cockpit.
User acceptance test	In a user acceptance test the end-users verify whether the solution provided by the project is feasible and acceptable for them.
Value chain	A value chain is a model that contains all the end-to-end processes within a company.
Wave	A wave comprises a well-defined functional scope that is formally signed-off by customer key-users and will be propagated into the quality-assurance landscape.
Work item	The addition, modification, or removal of anything that could have an effect on IT services.
Work package	The result of the requirement's decomposition. Work packages are further broken down into work items. You use them to govern the build and deploy phases.

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