



SAP Integrated Product, Process Engineering (iPPE)

POWERED BY SAP HANA



A Business and Technical Roadmap to Deploying SAP Copyright(c) 2018 by Nixon Vunganai.

All rights reserved.

Neither this document nor any part of it may be copied or reproduced in any form or by any means or translated into another language, without the prior consent of Nixon Vunganai. The information contained in this document is subject to change without notice.

INTRODUCTION	3

GENERAL SETTINGS	4
Define General IPPE Customizing	4
Enhanced Dependency Editor	5
Activate Enhanced Dependency Editor	5
Create Scheme for Enhanced Dependency Editor	5
Assign Scheme	6
Define Settings for Access Object	7
Define Settings for Status Management	8
IPPE OBJECT ADMINISTRATION	9
Define iPPE Node Types	9
Define General iPPE Node Types	9
Define iPPE Production Resources	11
Define iPPE Variant Types	11
Define iPPE Alternative Types	12
Define iPPE Relationship Types	13
Define General iPPE Relationship Types	13
Define Line-Specific Relationship Types	14
Create Model Assignments	14
IPPE Interface Administration	15
Define User Profiles for the iPPE Workbench Professional	15
Define Reports for the Report Tree in the iPPE Workbench	16
Define Tab Pages for the Detail Area of the iPPE Workbench	17
Define Settings for Relationships in the iPPE Workbench Professional	19
IPPE PRODUCT STRUCTURE ADMINISTRATION	19
Maintain Variable-Size Item Formulas	19
Define Object-Dependent Settings for Status Management	20
Extract: Activate and Define Settings	20
IPPE PROCESS STRUCTURE ADMINISTRATION	20
Define Standard Value Determination Type	20
IPPE LINE STRUCTURE ADMINISTRATION DEFINE TYPES OF REPORTING POINT	21
Define Settings for Consistency Check	21
BUSINESS ADD-INS FOR INTEGRATED PRODUCT AND PROCESS ENGINEERING	22
BAdI for Customer-Specific Consistency Checks	22
Customer Check for CI in the iPPE Process Structure	23
Sort Data of the iPPE Process Structure (ACT)	25
Saving and Reusing Results of Model Mix Explosion	26

INTRODUCTION

Welcome to the Customization	e fascinating world of	SAP. This book	nelps you crack	the tricks of ma	stering SAP HA

Integrated Product and Process Engineering (iPPE)

General Settings

Define General IPPE Customizing

Use

In *Define General iPPE customizing*, you make one-off settings for Integrated Product and Process Engineering (iPPE). These settings should not be changed once the system is in operation.

You can make settings for the following areas:

General IPPE Customizing:

The settings you make here concern the way iPPE cooperates with other systems and functions.

Define PVS Parameter:

The settings you make here concern the maintenance of variants in the product variant structure. You can define whether the class type 300 is to be used as the standard value in iPPE. If you enter a class type here, you cannot enter a class type in the iPPE Workbench when you create or edit iPPE objects; the system automatically proposes the class type 300.

Define Color Supplement Key:

The settings you make here concern the maintenance of color nodes (color scheme) and color variants.

When you make the settings for the color offset and the length of the color supplement key, You need to be aware that with the SAP Advanced Planner und Optimizer that - the material numbers of the colored materials ALWAYS have the same length.

The color neutral components always have the same length as the colored components, and that the component of the material number, which is filled via the color supplement key, appears as a phantom.

This is necessary to prevent problems during transfer to the SAP APO System.

Define Start-Up Parameters:

Start-up parameters control whether you can use a component variant with a change number and a future affectivity in an earlier phase of production. This is the case when a characteristic value defined in the classification system is also defined as an affectivity parameter in Engineering Change Management and is used in a change number.

Affectivity Parameter Description:

The settings you make here control that the affectivity parameter used for affectivity type PVSECM in Engineering Change Management correspond to those used for the configuration simulation in the iPPE Workbench. The affectivity type PVSECM is provided as standard.

Events and Change Documents:

The settings you make here control whether the corresponding functions are active or inactive.

Do not change the settings once the system is in operation.

When you want to transfer products to APO, you can assign these a key via the user exit APOCF00 that indicates from which system the product/ material comes from.

Standard settings

The following settings are provided as standard:

The field Explosion Type for Component Variants has the value History by Valid-From Date.

The field Class Use has the value Class Differentiation.

The field Color Offset has the value 1 and the length of Color Supplement Key is 3.

