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	DAT	BID	ASK	PRO	QUA
	JAN	€ 942,00	€ 348,00	€ 820,00	820
	FEB	€ 685,00	€ 920,00	€ 784,00	784
	MAR	€ 993,00	€ 604,00	€ 934,00	934
Sateen	APR	€ 228,00	€ 202,00	€ 555,00	555
Silk	MAY	€ 468,00	€ 685,00	€ 386,00	386
Oil	JUN	€ 609,00	€ 963,00	€ 974,00	974
Gas	JUL	€ 617,00	€ 240,00	€ 575,00	575
Electric power	AUG	€ 939,00	€ 858,00	€ 645,00	645

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The ASUG logo is positioned in the top left corner. The background of the entire slide is a futuristic digital cityscape with a blue and orange color scheme. A hand is shown holding a glowing orb in the foreground, and a large circular graphic with a bright light source is on the right. The words 'SEARCH' and 'ANALYSIS' are visible in the upper right area.

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Blue Cap  
Cap Code: H17  
Stock: 00925

Neck Finish: 24/410

Label: CMYK

Bottle: 16oz.  
Ht: 151 mm  
Dia: 74 mm  
192/cs



## Introduction to Packaging Specifications in SAP





- **Introduction**
- **Packaging Specifications and SAP PLM**
  - **Specification Management**
  - **Document Management System (DMS)**
- **Workflow Overview**
- **Demo**
- **Q&A**



- **Introduction**



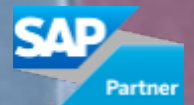
## What We Do

***At Linx/AS, we help customers get the most out of their investment in the SAP platform.***

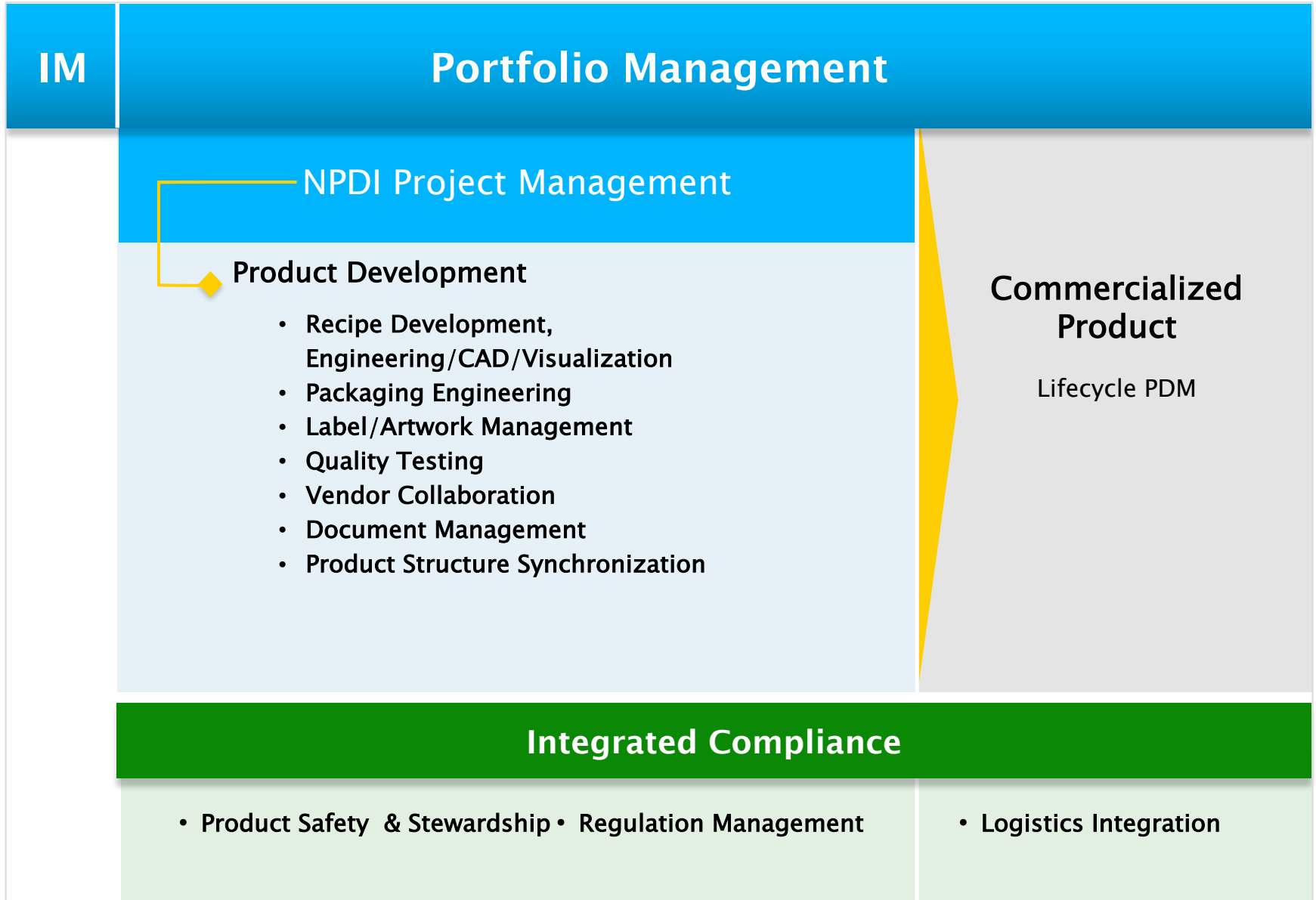
Our success lies in fully understanding the people and processes that drive your business. Only then can we apply our in-depth technical knowledge to design and deliver the right solution.

