SAP BW/4HANA Content

Speed up Your DW implementation with SAP BW/4HANA Optimized Business Content

Simon Kranig, Andreas Tenholte
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Introduction

Learn the deployment options of standard content in SAP BW/4HANA

Understand the key design principles

Discover the application components covered by SAP BW/4HANA content
BW/4HANA Content - Introduction

In a heterogenous system landscape a data warehouse enables customers to integrate and harmonize data from various sources. Providing Business Content as a part of our EDW solutions has been a differentiator for SAP since the early releases of SAP Business Warehouse (BW). Business Content enables quick and cost-effective implementation as it provides a model that can be used as a guideline during implementation.

The delivered standard data models are intended as a foundation for designing, modeling, and building your EDW, and while often adapted to customer needs, they provide a jump start that facilitates faster and more consistent delivery of EDW projects.

The SAP BW/4HANA Content was specifically designed to leverage the SAP HANA capabilities in SAP BW/4HANA following a consistent EDW reference architecture called LSA++ (Layered Scalable Architecture).
SAP BW/4HANA Content Overview
SAP BW/4HANA: Content Overview as of SP10

- Follows the LSA++ architecture
- Delivered Content offers more flexibility in data acquisition and reporting
- Provides higher level of detail (line items, …)
Differences to SAP HANA optimized BI Content delivered with BI CONT 7.57

SAP BW/4HANA Content includes Business Content for additional business areas:

- Plant Maintenance (including CDS based extraction for S/4HANA OP)
- Customer Services
- Quality Management
- Production Planning and Controlling
- Extended Warehouse Management
- Product Cost Controlling
- Controlling - Overhead Projects

Further differences can be found in SAP Note 2397520.
SAP BW/4HANA Content Add-Ons
SAP BW/4HANA Content Add-Ons

SAP BW/4HANA Content consists of 2 Add-Ons:
quarterly delivery of SPs incl. new content

- SAP BW/4HANA Content Add-On (BW4CONT)
  - SAP HANA-opt. BW Content
  - InfoSources, Transformations for data provisioning for the InfoObjects

- SAP BW/4HANA Content BASIS Add-On (BW4CONTB)
  - InfoObjects
  - InfoAreas
  - Variables
  - Conversion exits, Master data read classes

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## SAP BW/4HANA Content: Content Usage

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Customer usage of SAP delivered Business Content</th>
<th>Custom-built Content</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario A</td>
<td>BW DataSources</td>
<td>InfoObjects, Open ODS Views, ADSOs, Transformations, CompositeProviders, Variables, Queries</td>
<td>Enable BW DataSources for ODP (SAP Note <a href="https://support.sap.com/notes/2232584">2232584</a>) S/4HANA Whitelisted BW DataSources (SAP Note <a href="https://support.sap.com/notes/2500202">2500202</a>)</td>
</tr>
<tr>
<td>Scenario B</td>
<td>BW DataSources, InfoObjects, 'as is' or 'as template'</td>
<td>Open ODS Views, ADSOs, Transformations, CompositeProviders, Variables, Queries</td>
<td>In addition: SAP BW/4HANA Content BASIS Add-On (BW4CONTB)</td>
</tr>
<tr>
<td>Scenario C</td>
<td>BW DataSources, InfoObjects, ADSOs, Transformations, CompositeProviders, Variables, Queries, 'as is' or 'as template'</td>
<td>As required</td>
<td>In addition: SAP BW/4HANA Content Add-On (BW4CONT)</td>
</tr>
</tbody>
</table>
SAP BW/4HANA Content

Content Features
Content built with the modeling entities

- CompositeProvider
- BAdI Provider
- Advanced DataStore Object

SAP BW/4HANA Content Features – Modeling Entities
The Content Add-on offers a comprehensive set of variables (variables, SAP Exit variables, text variables) with consistent naming conventions (SAP Note 2395579). Distributed among DW4CORE, BW4CONTB and BW4CONT.

<table>
<thead>
<tr>
<th>Technical Name</th>
<th>Variable Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0CXPO_CQOICY</td>
<td>First Quarter</td>
</tr>
<tr>
<td>0CURREM_CALWEEK</td>
<td>Current Calendar Year</td>
</tr>
<tr>
<td>0CWEEEK</td>
<td>Current Calendar</td>
</tr>
<tr>
<td>0CIIQO_CALYEAR</td>
<td>Calendar Year</td>
</tr>
<tr>
<td>0CURREM_CALYEAR</td>
<td>Current Calendar Year</td>
</tr>
<tr>
<td>0CYEAR</td>
<td>Current Calendar Year</td>
</tr>
<tr>
<td>0CXPQM_CHRT_ACCTS</td>
<td>Chart of Accounts</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position (max 20)</th>
<th>Type of Variable</th>
<th>Processing Type</th>
<th>Select Parameters</th>
<th>Entry Required</th>
<th>Underscore</th>
<th>Meaningful Name/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>T [Text]</td>
<td>E [SAP exit - Input Ready]</td>
<td>I [Interval]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>F [Formula]</td>
<td>X [SAP exit - No Input]</td>
<td>M [Several Single Values]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>B [Authorization - Input Ready]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Examples:
- OCSM_CALMONTH: 0 C I S M
- ONIPO_WBS_ELEM: 0 N I P O
- OTXPO_FIBUCKET: 0 T X P O

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Streamlined persistence for time characteristics by making use of 0CALDAY navigational attributes. No need to decide which date characteristic is mapped into 0CALDAY/ -MONTH / -YEAR as each date characteristic in supported time granularities. For 0FISC* characteristics, this needs to be done on customer basis due to fiscal year variant.
LSA++
SAP BW/4HANA – Layered Scalable Architecture++

1. Virtualization/ Virtual Data Marts
2. Architected Data Marts
3. Propagation Layer/ Integrated DWH
4. Open ODS Layer/ Raw DWH
5. Staging Layer/ Corporate Memory
6. Source

- mandatory layer
- optional layers depending on business needs and required service level

Service Level

bottom up modelling

top down modelling
LSA++ main aspects for the SAP BW/4 HANA Business Content
Example Dataflow FI - Accounts Payable

- Staging / Corporate Memory Layer modeled as field-based advanced DSOs
- Business transformation modeled in transformation between InfoSource and Integrated DWH Layer
- Reporting on CompositeProviders based on advanced DSOs
# SAP BW/4HANA Naming Conventions

Naming conventions used throughout the content data models

<table>
<thead>
<tr>
<th>Layer</th>
<th>Object</th>
<th>Technical Name</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staging/Corporate Memory Layer</td>
<td>DataStore Object</td>
<td>/IMG/C&lt;InfoArea&gt;nn</td>
<td>/IMG/CMPUR11 (if based on ODP BW DataSource)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/IMG/C_&lt;InfoArea&gt;nn</td>
<td>/IMG/C_PUR11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(if based on an ABAP CDS View DataSource)</td>
</tr>
<tr>
<td>Integrated DWH Layer</td>
<td>InfoSource</td>
<td>/IMG/&lt;InfoArea&gt;_ISnn</td>
<td>/IMG/PUR_IS11</td>
</tr>
</tbody>
</table>
|                                            |                     |                                 | **Note**:
The long description of the InfoSource contains the technical name of the corresponding DataSource.
For example: **MM-PUR: Purchase Data Item (2LIS_02_TM)** |
<p>|                                            | DataStore Object    | /IMG/D_&lt;InfoArea&gt;nn             | /IMG/D_PUR11                    |
| Virtual Data Mart Layer                    | CompositeProvider   | /IMG/V_&lt;InfoArea&gt;nn             | /IMG/V_PUR01                    |
|                                            | Data Flow           | /IMG/DF_&lt;InfoArea&gt;<em>&lt;nn&gt;         | /IMG/DF_PUR01                   |
|                                            |                     |                                 | (if based on an ODP BW DataSource) |
|                                            |                     | /IMG/DF</em>&lt;InfoArea&gt;_&lt;nn&gt;_C       | /IMG/DF_PUR01_C                 |
|                                            |                     |                                 | (if based on an ABAP CDS View DataSource) |</p>
<table>
<thead>
<tr>
<th>Objective</th>
<th>Measure (examples only)</th>
</tr>
</thead>
</table>
| Less persistencies, less data          | - Virtualize logic in Virtual Data Mart Layer (e.g. CompositeProvider)  
- Skip unnecessary persistencies / DataMart DSOs  
- Virtualize Time Characteristics based on 0CALDAY  
- Use of transitive attributes                                                                 |
| Better data load performance           | - Enable HANA-push down e.g. by using formulas instead of ABAP in Transformations                                                                                                                                       |
| Better report performance              | - Keeping performance in mind when implementing queries  
- Filter selection to reduce result set  
- High aggregation of first query result set                                                                                                                   |
| More flexibility in reporting          | - Virtualize logic in Virtual Data Mart Layer  
- Document level information instead of aggregates  
- Use of Restricted and Calculated KeyFigures instead of persisted KeyFigures                                                                                      |
| More flexibility in data acquisition   | - Add field-based Staging / Corporate Memory Layer  
- Define Business Logic only in Transformation between InfoSource and Integrated DWH Layer aDSOs                                                                                              |
| Simple and easy to understand          | - Good documentation (SAP Online Help and ABAP Code in-place commentary)  
- Skip „nice-to-have“ features in straight forward content  
- More transparent transformations (no 3.x migrated update rules)                                                                                                      |
Example: FI - Asset Accounting
Comparison Classic BW Content with HANA-optimized BW Content

