



Client 045 – Reference Manual

Management and Use

Notes

None.

Version History

Version	Date	Description
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1. What is Client "045"?

1.1. History

In the ECC 4.xx days of the SAP IS-OIL solution, SAP used to deliver a test client ("065") in which CATTs could be run by the customer to check if the solution had been correctly installed and fundamental IS-OIL functionality was working as expected. Also, selected configuration data from the SAP QCI configurations – mainly UoM definitions, conversion group and reading group configurations and also technical SAP QCI parameters – were classified as technical configuration data, which were added to SAP client 000 for delivery. The people at QuantityWare, who are involved in the delivery of our BCS (Bulk Calculations Solution) package, all know and understand this concept. **Since QuantityWare cannot deliver additional required and important configuration data via SAP client 000**, we decided to deliver all technical configuration data via one single, **dedicated client 045**, which would also serve as the main test client for the functional correctness after BCS technical installation.

1.2. Definition

Client 045 is a reference client exclusively containing QuantityWare BCS customizing and configuration. QuantityWare requires this client to be created in one system in the target SAP system landscape.

1.3. Why do we need it?



Client 045 is considered by QuantityWare to be the "Single Source of Truth"

If the customer ever wishes to open an issue ticket with QuantityWare under the topic "Calculations Issue", the BCP and BCG Installation Test results, showing the successful technical and functional installation, need to be documented in the QuantityWare support portal. Otherwise, the ticket cannot be processed.

Why "the single source of truth"? We need to take a step back and describe the role of client 045 in the BCS delivery.

BCS is a SAP-Certified AddOn, programmed exclusively in ABAP. The solution contains two major types of ABAP objects:

- 1) REPOSITORY. This is ABAP-code part of the solution, installed via SAINT.

The objects are client independent and are restricted to our partner name-space (the object names begin with "/qtwy/", where possible).

These objects contain the interface and calculation logic for the various supported quantity calculation standards. After installing the Package in SAINT in a SAP SID (System), the function groups and reports can be accessed in every client (of course, access is limited via authorizations). Changes to QuantityWare repository objects are not necessary and are not allowed.

- 2) CUSTOMIZING AND CONFIGURATION, these are the "table entries" part of the solution, delivered in the BCS SAINT package within a BC-Set. The objects are client dependent.

These "table entries" are required to control and parametrize the calling of QW repository functions (point "1", above) which then "do" the calculations.

As BCS is a SAP Certified Add-On, SAP requires that such solutions deliver customizing and configuration table entries in BC-Sets.

A BC-Set can be compared to a "zip" archive. It is a single entity that can contain one or multiple table entries. It has to be "activated" (similar to "expanding" a .zip archive) and follows our definition of the BC-Set, which is to populate the table entries only into the activation client

The use of BC-Sets was a good decision by SAP. BC-Sets are generally reliable and reduce a considerable source of risk for such deliveries, both for the customer and the Add-On producing partner, by enabling specific limits to be placed on customizing and configuration distribution.



Client 045 is a REFERENCE CLIENT!

Once Client 045 has been created, nothing should be changed in this client. The only actions allowed are:

- 1) Execution of the BCP and/or BCG Installation Test (can be repeated as often as wanted/ required).
- 2) Copying of QuantityWare Customizing and Configuration Objects from their reference name (usually beginning with "Q...") to the customer name range (usually beginning with "X...", "Y..." or "Z..."), for transport to the development client. Note - client 045 contains more than 800 conversion groups (BCP and BCG) – a customer will require a small subset of these.

Further aspects to be considered can be found in the short FAQ [Why do we need a new client 045 for the QuantityWare installation?](#)

2. Creation

The information contained here is also partially available in section 5.2 of the [BCS 3.0 Technical Installation / Upgrade Manual](#).

2.1. Naming

If possible (if not already in use, or does not contravene existing customer client naming conventions), client "045" should be used. The majority of customers use "045", but customers are free to choose any client number as there are no functional references to a client with the number "045" in our code. Just for the sake of clarity in communication, we would ask our customers to use "x45" (where "x" is between 0 and 9), but again, the client number can be freely chosen.

2.2. Contents

Customers can activate all BC-Sets in a [single client 045](#), depending on the products licensed / required by the customer. Thus a single client 045 could contain:

- BCP alone
- BCG alone
- Both BCP and BCG

Background: At QuantityWare, the BC-Sets for both BCP and BCG are developed, maintained and delivered in and from a single client. In the course of testing and consolidation, BCP and BCG BC-Sets are activated and tested in separate clients as well as in a common client. We also test the sequence of activation to ensure that customers can activate:

- BCP and then BCG or,
- BCG and then BCP

...in a single client and always receive the same results.