Activities

To make general settings:

From the Cross-Application Components Customizing, choose Integrated Product and Process Engineering (iPPE) -> Define General iPPE customizing.

The screen *General iPPE Customizing* Display / Change will appear.

Make the required settings.

Save your entries.

Enhanced Dependency Editor

Activate Enhanced Dependency Editor

Use

This IMG activity activates the Enhanced Dependency Editor for creating and maintaining object dependencies.

Create Scheme for Enhanced Dependency Editor

Use

In this IMG activity, you can create schemes to work with the Enhanced Dependency Editor. A scheme controls the appearance of the interface for the Enhanced Dependency Editor, and how syntax is displayed here.

You have the following options:

You can determine if you want to use SAP syntax or your own syntax.

You can determine if you want to use the variance scheme and the information to help with completion. The variance scheme will only be displayed in the iPPE Workbench.

For the syntax, you can define

The sequence of characteristics if several characteristics are being used.

Which characters the logical operators should be displayed with.

The sequence of the values if several values are used.

For the interface, you can determine how the object dependency will be displayed and input on the interface.

Requirements

You are working with the Enhanced Dependency Editor and have activated the Editor in the processing step Activate Enhanced Dependency Editor.

Standard settings

The following schemes are included in the SAP standard system:

S GEN CUS:

Scheme for the maintenance of object dependencies in the form of customer syntax for all applications outside the iPPE Workbench.

S_GEN_SAP:

Scheme for the maintenance of object dependencies in the form of SAP syntax for all applications outside the iPPE Workbench.

S_IPPE_CUS:

Scheme for the maintenance of object dependencies in the form of customer syntax in the iPPE Workbench.

S IPPE SAP:

Scheme for the maintenance of object dependencies in the form of SAP syntax in the iPPE Workbench.

Please use the standard schemes provided by SAP.

Further notes

To use the variance scheme and the information to help with completion in the iPPE Workbench

Variance Scheme:

In a variance scheme, you determine which characteristics and which values are used at the variants of a structure node in the object dependency.

The variance scheme can only be viewed in the iPPE Workbench. If you set this indicator in a scheme that you are using for another application, you will not be able to view the variance scheme.

Information to Help With Completion:

With the information to help with completion, you can check if all the values of characteristics available in the variance scheme of the node are actually being used in the object dependencies. Information to help with completion will verify if any errors appear in the list.

Assign Scheme

Use

In this IMG activity, you determine which scheme of the Enhanced Dependency Editor is active for the iPPE Workbench and for all other applications.

Requirements

You are working with the Enhanced Dependency Editor and have activated the Editor in the process step Activate Enhanced Dependency Editor. - You have defined a new scheme in the process step - Create Scheme for Enhanced Dependency Editor.

Standard settings

The scheme S_GEN_CUS is active for the maintenance of the object dependencies at variants of the product structure in the iPPE Workbench.

The scheme *S_IPPE_CUS* is active for the maintenance of object dependencies in all other applications that use the Enhanced Dependency Editor.

Further notes

Please note that a maximum of two schemes can be active in the system, one scheme for the iPPE Workbench and one scheme for all other applications.

Define Settings for Access Object

Use

In this activity, you define which usage can be combined with which access type. The usage controls the way the product structure is exploded.

In iPPE, there are two types of access: simulative (engineering accesses) and production (productive or operative accesses).

The usage ENG allows you to create accesses with or without a material and maintain concept accesses. You can explode structures for these accesses for simulation purposes.

The usage PRD represents accesses that are required for production. You can use accesses that have the usage PRD in production versions.

Standard settings

Two access usages are included in the standard system:

ENG (Engineering/Design)

The system automatically proposes this usage for each variant on the *Accesses* tab page.

PRD (Production)

You can select this usage on the Accesses tab page. This usage is for simulating productive explosions.

You can change the standard usages, but you cannot extend their properties beyond those provided as standard.

Activities

In the SAP Implementation Guide, choose Cross-Application Components -> Integrated Product and Process Engineering -> General Settings -> Define Settings for Access Objects.

Define Settings for Status Management

Use

In this section, you define which iPPE objects are subject to status management. In status management, you define certain states that an object must reach before the next business processes can begin. You can shape the status management for each object individually.

Activities

You define a status in the following way:

In the SAP Reference IMG, choose Cross-Application Components -> Integrated Product and Process Engineering -> General Settings -> Define Settings for Status Management.

The screen Change View "Status IDs": Overview appears.

Select New Entries.

Enter a key and a description for the status and save your entries.

Select the status and choose Status Values.