Classic BW Content FI-AA

- 8 Persistencies
- 9 Data Loads with dependencies
- 4 InfoProvider for reporting

Data Load cycle in SAP BW
5 million records 0FI_AA_11
12 million records 0FI_AA_12)
~ 1:21 hours

Data Load cycle in SAP BW on HANA
5 million records 0FI_AA_11
12 million records 0FI_AA_12)
~ 57 minutes

HANA-optimized BW Content FI-AA

- 4 Persistencies
- 5 Data Loads, NO dependencies
- 1 InfoProvider for reporting

Data Load cycle in SAP BW/4HANA
5 million records 0FI_AA_11
12 million records 0FI_AA_12)
~ 19 minutes
"The transactional and posted depreciation reports were previously pieced together from BW reports that had partial data for a subset of depreciation areas and ECC reports that had to be run in batches for very narrow criteria (company code, fiscal period, depreciation area, asset class). The entire process at month-end would take 8-10 hours.

With the new HANA optimized content the Fixed Assets team can now report across all company codes, all depreciation areas, all fiscal periods and all asset classes and view results within 10 seconds or less. The issue with reporting now has turned into one where the users have so much data at their fingertips, they are overwhelmed with the analytical possibilities. This is a good problem to have and I look forward to seeing how they evolve in this area.

It was all made possible by SAP’s HANA optimized content for Fixed Assets."

Source: http://phoenixendeavors.com/hana-optimized-content-for-fixed-assets/
Data Flows delivered for all Content areas with SP03

View Business Content before installation. Display in D-Version possible.

Faster Content installation in Transaction RSOR by directly selecting a Data Flow object. Only necessary objects for the Data Flow are collected for installation.
Non-persistent DTPs included as proposals

Create DTPs from this proposal per right mouse click
Content by Business Area
SAP BW/4HANA: Content Overview as of SP10

Business Area

Sales & Distribution
- Sales Overview
- Conditions
- Delivery Service

Asset Management
- Plant Maintenance
- Customer Service

Quality Management
- Quality Management

Finance
- Accounts Receivable
- Accounts Payable
- Fixed Asset Accounting
- Contract Accounts
- General Ledger incl. Financial Statement
- Real Estate

Controlling
- Enterprise Controlling
- Cost Center Accounting
- Overhead Cost Orders
- Overhead Projects incl. Networks
- Product Cost Controlling

Supply Chain Management
- Procurement
- Invoice Verification
- Inventory
- Production Planning and Controlling
- Extended Warehouse Management

Master Data
- Master Data Governance
- Master Data

Industries: Utilities
- Sales Statistics
- Energy Data Management

Delivered with BW4CONT SP02 + SP03 + SP07
1
Delivered with BW4CONT SP03, Financial Statement analysis delivered with BW4CONT SP03
2
Overhead Controlling for Networks delivered with BW4CONT SP04
3
Delivered with BW4CONT SP04 + SP05
4
Delivered with BW4CONT SP05
5
Delivered with BW4CONT SP05 + SP06
6
Delivered with BW4CONT SP07 + SP09
7

BW4CONT/B >= SP05 requires SAP BW/4 HANA 1.0 SP07
BW4CONT/B <= SP04 requires SAP BW/4 HANA 1.0 SP04
What is New in **SP09**
Real Estate (RE): Valuation Process and Valuation Cash Flow

Retraction (CO): Statistical Key Figures, Activity Input and Activities/Prices

What is New in **SP07**
Real Estate (RE)

Plant Maintenance (PM) – SAP S/4HANA Data Provisioning

Retraction (CO): Primary costs

What is New in **SP06**
Supply Chain
- Further content for Extended Warehouse Management (EWM)

What is New in **SP05**
Supply Chain
- Production Planning and Controlling (PP)
- Extended Warehouse Management (EWM)

Controlling
- Product Cost Controlling (CO-PC)

Quality Management
- Quality Management (QM)
Business Content Financials – General Ledger (FI-GL)

• General Ledger Overview:
  • Accounting data on aggregated (balance) as well as accounting document item level
  • Actuals Balance and Flow comparison
  • Actuals/plan/budget comparison

• New General Ledger Overview:
  • Accounting data on aggregated (balance) as well as accounting document item level
  • Actuals Balance and Flow comparison
  • Actuals/plan/budget comparison
  • Financial Statements *

• LSA++ Architecture incl. Staging/Corporate Memory
• Usage of DSO (advanced), CompositeProvider
• Virtual Data Mart Layer
• Higher level of detail (down to line item level)

* Delivered with BW4CONT SP03
Dataflow: Financials – General Ledger (FI-GL)

DataSource | Staging/Corp. Memory | Integrated DWH Layer | Virtual Data Mart Layer

General Ledger Sales Figures via Delta Extr.
- **0FI_GL_6** → /IMO/CMFIGL06 → Balances (0FI_GL_6) /IMO/FIGL_IS06 → Balances /IMO/D_FIGL06 → General Ledger /IMO/V_FIGL01

General Ledger: Line Items with Delta Extraction
- **0FI_GL_4** → /IMO/CMFIGL04 → Line Items (0FI_GL_4) /IMO/FIGL_IS04 → Line Items /IMO/D_FIGL04

GL: Balances of Leading Ledger via Queue
- **0FI_GL_12** → /IMO/CMFIGL12 → New GL - Balances (0FI_GL_12) /IMO/FIGL_IS12 → New GL – Balances /IMO/D_FIGL12 → General Ledger (New) /IMO/V_FIGL02

Gen. Ledger: Line Items: Leading Ledger
- **0FI_GL_14** → /IMO/CMFIGL14 → New GL – Line Items (0FI_GL_14) /IMO/FIGL_IS14 → New GL - Line Items /IMO/D_FIGL14

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Dataflow: Financials – General Ledger (FI-GL)

Integrated DWH Layer

Virtual Data Mart Layer

BAdI Provider

New GL - Balances
/IMO/D_FIGL12

Balance Sheet Reporting
3BVBFIGL01

Financial Statements
/IMO/V_FIGL03

Scenario: /IMO/V_FIGL03

Delivered with BW4CONT SP03

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Business Content Inventory Management (MM-IM)

- Material Stock and Movements:
  - Stock values and quantities for different types of stocks, (total stock, valuated stock, special stocks and consignment stock)
  - Stock overview
  - Material range of coverage
  - Stock obsolescence and variance

SAP Note for SAP ERP / S/4HANA Inventory Management in SAP BW/4HANA: [2678507](http://example.com/2678507)

- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail for Movements
Dataflow: Inventory Management (MM-IM)