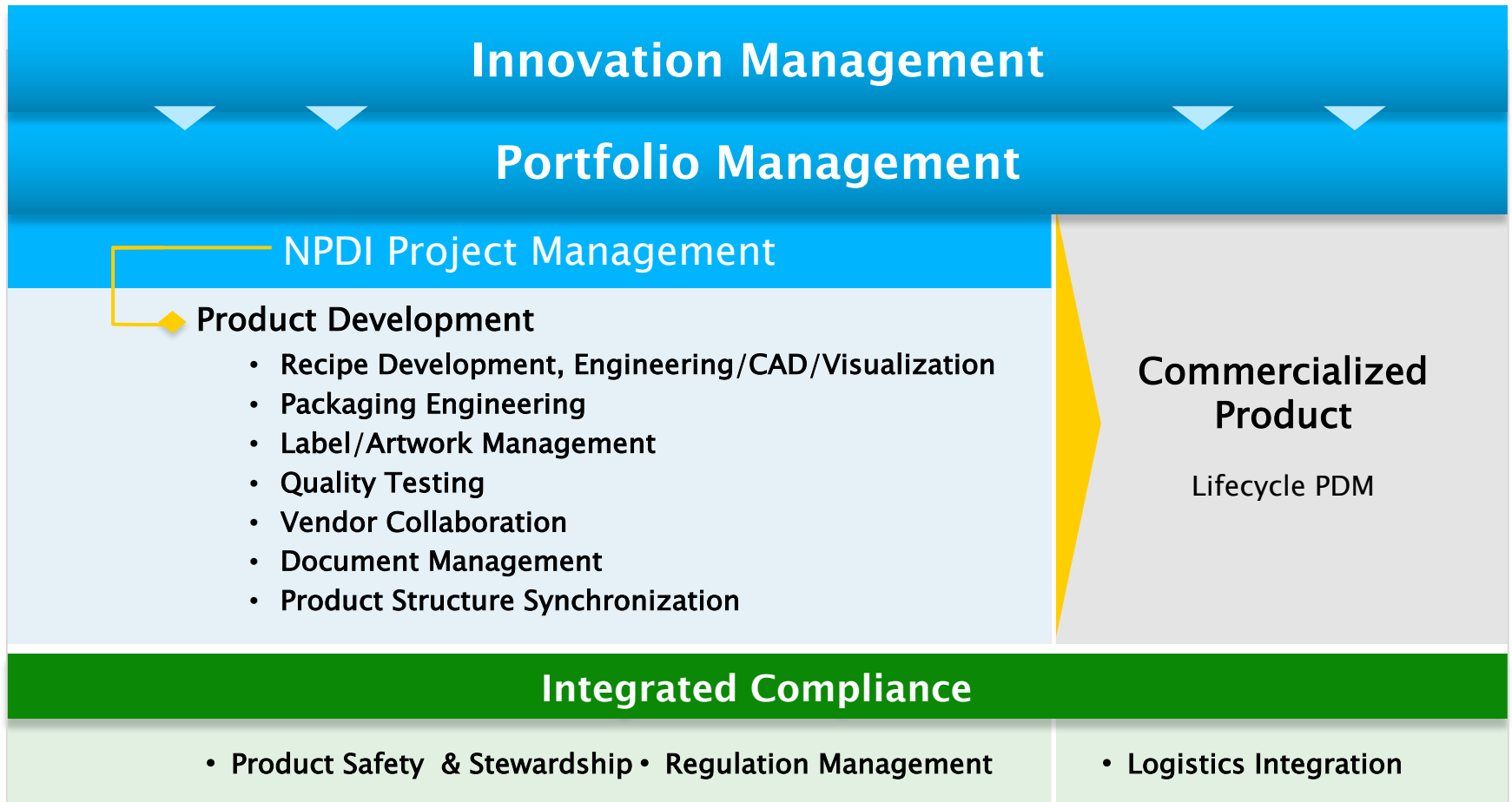
From streamlining product development to improving corporate sustainability to giving your users access to SAP when, where, and how they want it—we make SAP run like you've never seen.

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- SAP Consulting for Environment, Health & Safety Management (EHSM)
- SAP User Experience (UEX) Consulting
- Software Innovations











