Bulk Calculations – Solution BCS 3.0

Release Notes Maintenance Level 01/02

Listing of Delivery Content shipped with BCS 30B CSP01 / BCS 30A CSP02

Notes

The latest version of this documentation can be found in the QuantityWare [Knowledge Base](). All documentation is kept current for the combinations of latest BCS release with the latest supported SAP Oil & Gas release. For all currently supported combinations see [Note #000086 "Support and Release (Lifecycle) details"]() page 2, "Release Lifecycle".

Your release level can be determined via:

"/o/QTYW/COCKPIT" -> "Cockpit" -> "Support Package Level"

Version History

Version	Date	Description
00	2021-04-12	Initial Version

Contents

1. Introduction

In 2006 QuantityWare GmbH was officially founded. Ten years after the initial release of BCP 1.0A (Bulk Calculations - Petroleum) in 2006, **BCS 3.0** (Bulk Calculations - Solution) was made available on 11.10.2016 to a constantly growing global customer base.

Technically, the latest release of BCS (Bulk Calculations - Solution) is 30. The support for differing SAP Oil & Gas platforms is defined by the following letter:

A = ECC600

B = S/4HANA© 2021

E.g. the current BCS release supporting all current levels of SAP Oil & Gas on S/4HANA is **30B**

"Maintenance Levels" are delivered by QuantityWare via CSPs (Component Support Package).

The BCS 30A Release Notes for BCS 3.0 Maintenance Level (CSP) 00 are published here.

The BCS 30A Release Notes for BCS 3.0 Maintenance Level (CSP) 01 are published here.

Functionally, BCS 30B Maintenance Level 00 (30B-00) is identical to BCS 30A Level 01 (30A-01); 30B-00 is thus documented with the BCS 30A CSP01 (30A-01) documentation manual versions.

Bulk Calculations - Solution (BCS) contains four products:

- Bulk Calculations - Petroleum (BCP)
- Bulk Calculations - Gas (BCG)
- Compliance and Transparency - Petroleum (CTP)
- Compliance and Transparency - Gas (CTG)

Functionally, **BCS 30B - Maintenance Level 01 (30B-01) and BCS 30A – Maintenance Level 02 (30A-02) are identical.** This document describes the functional and usability enhancements that are delivered with **30B-01** and **30A-02** for the four products listed above **- in Q3 2021**

2.   PMC and GMC – User Interface

For both the PMC and GMC, a range of new pictures are available in the main tab strips of each cockpit:
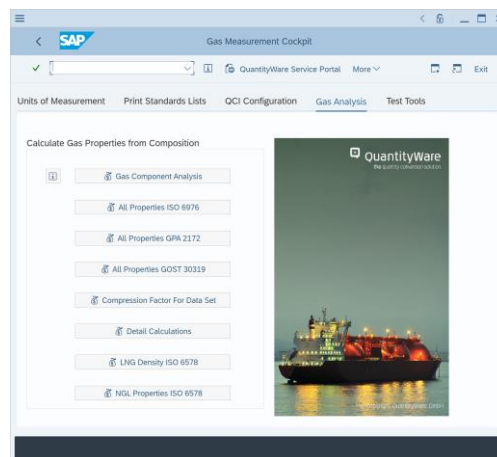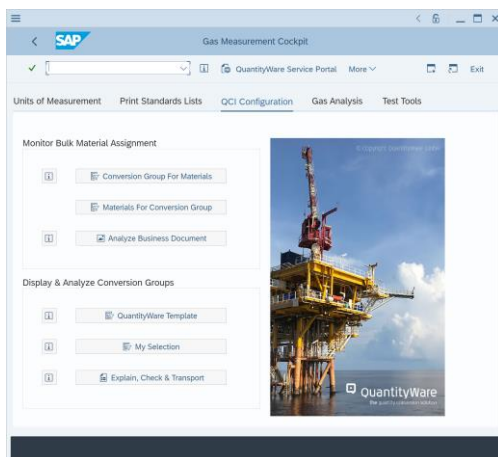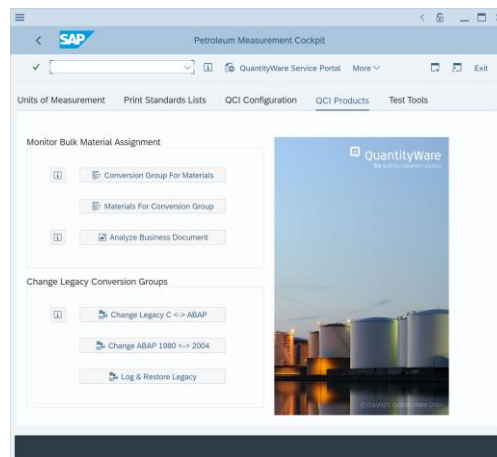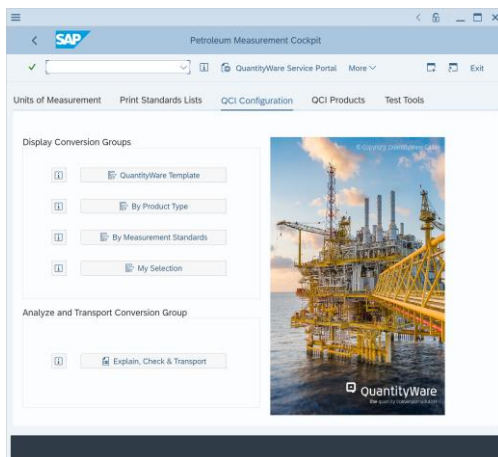
When changing between different tab strips (or resizing the window), the pictures change.