DataSource → Staging/Corp. Memory → Integrated DWH Layer → Virtual Data Mart Layer

Stock Initialization
- 2LIS_03_BX
- 2LIS_03_BF

Goods Movements
- Historical Material Movements /IMO/CMMMIMH1
- Material Movements /IMO/MMIM_IS01
- Material Stock - Quantities /IMO/D_MMIM01
- Material Stock - Values /IMO/D_MMIM02
- Material Stocks & Movements /IMO/V_MMIM01
- Material Movements (Documents) /IMO/D_MMIM10

Revaluations
- Historical Revaluations /IMO/CMMMIMH2
- Revaluations /IMO/MMIM_IS02
- Revaluations – Deltas /IMO/CMMMIM02
- Material Movements Deltas /IMO/CMMMIM01
- Historical Material Movements /IMO/CMMMIMH1
- Revaluations /IMO/MMIM_IS02
- Revaluations – Deltas /IMO/CMMMIM02

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Showing Simplification: Transformation Logic in Inventory Management

Classic BW Content for Inventory Management (InfoCube 0IC_C03)

- Start Routine (ABAP)
- Up to six rule groups
- Field ABAP Routines
- Key Figures for special stocks
Showing Simplification: Transformation Logic in Inventory Management

BW/4HANA Content for Inventory Management

- No Start Routine
- Only formulas used, no ABAP routines
- Less rule groups
- Less persisted key figures (Special stock key figures virtualized)

Transformations can be executed in SAP HANA
## New data model for MM-Inventory Management

### Benefits

<table>
<thead>
<tr>
<th>Change</th>
<th>Benefit</th>
</tr>
</thead>
</table>
| Split „Stock Quantity“ vs „Stock Values“ vs „Movements“ in separate part provider | - More robust solution (SAP Note 586163)  
- Less Rule Groups in BW Transformations  
- Reduces complexity of transformation logic  
- Simplified custom implementation if only stock quantities are required  
- More flexibility in Virtual Data Mart Layer e.g. when defining pure consumption key figures based on „Movements“  
- Better performance due to partitioning and pruning                      |
| Virtualization of business logic: Shift from key figure model to account based model for special stocks | - Less transformation rules (virtualized as BEx Query restricted / calculated key figures)  
- More flexibility when adjusting /creating restricted / calculated key figures in Virtual Data Mart Layer |
| Replacing start routine by transformation formula for key figure (to exclude consumptions) | - Transformation logic for key figure calculation at one place  
- Allows DTP execution in HANA                                             |
| Adding characteristic Customer for consignment stock analysis          | - Improved end user experience: reporting on customer stock by customer                                                               |
Business Content Master Data – Master Data Governance (MDG)

- Data flow to load key mapping and best record information from SAP MDG into consolidated InfoObjects
  - Customer 0GN_CUSTOM based on customer and business partner
  - Vendor 0GN_VENDOR based on vendor and business partner
  - Product 0PRODUCT based on material
- Allows consolidated reporting across multiple source systems

- LSA++ Architecture
- Usage of DSO (advanced)
Consolidated InfoObjects

What the purchase manager wants to see...

But lack of standardized master data creates inaccurate and incomplete reporting, leading to poor business decisions

... no transparency into the vendors I do business with

Possible difficulties:

- Typos: Marvestlé, Marvetlé
- Parent-subsidiary: Company Holding, Company Regional Group
- Unharmonized Master Data: System A: 2000 HuloAir SE
  - System B: 1000 HuloAir SE
  - System B: 2000 AirFantasia SE
Consolidated InfoObjects – Example Generic Vendor (0GN_VENDOR)

DataSource:

VENDOR = 0000001000
SOURCESYSTEM = EBUCLNT300

InfoSource:

0VENDOR = 1000
0LOGSYS = EB

DSO:

0GN_VENDOR = EB 2VEN1000
with attribute GroupID

2 digit System ID

EBUCLNT300  EB
EBUCLNT330  ES
QWACLNT100  QW
QWACLNT100  QA

Maintained in BW Table
(RSA1 -> Source System Assignment)

InfoObject-Type

<table>
<thead>
<tr>
<th>InfoObject</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0VENDOR</td>
<td>2VEN</td>
</tr>
<tr>
<td>0CUSTOMER</td>
<td>2CUS</td>
</tr>
<tr>
<td>0BPARTNER</td>
<td>2BPA</td>
</tr>
<tr>
<td>0MATERIAL</td>
<td>3MAT</td>
</tr>
</tbody>
</table>

Logic in Transformation / Function

SAP MDG

<table>
<thead>
<tr>
<th>Vendor</th>
<th>GroupID</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000 HuloAir SE</td>
<td>1</td>
</tr>
<tr>
<td>2000 HuloAir SE</td>
<td>1</td>
</tr>
<tr>
<td>3000 AirFanta SE</td>
<td>2</td>
</tr>
</tbody>
</table>
**Dataflow: Master Data – Master Data Governance (MDG)**

**DataSource** → **Staging/Corp. Memory** → **Integrated DWH Layer** → **InfoObjects**

*Source System:
SAP MDG Client*

**MDG Key Mapping**
- 0MDG_KEY_MAPPING
- MDG – Key Mapping Partner /IMO/D_MDG01
- MDG Key Mapping /IMO/MDG_IS01
- MDG – Key Mapping Product /IMO/D_MDG02

**InfoObjects**
- Vendor 0GN_VENDOR
- Customer 0GN_CUSTOM
- Product 0PRODUCT

**Business Partner Texts**
- 0BPARTNER_TEXT
- Reads /IMO/D_MDG01
- Group ID Partner 0CI_GRP_PAR

**Material Texts**
- 0MATERIAL_TEXT
- Reads /IMO/D_MDG02
- Group ID Product 0CI_GRP_PRO
Business Content Real Estate Management

Transactional Data

• Conditions
• Cash Flow
  • Valuation Cash Flow *
  • Partner Cash Flow
  • Object Cash Flow
• Renewals
• Object Assignments

Master Data

• Contracts
• Master Data Valuation
  • Contract Object
  • Valuation Rules per Contract
  • Valuation Specific Condition Parameters

• LSA++ Architecture incl. Staging/Corporate Memory
• Usage of DSO (advanced), CompositeProvider
• Virtual Data Mart Layer

Delivered with BW4CONT SP07
*Delivered with BW4CONT SP09
Analytics with SAP Real Estate Management (Service No 50147664)

This service provides customers a confident start into deploying SAP analytics products on top of their SAP Real Estate Management system. The service comes with pre-defined business content options for SAP BW 7.x, SAP BW/4HANA and SAP Analytics Cloud that enable the creation of reports for lease contracts and property assets according to the new lease accounting rules IFRS 16 effective from January 1st 2019.
Planned Shipment of S/4HANA SD Content

The business content for SAP S/4 SD reflects the latest changes for SD Billing and offers detailed analyses possibilities.

<table>
<thead>
<tr>
<th>BW/4 HANA Content for S/4HANA</th>
<th>Planned* Support Package (Planned* Release Date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• S/4HANA SD Billing Content</td>
<td>BW/4HANA 1.0 SP11 (June 2019)</td>
</tr>
<tr>
<td></td>
<td>BW/4HANA 2.0 SP01 (August 2019)</td>
</tr>
</tbody>
</table>

*Planned: subject to change
Planned Shipment of S/4HANA SD Billing Content

Streamlined data model for S/4HANA SD Billing

- Based on CDS view extraction
- Comprehensive DataSource allows for more detailed analyses
- Enhanced delta mechanism
- No Filling of Initial Setup tables -> no system block required
Further Shipment based on CDS View extraction planned

- CDS view based extraction out of S/4HANA OP and S/4HANA Cloud systems
- CDS views provided by SAP or custom CDS views (OP)
- Two delta mechanisms available: based on time-stamps or on database triggers (CDC)
- DataSources with broad structure enable enhanced modeling in BW/4
The business content for SuccessFactors is intended as a foundation for designing, modeling, and building your EDW in SAP BW/4HANA, and while often adapted to customer needs, it provides a jump start that facilitates faster and more consistent delivery of EDW projects.