- **Packaging Specifications in SAP PLM**





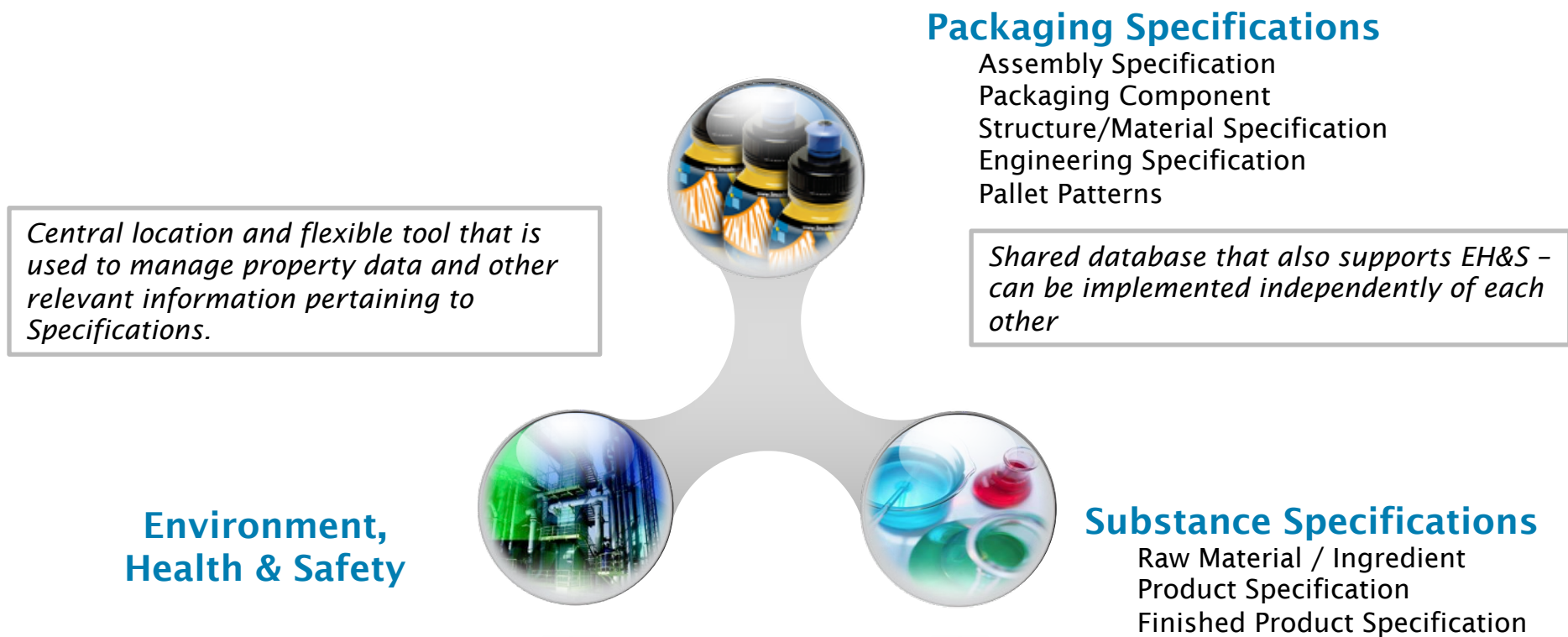
## Packaging Specifications

- R&D/PLM projects tend to focus on formulation or engineering design (e.g., the food, the smartphone, the fragrance, etc.)
- The tier above, the Finished Product (product + packaging components) is often not discussed/included.
- Packaging specs are overlooked as something SAP PLM can be used to support; companies turn to third-party applications while SAP PLM actually have a very comprehensive toolset.



# Specification Management

The **Specification Database** is the core and shared application for many Specification *Categories* and *Types* in SAP.





# Specification Organization



*Specification Categories* are a general grouping of specifications based on their use and function within the organization.

*Specification Types* further classify *Specification Categories* and provide a more exact grouping of specifications based on their use and function within the organization.

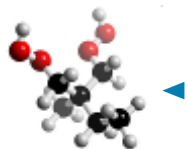
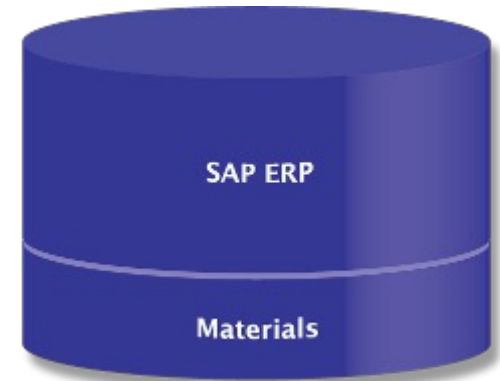
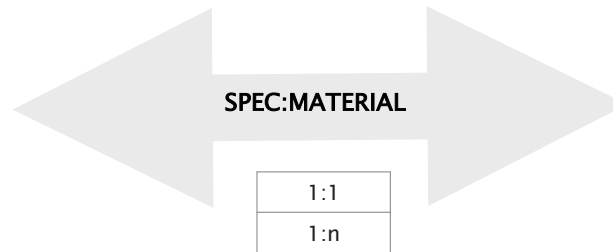
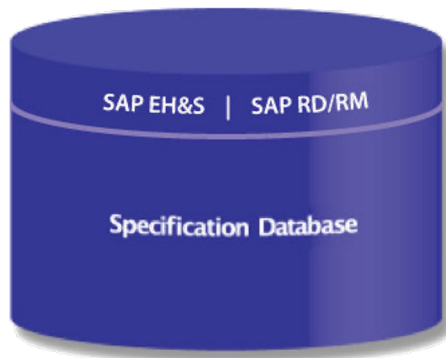