3. BCS Automation & Alerting

With BCS 30B-01 and BCS 30A-02, a sophisticated monitoring framework is shipped, utilizing SAP CCMS Monitoring capabilities. Implementation of this framework requires expert knowledge of SAP CCMS. Examples will be described in a separate working paper.
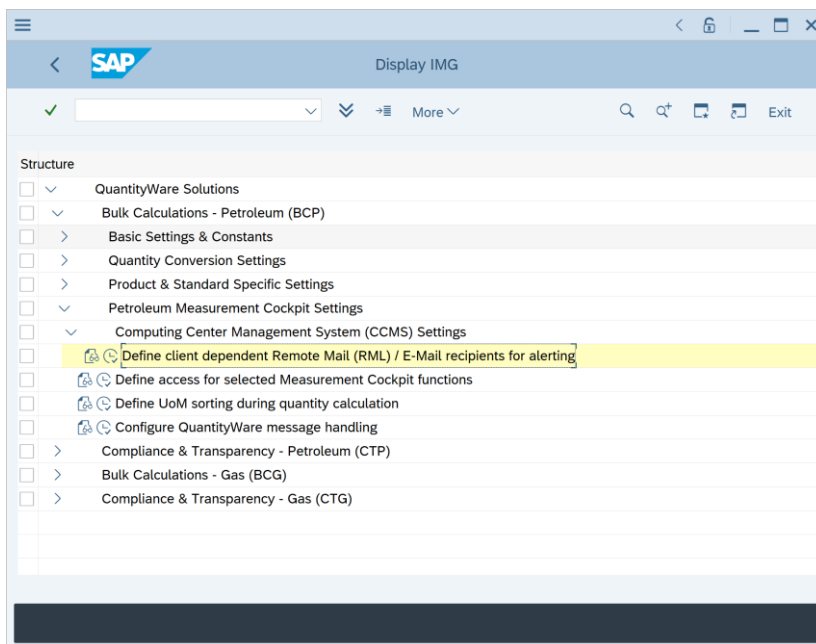
Benefits:

1. After implementation, the:

    o   installation test,

    o   license expiry test

    o   test scenario run

    can be scheduled for regular execution. If errors are detected, SAP-Mail and E-Mail notification is possible.

2. After implementation, the Business Document Analysis can be scheduled to perform a mass analysis (delta analysis) of posted material documents. Results of the analysis run can be inspected by business experts to ensure that the gatekeeper functionality is being implemented correctly, and no violations occur in production.
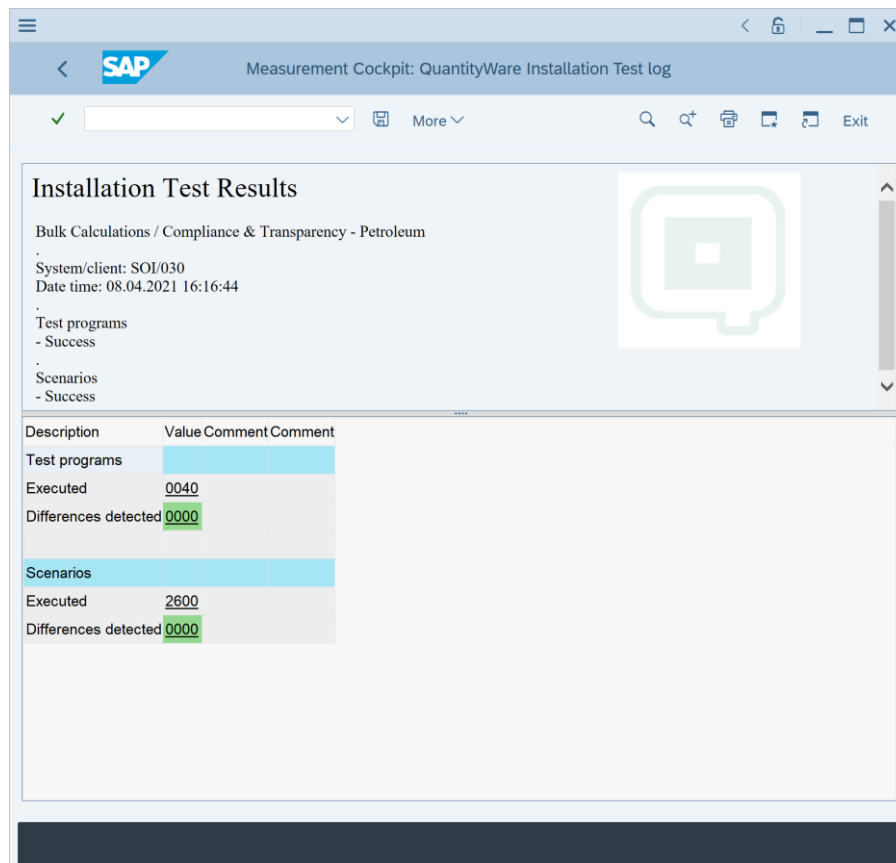
4.   Template and Installation Test

