Project Management (PS)  
Case Study

This case study explains the project management process in detail and thus fosters a thorough understanding of each process step and underlying SAP functionality.

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| Product  SAP ERP 6.08  Global Bike  Level  Beginner  Focus  Project Management  Authors  Martin Wassmann  Bret Wagner  Stefan Weidner  Version  3.0  Last Update  July 2016 | MOTIVATION  In the Project Management it will be create a simple cost project, which will plan and control the development of an ultra light racing bike.  The project will be structures using a work breakdown structure (WBS) and network activities. In the Execution phase we will post actual dates and actual costs on activities and WBS elements. |  | PREREQUISITES  Before you use this case study, you should be familiar with navigation in the SAP system.  NOTES  This case study uses the Global Bike (GBI) data set, which has exclusively been created for SAP UA global curricula. |

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|  | Process Overview | | |
| **Learning Objective** Understand and execute an integrated project planning.  **Scenario** To edit a complete project planning process, you will take different roles in GBI, e.g. Production Supervisor and Cost Accountant. Overall, you will be working in the Project Management (PS) and Financial Accounting (FI) departments.  **Employees involved** Jun Lee ( Production Supervisor)  Jermain Kumins (Shop Floor Worker 1)  Silvia Cassano (Accounts Payable Specialist)  Jamie Shamblin (Cost Accountant) | | **Time** 140 Min. | |
|  | | |
| At the beginning of your project you assign WBS elements, activities and milestones at Project Builder. Also you assign milestones to your project.  In the last few steps, you create creditor invoice for your business partner, who acts as an intermediary for the test driver and you have to pay for the entire project. | | |
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|  | Step 1: Create Project | |
| **Task** Create a new project.  **Short Description** Use the SAP Easy Access Menu to create a new project.  **Name (Position)** Jun Lee | | **Time** 15 min |
|  | | |
| This is the Project structure of cost project P/20##, which consists of WBS elements, activities, and milestones. | |  |
| We will use the project builder to create a project “Development of Ultralight Bike”. The project consists of a work breakdown structure and network activities. | |  |
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| To create a project, follow the menu path:  Logistics ► Project System ► Project ► Project Builder  Add this transaction as a Favorite, then process this transaction. | | Menu path |
| This will produce the following screen. Confirm the popup *Project Builder: Options* using the M:\Curricula\UCC-GBI-ERP\UCC-GBI3.0\SAP_Icons_Clean\11 PS\ScreenShot00119.png enter icon. | |  |
| PBuilder | |  |
| In the popup *Project Builder: User-specific options* enter for Hierarchy levels **99** and select **Preview last project**. Leave other fields as they are. Confirm your entries by using the M:\Curricula\UCC-GBI-ERP\UCC-GBI3.0\SAP_Icons_Clean\11 PS\ScreenShot00119.png continue icon. | | 99 |
| To create the project P/2###, select M:\Curricula\UCC-GBI-ERP\UCC-GBI3.0\SAP_Icons_Clean\11 PS\Anlegen.png Create and choose **Project.** | |  |
| In the screen Project builder enter in the field Project Def. **P/2###**. Remember to replace ### with your three-digit number, e.g. 003 if your number is 003. For Text (unlabeled) enter **Development of Ultralight Bike ### (I)** and select in Project Profile **Cost projects (Europe)**. Confirm your entries by using the 07 continue icon. | | P/2###  Development of Ultralight Bike ###(I)  Cost projects (Europe**)** |
| L:\IconsW11\MM\ScreenShot00176.png | |  |
| Click on the M:\Curricula\UCC-GBI-ERP\UCC-GBI3.0\SAP_Icons_Clean\11 PS\PSP-Elementübersicht.png WBS Element Overview icon to create new WBS elements. Fill in the following data in the Project Builder screen. Please notice that the system will deduce the project number from the entry. Special characters such as double quotes can be configured in the SAP customizing menu. | |  |
| |  |  |  |  | | --- | --- | --- | --- | | **WBS element** | **Description** | **PE** | **Acct** | | " | Development of Ultralight Bike | 🗹 | 🗹 | | " 1 | Engineering | 🗹 | 🗹 | | " 2 | Prototype | 🗹 | 🗹 | | " 3 | Testing | 🗹 | 🗹 | | " 4 | Small series production | 🗹 | 🗹 | | " 5 | Release to mass production | 🗹 | 🗹 | | |  |
| Confirm your entries by using the 07 continue icon. | |  |