The screen Change View "Status Values": Overview appears.

Select New Entries.

Enter the keys, meanings, and if required, icons and descriptions for the values that your status can have.

Choose Status Preconditions if you wish to define preconditions.

Select New Entries.

Enter a key and a description for each precondition and state whether it must be fulfilled or not.

Select Status Object Types.

State the iPPE objects to which this status is to apply.

Select Status Predecessors if your status builds on other statuses that must be fulfilled first.

Enter the preceding status and state whether it has to be fulfilled.

Save your entries.

Note

If you create a status for an assembly item or component variant that is assigned above the superior node of a product class, the system always creates the same number of status graphs as the number of classes that exist in the associated product class hierarchy.

For example, node C1 has the class CL1 (of class type 300). Class C1 is assigned two subclasses, CL11 and CL12, in the class hierarchy. For variant V1 of the node C1, the system then assigns three status graphs for the classes CL1, CL12, and CL13.

Example

Status 0001 (released for construction) for component variants:

Status 0001 can have the following values: 001 for initial and 002 for successful. This shows that a component variant is either released or not released for construction.

The precondition 001 (DMU data available) must be fulfilled before the status 0001 can be set to 002 (successful). You can specify whether this precondition must be fulfilled (cannot be overridden) or may be fulfilled (can be overridden with warning). In the latter case, the status can achieve the value 'successful' even if the precondition has not been fulfilled.

Status 0001 is valid for component variants (S_CSMPST), and is automatically used for all component variants created in the system.

If the component variants have to reach various different statuses and be released, you can state whether the status has preceding statuses that must be fulfilled.

iPPE Object Administration

Define iPPE Node Types

Define General iPPE Node Types

Use

In this activity, you can define additional iPPE node types. You define the characteristics that a certain iPPE node type is to have, and the name of iPPE nodes of this type.

Standard settings

The standard system includes the superset of possible iPPE node types. You cannot change the attributes of the standard node types. You use the standard node types to represent master data in all the iPPE applications (product variant structure, process structure, and factory layout). The standard iPPE node types are:

Product Variant Structure	Variant Assembly	Joint Production
Access Node	Assembly Node	Header (Joint Production)
View Node Production)	VA Structure Node	Item Group Joint
Structure Node Color Scheme		

Process Struct. (Shop Floor) (SNP/CTM) Process Struct. (Line) Process Struct.

Routing Header
Grouping Activity
Operation
Activity
Activity
Routing (Line)
SNP Routing Header
Subrouting (Line)
SNP Activity
Operation (Line)
Activity (Line)

Line DesignLine Network

Line

Group of Alternative Lines

Line Area

Line Segment

Buffer

Work Area

Intermediate Buffer

When you create a new node type, you must use one of the SAP standard nodes as a template. However, you cannot create new node types that would change the attributes of existing node types.

The namespace S is reserved for the standard iPPE node types. This means you cannot create node types with technical names that begin with the letter S.

Recommendation

Use the standard iPPE node types.

Activities

To create a new iPPE node type:

Choose Customizing for Cross-Application Components -> Integrated Product and Process Engineering (iPPE) -> Administration for iPPE Objects -> Define iPPE Node Types -> Define iPPE Node Types .

The screen Change iPPE Node Types: Overview appears.

Choose New Entries.

The screen New Entries: Details of Added Entries appears.

Enter the technical names for the new node type.

Enter the node type whose attributes you wish to copy to the new node type, and choose *Enter*.

The attributes of the reference node type are displayed for the new node type. The fields You can change are ready for input.

Enter data as required and save your entries.

Further notes

You can also create new node types by selecting existing nodes and choosing @2U@ Copy As.

If nodes of an iPPE node type have been created in the system, you cannot delete the iPPE node type. If the node type is used in iPPE, you cannot change the attributes.

For structure nodes from the PVS, it is possible that relationships point from this node type directly to lower-level structure nodes, or from alternatives of the structure node to lower-level structure nodes. You can make settings for both possibilities in Customizing. However, if you create an alternative for an existing structure node, which already has relationships to lower-level structure nodes, the system automatically reassigns all such relationships to the alternative.

Define iPPE Production Resources

Use

In this activity, you can define node types to represent production resources within the factory layout in iPPE

Standard settings

The following node types are provided as standard:

Workers

Operating Facilities

Planning Resources

You cannot change the properties of the available node types. You can use the available node types as a template for new node types.