With BCS 30B-01 and BCS 30A-02, the BCP and BCG templates have been completely renovated and enhanced with new measurement standards configurations.

Based on our 15 years of experience, the renovation considers additional feedback from our network of certified consultants and their experience during implementation projects.

The renovation and enhancement has led to the removal of all known minor inconsistencies, updated descriptions due to new measurement standard versions, optimized calculation model configurations and removal of legacy SAP QCI high pressure natural gas and LNG template conversion groups from the template; MQCI high pressure natural gas and LNG template conversion groups are the state-of-the-art choice for BCG implementations.

The BCP and BCG Installation Test has been adjusted to the template changes described above and extended considerably – for BCP, 2600 Test Scenarios are delivered, for BCG 1500 Test Scenarios are delivered:
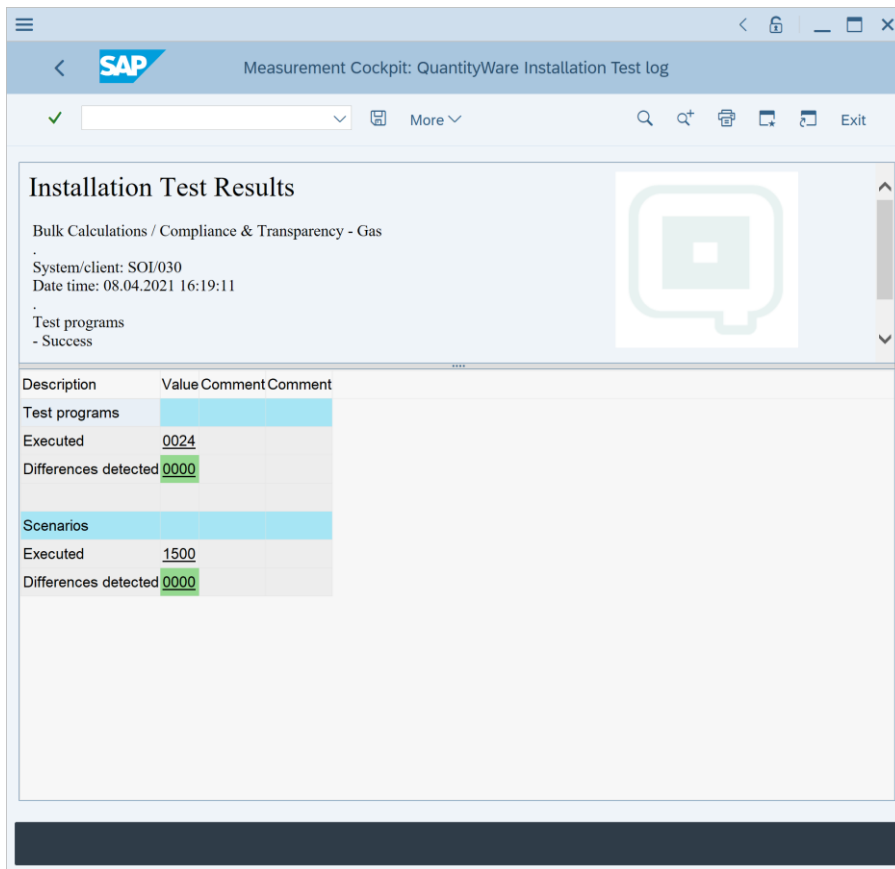
All test programs have been renovated – functionally and technically - such that hard-coded conversion group tests have been migrated into test scenarios.

A new quantity conversion model check for the base conversion UoM has been implemented. A set of base conversion UoM must be consistent with respect to the conversion factors to the SI UoM. Otherwise, an error message is raised during the conversion group consistency test.
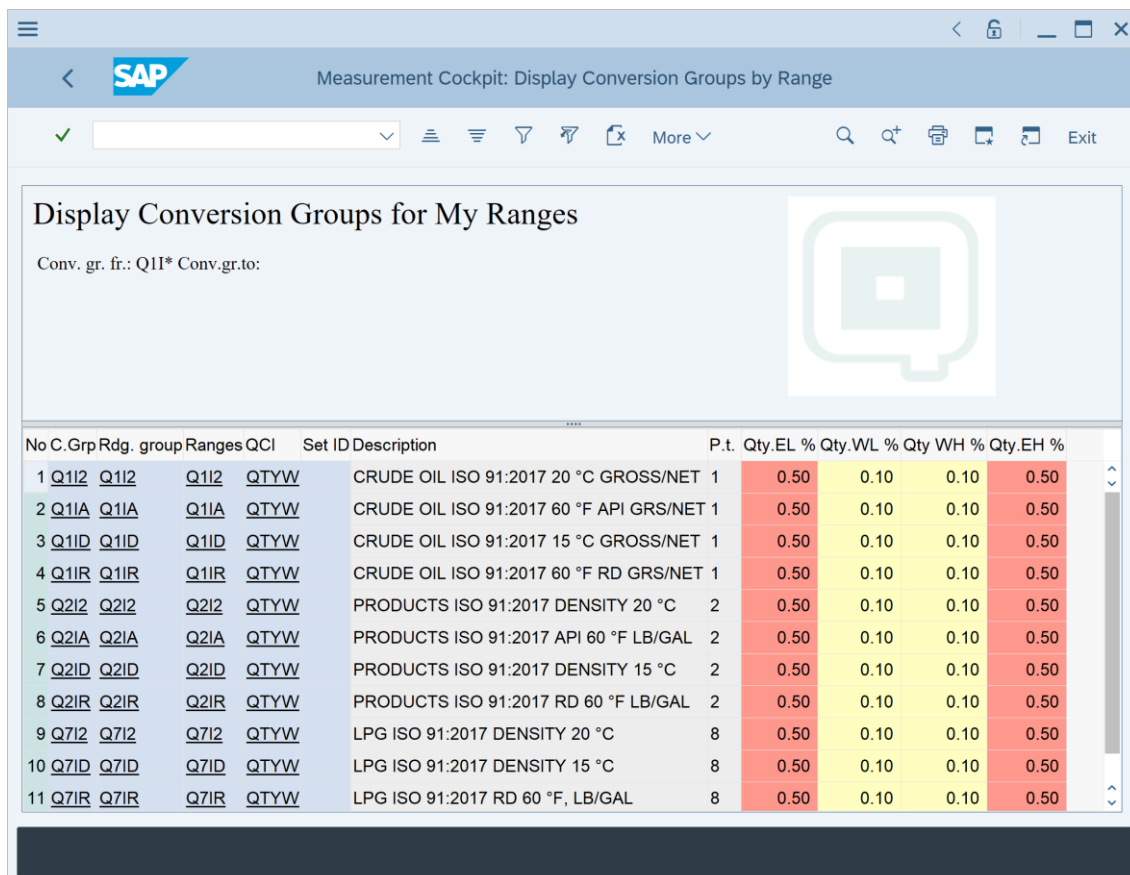
5. Petroleum and Gas Measurement Standards

5.1. Support of ASTM D1250-19

ASTM D1250 has been issued as a new version with the designation ASTM D1250-19. This version is necessary due to the publication of API MPMS chapter 11.1 Addendum 2 (May 2019). One of the 10 changes delivered with Addendum 2 requires that final densities and volumes should be calculated with unrounded volume correction factors (CTL, CPL and CTPL).

5.2. Enhanced Support of ISO 91:2017

QuantityWare BCP supports ISO 91:2017 quantity conversions. To simplify implementations for our certified consultant base, new template conversion groups are delivered (including ASTM D1250-19 support of unrounded volume correction factors) with BCS 30B-01 and BCS 30A-02:

5.3. Support of ASTM D1555-16

66 new template conversion groups for ASTM D1555-16 are delivered:

5.4. Support of ASTM D1550-18

One new template conversion group for ASTM D1550-18 is delivered:
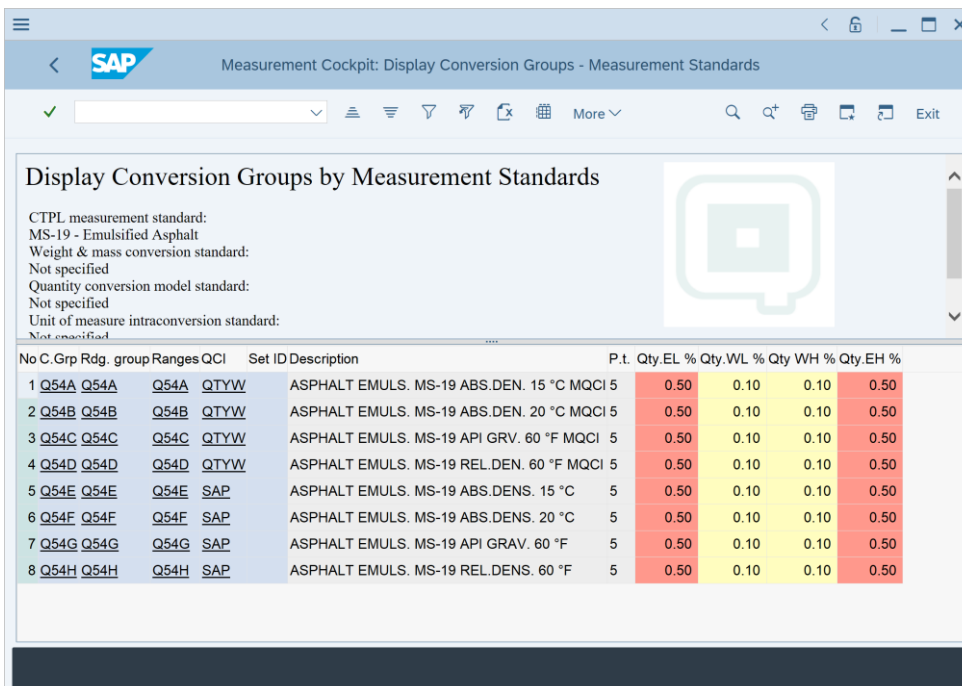
5.5. Support of MS-19 Emulsified Asphalt

8 new template conversion groups are delivered to support emulsified asphalt quantity conversions:

5.6. Support of ISO 6578:2017
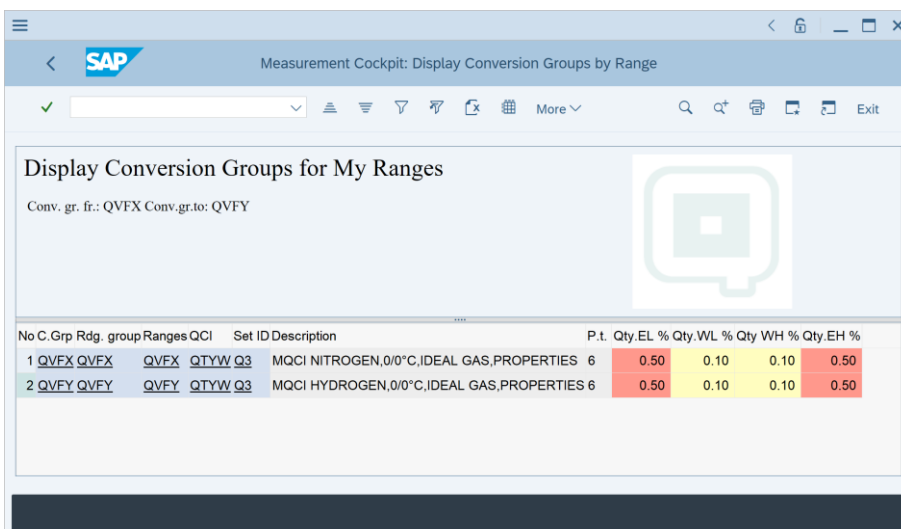
2 new template conversion groups are delivered:

5.7. Support of ideal gas calculations – Nitrogen & Hydrogen
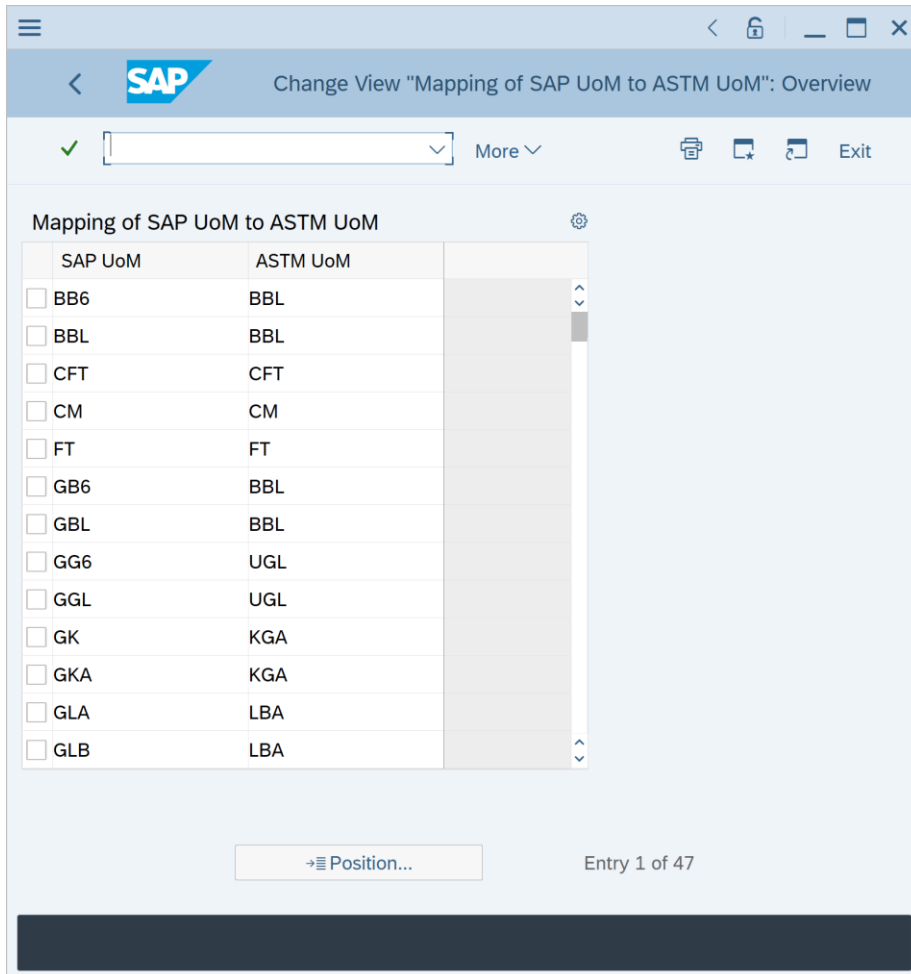
2 new template conversion groups for ideal gas calculations of nitrogen and hydrogen are delivered:

5.8. Support of ASTM Table 1 conversion factors for all quantities

The BCS template contains now all ASTM Table 1 factors and mapping definitions for all relevant quantities/ SAP dimensions, i.e. GSM, GSW, GSV, NSW, NSM and NSV:

6. Application and Usage Specific Features

6.1. BCP/CTP & BCG/CTG Functionality

6.1.1. List Printing – Petroleum & Gas Measurement Cockpit

PDF printing of all PMC and GMC has been completely renovated and extended: All PDF documents now contain a QuantityWare watermark and are optimized to fit to two pre-defined printing formats:

```
06.04.2021         Petroleum Measurement Cockpit: ASTM D1250-04 Lists              1
-------------------------------------------------------------------------------
                          ASTM D1250-04 - Table 5A

Temp. |Product:      Crude
from  |Base:         API Gravity at 60 °F
 58.0-|Calculation:  Base density
to    |
 14.0-|API Gravity                                  from   40.0  to    44.5
 °F   | 40.0    40.5    41.0    41.5    42.0 | 42.5    43.0    43.5    44.0    44.5
-------------------------------------------------------------------------------
 58.0-| 51.3    51.9    52.5    53.1    53.7 | 54.3    54.9    55.5    56.1    56.8
 57.0-| 51.2    51.8    52.4    53.0    53.6 | 54.2    54.8    55.4    56.0    56.6
 56.0-| 51.1    51.7    52.3    52.9    53.5 | 54.1    54.7    55.3    55.9    56.5
 55.0-| 51.0    51.6    52.2    52.8    53.4 | 54.0    54.6    55.2    55.8    56.4
 54.0-| 50.9    51.5    52.1    52.7    53.3 | 53.9    54.5    55.1    55.7    56.3
      |                                     |
 53.0-| 50.7    51.4    52.0    52.6    53.2 | 53.8    54.4    55.0    55.6    56.2
 52.0-| 50.6    51.2    51.8    52.4    53.0 | 53.7    54.3    54.9    55.5    56.1
 51.0-| 50.5    51.1    51.7    52.3    52.9 | 53.5    54.1    54.7    55.3    56.0
 50.0-| 50.4    51.0    51.6    52.2    52.8 | 53.4    54.0    54.6    55.2    55.8
 49.0-| 50.3    50.9    51.5    52.1    52.7 | 53.3    53.9    54.5    55.1    55.7
      |                                     |
 48.0-| 50.2    50.8    51.4    52.0    52.6 | 53.2    53.8    54.4    55.0    55.6
 47.0-| 50.1    50.7    51.3    51.9    52.5 | 53.1    53.7    54.3    54.9    55.5
 46.0-| 50.0    50.6    51.2    51.8    52.4 | 53.0    53.6    54.2    54.8    55.4
 45.0-| 49.9    50.5    51.1    51.7    52.3 | 52.9    53.5    54.1    54.7    55.3
 44.0-| 49.8    50.4    51.0    51.6    52.2 | 52.8    53.4    54.0    54.6    55.2
      |                                     |
 43.0-| 49.7    50.3    50.9    51.5    52.1 | 52.7    53.3    53.9    54.5    55.0
 42.0-| 49.6    50.2    50.8    51.4    52.0 | 52.6    53.2    53.7    54.3    54.9
 41.0-| 49.5    50.1    50.7    51.3    51.9 | 52.5    53.0    53.6    54.2    54.8
 40.0-| 49.4    50.0    50.6    51.2    51.8 | 52.3    52.9    53.5    54.1    54.7
 39.0-| 49.3    49.9    50.5    51.1    51.6 | 52.2    52.8    53.4    54.0    54.6
      |                                     |
 38.0-| 49.2    49.8    50.4    51.0    51.5 | 52.1    52.7    53.3    53.9    54.5
 37.0-| 49.1    49.7    50.3    50.9    51.4 | 52.0    52.6    53.2    53.8    54.4
 36.0-| 49.0    49.6    50.2    50.7    51.3 | 51.9    52.5    53.1    53.7    54.3
 35.0-| 48.9    49.5    50.1    50.6    51.2 | 51.8    52.4    53.0    53.6    54.2
 34.0-| 48.8    49.4    50.0    50.5    51.1 | 51.7    52.3    52.9    53.5    54.0
      |                                     |
 33.0-| 48.7    49.3    49.9    50.4    51.0 | 51.6    52.2    52.8    53.3    53.9
 32.0-| 48.6    49.2    49.7    50.3    50.9 | 51.5    52.1    52.7    53.2    53.8
 31.0-| 48.5    49.1    49.6    50.2    50.8 | 51.4    52.0    52.5    53.1    53.7
 30.0-| 48.4    49.0    49.5    50.1    50.7 | 51.3    51.9    52.4    53.0    53.6
 29.0-| 48.3    48.9    49.4    50.0    50.6 | 51.2    51.8    52.3    52.9    53.5
      |                                     |
 28.0-| 48.2    48.8    49.3    49.9    50.5 | 51.1    51.6    52.2    52.8    53.4
 27.0-| 48.1    48.7    49.2    49.8    50.4 | 51.0    51.5    52.1    52.7    53.3
```
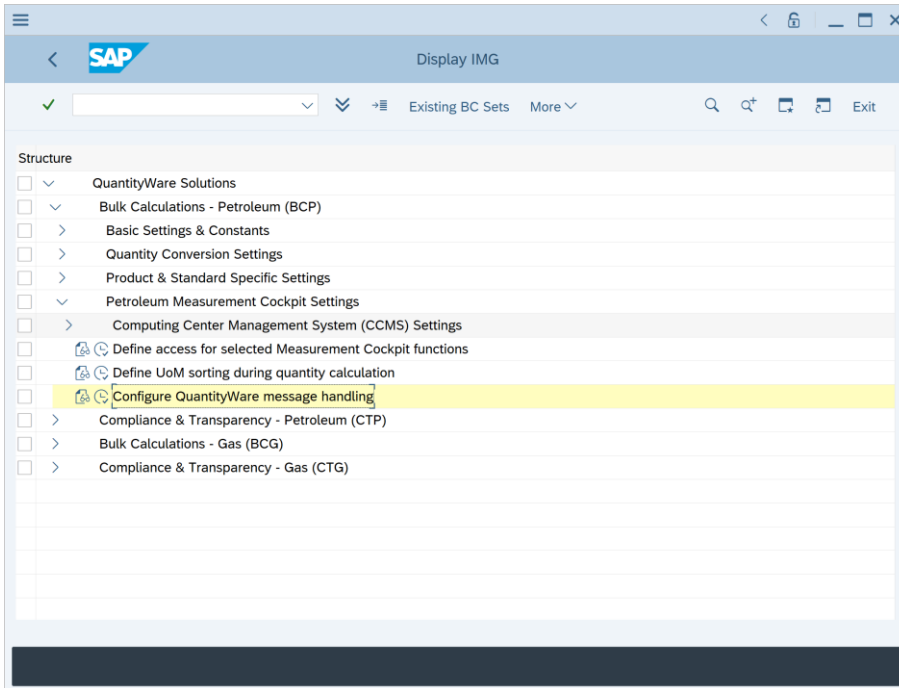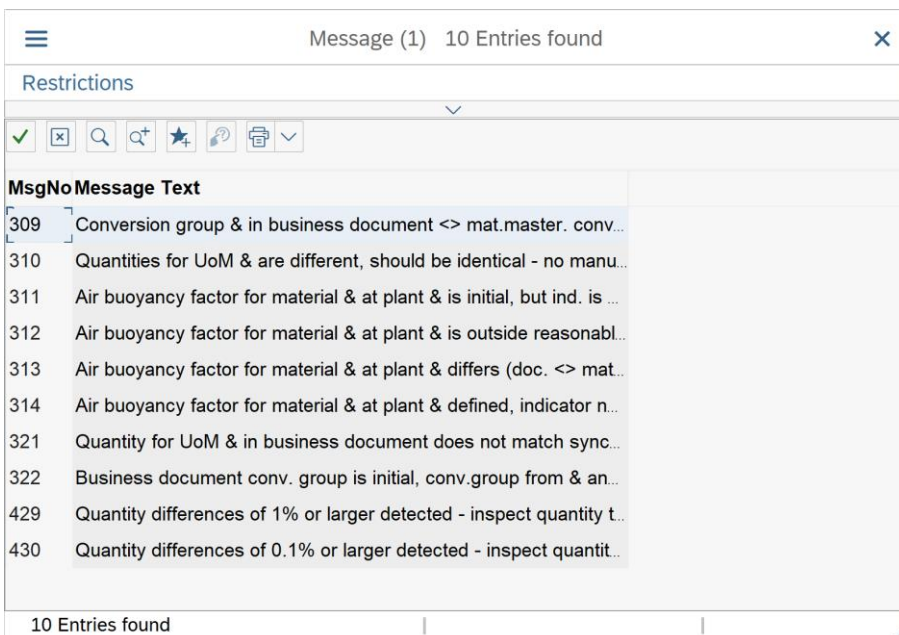
6.1.2. Business Document Analysis

The business document analysis tool now has 10 messages which can be customized to appear as error, warning or information messages:

6.2. BCP/CTP & BCG/CTG Usability

6.2.1. Enhanced Usability – Test Scenario Tool

The test scenario tool has undergone a major technical and usability redesign. Clear warning and information messages now guide the user when creating or changing a test scenario. The "Return" key triggers all relevant actions; the "Execute" button has been removed from the UI, as this caused extensive confusion when working with the test scenario tool. All inconsistencies reported by our network of certified consultants have been removed.

6.2.2. QuantityWare IMG Integration

The QuantityWare IMG has been integrated without modification into the standard SAP IMG at the relevant positions of the SAP Oil & Gas Solutions:
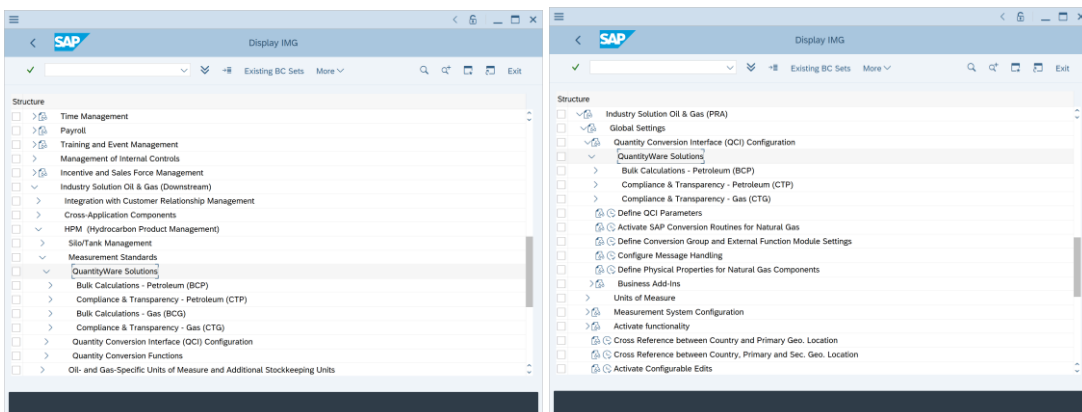
6.2.3. Enhanced Usability – Documentation

The PMC and GMC documentation has been editorially revised and corrections have been made where required, including the message texts and long texts of all four /QTYW/ message classes.

6.3. BCP and BCG Notes

The following QuantityWare notes are contained in BCS 30B-01 and BCS 30A-02:

Note Number	Short Text	Link
000071	DB Lock on Table /QTYW/ISO91_SL	https://www.quantityware.com/wp-content/uploads/Note-000071.pdf
000074	Support of ASTM D1555(M)-2016	https://www.quantityware.com/wp-content/uploads/Note-000074.pdf
000075	SPAU_ENH forces usage of /QTYW/ Repair Key	https://www.quantityware.com/wp-content/uploads/Note-000075.pdf
000078	AGA Report No. 7 - Atmospheric Pressure Calculation	https://www.quantityware.com/wp-content/uploads/Note-000078.pdf
000077	BCS 30x Collective Note - Corrections & Enhancements	https://www.quantityware.com/wp-content/uploads/Note-000077.pdf
000079	Business Document Analysis - Automatically Generated Lines	https://www.quantityware.com/wp-content/uploads/Note-000079.pdf
000076	ISO 6578:2017 Compliance Enhancements	https://www.quantityware.com/wp-content/uploads/Note-000076.pdf
000080	Support of ASTM D1550-18 Butadiene - ASTM D2962 Compliance Confirmation	https://www.quantityware.com/wp-content/uploads/Note-000080.pdf
000081	SAP Note 397003 Integration	https://www.quantityware.com/wp-content/uploads/Note-000081.pdf
000082	Business Document Analysis - Initial UoM MSEGO2 Lines	https://www.quantityware.com/wp-content/uploads/Note-000082.pdf
000083	PMC & GMC Adjustments - Long Material Number in S/4HANA	https://www.quantityware.com/wp-content/uploads/Note-000083.pdf
000084	PMC & GMC Enhancements - Installation Test & SAP IMG	https://www.quantityware.com/wp-content/uploads/Note-000084.pdf

000088	Test Scenario Tool Corrections	https://www.quantityware.com/wp-content/uploads/Note-000088.pdf
000089	Usage Key Installation Handling	https://www.quantityware.com/wp-content/uploads/Note-000089.pdf
000090	ASTM D1250-19 Support	https://www.quantityware.com/wp-content/uploads/Note-000090.pdf
000094	Belize Theme: QuantityWare pictures appear distorted	https://www.quantityware.com/wp-content/uploads/Note-000094.pdf
000097	BCS - Security - BCS Cockpit Authorizations and Considerations	https://www.quantityware.com/wp-content/uploads/Note-000097.pdf
000096	MS-19 Emulsified Asphalt - Quantity Conversion Support	https://www.quantityware.com/wp-content/uploads/Note-000096.pdf

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