### BW/4 HANA Content for Success Factors

<table>
<thead>
<tr>
<th>BW/4 HANA Content for Success Factors</th>
<th>Planned* Support Package (Planned* Release Date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Workforce Management (Employee Central) – Staging Layer &amp; InfoObjects</td>
<td>BW/4HANA 2.0 SP00 (May 2019)</td>
</tr>
<tr>
<td>• Workforce Management (Employee Central) – Headcount &amp; Event Reporting</td>
<td>BW/4HANA 2.0 SP01 (August 2019)</td>
</tr>
<tr>
<td>• Performance Management</td>
<td></td>
</tr>
</tbody>
</table>

*Planned: subject to change
Planned Shipment of Success Factors Content

Core InfoObjects in Workforce Management

- Employment
- Global Person
- Position
- Job Code
Further information


SAP Note 2395579 – “SAP BW/4HANA Content - Additional information on delivered variables”

SAP Note 2395613 – “SAP BW/4HANA Content - Additional information on delivered InfoObjects”

SAP Note 2397520 – “SAP BW/4HANA Content - Differences to SAP HANA optimized BI Content delivered with BI CONT 7.57”

SAP Note 2232584 – “Release of SAP extractors for operational data provisioning (ODP)”

SAP Note 2400585 – “Collective Note & FAQ: SAP BW4/HANA Content (BW4CONT & BW4CONTB)”

SAP Note 2400685 – “SAP BW/4HANA Content - Recommended SAP BW/4HANA support package and SAP Notes”

SAP Note 2500202 – “S4TWL - BW Extractors in SAP S/4HANA”

SAP Note 2289424 – “S4TWL - SAP S/4HANA and SAP Business Warehouse Content - BI_CONT / BW4CONT”

SAP Note 2548065 – “SAP HANA-optimized BI Content and SAP S/4HANA”

For suggestions for next development areas please contact: Natascha.Marienfeld@sap.com
Thank you

Contact information:

Andreas.Tenholte@sap.com
Simon.Kranig@sap.com
Appendix

Consolidated InfoObjects
Consolidated InfoObjects used by SAP HANA - optimized BI Content

Customer 0GN_CUSTOM
Vendor 0GN_VENDOR
Product 0PRODUCT
Sales Category 0GN_CAT_SAL
Purchase Category 0GN_CAT_PUR
Location 0GN_LOCATIO
Source System for R/3 Entity 0GN_R3_SSY
Business Content  Sales and Distribution (SD)

- **Sales Overview:**
  - Sales, delivery and billing document data on header and item level
  - Incoming, open orders, sales revenues, …
  - Credit memos
  - Expected incoming orders based on open quotations

- **Conditions:**
  - Order and billing conditions on item level
  - Condition value per customer
  - Variances of condition rates

- **Delivery Service:**
  - Sales document, sales document order delivery on header and item level, sales doc. header status
  - Delivery Performance
  - Perfect Order Fulfillment

- **LSA++ Architecture incl. Staging/Corporate Memory**
- **Usage of DSO (advanced), CompositeProvider**
- **Virtual Data Mart Layer**
- **Higher level of detail (down to line item/schedule line level)**
Dataflow: Sales Overview

DataSource | Staging/Corporate Memory | Integrated DWH Layer | Virtual Data Mart Layer
--- | --- | --- | ---
Sales Document Header Data
2LIS_11_VAHDR | /IMO/CMSD10 | Sales Document Header Data
2LIS_11_VAITH | /IMO/SD_IS10
Sales Document Item Data
2LIS_11_VAITM | /IMO/CMSD11 | Sales Document Item Data
2LIS_11_VAITM | /IMO/SD_IS11
Sales-Shipping Allocation Item Data
2LIS_11_V_ITM | /IMO/CMSD16 | Sales-Shipping Allocation Item Data
2LIS_11_V_ITM | /IMO/SD_IS16
Delivery Header Data
2LIS_12_VCHDR | /IMO/CMSD20 | Delivery Header Data
2LIS_12_VCHDR | /IMO/SD_IS20
Delivery Item Data
2LIS_12_VCITM | /IMO/CMSD21 | Delivery Item Data
2LIS_12_VCITM | /IMO/SD_IS21
Billing Doc. Header Data
2LIS_13_VDHDR | /IMO/CMSD30 | Billing Document Header Data
2LIS_13_VDHDR | /IMO/SD_IS30
Billing Document Item Data
2LIS_13_VDITM | /IMO/CMSD31 | Billing Document Item Data
2LIS_13_VDITM | /IMO/SD_IS31
**Dataflow: Conditions**

<table>
<thead>
<tr>
<th>DataSource</th>
<th>Staging/Corporate Memory</th>
<th>Integrated DWH Layer</th>
<th>Virtual Data Mart Layer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales Document Condition</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2LIS_11_VAKON</td>
<td>/IMO/CMSD14</td>
<td>Order Condition Data (2LIS_11_VAKON) /IMO/SD_IS14</td>
<td>Order Condition Data /IMO/D_SD14</td>
</tr>
<tr>
<td>Billing Document Condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2LIS_13_VDKON</td>
<td>/IMO/CMSD34</td>
<td>Billing Condition Data (2LIS_13_VDKON) /IMO/SD_IS34</td>
<td>Billing Condition Data /IMO/D_SD34</td>
</tr>
<tr>
<td>Conditions /IMO/V_SD40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Dataflow: Delivery Service

DataSource | Staging/Corp. Memory | Integrated DWH Layer | Virtual Data Mart Layer
---|---|---|---
Sales Document Header | 2LIS_11_VAHDR | /IMO/CMSD10 | Sales Header /IMO/SD_IS10 | Order Header /IMO/D_SD51
Sales Document Header Status | 2LIS_11_VASTH | /IMO/CMSD18 | Sales Header Status /IMO/SD_IS18
Sales Document Item | 2LIS_11_VAITM | /IMO/CMSD11 | Sales Items /IMO/SD IS11 | Sales Items Returns /IMO/SD IS11
Sales Document Order Delivery | 2LIS_11_V_SSL | /IMO/CMSD17 | Order Delivery /IMO/SD IS17 | Order Items /IMO/D_SD50 | Open Order Schedule Line /IMO/D_SD53 | Service Level Overview /IMO/D_SD52 | Service Level /IMO/V_SD50
## Business Content Plant Maintenance (PM)

- Measurement results for measuring counters / points
- Work center capacity and availability
- Scheduling Overview and Planned Order
- Equipment Dismantling
- Vehicle Fuel Consumption
- Status of maintenance order and technical objects
- Notifications including items, causes, activities, tasks *
- Maintenance orders and operations *
- SAP S/4HANA Data Provisioning
  - DataSources and Transformations for SAP S/4HANA on Premise ABAP CDS Views **

Delivered with BW4CONT SP02, * SP03, ** SP07

- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail (down to line item level)
**Dataflow: Plant Maintenance (ERP PM)**

<table>
<thead>
<tr>
<th>DataSource</th>
<th>Staging/Corporate Memory</th>
<th>Integrated DWH Layer</th>
<th>Virtual Data Mart Layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring Points and Measurement Documents</td>
<td>/IMO/CMPM01</td>
<td>Measuring Points and Measurement Docs /IMO/PM_IS01</td>
<td>Measurement Results /IMO/D_PM01</td>
</tr>
<tr>
<td>PM Order Status</td>
<td>/IMO/CMPM02</td>
<td>PM Order Status /IMO/PM_IS02</td>
<td>PM Order Status History /IMO/D_PM02</td>
</tr>
<tr>
<td>PM Object Status</td>
<td>/IMO/CMPM03</td>
<td>PM Object Status /IMO/PM_IS03</td>
<td>PM Object Status /IMO/D_PM03</td>
</tr>
</tbody>
</table>

Delivered with BW4CONT SP02
## Dataflow: Plant Maintenance (ERP PM)