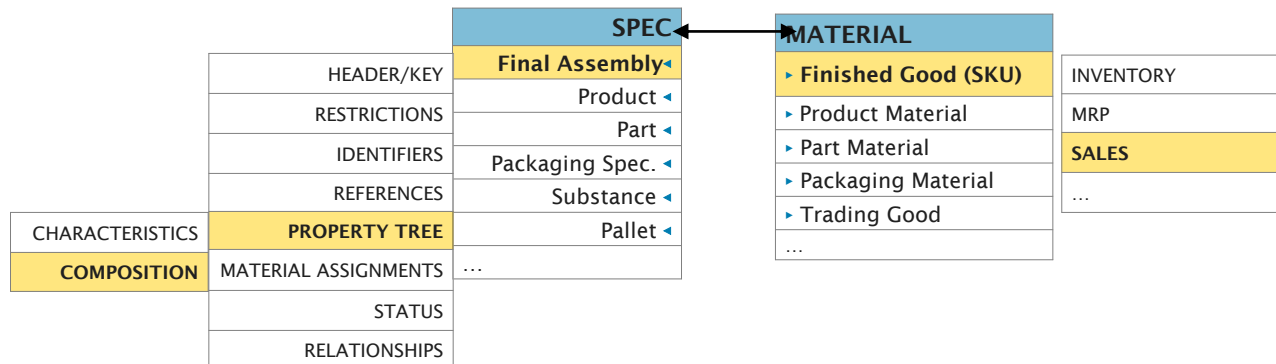
# Specifications versus Materials

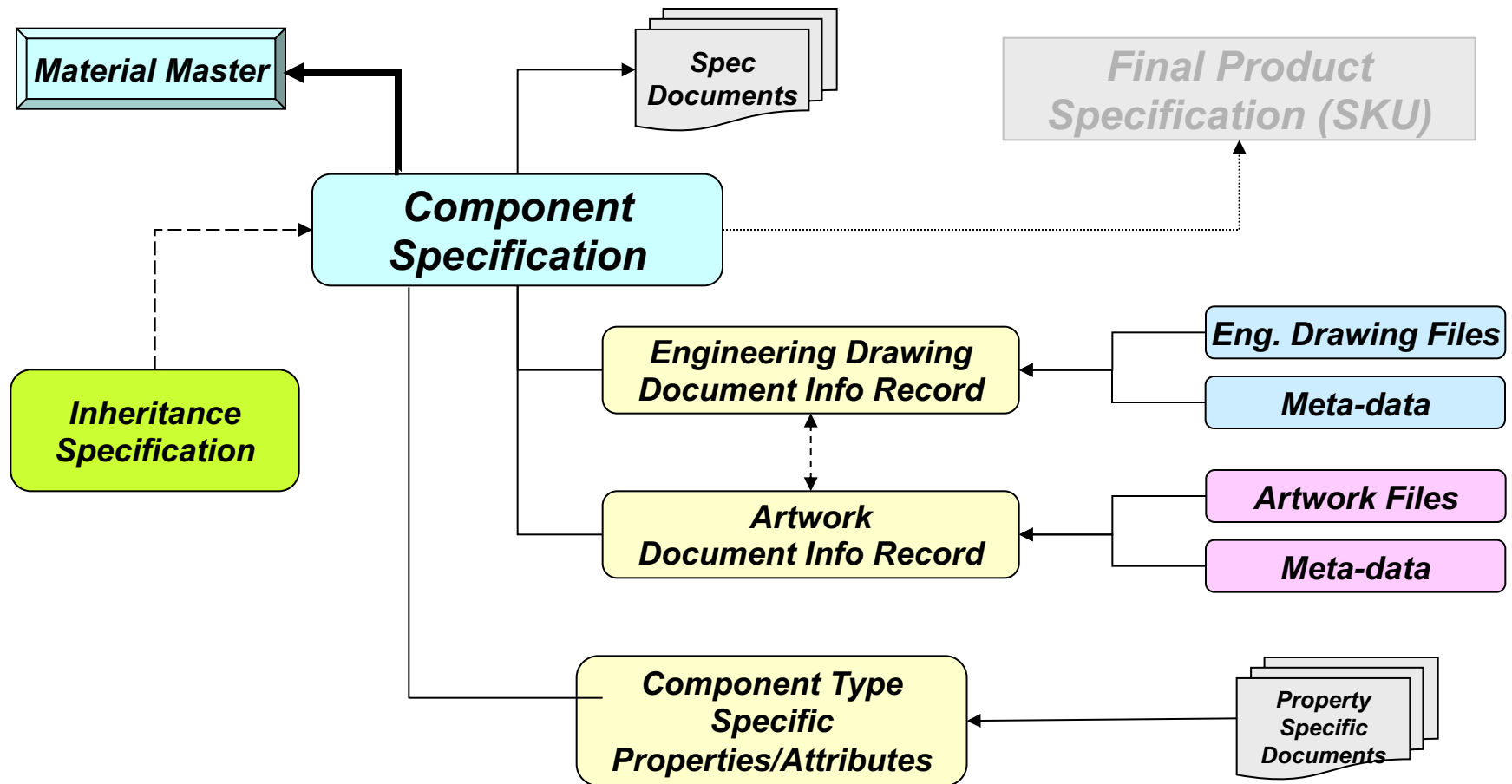
*Manage all physical properties, dimensions, approvals, client specific characteristics*

*Manage all logistics, financial and business data for finished products, packaging components, intermediates, etc..*



Lead (PPM)





General Data		Properties
Property:	Data	
▼ 500000000511		
▼ General Information	✓	
General Information	✓	
Estimated Price	✓	
Standard component type	✓	
▼ Documents	✓	
Mechanical Drawings	✓	
Embedded Documents	✓	
Generic Specifications	✓	
Other Attachments	✓	
Quality Specifications	✓	
Test Results	✓	
▼ Construction	✓	
Material	✓	
Flat Dimensions	✓	
Folded Dimensions	✓	
▼ Testing Requirements		
Testing Requirements		

The attributes or detailed data for a specific specification types is stored in the Property Tree:

- Contains numeric, text, phrase based data
- Different types of compositional breakdowns (i.e. component list, regulated substances, etc.)
- Flexible – can be configured to capture client specific data requirements





# Property Tree

Property Tree

Property Group



THREADS PER INCH	7,5
REFERENCE GENERAL SPEC	NONE
TURN OF THREAD	2,5
Usage	PUBLIC: REG_WORLD
CORNER RADIUS	

MATERIAL	CERTENE HD6605
APPROVED RESINS	RESIN TWO
MOLDING METHOD	INJECTION
ADDITIVES	PLASTICISERS
COLORANT	PANTONE 1023
SURFACE TREATMENT	VAPOR BEAST
DECORATION METHOD	LABEL (WRAPAROUND)
Usage	PUBLIC: REG_WORLD

Values

Properties

MIN TOP LOAD	200,0
UNITS WT	GM
GRAM WEIGHT	17,50
MIN WALL THICKNESS	0,0250
Usage	PUBLIC: REG_WORLD



# Specification Documents

- Specification document output report
- SAP Controlled (locked) Microsoft Word-like output from data in specification
- Ability to embed critical documents/images automatically in output document
- Maintains versioning and historical documents
- Ability to compare different versions of documents to trace changes
- Can generate multi-lingual documents

Linux/AS, LLC  
920 Harvest Drive Suite 150  
Blue Bell, PA 19422

Linux AS  
Division PLM

INGREDIENT-SPECIFICATION

-HEADER-INFORMATION-			
Spec-Number:	200000000123		
Description:	Vanilla Bean Extract		
Spec-Type:	INGREDIENT-SPECIFICATION	Validity Date:	04/15/2013
Person Responsible:	MPALKAR	Material Number:	196

