

SAP S4/HANA, HANA 2.0 SP2, **BW/4HANA**, & SAP DS 4.2 SP8

New SAP BI Data Modelling & Analytics Features

Below is a list of noteworthy NEW SAP BI analytics features by SAP landscape:

1- SAP S4/HANA 1610 FPS02 On-Premise Analytics Options: a) **Embedded Analytics:** With S4/HANA SAP provides out of the box real-time reporting capabilities of operational data through VDM (virtual data model). The VDM data model exposes S4/HANA operational data using ABAP-CDS views (aka Core Data Services Views). The VDM and CDS views are the default reporting method for any S/4HANA system. CDS views use annotations which are libraries of methods that are delivered standard by SAP. New annotations can also be created by SAP developers. Additional standard CDS views (aka standard content) are now delivered for most of the compliance reports for Finance, Supply Chain, Asset Management and Cross Functional areas within SAP. All standard S4/HANA CDS views can be consumed in front-end tools directly or can be further cloned and enhanced as per customer specific needs. In S4/HANA the CDS views and ODATA components together provide a real-time operational reporting environment that exposes data to SAP Fiori or any 3rd party front-end tools such as Tableau, SAP BI (aka BOBJ) and Qlikview, etc. b) **SAP Fiori** - SAP Fiori is the preferred front-end for S4/HANA applications and aims at "**Keeping Simple Things Simple**". SAP Fiori is delivered with out-of-the box SAP interfaces and reports that are ready to activate and use. c) **SAP BW/4HANA and/or BW & SAP BI (aka BOBJ) Integration:** S/4HANA provides optional integration with SAP BW(incl. 3rd party DB) and SAP BI. SAP also provides additional standard content (data models and reports) for customers.

2 - SAP HANA 2.0 SP2: a) **Source Code Encryption for HANA SQL Procedures and SQL Functions:** Developers can now fully encrypt source code used within SQL Procedures and Functions. This opens up potential for several 3rd party HANA developers to build complex apps using custom logic to create **3rd party HANA apps** that will boost business profitability without exposing source code used within to handle complex logic (similar to generating a binary version). Note: table column level data encryption and decryption (i.e: SSN / drivers license etc..) still must be implemented as a custom solution.

b) **Enhanced HANA Change and Transport Management:** CTS+ has been enhanced further to support HANA (1.0 SP9 >) change and transport (aka delivery unit) management using Change Manager and Change Lists (Change Lists compares to BW Transports) with version control. WebIDE fully supports change management and transport management features. Key features include source code version control for design time HANA runtime artifacts with version compare, roll back to previous active version (aka rebase to active), etc.

c) **Enhanced Web IDE:** Web IDE now provides most of HANA studio features such as renaming and refactoring, auto documentation, etc. Database explorer now has new features: we can rename SQL console tab, object search filtering. **Graphical CDS view modeling** is also now available with full support for cascading queries (aka nested SQL queries) with parameters, OData v4 service publication, other CDS view structure type casting, calculation views, etc.

d) **Rule of Thumb for HANA Projects:** 1 - Do as much as data processing in the HANA DB backend by **enabling push-down processing**. Write code to exploit **massive parallel processing and in-memory capabilities** of SAP HANA DB. 2 - Leverage Dynamic Tiering (formerly known as NLS) to stage data in hot (in-memory), warm and cold-storage appropriately to optimize HANA memory consumption.

3 – HANA DB house keeping by DBA..

BW/4HANA SP04

a) DTO (Data Tier Optimization - aka Temperature Management / Dynamic Tiering) now supports SAP IQ / SAP Vora as source for cold / external storage of Advance DSO data. b) BW CMOD user exits are replaced with HANA enhancement spots c) BW RSA1 tcode and BEx Query Designer are now available in Web IDE under BW Modeling Perspective. d) BW APDs are now called HAPs (HANA Analysis Process) in BW/4HANA

f) Flexible BW migration option to BW/4HANA: **In-Place Conversion** – Customers who are on SAP BW 7.5 SP5 on HANA database or 3rd party database can now choose to do the discover and prepare phase prior to determining whether a remote conversion is the best option or not. e) Enhanced versions of Advanced DSO & Composite Provider, Open ODS View, etc.

Data Services -4.2 SP8

1. DS supports real time data extraction for any ECC table using SLT-ODQ queues.

2. DS query transform object now enables custom ETL options to exploit HANA push-down processing thereby eliminating long running DS CDC / table compare jobs.

3. DS now supports SAP HANA stored procedures with input and output parameters and more..