<table>
<thead>
<tr>
<th>DataSource</th>
<th>Staging/Corporate Memory</th>
<th>Integrated DWH Layer</th>
<th>Virtual Data Mart Layer</th>
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</thead>
<tbody>
<tr>
<td>PM / PP Work Center Capacity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>0PM_WCCP</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Plant Maintenance – Equipment Dismantling</td>
<td></td>
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<tr>
<td><strong>0PM_DSMNTL</strong></td>
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<td></td>
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<tr>
<td>Fleet</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>0PM_FLEET</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Maintenance Order Costs with Asset Utilization</td>
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<tr>
<td><strong>0PM_MCOST_ASSET_UTIL</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Scheduling Overview and Planned Orders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>0PM_SCH_PLND_ORDER</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Work Center Capacity** (PM/PM IS04)
- **Work Center Capacity and Availability** (PM/D_PM04)
- **Equipment Dismantling** (PM/PM IS05)
- **Equipment Dismantling at Functional Location** (PM/D_PM05)
- **Fleet** (PM/PM IS06)
- **Fleet** (PM/D_PM06)
- **Order Costs and Asset Utilization** (PM/PM IS07)
- **Order Costs and Asset Utilization** (PM/D_PM07)
- **Scheduling Overview and Planned Orders** (PM/PM IS08)
- **Scheduling Overview and Planned Orders** (PM/D_PM08)

Delivered with BW4CONT SP02
Dataflow: Plant Maintenance (ERP PM)

DataSource | Staging/Corp. Memory | Integrated DWH Layer | Virtual Data Mart Layer
--- | --- | --- | ---

**Maintenance Notifications**

2L1S_17_I0NOTIF | /IMO/CMPM11 | Maintenance Notifications | /IMO/V_PM11

**Maintenance Notifications - Items**

2L1S_17_I0ITEM | /IMO/CMPM12 | Maintenance Notification - Items | /IMO/V_PM12

**Maintenance Notifications - Causes**

2L1S_17_I0CAUSE | /IMO/CMPM13 | Maintenance Notification - Causes | /IMO/V_PM13

**Maintenance Notifications - Activities**

2L1S_17_I0ACTY | /IMO/CMPM14 | Maintenance Notification - Activities | /IMO/V_PM14

**Maintenance Notifications - Tasks**

2L1S_17_I0TASK | /IMO/CMPM15 | Maintenance Notification - Tasks | /IMO/V_PM15

Delivered with BW4HANA SP03
**Dataflow: Plant Maintenance (ERP PM)**

DataSource | Staging/Corp. Memory | Integrated DWH Layer | Virtual Data Mart Layer
---|---|---|---

**Maintenance Orders**

2LIS_17_I3HDR

/IMO/CMPM16

Maintenance Orders
/IMO/PM_IS16

Maintenance Orders
/IMO/D_PM16

Maintenance Orders
/IMO/V_PM16

**Plant Maintenance Order Process**

2LIS_17_I3OPER

/IMO/CMPM17

Maintenance Order – Operations
/IMO/PM_IS17

Maintenance Order – Operations
/IMO/D_PM17

Maintenance Order - Operations
/IMO/V_PM17

Delivered with BW4CONT SP03
Dataflow: Plant Maintenance (SAP S/4HANA on Premise PM)

DataSource  
Staging/Corp. Memory  
Integrated DWH Layer  
Virtual Data Mart Layer

Maintenance Notifications
01_LOCATIONANALYSISCUBE  
/IMO/CMPM11  
Maintenance Notifications  
/IMO/PM_IS11  
Maintenance Notifications  
/IMO/D_PM11  
Maintenance Notifications  
/IMO/V_PM11

Maintenance Notifications - Items
01_MAINTNOTIFICATIONITEMDATA  
/IMO/CMPM12  
Maintenance Notification - Items  
/IMO/PM_IS12  
Maintenance Notification - Items  
/IMO/D_PM12  
Maintenance Notification - Items  
/IMO/V_PM12

Maintenance Notifications - Causes
01_MAINTNOTIFICATIONCAUSEDATA  
/IMO/CMPM13  
Maintenance Notification - Causes  
/IMO/PM_IS13  
Maintenance Notification - Causes  
/IMO/D_PM13  
Maintenance Notification - Causes  
/IMO/V_PM13

Maintenance Notifications - Activities
01_MAINTNOTIFICATIONACTYDATA  
/IMO/CMPM14  
Maintenance Notification - Activities  
/IMO/PM_IS14  
Maintenance Notification - Activities  
/IMO/D_PM14  
Maintenance Notification - Activities  
/IMO/V_PM14

Maintenance Notifications - Tasks
01_MAINTNOTIFICATIONTASKDATA  
/IMO/CMPM15  
Maintenance Notification - Tasks  
/IMO/PM_IS15  
Maintenance Notification - Tasks  
/IMO/D_PM15  
Maintenance Notification - Tasks  
/IMO/V_PM15

Maintenance Orders
01_MAINTORDERTECHOBJCUBE  
/IMO/CMPM16  
Maintenance Orders  
/IMO/PM_IS16  
Maintenance Orders  
/IMO/D_PM16  
Maintenance Orders  
/IMO/V_PM16

Delivered with BW4CONT SP07
Business Content Customer Service (CS)

- Notifications including items, causes, activities, tasks
- Service orders and operations

- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail (down to line item level)

Delivered with BW4CONT SP03
Dataflow: Customer Service (CS)

Data Source | Staging/Corporate Memory | Integrated DWH Layer | Virtual Data Mart Layer
---|---|---|---

Service Notifications
- Items
2LIS_18_I0NOTIF
/IMO/CMCS11
Service Notifications - Items
/IMO/CS_IS11
Service Notifications - Items
/IMO/D_CS11
Service Notifications - Items
/IMO/V_CS11

Service Notifications
- Causes
2LIS_18_I0CAUSE
/IMO/CMCS13
Service Notification - Causes
/IMO/CS_IS13
Service Notification - Causes
/IMO/D_CS13
Service Notification - Causes
/IMO/V_CS13

Service Notifications
- Activities
2LIS_18_I0ACTY
/IMO/CMCS14
Service Notification - Activities
/IMO/CS_IS14
Service Notification - Activities
/IMO/D_CS14
Service Notification - Activities
/IMO/V_CS14

Service Notifications
- Tasks
2LIS_18_I0TASK
/IMO/CMCS15
Service Notification - Tasks
/IMO/CS_IS15
Service Notification - Tasks
/IMO/D_CS15
Service Notification - Tasks
/IMO/V_CS15

Delivered with BW4HANA SP03
Dataflow: Customer Service (CS)

DataSource | Staging/Corporate Memory | Integrated DWH Layer | Virtual Data Mart Layer

Service Orders
2LIS_18_I3HDR → /IMO/CMCS16 → Service Orders → Service Orders → Service Orders → Service Orders
/IMO/CS_IS16 /IMO/D_CS16 /IMO/V_CS16

Service Orders - Operations
/IMO/CS_IS17 /IMO/D_CS17 /IMO/V_CS17

Delivered with BW4CONT SP03
Quality Management (QM)

- Quality Notifications including items, causes, activities, tasks
- Inspection Results* including general data, quantativ data, lot and usage decision
- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail (down to line item level)

Delivered with BW4CONT SP04, * SP05
Dataflow: Quality Management (QM)

DataSource | Staging/Corporate Memory | Integrated DWH Layer | Virtual Data Mart Layer

Inspection Result: General Data
2LIS_05_QE1

/IMO/CMQM01

/IMO/QM_ISO1

/IMO/D_QM01

/IMO/V_QM01

Inspection Result: Quantitative Data
2LIS_05_QE2

/IMO/CMQM02

/IMO/QM_ISO2

/IMO/D_QM02

/IMO/V_QM02

Inspection Lot / Usage Decision
2LIS_05_QUVDN

/IMO/CMQM03

/IMO/QM_ISO3

/IMO/D_QM03

/IMO/V_QM03

Delivered with BW4CONT SP05
### Dataflow: Quality Management (QM)