GENFRAI INFORMATION	
Price:	1.5USD/LB

COMPOSITION

STANDARD-COMPOSITION	
Name	Value
Vanilla Planifolia Beans	60-%
Ethyl Alcohol	35-%
Water	5-%



# Packaging Specifications

## HOW THE CUSTOMER SEES A PRODUCT

### CAP

- Component Spec
- Resin Type
- Dimensions

### BOTTLE

- Injection Molding
- Resin Type
- Crush Testing

### LABEL ART

- Material
- Dimensions
- PMS Colors

### RECIPE

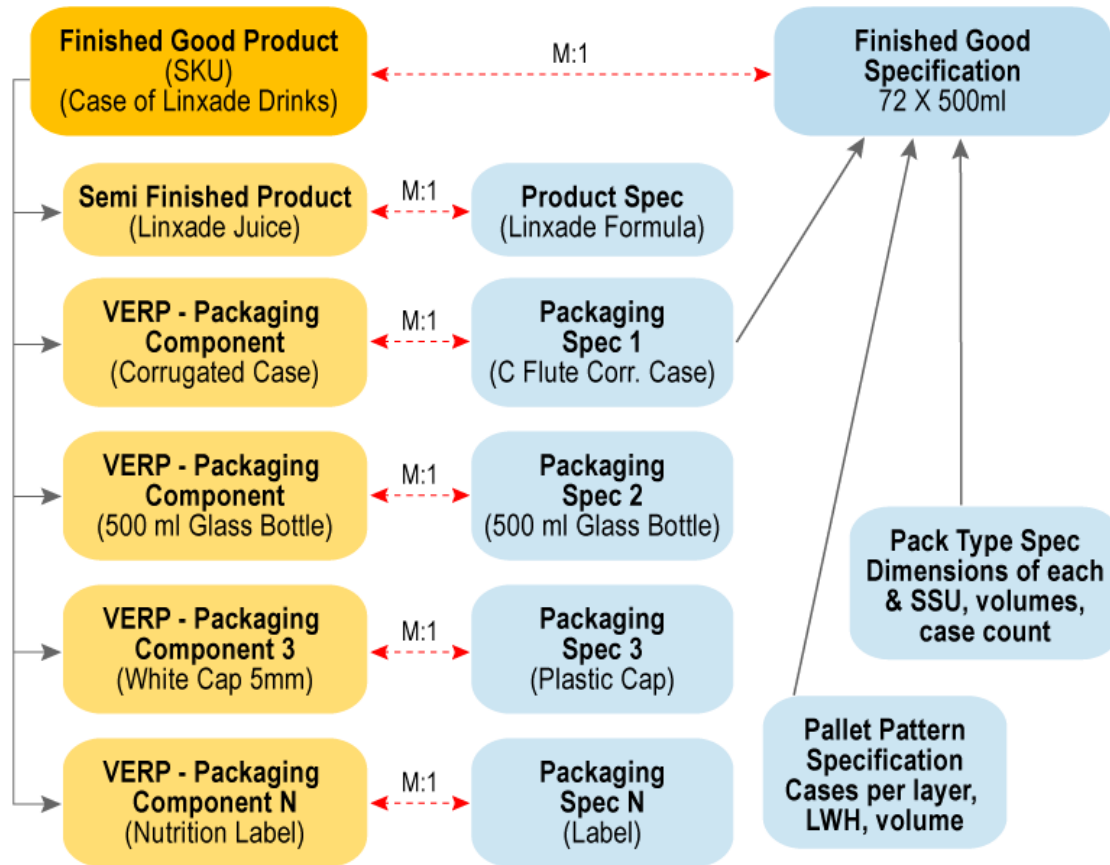
- Ingredient Specs
- Intermediate Specs
- Product Specs
- Ingredient Statement