Activities

To create a new production resource, please proceed as follows:

In the Customizing of Cross-Application Components, choose Integrated Product and Process Engineering (iPPE) -> Administration of iPPE Objects -> Define iPPE Node Types -> Define iPPE Production Resources.

Create and save the new entry.

Define iPPE Variant Types

Use

In this step, you can define the variant types for the node types that you have already defined in step Define General Node Types.

You can use a variant to document if a node can have various concrete characteristics. When you maintain data in the iPPE Workbench, the variant that belongs to the node is automatically selected.

Standard settings

The variant types included in standard Customizing allow you to build the structures for all applications in iPPE. The following variant types are included in the standard Customizing:

Product Structure

Access Variant

Item Variant

Assembly Header

Assembly Item

Color Variant

Focus

Focus Access Variant

Focus Variant

Focus Assembly Header

Focus Assembly Item

Focus Color Variant

Activities

You create new variant types as follows:

In the Customizing of Cross-Application Components, choose Integrated Product and Process Engineering (iPPE) -> Administration iPPE Objects -> Define iPPE Variant Types.

The screen Change iPPE Variant Types appears.

Select New Entries to create a new entry.

The screen New Entries: Details appears.

Enter the necessary data.

Save your entries.

Define iPPE Alternative Types

Use

In this step, you define alternatives for the nodes that you have defined in step Define General Node Types.

An alternative documents, for example, that a node and its structure can be assembled differently in different plants. When you maintain data in the iPPE Workbench, the system automatically selects the relevant alternative for the node.

Standard settings

The alternative types that are included as standard allow you to build structures for all iPPE applications. The following alternative types are included as standard:

Product Structure:

PVS Access Alternative Segment (Access Node)

PVS Structure Alternative Segment (Structure Node)

Variant Assembly Alternative

Assembly Alternative

Focus Product Structure:

Focus Variant Assembly Alternative

Focus Assembly Alternative - **Process Structure:**

Mode Process Structure (Line) (Technical Name: S_ACTSTM) - Mode Process Structure (Workshop) (Technical Name: S_PPMSTM) - **Line Structure:**

Alternative Line

Alternative Work Center

Part of Line Network Use the alternative types provided by SAP.

Activities

To create new types of alternatives, proceed as follows:

In the Customizing of Cross-Application Components, choose Integrated Product and Process Engineering (iPPE) -> Administration iPPE Objects -> Define iPPE Alternative Types.

The screen Change View "iPPE Alternative Types" appears.

To make a new entry, choose New Entries. The screen New Entries: Details appears.

Enter the required data.

Save your entries.

Define iPPE Relationship Types

Define General iPPE Relationship Types

Use

You define iPPE relationships in this activity. You use relationships to link objects that you created in the activities *Define General iPPE Node Types*, *Define iPPE Variant Types*, and *Define iPPE Alternative Types*. You link objects to build up the complete structure for Integrated Product and Process Engineering (iPPE).

As soon as you link two nodes to one another in the iPPE Workbench, the system automatically assigns the appropriate iPPE relationship type.

You cannot delete iPPE relationship types that are already being used.

Standard settings

The relationship types provided as standard by SAP enable you to set up all structures in Integrated Product and Process Engineering (iPPE).

Use the standard relationship types.

Activities

To create new relationship types, proceed as follows:

In Customizing, choose Cross-Application Components -> Integrated Product and Process Engineering -> iPPE Object Administration -> Define iPPE Relationship Types.

The screen Change iPPE Relationship Types appears.

To create a new relationship type, choose *New Entries*. The screen *New Entries*: *Detail* appears.

Enter the necessary data.

Save your entries.

Define Line-Specific Relationship Types

Use

In this step, you can define Relationship Subtypes for line design.

It is only necessary to define your own relationship subtypes if you have previously created new entries for the relationship types S_ACTFLO and S_FLOPLN in step Define iPPE Relationship Types.

Create Model Assignments

Use

In this activity, you can define which node types can have variants and alternatives.

Standard settings

The model assignments provided as standard represent the superset of possible model assignments. Together with the nodes types, variant types, and alternative types, they can be used to build the entire structure for Integrated Product and Process Engineering (iPPE).

When you create a node and maintain variants and alternatives in the iPPE Workbench, the system automatically uses the appropriate model assignment.

Use the provided model assignments.

Activities

To create new model assignments, please proceed as follows:

In the Customizing of Cross-Application Components, choose Integrated Product and Process Engineering (iPPE) -> Administration of iPPE Objects -> Define iPPE Model Assignments.

The screen iPPE Model Assignments: Change appears.