#### DataSource → Staging/Corp. Memory → Integrated DWH Layer → Virtual Data Mart Layer

- **2LIS_05_I0NOTIF**
  - Quality Notifications: /IMO/CMQM11 → /IMO/QM_IS11

- **2LIS_05_I0ITEM**
  - Quality Notifications: /Items: /IMO/CMQM12 → /IMO/QM_ISR12

- **2LIS_05_I0CAUSE**

- **2LIS_05_I0ACTY**
  - Quality Notifications: /Activities: /IMO/CMQM14 → /IMO/QM_ISR14
  - Quality Notifications: /Activities: /IMO/CMQM14 → /IMO/D_QM14 → /IMO/V_QM14

- **2LIS_05_I0TASK**
  - Quality Notifications: /Tasks: /IMO/CMQM15 → /IMO/QM_ISR15
  - Quality Notifications: /Tasks: /IMO/CMQM15 → /IMO/D_QM15 → /IMO/V_QM15
Business Content Material Management (MM)

Purchasing (ERP MM-PUR)

• Purchasing Overview:
  • Purchase document, purchasing history on header, item and schedule line level

• Contract Management:
  • Purchasing contracts, scheduling agreements
  • Contract utilization

• Purchasing Accounting:
  • Accounting information for purchase orders
  • Cost center budget analysis

• Delivery Service:
  • Delivery KPIs on purchase item level

Invoice Verification (ERP MM-IV)

• Invoice receipts for purchase documents
• Comparison of different invoice amounts and variances
• Analysis of blocking reasons for payments

• LSA++ Architecture incl. Staging/Corporate Memory
• Usage of DSO (advanced), CompositeProvider
• Virtual Data Mart Layer
• Higher level of detail (down to line item/schedule line level) for Data Acquisition
**Dataflow:**

**Purchasing Accounting (ERP MM-PUR)**

- **DataSource**
- **Staging / Corporate Memory**
- **Integrated DWH Layer**
- **Virtual Data Mart Layer**

**Invoice Verification (ERP MM-IV)**

- **DataSource**
- **Staging / Corporate Memory**
- **EDW Core Layer**
- **Virtual Data Mart Layer**
Business Content Extended Warehouse Management (EWM)

- In- and Outbound Deliveries
- Delivery item related execution data *
- Proof of Delivery
- Value-Added Services
- Warehouse Orders and Tasks
- Exceptions

- Stocks
- Storage Bins
- Transportation Units
- Measurement Service Results
- Executed Workload

- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail (down to line item level)

Delivered with BW4CONT SP05, * SP06
**Dataflow: Extended Warehouse Management (EWM)**

<table>
<thead>
<tr>
<th>DataSource</th>
<th>Staging/Corp. Memory</th>
<th>Integrated DWH Layer</th>
<th>Virtual Data Mart Layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inbound Delivery Items</td>
<td>/IMO/CMEWM01</td>
<td>EWM: Inbound Delivery Items /IMO/EWM_IS01</td>
<td>EWM: Inbound Deliveries /IMO/V_EWM01</td>
</tr>
<tr>
<td>Outbound Delivery Items</td>
<td>/IMO/CMEWM02</td>
<td>EWM: Outbound Delivery Items /IMO/EWM_IS02</td>
<td>EWM: Outbound Deliveries /IMO/V_EWM02</td>
</tr>
<tr>
<td>Proof Of Delivery</td>
<td>/IMO/CMEWM03</td>
<td>EWM: Proof Of Delivery /IMO/EWM_IS03</td>
<td>EWM: Proof Of Delivery /IMO/V_EWM03</td>
</tr>
<tr>
<td>Value-Added Services</td>
<td>/IMO/CMEWM04</td>
<td>EWM: Value-Added Services /IMO/EWM_IS04</td>
<td>EWM: Value-Added Services /IMO/V_EWM04</td>
</tr>
</tbody>
</table>

Delivered with BW4CONT SP05
**Dataflow: Extended Warehouse Management (EWM)**

Delivered with BW4HANA SP06
Dataflow: Extended Warehouse Management (EWM)

DataSource | Staging/Corp. Memory | Integrated DWH Layer | Virtual Data Mart Layer

Warehouse Orders
- OWM_WO
  - /IMO/CMEWM10
  - EWM: Warehouse Orders
    - /IMO/EWM_IS10
    - /IMO/D_EWM10
    - /IMO/V_EWM10

Warehouse Tasks
- OWM_WT_WO
  - /IMO/CMEWM11
  - EWM: Warehouse Tasks
    - /IMO/EWM_IS11
    - /IMO/D_EWM11
    - /IMO/V_EWM11

Exceptions
- OWM_EXCCODE
  - /IMO/CMEWM12
  - EWM: Exceptions
    - /IMO/EWM_IS12
    - /IMO/D_EWM12
    - /IMO/V_EWM12

Delivered with BW4HANA SP05
Dataflow: Extended Warehouse Management (EWM)

DataSource | Staging/Corp. Memory | Integrated DWH Layer | Virtual Data Mart Layer

**Stocks**

- OWM_STOCK
  - EWM: Stocks /IMO/EWM_IS20
  - EWM: Stocks /IMO/D_EWM20
  - EWM: Stocks /IMO/V_EWM20

**Storage Bins Full Upload**

- OWM_BIN_FULL
  - EWM: Storage Bins /IMO/EWM_IS21
  - EWM: Storage Bins /IMO/D_EWM21
  - EWM: Storage Bins /IMO/V_EWM21

Delivered with BW4CONT SP05
**Dataflow: Extended Warehouse Management (EWM)**

- **DataSource**
- **Staging/Corp. Memory**
- **Integrated DWH Layer**
- **Virtual Data Mart Layer**

**Transportation Units**
- `0WM_TU` → `/IMO/CMEWM30`
- `EWM: Transportation Units /IMO/EWM_IS30`
- `EWM: Transportation Units /IMO/D_EWM30`
- `EWM: Transportation Units /IMO/V_EWM30`

**Measurement Service Results**
- `0WM_MS_RESULT` → `/IMO/CMEWM40`
- `EWM: Measurement Service Results /IMO/EWM_IS40`
- `EWM: Measurement Service Results /IMO/D_EWM40`
- `EWM: Measurement Service Results /IMO/V_EWM40`

**Executed Workload**
- `0WM_EWL` → `/IMO/CMEWM50`
- `EWM: Executed Workload /IMO/EWM_IS50`
- `EWM: Executed Workload /IMO/D_EWM50`
- `EWM: Executed Workload /IMO/V_EWM50`

Delivered with BW4CONT SP05
Business Content Financials – Accounts Receivable (FI-AR)

• Accounts Receivable Overview:
  • Accounts receivable line items
  • Current outstanding and overdue customer accounts
  • Invoice and payment history and trend

• LSA++ Architecture incl. Staging/Corporate Memory
• Usage of DSO (advanced), CompositeProvider
• Virtual Data Mart Layer
• Higher level of detail (down to line item level)
Dataflow: Financials – Accounts Receivable (FI-AR)

DataSource  Staging/Corp. Memory  Integrated DWH Layer  Virtual Data Mart Layer

Customer Line Items

0FI_AR_4

or

0FI_AR_30

/IMO/CMFIAR04

/IMO/CMFIAR30

Customer Line Items
(0FI_AR_4/0FI_AR_30)

/IMO/FIAR_IS30

Customer Line Items

/IMO/D_FIAR30

FI Accounts Receivable (BW replicated)

/IMO/V_FIAR03

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Business Content Financials – Accounts Payable (FI-AP)

- Accounts Payable Overview:
  - Accounts payable line items
  - Vendor line item overdue analysis
  - Vendor line item due date analysis

- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail (down to line item level)
Dataflow: Financials – Accounts Payable (FI-AP)

DataSource → Staging/Corp. Memory → Integrated DWH Layer → Virtual Data Mart Layer

Vendor Line Items

/IMO/CMFIAP04

Vendor Line Items

(0FI_AP_30 / 0FI_AP_4) /IMO/FIAP_IS30

Accounts Payable

/IMO/V_FIAP01

Vendor Line Items

/IMO/CMFIAP30

/IMO/CMFIAP04 or /IMO/CMFIAP30

0FI_AP_4

0FI_AP_30
Business Content Financials – Asset Accounting (FI-AA)