2.3. Only One Client 045?

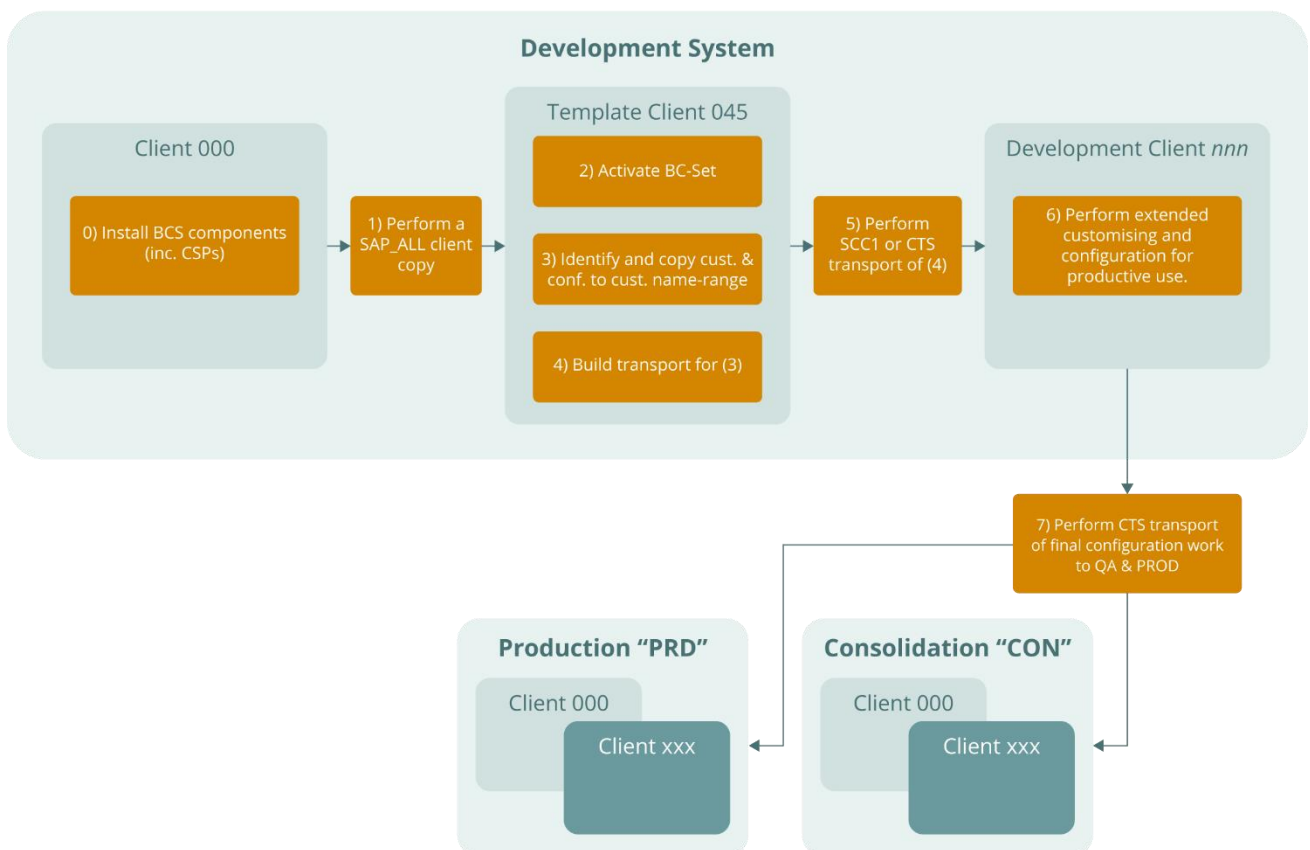
In an SAP environment with a single SAP System Landscape and consolidation path to production, a customer would generally have only one client 045.

In an SAP environment with multiple landscapes we still recommend having a single client 045 containing all activated BC-Sets.

Customers may decide to have a “client 045” for each consolidation route leading to a productive system, or differentiate between products e.g. “pure” natural gas / LNG, petroleum products and chemicals systems, however this approach would introduce an additional degree of complexity and potential source of errors, if materials are to be “traded” between the systems.

2.4. Technical Process

This process is to be followed when creating a client 045, utilizing it in the project and it’s SAP system landscape position can be summarized in the following diagram:



2.4.1. Client Copy

2.4.1.1. Size

Be aware that the size of client 045 is negligible. It is based on a copy from client 000 – the SAP template reference client that should never, under any circumstances, be modified or changed by the customer and is thus very small when compared to clients which contain process or master data. Although the BCS BC-Sets contain a considerable number of table entries, these too are negligible in size when compared to clients containing process or master data.