| **Hint** Operative indicators such as the above (”PE” and ”Acct”) control, whether the WBS elements can be used for cost planning and cost account purposes.  Remark the hierarchy graphic can be used to edit the project as well. Please note, that the derivation of WBS element structure has determined the hierarchy from the number of the WBS elements. Naturally this works only for numbers, which reflect a hierarchical order and are customized by a so called number mask. | |  |
| To derive the WBS structure the number of the WBS elements choose in the pull down menu **Project** **►** **Derive structure** **► Execute**. Go to the tab *Responsibilities* to assign responsible cost centers to all WBS elements. | |  |
| Assign responsible cost centers to all WBS elements. Therefore select the Tab Responsibilities and enter the following data. | |  |
| |  |  | | --- | --- | | **WBS element** | **Resp.cost cntr** | | P/2### | EURD1000 | | P/2###-1 | EURD1000 | | P/2###-2 | EURD1000 | | P/2###-3 | EUQM1000 | | P/2###-4 | EUPR1000 | | P/2###-5 | EUQM1000 | | |  |
| Confirm your entries. | |  |
| Use the hierarchy graphic to display your project structure. Use the ”Hierarchy graphic” M:\Curricula\UCC-GBI-ERP\UCC-GBI3.0\SAP_Icons_Clean\11 PS\Herarchiegrafik.png icon. | |  |
| **Hint** The hierarchy graphic can be used to edit the project as well. Please note, that the derivation of WBS element structure has determined the hierarchy from the number of the WBS elements. Naturally this works only for numbers, which reflect a hierarchical order and are customized by a so called number mask. | |  |
| To return to the Project Builder use the 06 Back icon. Save your project with 10. | |  |
| Return to the Easy Access Menu by using the 06 Back icon. | |  |
|  | |  |

|  | Step 2: Change Project | |
| --- | --- | --- |
| **Task** Change the project.  **Short Description** Use the SAP Easy Access Menu to change the project form the task above.  **Name (Position)**  Jermain Kumins | | **Time** 10 min |
|  | | |
| The project P/20## will be enhanced by network activities (thereby detailing the information of the WBS elements). Activities describe the process flow of the project. You can plan dates, resources and costs through network activities as well. | |  |
|  | |  |
| To change a project, follow the menu path:  **Logistics ► Project System ► Project ► Project Builder** | | Menu path |
| Click at . In the *Open Project* screen enter in Project Definition **P/2###** and choose M:\Curricula\UCC-GBI-ERP\UCC-GBI3.0\SAP_Icons_Clean\11 PS\ScreenShot00119.png. | | P/2### |
| Use the M:\Curricula\UCC-GBI-ERP\UCC-GBI3.0\SAP_Icons_Clean\11 PS\PSP-Elementübersicht.png Overview icon. Choose the M:\Curricula\UCC-GBI-ERP\UCC-GBI3.0\SAP_Icons_Clean\11 PS\Vorgangsübersicht.png Activity Overview icon. Enter the following data: | |  |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Activity** | **Description** | **Normal dura-tion in days** | **Work in hours** | **Work center** | | 0010 | General concept | 10 | 80 | DVLP1000 | | 0020 | Engineering of carbon frame | 5 | 40 | DVLP1000 | | 0030 | Engineering of steering fork | 2 | 20 | DVLP1000 | | 0040 | Purchasing of components | 1 | 5 | PROC1000 | | 0050 | Production of carbon frame | 2 | 30 | ASSY1000 | | 0060 | Production of steering fork | 1 | 10 | ASSY1000 | | 0070 | Prototype assembly | 8 | 60 | ASSY1000 | | 0080 | Wind channel test | 1 | 8 | INSP1000 | | 0090 | Stiffness test | 1 | 6 | INSP1000 | | 0100 | Testing acceleration dynamics | 1 | 5 | INSP1000 | | 0110 | Testing steering precision | 1 | 8 | INSP1000 | | 0120 | Small series production | 10 | 100 | ASSY1000 | | 0130 | Final test (internal) | 5 | 50 | INSP1000 | | 0140 | Release to mass production | 1 | 3 | INSP1000 | | |  |
| Confirm your entries by pressing Enter or pressing 07 . | |  |
| In the Branch to the activity overview of external activities create more activities. To do so use the *Ext Processing* tab. In the Activity field enter **0045** and activate the Service Field and enter **Outsourcing gear** in Description. Confirm your entries by pressing Enter. | | 0045  Outsourcing gear |
| In the *Service Specification: Ext. Specs f. Task List Maintain* screen enter in the first line **10,** in the field short text **Engineering,** choose for Quant. **1**, for Unit **EA** and in Gross price **2000**.  In the second line enter **20**, for the short text enter **Ext. production**, choose **1** for Quant., **EA** for Unit and enter Gross price **3000.** | | 10  Engineering  1  EA  2000  20  Ext. production  1  EA  3000 |
| ScreenShot00190 | |  |
| Confirm your entries with Enter or 07. Go back to the *Project Builder: Project P/2###* screen by pressing once 05. | |  |
| On the Prim. Costs Tab enter f or Activity **0135**, enter **Performance test by professional drivers** in Description, for Amount **10000**  and **741000** for Cost Elem. | | 0135  Performance test by professional drivers  10000  741000 |