- Asset Accounting Overview:
  - Asset Accounting line items on main asset number and asset sub-number level
  - Asset History Sheet
  - Transaction Data Report
  - Depreciations Posted Analysis

- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail (down to line item level)
**Dataflow:** Financials – Asset Accounting (FI-AA)

- **DataSource**
- **Staging/Corp. Memory**
- **Integrated DWH Layer**
- **Virtual Data Mart Layer**

**FI-AA: Transactions**

- **0FI_AA_11**
  - /IMO/CMFIAA11
  - Transactions (0FI-AA_11) /IMO/FIAA-IS11
  - Transactions and Annual Values /IMO/D_FIAA11

**FI-AA: Posted Depreciations**

- **0FI_AA_12**
  - /IMO/CMFIAA12
  - Posted Depreciations - Periodic Values (0FI-AA_12) /IMO/FIAA-IS12
  - Period Values /IMO/D_FIAA12

**Transactions, Annual and Period Values**

- /IMO/V_FIAA01
**Business Content** Controlling – Overhead Cost Controlling (CO-OM)

- Cost Center Accounting (CO-OM-CCA)
- Overhead Cost Orders (CO-OM-OPA)
- Overhead Projects (CO-OM-NTW*, -WBS, -NWA*, -NAE*)
- Delta-enabled actual, planned costs and commitments
- Statistical key figures
- Actual and commitment data on line item level
- Planning function type for retraction of primary costs (ERP CO)**
- Extended planning function type for retraction of statistical key figures, Activities/Prices and Activity Input***

- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail (down to line item level)

* Delivered with BW4CONT SP04
** Delivered with BW4CONT SP07
*** Delivered with BW4CONT SP09
Dataflow: Controlling – Overhead Cost Controlling (CO-OM)

DataSource | Staging/Corp. Memory | Integrated DWH Layer | Virtual Data Mart Layer

CCA: Costs /IMO/V_CCA01
OPA: Costs /IMO/V_OPA01
OM: Costs /IMO/V_COOM01
WBS: Costs /IMO/V_WBS01
Dataflow: Controlling – Cost Centers Accounting (CO-OM-CCA)

DataSource | Staging/Corp. Memory | Integrated DWH Layer | Virtual Data Mart Layer
---|---|---|---

**Cost Centers: Actual Line Items**
- **0CO_OM_CCA_40**
  - /IMO/CMCCA10
  - CCA: Actual Line Items
  - /IMO/CCA_IS10
  - CCA: Actual Line Items
  - /IMO/D_CCA10

**Cost Centers: Costs and Allocations (Delta Totals)**
- **0CO_OM_CCA_1_D**
  - /IMO/CMCCA20
  - CCA: Plan Totals
  - /IMO/CCA_IS20
  - CCA: Plan Totals
  - /IMO/D_CCA20
  - CCA: Costs
  - /IMO/V_CCA01

**Cost Centers: Commitment Line Items**
- **0CO_OM_CCA_10**
  - /IMO/CMCCA30
  - CCA: Commitment Line Items
  - /IMO/CCA_IS30
  - CCA: Commitment Line Items
  - /IMO/D_CCA30

**Cost Centers: Statistical Key Figures**
- **0CO_OM_CCA_30**
  - CCA: Statistical Key Figures
  - /IMO/CCA_IS50
  - CCA: Statistical Key Figures
  - /IMO/D_CCA50
  - CCA: Statistical Key Figures
  - /IMO/V_CCA02

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Dataflow: Controlling – Overhead Cost Orders (CO-OM-OPA)

Orders: Actual Line Items
0CO_OM_OPA_40
/IMO/CMOPA10
OPA: Actual Line Items
/IMO/OPA_IS10
OPA: Actual Line Items
/IMO/D_OPA10

Orders: Cost and Allocations (Delta Totals)
0CO_OM_OPA_1_D
/IMO/CMOPA20
OPA: Plan Totals
/IMO/OPA_IS20
OPA: Plan Totals
/IMO/D_OPA20
OPA: Costs
/IMO/V_OPA01

Orders: Commitment Line Items
0CO_OM_OPA_7
/IMO/CMOPA30
OPA: Commitment Line Items
/IMO/OPA_IS30
OPA: Commitment Line Items
/IMO/D_OPA30

Orders: Statistical Key Figures
0CO_OM_OPA_30
OPA: Statistical Key Figures
/IMO/OPA_IS50
OPA: Statistical Key Figures
/IMO/D_OPA50
OPA: Statistical Key Figures
/IMO/V_OPA02
Dataflow: Controlling – Overhead Projects (CO-OM-WBS)

DataSource | Staging/Corp. Memory | Integrated DWH Layer | Virtual Data Mart Layer

WBS Elements: Actual Line Items
0CO_OM_WBS_6 /IMO/CMOPA10

WBS: Actual Line Items
/IMO/WBS_IS10

WBS: Actual Line Items
/IMO/D_WBS10

WBS: Plan Totals
/IMO/WBS_IS20

WBS: Plan Totals
/IMO/D_WBS20

WBS: Costs
/IMO/V_WBS01

WBS Elements: Commitment Line Items
0CO_OM_WBS_7 /IMO/CMOPA30

WBS: Commitment Line Items
/IMO/WBS_IS30

WBS: Commitment Line Items
/IMO/D_WBS30

WBS Elements: Statistical Key Figures
0CO_OM_WBS_4

WBS: Statistical Key Figures
/IMO/WBS_IS50

WBS: Statistical Key Figures
/IMO/D_WBS50

WBS: Statistical Key Figures
/IMO/V_WBS02

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Public
Dataflow: Controlling – Project Costs (CO-OM)

DataSource | Staging/Corporate Memory | Integrated DWH Layer | Virtual Data Mart Layer

- NTW: Costs /IMO/V_NTW01
- NWA: Costs /IMO/V_NWA01
- NAE: Costs /IMO/V_NAE01
- WBS: Costs /IMO/V_WBS01
- PRO: Costs /IMO/V_PRO01

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**Dataflow: Controlling – Overhead Projects Network (CO-OM-NTW)**

**DataSource** | **Staging/Corp. Memory** | **Integrated DWH Layer** | **Virtual Data Mart Layer**
---|---|---|---

**Delta Extraction: Networks Actual Costs**

**0CO_OM_NTW_2**

- NTW: Actual Line Items / IMO NTW IS10
- NTW: Actual Line Items / IMO D NTW10

**Network: Costs (Delta Totals)**

**0CO_OM_NTW_1_D**

- NTW: Plan Totals / IMO NTW IS20
- NTW: Plan Totals / IMO D NTW20
- NTW: Costs / IMO V NTW01

**Network Header: Commitment Line Items**

**0CO_OM_NTW_3**

- NTW: Commitment Line Items / IMO NTW IS30
- NTW: Commitment Line Items / IMO D NTW30

**Network Header: Statistical Key Figures**

**0CO_OM_NTW_4**

- NTW: Statistical Key Figures / IMO NTW IS50
- NTW: Statistical Key Figures / IMO D NTW50

Delivered with BW4CONT SP04
Dataflow: Controlling – Overhead Projects Network Activity (CO-OM-NWA)

**DataSource**
- Staging/Corp. Memory
- Integrated DWH Layer
- Virtual Data Mart Layer

**Delta Extraction: Netw. Activity Actual Costs**
- 0CO_OM_NWA_2
  - /IMO/CMNWA10
  - NWA: Actual Line Items /IMO/NWA_IS10
  - NWA: Actual Line Items /IMO/D_NWA10

**Network Activity: Costs (Delta Totals)**
- 0CO_OM_NWA_1_D
  - /IMO/CMNWA20
  - NWA: Plan Totals /IMO/NWA_IS20
  - NWA: Plan Totals /IMO/D_NWA20
  - NWA: Costs /IMO/V_NWA01

**Network Activity: Commitment Line Items**
- 0CO_OM_NWA_3
  - /IMO/CMNWA30
  - NWA: Commitment Line Items /IMO/NWA_IS30
  - NWA: Commitment Line Items /IMO/D_NWA30