To create a new entry, choose New Entries. The screen New Entries: Details appears.

Enter the required data.

Save your entries.

iPPE Interface Administration

Define User Profiles for the iPPE Workbench Professional

Use

The user profile controls which data is displayed and can be maintained by the user in the *iPPE Workbench Professional*.

You can change the iPPE user profiles defined by SAP in this IMG activity by changing, copying, renaming, or creating new user profiles.

Standard settings

The SAP standard system includes the following user profiles:

S PPEALL (Total Display)

This profile includes all the settings you need to work with the iPPE Workbench Professional.

S_ASTACT (Process Structure)

Part of the S_PPEALL profile; calls up a process structure as an application tree in the detail area of the *iPPE Workbench Professional*.

S_ASTCMP (Product Structure)

Part of the S_PPEALL profile; calls up a product structure as an application tree in the detail area of the *iPPE Workbench Professional*.

S_ASTFLO (Factory Layout)

Part of the S_PPEALL profile; calls up a line structure as an application tree in the detail area of the *iPPE Workbench Professional*.

Activities

You can change, copy, and rename the profiles or create new profiles. You can define settings for the following areas:

Relationships:

Here you can define if sequences, assignments, or hierarchies are visible between objects and how they are displayed.

Model Definitions:

Here you define how the model definitions between the objects are displayed in the navigation area.

Environment:

Here you define how objects from the Product Lifecycle Management environment are displayed in the navigation area of the iPPE Workbench Professional and how these objects are connected to iPPE objects.

Reports:

Here you define which reports will be available for this profile in the *iPPE Workbench Professional*.

You can only choose reports that you have already defined in the activity Define Reports for the Reporting Tree.

Further notes

In the activity Define Tab Pages for the Detail Area of the iPPE Workbench Professional, you need to assign the layouts that exist for the individual objects to the profile. If the profile is not assigned any layouts, the system will not display any data for the selected object in the detail area of the iPPE Workbench Professional.

Define Reports for the Report Tree in the iPPE Workbench Professional

Use

In this activity, you can see the reports that are provided in the evaluations of the iPPE Workbench. You can see whether the reports are also visible in the context menu for specific objects, and if they can be selected there.

You can create new reports, which become available for use in the iPPE Workbench when you enter them in this activity.

Requirements

If you redefine function modules and enter them in this activity, they must correspond to the interface PPEUIREP_EXAMPLE in the function group PPEUIREP.

Standard settings

The following reports are included in the standard system and are displayed in the menu of the iPPE Workbench under Evaluations -> Reports:

Activities to Line Balance

Components to Line Balance

Production Resources to Line Balance

Status Cockpit

Define Tab Pages for the Detail Area of the iPPE Workbench Professional

Use

In this step, you can specify the number of tab pages and their layout, and also state which objects are to be visible on the tab pages in the iPPE Workbench. The layout for the tab pages, which consists of a definition and the corresponding screens, is linked to the user profile and the individual iPPE objects.

You create user profiles in the activity Define iPPE User Profiles.

Example

Tab page for the overview of component variants.

Screen Definition:

Screen Name	Program Name	Screen	No. Screen No.	Description
S_CMP_VARIANTS	SAPLPVSUICMP	1301	1300	Overview of
CMPVar				

Screens 1301 and 1300 from program SAPLPVSUICMP are identified by the screen name S_CMP_VARIANTS.

Tab Title Definition:

 Tab Page
 Tab Title
 Description S_CMPN_VARIANTS
 Variants

The tab page for *variants* is identified by the key S_CMPN_VARIANTS.

Tab Title - Screen Assignment:

Tab Page: S_CMPN_VARIANTS

Screen Position

S_CMP_VARIANTS

Screen S_CMP_VARIANTS will be displayed on the tab page S_CMPN_VARIANTS in the first position.

Layout Definition:

LayoutDescriptionS_CMPN_STStructure Node

The layout for the structure node is identified by the key S_CMPN_ST.

Layout - Tab Title Assignment:

Layout: S_CMPN_ST WHATSAPP +255738656506 The layout for the structure node S_CMPN_ST (structure node) is displayed in the third position on the tab page S_CMPN_VARIANTS for variants.

Layout - Object Type Assignment:

S_CMPN_ST

Profile	Object Type	Object Type		
S_PPEALL	S_ST	Node		

The layout S_CMPN_ST is used in profile S_PPEALL for the node S_ST (structure node).

Requirements

Before you define tab pages and their layouts, you must define the profiles and object types that you wish to use.

Standard settings

All tab page definitions and settings that you need for using the iPPE Workbench are included in the standard Customizing.

Recommendation

Use the standard Customizing included in the Release.

Activities

Screen Definition:

All iPPE screens and their corresponding programs are recorded in the *screen definition* section, each with a screen name. You assign these screens to layouts and tab pages. In certain cases, 2 screen numbers are specified for the same data. This is because the screens are available in 2 sizes. The option *Navigation View* in the iPPE Workbench allows you to select the large or small screen.

Tab Page Definition:

The individual tab pages available in the iPPE Workbench are recorded in this section. A tab page is identified by a key, the tab title, which appears in the iPPE Workbench, and a description. You can see the description in the iPPE Workbench as quick info. You can also define an icon for each tab page.

Tab Title - Screen Assignment:

In this section, the screens and tab pages are managed as one unit. You specify which screens from the screen definition section are to appear on which tab page from the tab page definition section. If there are several screens on one tab page, you can state the order in which they are to be arranged.

Lavout Definition:

The keys and descriptions for the layouts are recorded in this section.

Layout - Tab Title Assignment:

In this section, you specify which tab pages belong to which layout.

Layout - Object Type Assignment:

In this section, you state the profile from the iPPE Workbench (such as S_PPEALL) and the object type (such as S_CMPST alternative at structure node), for which the layout is to be active.

Layout - Tabstrip Assignment:

In this section, you specify whether another set of tab pages can be displayed on a tab page. Up to three sets of tab pages (tabstrips) can be displayed on a tab page. This function is already used internally. Contact your SAP consultant if you wish to use this function.

Define Settings for Relationships in the iPPE Workbench Professional

Use

In this section, you can specific whether existing relationships, which have been defined in the processing step Define iPPE Relationship Types and go in a specific direction, can also point in the opposite direction. This enable you to assign objects in the Workbench using Drag & Drop, regardless of whether the objects are in the navigation tree or on a tab page for the assignment.

Requirements

The SAP standard system includes additional settings for all relationships of the following types:

S_ACTIOC (Material Assignments)

S_FLOACT (Line Balances)

S_FOCIPO (Focus Structure)

S_RESFLO (Resource Capacities)

iPPE Product Structure Administration

Maintain Variable-Size Item Formulas

Use

Here you maintain formulas for calculating the quantity of a variable-size item from the size.

Define Object-Dependent Settings for Status Management

Use

In this Customizing activity, you define the interaction between the status on assembly item or component variant and change management. You can make the following settings:

If you set the *Lock* indicator for a status, the change state of the component variant (or assembly item), upon reaching this status, is automatically locked against further processing with respect to the same change number.

If you set the *Close* indicator for a status, and work with the Change Request / Change Order function in change management, the change order for the processed object, upon reaching this status, is automatically set to Closed. In this way the object is locked against further processing with respect to this change order.

Extract: Activate and Define Settings

Use

In this step, you activate the extraction function and determine how the system describes the extractions.

Standard settings

This function is not active.

iPPE Process Structure Administration

Define Standard Value Determination Type

Use

In this activity, you can specify the possible ways in which the standard values can be determined.

Activities

Create the possible ways in which the standard values can be determined. On the detail screen For the mode of an activity, your entries will be offered in the standard value determination field for you to select the way the values are to be determined.

Example

The standard values could be determined, for example, using a time analysis tool, or on the basis of times calculated by REFA (a work study organization).

IPPE Line Structure Administration Define

Types of Reporting Point

Use

In this IMG activity, you define reporting point types.

In line design, you can define reporting points at a production line or a line segment. If you want to use an action point as a reporting point for back flush, you need to assign a reporting point to each of these action points. The reporting point type determines whether, in the reporting point back flush:

Capacity is reduced.

The components are back flushed.

Goods receipt is posted.

All previous reporting points (Predecessor Reporting Points) of this type are back flushed automatically.

Further notes

Reporting points with a type that specifies capacity reduction can only be defined at a production line. Only a production line has an allocated line resource, from which capacity can be reduced.

You can define two reporting points per line segment, one at the start and one at the end.

Define Settings for Consistency Check

Use

You can use the consistency check for iPPE data to check if the master data that was maintained in iPPE for one or more products are complete and consistent in SAP APO.

The consistency check consists of several checks for the areas of the product structure, process structure, and line structure. In this IMG activity, you determine which checks will be available in the system.

Standard settings

All consistency checks are active in the standard delivery.

Activities

Activate and deactivate the desired checks. Here, you determine which checks will be available in the consistency check.

When the checks are active, they will be displayed on the corresponding consistency check tab page and can also be activated and deactivated here.

You can use the LS>BAdI for Customer-Specific Consistency Checks to implement additional checks. You must also activate using this IMG activity if these checks are to be available on the consistency check tab page.

Business Add-Ins for Integrated Product and Process Engineering

BAdI for Customer-Specific Consistency Checks

Use

Application Component: AP-PPE.

The Business Add-In (BAdI) IPPE_CHK_EXT and its method CONSISTENCY_CHECK can be used to implement customer-specific checks for the iPPE consistency check that is used for production versions and the product structures, process structures, factory layouts, and line balances assigned to them.

The BAdI provides the following methods: CONSISTENCY_CHECK

Standard settings

In the standard system, there is no activated BAdI implementation.

Note that the Business Add-In can be used more than once and therefore all active implementations are called and executed.

The Business Add-In is not filter-dependent.

Activities

To activate the Business Add-In, you have to create an active implementation.

To do so, choose the IMG activity by double-clicking @1@. Or

To do so, choose the following menu in the SAP Easy Access Menu Tools -> ABAP Workbench -> Utilities -> Business Add-Ins -> Implementation.

If implementations already exist for the selected BAdI, the system braches to a dialog box displaying a list of the existing implementations.

In this dialog box, choose Create.

The system branches to the dialog box BAdl Builder: Create Implementation.

Enter an implementation name and choose Continue.

The screen Business Add-In Builder: Change Implementation appears.

In the field *Implementation Short Text* enter a short description.

Select the tab page *Interface*.

In this tab page, the field *Name of implementing class* is filled automatically as the system assigns the class name using the name of the implementation.

Save your entries and assign the implementation to a package.

Position the cursor on one of the methods. Access the class builder with a double click.

Enter the coding for the implementation between the instructions **method <Interface-Name>~** <Method nAME>.and endmethod.

Save and activate your coding and return to the screen *Change Implementation*.

Save your data again.

Note: It is possible to create an implementation for a BAdI and activate it later. In this case, you should exit processing here.

Choose Activate.

During the execution of the application program, the system now runs through the coding you saved in the method.

You can find additional information in the SAP Library under SAP NetWeaver Components -> SAP Web Application Server -> ABAP Workbench (BC-DWB) -> Changing the SAP Standard (BC) -> Business Add-Ins -> Implementing a Business Add-In.

Further notes

You can also call the documentation on the BAdI method via the menu, by carrying out the following steps:

Choose the tab page Interface.

Double-click on the relevant method.

Click on the right mouse button and choose Component documentation.

Customer Check for CI in the iPPE Process Structure

Use

Application Component: AP-PPE.

This Business Add-In (BAdI) contains check methods that you can implement to execute a special check for master data in the process structure when creating, changing, or deleting. You can also check customer-specific includes.

The BAdI methods support the check of the following objects of the iPPE process structure:

Modes

Standard settings

In the standard system, there is no activated BAdI implementation.

The Business Add-In cannot exist at several positions.

The Business Add-In is not filter-dependent.

Activities

To activate the Business Add-In, you have to create an active implementation.

To do so, choose the IMG activity by double-clicking @1@.

Or

To do so, choose the following menu in the SAP Easy Access Menu Tools -> ABAP Workbench -> Utilities -> Business Add-Ins -> Implementation.

If implementations already exist for the selected BAdI, the system braches to a dialog box displaying a list of the existing implementations.

In this dialog box, choose Create.

The system branches to the dialog box BAdl Builder: Create Implementation.

Enter an implementation name and choose Continue.

The screen Business Add-In Builder: Change Implementation appears.

In the field *Implementation Short Text* enter a short description.

Select the tab page Interface.

In this tab page, the field *Name of implementing class* is filled automatically as the system assigns the class name using the name of the implementation.

Save your entries and assign the implementation to a package.

Position the cursor on one of the methods. Access the class builder with a double click.

Enter the coding for the implementation between the instructions **method <Interface-Name>~** <Method nAME>.and endmethod.

Save and activate your coding and return to the screen Change Implementation.

Save your data again.

Note: It is possible to create an implementation for a BAdI and activate it later. In this case, you should exit processing here.

Choose Activate.

During the execution of the application program, the system now runs through the coding you saved in the method.

You can find additional information in the SAP Library under SAP NetWeaver Components -> SAP Web Application Server -> ABAP Workbench (BC-DWB) -> Changing the SAP Standard (BC) -> Business Add-Ins -> Implementing a Business Add-In.