### RAW MATERIALS

- Ingredients
- Nutritional Info



## HOW SAP SEES A PRODUCT







# Packaging Specifications

## HOW THE CUSTOMER SEES A PRODUCT

### CAP

- Component Spec
- Resin Type
- Dimensions

### BOTTLE

- Injection Molding
- Resin Type
- Crush Testing

### LABEL ART

- Material
- Dimensions
- PMS Colors

### RECIPE

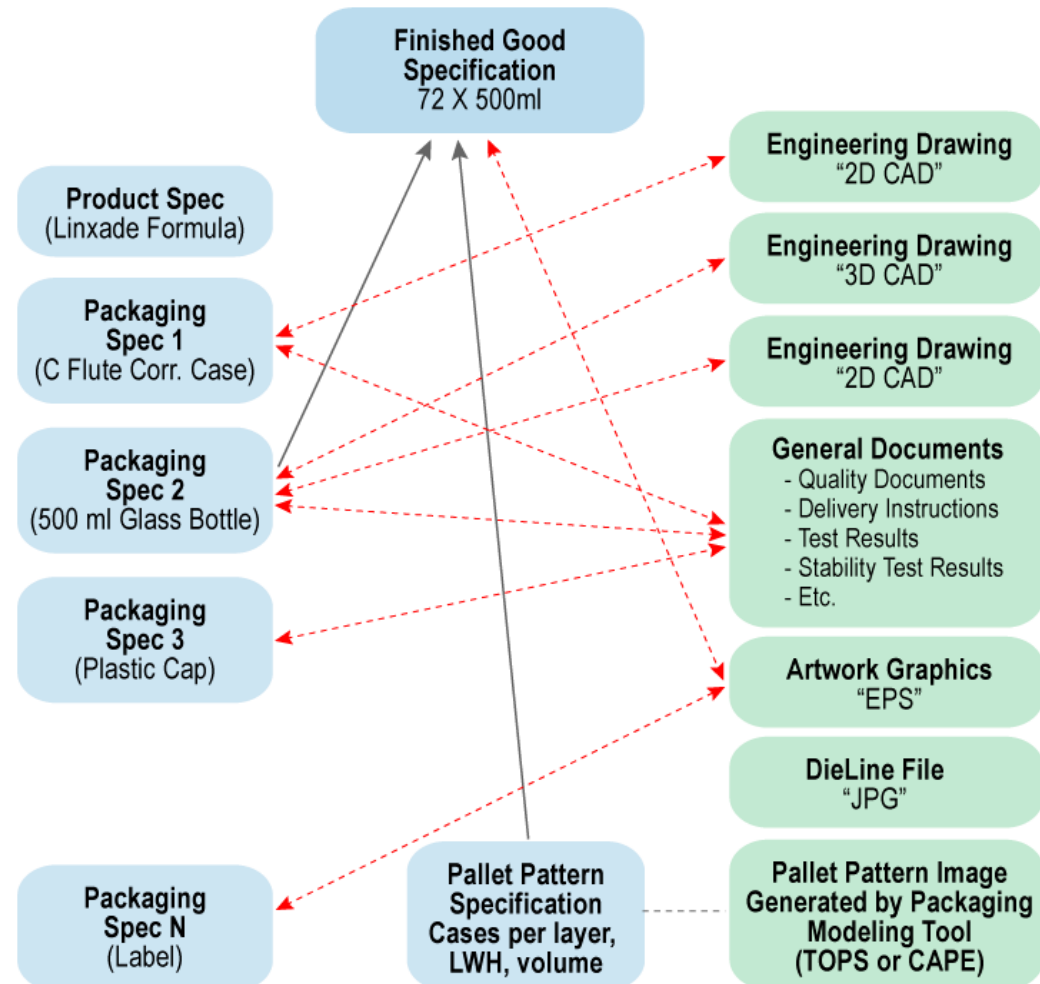
- Ingredient Specs
- Intermediate Specs
- Product Specs
- Ingredient Statement

### RAW MATERIALS

- Ingredients
- Nutritional Info



## HOW SAP SEES A PRODUCT





## Leverage specification hierarchy and inheritance to reduce redundancy in specification design.



### Packaging Specification 1 (Corrugated Case)

Master Case Dimensions  
Store Ship Units  
Each Dimensions/Weights  
..

### Assembly Packaging Specification

72 X 2 oz

..  
..  
Master Case Dimensions  
Store Ship Units  
Each Dimensions / Weights  
..  
..  
Cases per layer  
Length  
Width  
Height  
Volume  
Image (Document)



### Pallet Pattern Specification

Cases per layer  
Length  
Width  
Height  
Volume  
Image (Document)



- **Document Management System (DMS)**



## Document management solution for structured business and technical documents

- **Comprehensive EDMS solution**

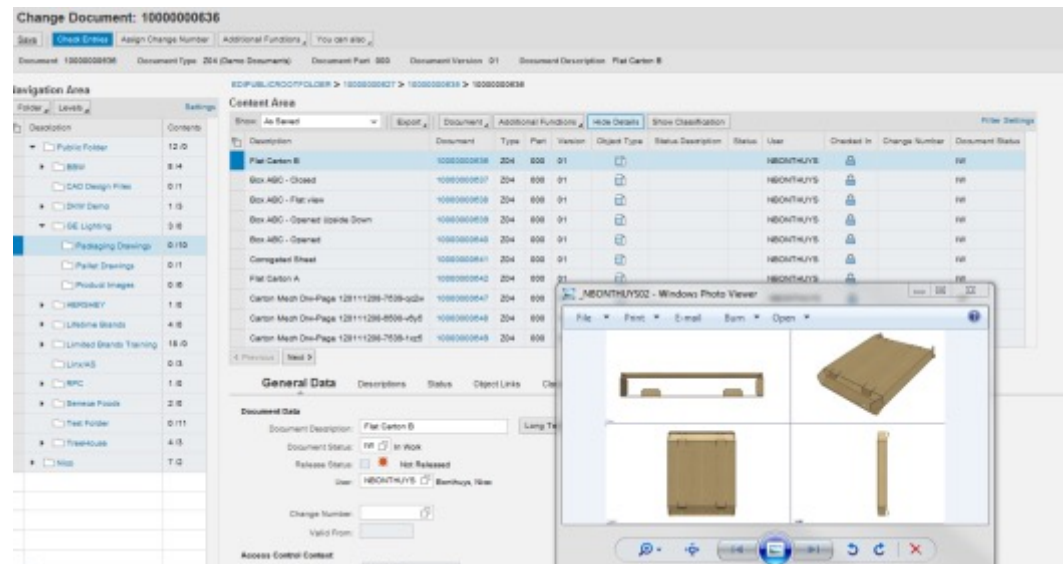
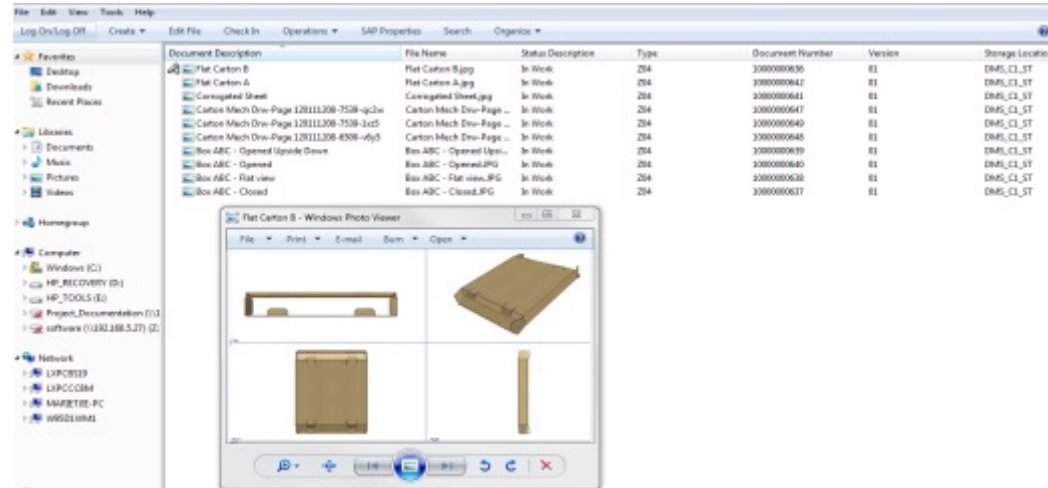
- Versions and Revision Management
- Approval and Change Management
- Workflow
- Distribution (cFolders or Email))
- Check In/Out
- Full Text Retrieval (Searching)
- Various User Interfaces