| Confirm your entries, by pressing Enter. Use the Save icon 10 to save your entries, confirm any messages. | |  |
| Return to the Easy Access Menu by using the 06 Back icon. | |  |
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|  | Step 3: Create Relationships | |
| --- | --- | --- |
| **Task** Create the relationship structure.  **Short Description** Use the SAP Easy Access Menu to create the relationship structure.  **Name (Position)** Jermain Kumins | | **Time** 15 min |
|  | | |
| So far the activities are all assigned to the top WBS element. In addition there are no relationships between activities, i.e. activities so far begin all to the same time. This will be changed now. | |  |
|  | |  |
| To create the relationships, follow the menu path:  Logistics ► Project System ► Project ► Project Builder | | Menu path |
| Click at . In the *Open Project* screen enter in Project Definition **P/2###** and choose M:\Curricula\UCC-GBI-ERP\UCC-GBI3.0\SAP_Icons_Clean\11 PS\ScreenShot00119.png. | | P/2### |
| In the structure tree in the left side, double click on Development of Ultralight Bike ScreenShot00191. Press the M:\Curricula\UCC-GBI-ERP\UCC-GBI3.0\SAP_Icons_Clean\11 PS\Vorgang.png Activity Overview Icon. | |  |
| Enter the following values: | |  |
| |  |  | | --- | --- | | Activity | WBS Element | | 0010 | P/2### | | 0020 | P/2###-1 | | 0030 | P/2###-1 | | 0040 | P/2###-2 | | 0050 | P/2###-2 | | 0060 | P/2###-2 | | 0070 | P/2###-2 | | 0080 | P/2###-3 | | 0090 | P/2###-3 | | 0100 | P/2###-3 | | 0110 | P/2###-3 | | 0120 | P/2###-4 | | 0130 | P/2###-5 | | 0140 | P/2###-5 | | |  |
| Confirm your entries with 07 | |  |
| **Hint** In the following we create the relationship structure as shown in the screen below. You can do this in the network graphic. In practice network graphic is not a good way to edit networks with more than about 10 activities, as you lose the overview.  Furthermore network graphic is possible only for SAPGUI (for Windows). For this reason we edit relationships in a tabular way (which is the productive way for large networks). | |  |
| The Graphic shows the network for development of ultra light racing bike. | |  |
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| The following example will show to enter the relationships between activities 10, 20 and 50. Please use the same procedure to create all relationships of the image above. | |  |
| As you can see in the image above as well as in the snippet below, activity number 20 is the successor of activity number 10. In addition activity number 50 is the successor of number 20. Please keep in mind that only direct relationships between two activities will be created. For example, no relationship between activity 10 and 50 will be entered. | |  |
| Prozessausschnitt | |  |
| Click on your activity 10 in the structure tree on the left side ScreenShot00196. Use the M:\Curricula\UCC-GBI-ERP\UCC-GBI3.0\SAP_Icons_Clean\11 PS\AOB-ÜBersicht.png Relationship Overview button. | |  |
| Since we only care about the activities 10, 20 and 50 we will only enter 20 and mark it as successor by selecting the Scs flag. However, please keep in mind that you are supposed to create the relationships to 30, 40 and 45 in the same way later on.  Note: *Use only FS relationship by clicking the activity number of the predecessor to enter FS relationship with successors. Remember to mark (v) on Scs flag for each relation.* | |  |
| ScreenShot00294 | |  |
| Confirm your entries by pressing enter. | |  |
| Please open the relationship overview for activity 20 as you did for activity 10. In this screen you can see that activity 10 was automatically added as a predecessor (flag Scs isn’t selected). | |  |
| Please enter activity 50 as successor of activity 20 and confirm your entries by pressing enter. | |  |
| ScreenShot00295 | |  |
| You may open the relationship overview of activity 50 to verify that activity 20 was added as predecessor. | |  |
| Now populate each activity with its successors (like stated on the network plan above) in the same manner. Please make sure to select Scs for each direct successor of the actual activity. | |  |
| Check the result of your work in the network graphic. For this click on C:\Users\RHAEUS~1\AppData\Local\Temp\SNAGHTML3325690b.PNG.   |  | | --- | | Check the result of your work in the network graphic. For this click on .  The network diagram will look like the image below. | | Print output to file (JPEG) the diagram above (landscape orientation). Use the Save icon to save your entries. Return to the Easy Access Menu by using the Back icon. | | |  |
| Use the Save icon 10 to save your entries. Return to the Easy Access Menu by using the 06 Back icon. | |  |
|  | |  |