Project Systems: Hierarchical structure and Table Links

Summary
The document provides the basic hierarchical structure of the Project Systems module in SAP. The document also defines the terminologies used frequently in the Project Systems module. Also the tables used in the module with the links are diagrammatically presented which will be useful to technical people for customized development.

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Hierarchical structure of the Project Definition

- Project definition
  - WBS elements
    - SUB WBS
      - CONTROLLING AREA
        - COMPANY CODE
          - BUSINESS AREA
            - PLANT
        - PROFIT CENTER
          - PLANT
          - TECHNICAL LOCATION/EQUIPMENT
          - RESPONSIBLE COST CENTER
          - CAPITAL INVESTMENT PROGRAM
          - JURISDICTION CODE
          - JOINT VENTURE
  - NETWORKS
    - PROFIT CENTER
    - BUSINESS AREA
    - JURISDICTION CODE
    - PLANT
  - ACTIVITIES
    - INTERNALLY PROCESSED ACTIVITIES
      - PLANT
        - WORK CENTER
      - BUSINESS AREA
      - JURISDICTION CODE
      - PROFIT CENTER
    - EXTERNALLY PROCESSED ACTIVITIES
      - PURCHASING ORGANIZATION
      - PURCHASING GROUP
        - PLANT
        - BUSINESS AREA
        - PROFIT CENTER
        - JURISDICTION CODE
    - GENERAL COSTS ACTIVITIES
      - PLANT
        - BUSINESS AREA
        - PROFIT CENTER
        - JURISDICTION CODE
    - MATERIAL COMPONENTS
      - PURCHASING ORGANIZATION
      - PURCHASING GROUP
      - PLANT
      - STORAGE LOCATION
A few Definitions of the terminologies used in the PS module

**Project:**

The project definition is the binding framework for all organizational elements within a project.

**Work Break down Structure:**

With a work breakdown structure you can divide the project into useful steps, specify fixed or "basic" dates, specify the work involved, and determine project costs.

The individual levels of the hierarchy in a work breakdown structure enable you to organize a project into steps.

**Work Break Down Structure Element (Sub WBS):**

You can further break down these steps into individual elements

Maximum steps supported are 99.

**Network:**

It is a special type work order on which cost can be planned, controlled and monitored.

**Activities:**

These are the actual tasks that are to be executed for the completion of the project.
Frequently used Tables in Project Systems Module:

Scheduling Tables:

- PROJ (Project Definition)
- PRPS (WBS Element Master Data)
- PRTE (Scheduling WBS elements)
- PRHI (WBS Element Hierarchy Pointer)
- AFVC (Operation within an order Activities)
- CAUFV (View Orders PP/CO -Networks)
- AFVV (Scheduling of Activities)

Additional table links:
- PROJ-PSPNR = PRPS-PSPHI
- PRPS-PSPNR = PRTE-POSNR
- PRPS-PSPHI = PRTE-PSPHI
- PRPS-PSPNR = PRHI-POSNR
- PRPS-PSPNR = AFVC-PROJN
- AFVC-AUFPL = CAUFV-AUFPL
- AFVC-AUFPL = AFVV-AUFPL
- AFVC-APLZL = AFVV-APLZL
Percentage of Completion Tables:

PROJ (Project Definition) → PRPS (WBS Element Master Data)

PROJ-PSPNR = PRPS-PSPHI

PRHI (WBS Element Hierarchy Pointer)

PRPS-PSPNR = PRHI-POSNR

AFVC (Operation within an order Activities)

PRPS-PSPNR = AFVC-PROJN

CAUFV (View Orders PP/CO -Networks)

AFVC-AUFPL = CAUFV-AUFPL

AFRU (Activity Confirmations)

AFVC-AUFPL = AFRU-AUFPL

EVPOC (Percentage of Completion)

AFVC-OBJNR = EVPOC-OBJNR

Costs Tables in PS:

Budget / Revenue/Planned Costs:

PROJ (Project Definition) → PRPS (WBS Element Master Data)

PROJ-PSPNR = PRPS-PSPHI

PRHI (WBS Element Hierarchy Pointer)

PRPS-PSPNR = PRHI-POSNR

BPJA (Total Costs for Annual Period CO object)

PRPS-OBJNR = BPJA-OBJNR

PRPS-OBJNR = BPJA-OBJNR
In all these costs only the value of the field VORGA (Budget/Planning Category) and is changed as per the requirement. These values change as per the configuration too so this has to be taken into consideration.

<table>
<thead>
<tr>
<th>VORGA</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSTP</td>
<td>Planned Cost</td>
</tr>
<tr>
<td>KSTR</td>
<td>Planned revenue</td>
</tr>
<tr>
<td>KBUD</td>
<td>Budget</td>
</tr>
<tr>
<td>KNB0</td>
<td>Supplementary Budget</td>
</tr>
</tbody>
</table>

**Actual Costs:**

- **PROJ (Project Definition)**
  - **PRPS (WBS Element Master Data)**
    - **PRHI (WBS Element Hierarchy Pointer)**
      - **AFVC (Operation within an order Activities)**
        - **RPSCO (WBS and Activities/Network related Actual Costs)**
          - **CAUFV (View Orders PP/CO -Networks)**

Here in Actual Costs another important feature is that

The Field VORGA in the RPSCO table should contain all the business transactions pertaining to CO objects from COIE to COIN and the Value of ACPOS (which is configured through SPRO and value may change accordingly) is not of Revenue category and WRTTP ,value type field takes a standard value of 4 for Actual costs.
Material Assignment Tables:

PROJ (Project Definition) → PRPS (WBS Element Master Data)

PROJ-PSPNR = PRPS-PSPHI
PRPS-PSPNR = EBKN-PS_PSP_PNR
PRPS-PSPNR = PRHI-POSNR
PRPS-PSPNR = AFVC-PROJN
CAUFV-AUFNR = EBKN-NPLNR
AFVC-AUFPL = CAUFV-AUFPL

PRHI (WBS Element Hierarchy Pointer)

EBKN (Purchase Requisition Account Assignment)

AFVC (Operation within an order Activities)

CAUFV (View Orders PP/CO -Networks)
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