- **Logistics/Process integration**

- Product Structures
- Project Management
- Logistics

- **Open interfaces**

- CAD Integration
- Office Integration





## Manage Various Document Types

Used to manage all document types within SAP in a controlled environment:

- Procedures
- CAD Drawings
- Artwork/Labels
- Video Instructions
- Product Certificates
- Specification Documents (Created by/from Specification data base)
- SIP/SOP

## Application Types

Manage any Windows based document type:

- MS Office Documents
- Artwork like Adobe Illustrator, EPS, etc.
- CAD Drawings (Various)
- Images like JPG, TIFF, GIFF
- 2D and 3D CAD Drawings
- PDF renditions

## Integrated Viewer and Redlining

Light weight Right Hemisphere Viewer allows viewing/redline and markup of multiple formats including:

- 2D and 3D CAD Models
- JPEG, TIFF, GIF





## Terminology

SAP

### Document Info Records

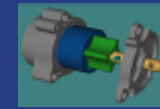
Master record in the SAP System that contains administrative data and control data for an original

Document  
Info Record



### Original

The "real information", what is actually being stored



### Application

Programs for editing or displaying digitally stored originals such as a CAD program.

### Content Server

Secure Storage area where original files can be stored in a Separate content server and cache servers if required

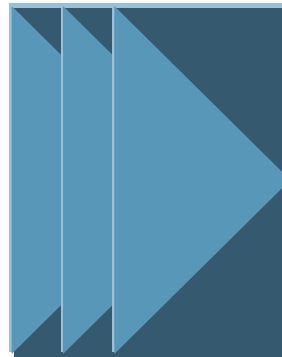
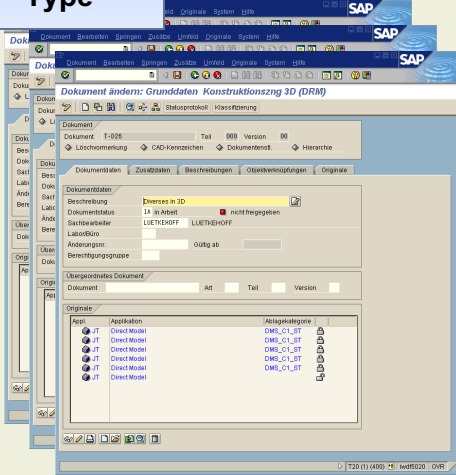


# Object Links between DMS and PLM/ERP Objects

## Object Links I

SAP

### By Document Type



### SAP objects

Material  
Specifications  
Functional location  
Vendor  
Document Info Records  
WBS element  
Production resource  
QM info record  
QM inspection method  
Change number  
Network operation  
Production order  
Customer  
Sales receipt item  
Etc.

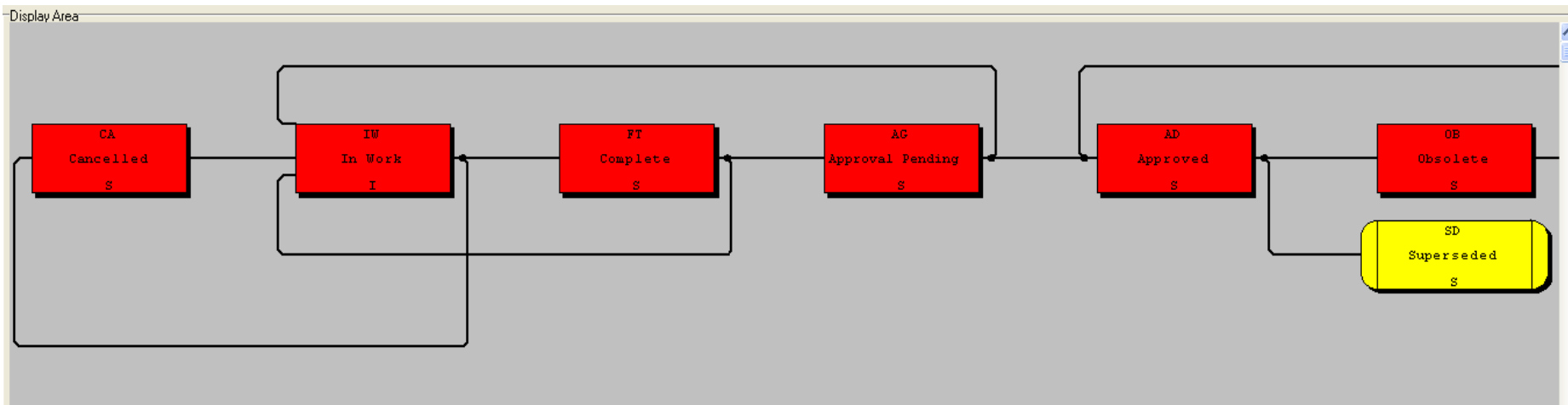
- n:m links (can be restricted)
- Additional functions can be hidden
- Deletion lock
- Bi-directions Navigation