**Network Activity: Statistical Key Figures**
- 0CO_OM_NWA_4
  - /IMO/CMNWA30
  - NWA: Statistical Key Figures /IMO/NWA_IS50
  - NWA: Statistical Key Figures /IMO/D_NWA50

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**Dataflow: Controlling – Overhead Projects Network Activity Element (CO-OM-NAE)**

DataSource | Staging/Corp. Memory | Integrated DWH Layer | Virtual Data Mart Layer
---|---|---|---

Delta extraction: Activity Elements Actual costs

0CO_OM_NAE_2 ➔ /IMO/CMNAE10 ➔ NAE: Actual Line Items /IMO/NAE_IS10 ➔ NAE: Actual Line Items /IMO/D_NAE10

Activity Element: Costs (Delta Totals)

0CO_OM_NAE_1_D ➔ /IMO/CMNAE20 ➔ NAE: Plan Totals /IMO/NAE_IS20 ➔ NAE: Plan Totals /IMO/D_NAE20 ➔ NAE: Costs /IMO/V_NAE01

Network Activity Element: Commitment Line Items

0CO_OM_NAE_3 ➔ /IMO/CMNAE30 ➔ NAE: Commitment Line Items /IMO/NAE_IS30 ➔ NAE: Commitment Line Items /IMO/D_NAE30

Network Activity Element: Statistical Key Figures

0CO_OM_NAE_4 ➔ NAE: Statistical Key Figures /IMO/NAE_IS50 ➔ NAE: Statistical Key Figures /IMO/D_NAE50

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**Business Content** Controlling – Product Cost Controlling (CO-PC)

- Product cost analysis including
  - Cost component split
  - Itemization

- LSA++ Architecture incl. Staging/Corporate Memory

Delivered with BW4CONT SP05
Dataflow: Controlling – Product Cost Controlling (CO-PC)

DataSource | Staging/Corp. Memory | Integrated DWH Layer | Virtual Data Mart Layer

Product Cost Analysis
0CO_PC_10

Product Cost Analysis: Cost Component Split
0CO_PC_PCP_20

Product Cost Analysis: Itemization
0CO_PC_PCP_30

Delivered with BW4CONT SP05
Business Content Enterprise Controlling – Profit Center Accounting (EC-PCA)

- Profit Center Accounting Overview:
  - Analysis for profit and loss accounts and balance sheet accounts from Profit Center Accounting (PCA),
  - Actual data on aggregated as well as accounting document item level
  - Plan and budget data on aggregated level
  - Statistical key figure data with fix and total quantities
  - Actuals Balance and Flow comparison
  - Actuals/plan/budget: Balance and Flow comparison

- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail (down to line item level)
Dataflow: Enterprise Controlling – Profit Center Accounting (EC-PCA)

DataSource | Staging/Corporate Memory | Integrated DWH Layer | Virtual Data Mart Layer

Transaction Data on Accounts

0EC_PCA_1 → /IMO/CMPCA01 → Totals (0EC_PCA_1) → /IMO/PCA_IS01 → Totals /IMO/D_PCA01

Statistical key figures

0EC_PCA_2 → /IMO/CMPCA01 → Statistical Key Figures 0EC_PCA_2 → /IMO/PCA_IS02 → Statistical Key Figures /IMO/D_PCA02

Actual Line Items

0EC_PCA_3 → /IMO/CMPCA01 → Line Item - Actuals 0EC_PCA_3 → /IMO/PCA_IS03 → Line Items – Actuals /IMO/D_PCA03

Actual Line Items Periodic Transfer

0EC_PCA_4 → /IMO/CMPCA01 → Line Items Periodic Transfer - Actuals 0EC_PCA_4 → /IMO/PCA_IS04 → Line Items Periodic Transfer – Actuals /IMO/D_PCA04

Profit Center Accounting /IMO/V_PCA01

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**Dataflow: Real Estate Management (RE)**

<table>
<thead>
<tr>
<th>DataSource</th>
<th>Staging/Corp. Memory</th>
<th>Integrated DWH Layer</th>
<th>Virtual Data Mart Layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions (Flow Data)</td>
<td>RE-TD: Conditions /IMO/RETD_IS01</td>
<td>Conditions /IMO/D_RETD01</td>
<td>Conditions /IMO/V_RETD01</td>
</tr>
<tr>
<td>0REFX_1</td>
<td>RE-TD: Cash Flow /IMO/RETD_IS06</td>
<td>RE-TD: Cash Flow /IMO/D_RETD06</td>
<td>Cash Flow /IMO/V_RETD06</td>
</tr>
<tr>
<td>See SAP Note 2684674</td>
<td>RE-CA: Object Assignment /IMO/RECA_IS41</td>
<td>RE-CA: Object Assignment /IMO/D_RECA41</td>
<td>Object Assignment /IMO/V_RECA41</td>
</tr>
</tbody>
</table>

Delivered with BW4CONT SP07
**Dataflow: Real Estate Management (RE)**

- **DataSource**
  - Staging/Corp. Memory
  - Integrated DWH Layer
  - Virtual Data Mart Layer

**RE: Contract**

- **0RECONTRACT_ATTR**
  - Contract Attributes
  - 0RECONTRACT_ATTR

**See SAP Note 2684674**

- **/IMO/CMREI051**
  - RE-IO: Int. Key of RE Object (INTRENO)
  - /IMO/REIO_IS51

- **/IMO/CMREI052**
  - RE-IO: Contract Object
  - /IMO/REIO_IS52

- **/IMO/CMREI053**
  - RE-IO: Valuation Rule
  - /IMO/REIO_IS53

- **/IMO/CMREI054**
  - /IMO/REIO_IS54

- **Internal RE-Number**
  - 0REINTRENO

- **Evaluation Rule per Contract**
  - 0RECECNRULE

- **Contract Object**
  - 0RECONOBJ

- **Valuation spec. condition param.**
  - 0RECECDRULE

See SAP Note 2684674

Delivered with BW4CONT SP07
Dataflow: Real Estate Management (RE)

See SAP Note 2684674

See SAP Note 2684674

DataSource → Staging/Corp. Memory → Integrated DWH Layer → Virtual Data Mart Layer

/IMO/CMREIO55

RE-IO: Valuation Process
/IMO/REIO_IS55

Valuation Process
ORECEPROC

/IMO/CMREIO56

RE-IO: Valuation Process Text Attr
/IMO/REIO_IS56

Delivered with BW4CONT SP07
Business Content Production Planning and Controlling (PP, PP-PI)

- Production Order Analysis:
  - Material view
  - Work center view
  - Components view
  - Capacity requirements and usage

- Data from PP (Production Planning) and PP-PI (Production Planning - Process Industries) is extracted

- LSA++ Architecture incl. Staging/Corporate Memory

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Dataflow: Production Planning and Controlling (PP/PP-PI)

DataSource

Staging / Corporate Memory

Integrated DWH Layer

Virtual Data Mart Layer

Material View from PP/PP-PI

2LIS_04_P_MATNR

/IMO/CMPP10

PP: Material View
/IMO/PP_IS10

Work Center View from PP/PP-PI

2LIS_04_P_ARBPL_20

/IMO/CMPP20

PP: Work Center View
/IMO/PP_IS20

Component View from PP/PP-PI

2LIS_04_P_COMP

/IMO/CMPP30

PP: Component View
/IMO/PP_IS30

PP(PI) Work Center Capacity

OPP_WCCP_20

/IMO/CMPP40

PP: Work Center Capacity
/IMO/PP_IS40

Delivered with BW4CONT SP05
Business Content Utilities

- Contract Accounts:
  - Contract Account
  - Invoice Data
  - Business Partner Items
  - Returns, Payments
  - Cash Management, Revenue Distribution

- Master Data:
  - Contracts, Business Partner,
  - Device, Point of Delivery, Register,
  - …

- Sales Statistics:
  - Sales Statistics, simulated billings

- Energy Data Management
  - Meter reading document
  - Settlement document
  - Usage factors
  - Load profile

- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer