

Note: 000107

Overview

Number	000107
Description	Default Test Density UoM for Range Checks & IDOC processing
Version	01 from 11.02.2022
Status	Released to Customer
Language	EN
Responsible	Markus Seng
Product	BCS
Category	Correction - SAP Integration

Symptom

You have configured range limits for your conversion group, specifically for the test density. This is required (e.g.) if the "extend range of standard implementation" flag is set in the conversion group (e.g. in order to prevent short dumps for 0 density value input), but also as good general security practice ("gate keeper" function).

A range check always requires a valid UoM for all parameters to be checked (unless a parameter is defined as a parameter w/o UoM in a reading group). However, your SAP IDOCS (e.g. TAS or TD) now fail after the range check for the test density has been activated. These SAP IDOCS do not provide the Test density UoM field, the test density is passed w/o UoM and the error message /QTYW/BCC 050 is raised by the range check function.

Cause

SAP Oil&Gas IDOCS do not provide a field to pass the Test Density UoM to the system - although this UoM has been introduced by SAP Oil&Gas with ERP Release 4.6B.

Solution

Either:

Extend the SAP IDOC structures:

CI & Append structure extension to IDOC segments are not possible - see SAP note <https://launchpad.support.sap.com/#/notes/494441>.

HOWEVER - customer segments can be inserted into an IDOC... see SAP Note - <https://launchpad.support.sap.com/#/notes/587811>.

Action:

If a customer encounters this issue, we suggest that they consider requesting SAP to extend the SAP IDOC(s). If this is not possible, then customers may resolve the situation themselves (as described above in SAP Note 587811).

Disadvantage:

The SAP function module performing the IDOC data processing has to be modified by the customer. It is good practice to avoid such modifications.

Release Limitations:

According to SAP Note 587811 customer segment insertion has been possible since R/3 46A.

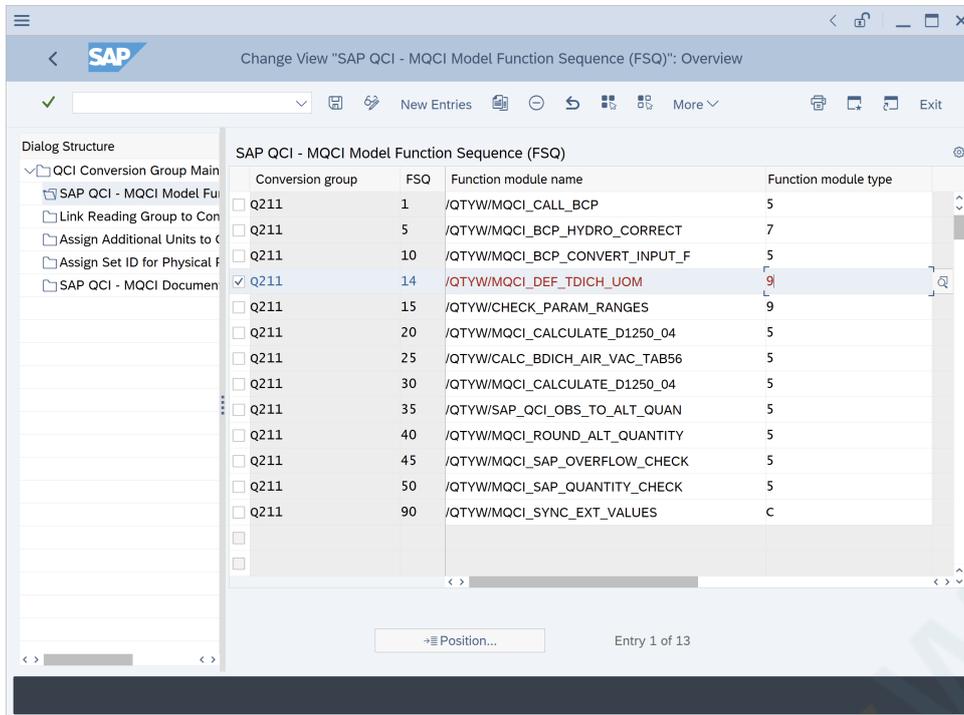
Or:

Import the transport delivered with this note, which provides one new defaulting function for SAP QCI and MQCI conversion groups: `/QTYW/MQCI_DEF_TDICH_UOM`, and assign this new function to your SAP QCI or MQCI conversion group - directly before the range check function `/QTYW/CHECK_PARAM_RANGES`. It is strongly recommended that a BCP certified consultant is engaged to perform this task.

Function `/QTYW/MQCI_DEF_TDICH_UOM` defaults the SI UoM (SAP UoM KGV - kg/m³) as test density UoM for absolute densities, and the appropriate UoM (typically API and RDW) for API gravity and relative density UoM, if a non-zero value is passed e.g. via IDOC (0 is also defaulted with UoM API since 0 API is a valid value).

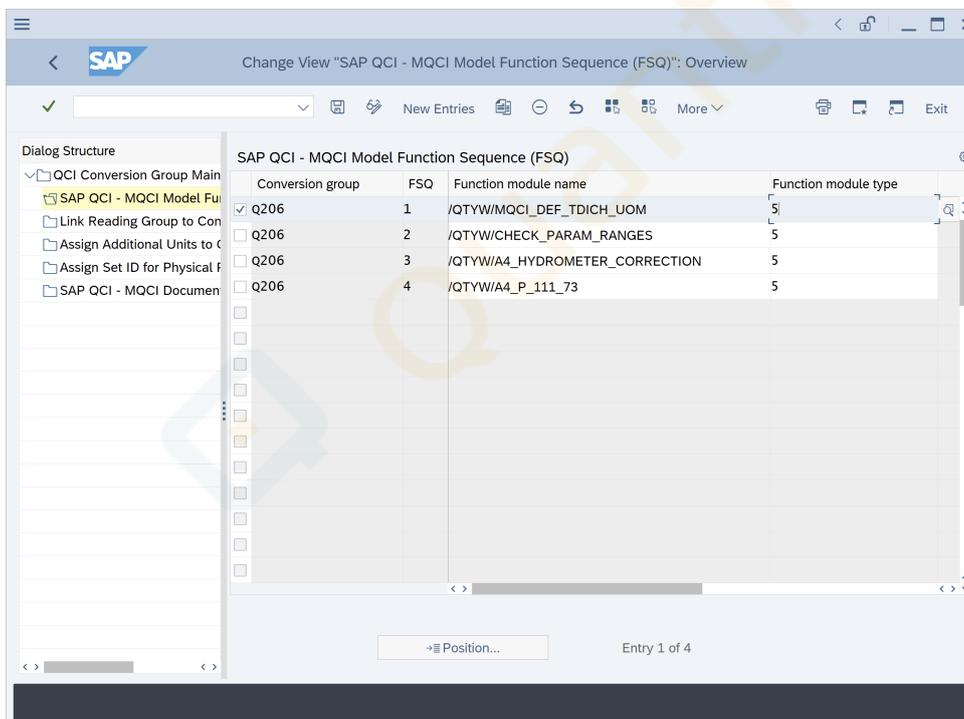
For MQCI conversion groups, the defaults are also passed back to the calling application, SAP QCI conversion groups do not support this due to the legacy design.

Example: MQCI conversion group Q211



Conversion group	FSQ	Function module name	Function module type
Q211	1	/QTYW/MQCI_CALL_BCP	5
Q211	5	/QTYW/MQCI_BCP_HYDRO_CORRECT	7
Q211	10	/QTYW/MQCI_BCP_CONVERT_INPUT_F	5
Q211	14	/QTYW/MQCI_DEF_TDICH_UOM	9
Q211	15	/QTYW/CHECK_PARAM_RANGES	9
Q211	20	/QTYW/MQCI_CALCULATE_D1250_04	5
Q211	25	/QTYW/CALC_BDICH_AIR_VAC_TAB56	5
Q211	30	/QTYW/MQCI_CALCULATE_D1250_04	5
Q211	35	/QTYW/SAP_QCI_OBS_TO_ALT_QUAN	5
Q211	40	/QTYW/MQCI_ROUND_ALT_QUANTITY	5
Q211	45	/QTYW/MQCI_SAP_OVERFLOW_CHECK	5
Q211	50	/QTYW/MQCI_SAP_QUANTITY_CHECK	5
Q211	90	/QTYW/MQCI_SYNC_EXT_VALUES	C

SAP QCI template conversion group Q206



Conversion group	FSQ	Function module name	Function module type
Q206	1	/QTYW/MQCI_DEF_TDICH_UOM	5
Q206	2	/QTYW/CHECK_PARAM_RANGES	5
Q206	3	/QTYW/A4_HYDROMETER_CORRECTION	5
Q206	4	/QTYW/A4_P_111_73	5

Transport Reference

SAP Release	Transport	File Name	Notes
ECC600	QOIK900366	NOTE-00107-30x.SAR	
S/4 HANA	QOIK900366	NOTE-00107-30x.SAR	

Validity

SAP Release	From SP	To SP	In SP Shipment
ECC600	BCS 3.0 CSP02	BCS 3.0 CSP03	BCS 3.0 CSP03
S/4 HANA	BCS 3.0 CSP01	BCS 3.0 CSP02	BCS 3.0 CSP02