© SAP AG 1999



# Document Status Network

- Manage life cycle of documents using status management
- Status networks unique by document type
- Upon approval of a document, the document is generally released for all users with appropriate authorizations
- Status protects the document against any further changes
- Status can be set manually or controlled via Workflow
- All changes on documents are logged by the system (Audit Log)
- Support Digital Signatures by Document Type and Status - triggered by status change or Workflow
- Authorizations defined by document type, status and other attributes





- **Workflow Overview**



**SAP offers different options for executing Workflows, which can be used to support:**

- Notifications to pass Specification or documents to various users/departments (Informal Notifications)
- Notifications to others to add or maintain data to Specification or attach a document (Collaborative Workflow)
- Workflow to users to review / approve a Specification or document (Approval Workflows)

**The complexity of the business requirements will drive the type of solution required by the design. Options are:**

1. Process Routes which are ad-hoc workflows/notifications associated with a Specifications, Documents or Change Records
2. Use SAP Business Workflow solution to develop more complex and powerful workflow processes to support Collaborative Design and Approvals





# Process Routes

- Process Routes Embedded ad-hoc workflow functionality of many SAP PLM objects
- Define individual ad-hoc workflows or load from workflow templates as an end user
- Notifies recipient of task to complete
- Users can be added in parallel or sequentially

**Display Document: 1000005887** [Side Panel Help](#)

Document: 1000005887 Document Type: SWA (Engin/Dcs. Drawing) Document Part: 000 Document Version: 00 Document Description: Servomotor

[Save](#) [Edit](#) [Print](#) [Refresh](#) [Additional Functions](#)

[General Data](#) [Descriptions](#) [Object Links](#) [Classes](#) [Characteristic Values](#) [Originals Processing](#) [Document Browser](#) [Authorizations](#) [Process Route](#)

**Document Data**

Document Description:  [Long Text](#)

Document Status: ☐ Change Request Authorization Group:

Release Status: ☐ Not Released Created in CAD: ☒

User:  B-ret, Julia Document Structure: ☒

Change Number:  Marked for Deletion: ☐

Valid From:  CM Relevance: ☐

**Access Control Context**

Owning Context:  [Context for demo](#)

[View Original](#)

**Display Document: 1000005887**

Document: 1000005887 Document Type: SWA (Engin/Dcs. Drawing) Document Part: 000 Document Version: 00 Document Description: Servomotor

[Save](#) [Edit](#) [Print](#) [Refresh](#) [Additional Functions](#)

[General Data](#) [Descriptions](#) [Object Links](#) [Classes](#) [Characteristic Values](#) [Originals Processing](#) [Document Browser](#) [Authorizations](#) [Process Route](#)

[Expand All](#) [Collapse All](#) [Show Details](#) [Additional Functions](#) [Settings](#)

Process Tasks	Type	Activity	Status Icon	Status	Long Text	Latest End Date	Latest End Time	Processing Time (Days)
▼ Header							00:00:00	0
• Huber, Daniel	SAP User	Display	⚠	Work Item Sent	<a href="#">Display</a>		00:00:00	2
▼ Parallel Steps							00:00:00	0
• Choudhary, Manik	SAP User	Display					00:00:00	0
• Huber, Daniel	SAP User	Display					00:00:00	3
• P, Abhilash	SAP User	Display					00:00:00	0

[Save](#) [Edit](#) [Print](#) [Refresh](#) [Additional Functions](#)




## Workflow Accelerator (Specifications)

**Packaging Spec - Bag 500000000377 / Purchasing / A - Approval Request without DS**

**Actions**  
Save Changes | Open Specification | Approve | Reject | Close

**Administrative data**  
Specification: 500000000377  
Spec. Type: Z\_BAG | Packaging Spec - Bag  
SpecCatDesc: Packaging  
Change Number:  
Material:

**Initiator Note**  
**PACKAGE BAG SPECIFICATION - HEADER INFORMATION**  
Spec. Number: 500000000377  
Description: 12x12oz Plastic Overwrap US  
Spec Type: Z\_BAG | Validity Date: 05/23/2014  
Person Responsible: NBONTHUYS | Material Number:  
**GENERAL INFORMATION**  
Specs Along: SDS  
Rep: SDFS

**DOCUMENTS**  
**Mechanical Drawings**  
  
length/height  
width  
depth  
Side Gusset Style Bag

**Comments**

**Activity Log** | Attachments | Templates

View: [Standard View] | Print Version | Export

	Step number	Wf role description	Agent type	Agent	Wf action description	Agent decision	Status
		Process initiator	User	Nico Bonthuys	Initiate Workflow	Workflow initiated	✓
	20	Packaging Engineer	User	Nico Bonthuys	A - Approval Request without DS	Approved	✓
	30	Purchasing	User	Nico Bonthuys	A - Reg Approval Request without DS		⚠



## Option 2: Workflow

### Workflow Accelerator (DMS)

#### Artwork Z02/10000000524/03/000 - Marketing - A - Approval Request

##### Actions

[Save Changes](#) | [Open Document](#) | [Approve](#) | [Reject](#) | [Close](#)

[Instructions](#)

##### Document

Document Type:

Document:

Doc. Version:

Document Part:

##### Initiator Note

##### Document data

User:

Description:

Status:

##### Originals

View:  | [Print Version](#) | [Export](#)

Display	Ty.	Document	Description	App
	Z02	10000000524	Artwork	PDF





**Process Routes** are straightforward & simple, but...

- Process Routes often are not sophisticated enough to handle complexities of product development processes—e.g., rejections within the workflow stream
- User experience not optimal. Often multiple clicks/screens to accomplish simple task.

**SAP Workflow** is robust, but...

- Design/implementation/maintenance is complex and costly
- Usability remains a challenge
- There is a limited library of objects (process PLM)



# • DEMO





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