Further notes

The BAdI provides the following methods:

PAMOD MAINT CHECK

PAMOD_DELETE_CHECK

Sort Data of the iPPE Process Structure (ACT)

Use

Application Component: AP-PPE.

The BAdI IPPE_ACT_SORT contains sorting methods, which you can implement to sort master data in the navigation tree or in the detail overviews within the iPPE Workbench.

The following methods can be used to sort the following objects of the iPPE process structure:

Modes

The BAdI is called up when the data for modes in the navigation tree or in the detail area of the iPPE Workbench are displayed.

Standard settings

The Business Add-In is active in the standard system. The default coding is executed automatically.

The default implementation defines that the system sorts the modes of an activity by mode number first and then by the alphabetical sequence of the change numbers used. Secondary resources are sorted in the sequence in which they were entered.

The Business Add-In cannot exist at several positions.

The Business Add-In is not filter-dependent.

Activities

To activate the Business Add-In, you have to create an active implementation.

To do so, choose the IMG activity by double-clicking @1@. Or

To do so, choose the following menu in the SAP Easy Access Menu Tools -> ABAP Workbench -> Utilities -> Business Add-Ins -> Implementation.

If implementations already exist for the selected BAdI, the system braches to a dialog box displaying a list of the existing implementations.

In this dialog box, choose Create.

The system branches to the dialog box BAdl Builder: Create Implementation.

Enter an implementation name and choose *Continue*.

The screen Business Add-In Builder: Change Implementation appears.

In the field *Implementation Short Text* enter a short description.

Select the tab page *Interface*.

In this tab page, the field *Name of implementing class* is filled automatically as the system assigns the class name using the name of the implementation.

Save your entries and assign the implementation to a package.

Position the cursor on one of the methods. Access the class builder with a double click.

Enter the coding for the implementation between the instructions **method <Interface-Name>~** <Method nAME>.and endmethod.

Save and activate your coding and return to the screen Change Implementation.

Save your data again.

Note: It is possible to create an implementation for a BAdI and activate it later. In this case, you should exit processing here.

Choose Activate.

During the execution of the application program, the system now runs through the coding you saved in the method.

You can find additional information in the SAP Library under SAP NetWeaver Components -> SAP Web Application Server -> ABAP Workbench (BC-DWB) -> Changing the SAP Standard (BC) -> Business Add-Ins -> Implementing a Business Add-In.

Example

See default implementation.

Further notes

The BAdI provides the following methods:

PAMOD_SORT

Saving and Reusing Results of Model Mix Explosion

Use

Application Component: AP-PPE.

You use this BAdI so that the result of the model mix explosion can be saved and so that the display structure of the line balance relationship can be reused with the weighted duration.

Standard settings

This Business Add-In is not active in the standard delivery. No default coding is available.

The Business Add-In cannot exist at several positions.

The Business Add-In is not filter-dependent.

Activities

To activate the Business Add-In, you have to create an active implementation.

To do so, choose the IMG activity by double-clicking @1@. Or

To do so, choose the following menu in the SAP Easy Access Menu Tools -> ABAP Workbench -> Utilities -> Business Add-Ins -> Implementation.

If implementations already exist for the selected BAdI, the system braches to a dialog box displaying a list of the existing implementations.

In this dialog box, choose Create.

The system branches to the dialog box BAdl Builder: Create Implementation.

Enter an implementation name and choose Continue.

The screen Business Add-In Builder: Change Implementation appears.

In the field *Implementation Short Text* enter a short description.

Select the tab page Interface.

In this tab page, the field *Name of implementing class* is filled automatically as the system assigns the class name using the name of the implementation.

Save your entries and assign the implementation to a package.

Position the cursor on one of the methods. Access the class builder with a double click.

Enter the coding for the implementation between the instructions **method <Interface-Name>~** <Method nAME>.and endmethod.

Save and activate your coding and return to the screen Change Implementation.

Save your data again.

Note: It is possible to create an implementation for a BAdI and activate it later. In this case, you should exit processing here.

Choose Activate.

During the execution of the application program, the system now runs through the coding you saved in the method.

You can find additional information in the SAP Library under SAP NetWeaver Components -> SAP Web Application Server -> ABAP Workbench (BC-DWB) -> Changing the SAP Standard (BC) -> Business Add-Ins -> Implementing a Business Add-In.

Further notes

The BAdI provides the following methods:

COUNT_WEIGHT_DURATION