2.4.1.2. Process

Follow the descriptions in the [BCS 3.0 Technical Installation / Upgrade Manual](#):

- 5.2.2. Preparation - Client Copy – Template Client Creation
- 5.2.3. Preparation - Accessing BCP and/or BCG specific test client customizing (via BC Sets)

With the completion of the two points above, the creation of client 045 is completed.

Additional actions are required for the installation completion of BCS and utilize client 045 as described in:

- 5.3. Install Usage Key
- 5.4. Run Installation Test
- 5.5. Define Authorizations
- 5.6. Customizing and Configuration Transfer

“5.6 Customizing and Configuration Transfer” mark the end of SAP BASIS responsibility regarding the installation of client 045 and its usage during the technical installation process; from this point onwards, a [QuantityWare Certified Consultant \(QWCC\)](#) should be responsible with the project team for all further actions. In the diagram above, this is starting from (3) onwards “Identify and copy customizing and configuration to customer name range”. As stated in 1.3, client 045 contains more than 400 BCP conversion groups (and more than 300 BCG conversion groups) – a customer will require a small subset of these.

3. Client 045 Lifecycle Management

3.1. Access

User access to client 045 should be severely restricted. The QWCC that is engaged to support the team should be given access to the client with the composite role “Y_QTYW_CERTIFIED_CONSULTANT”. All other access should be restricted to a minimum as defined by the customer processes (principally, basis and security access). The consultant will also need to be able to (task numbers refer to the diagram in 2.4, previously):

- 3) Copy customizing objects within client 045 (from the QuantityWare name range to the customers')
- 4) Create and release transports from client 045 to allow transfer of the copied customizing and configuration to the development client

3.2. Retention

Client 045 should be retained throughout the entire lifecycle of the system landscape for the reason described in 1.3 – it is considered to be “the single source of truth” by QuantityWare and required if e.g. a new product is introduced for selection of an appropriate template conversion group or a measurement standard update requires validation and possibly reconfiguration of conversion groups in production. Thus, do not delete it.

The only time at which client 045 should be changed is when QuantityWare CSPs are applied – see [3.3](#).

If the client is destroyed for some reason (e.g. through a system refresh with a “copyback” from a QA or Production system), it should be re-created as described in section 2.4.1 of this document and the installation test run again as described in section 5 of the [BCS 3.0 Technical Installation / Upgrade Manual](#).

Indirectly related topics:

3.2.1. Customizing and Configuration

This topic is not directly related to the existence of client 045, but may arise in discussions. If client 045 is destroyed, customer configuration is not lost. The selected objects from client 045 which have been re-

named to the customer name range will have been transported via (preferably) the Transport management System (TMS) to the development client and are then accessible in the development client.

If the development client is overwritten (e.g. per system copyback) then make sure that all QuantityWare configuration-related transports have been released and that a transport file has been created in the TMS transport directory, before copyback. Make sure that the transports are documented and are not deleted.

Even if the worst-case happens and the development client, and the TMS files are deleted, once QuantityWare configuration has been moved into the production client, it will still be available there and can be extracted via the creation of TMS transports.

3.2.2. Test Scenarios

Again, not directly related to client 045, but while we're on the topic - the application and business teams should understand the importance of Test Scenario usage. These are documented in a specific chapter of the [BCP and BCG Reference Manuals](#).

Test Scenarios are application independent and are run within the QuantityWare Measurement Cockpit; they can therefore be transported into QA and production systems with no data or process risk. They can be used to increase compliance, security and transparency. See QuantityWare [Note 000073](#) for further details and references.

3.3. Replacement at QuantityWare CSP Application

We have designed the BCS to be stable and long-lasting. For time to time we extend the solution with new standards, additional functionality, improvements in user interaction and very seldom, corrections. These are made available in fixes as defined in [Note 000067](#) "BCS 3.0 Additional Installation / Upgrade Information", this note also contains the CSP release schedule.

We recommend that all customers apply QuantityWare CSPs (Component Support Packages) when they become available. In every CSP we release new BC-Sets for BCP and BCG. This means that you should **replace** your existing client 045 with the client 045 which is delivered with the latest CSP, ensuring that your customer name range objects are saved in transports beforehand (see 3.2.1).

When applying a CSP, follow QuantityWare [Note 000047](#) which also contains the directions as to how to replace client 045. Simply put, client 045 should be deleted and re-created. Do not install a new CSP BC-Set into an existing client populated with legacy BC-Set content.

4. Summary

The main take-aways of this document are that client 045 is:

- a requirement for confirming Add-On installation success
- required for the support process during the entire system lifecycle
- only required once in a SAP system landscape, preferably in a production environment development system
- of negligible size

Client 045 should be:

- protected against unauthorized access
- only released to a minimum of users
- protected against deletion
- replaced in its entirety when a QuantityWare CSP is applied to the system landscape

Client 045 can be:

- rebuilt if deleted

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