Interface for data exchange between HY10 <-> SQL Server

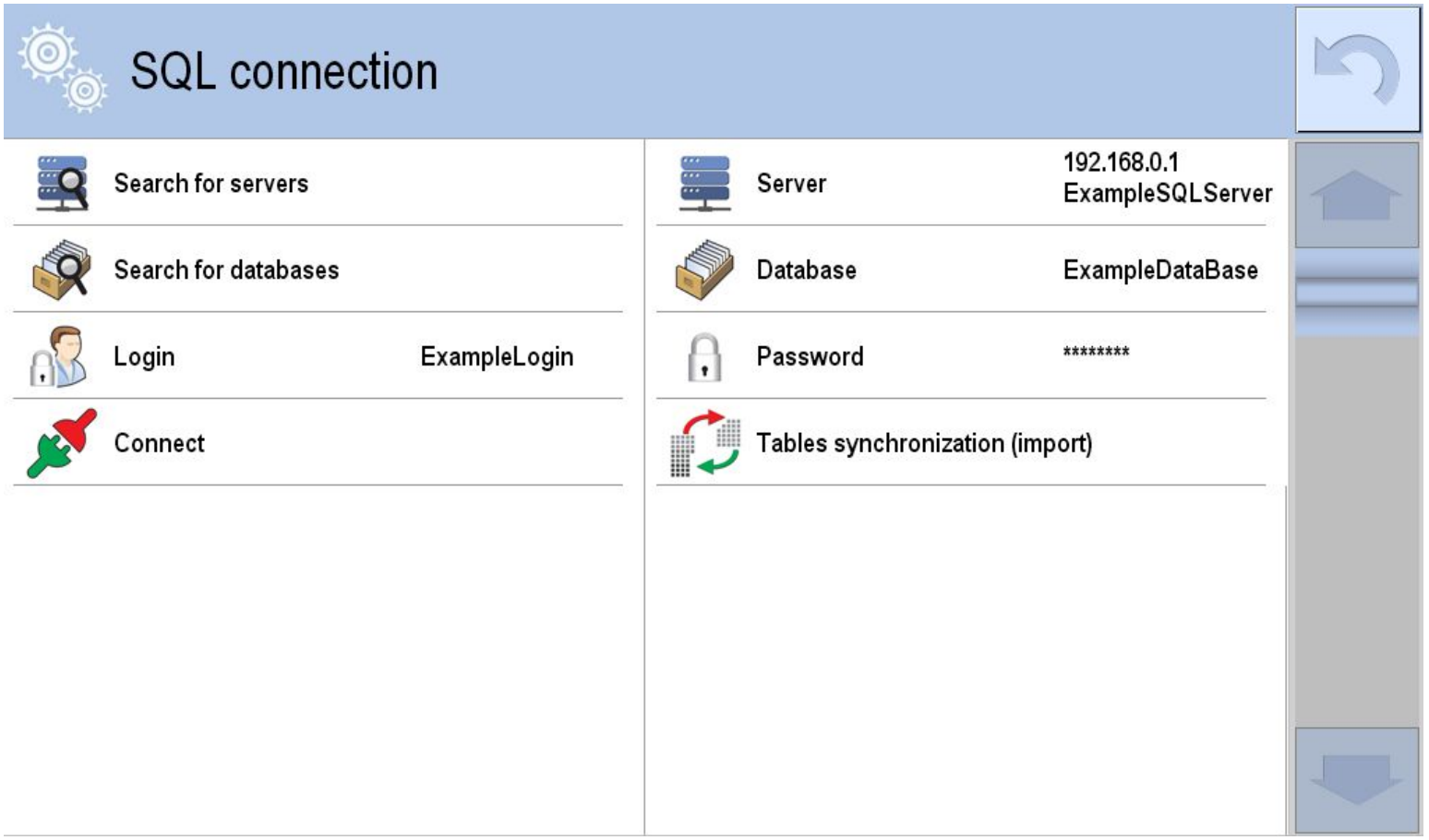
Terminals:
PUE HY 10
PUE 71

This document describes process of data exchange between SQL database and terminals. To provide correct communication it is necessary to create views, functions and procedures described in this document and fill them with appropriate information.

Versions management			
Version	**Date**	**Author**	**Description**
1.0	13.09.2016	Karol Kustra	Creating a document

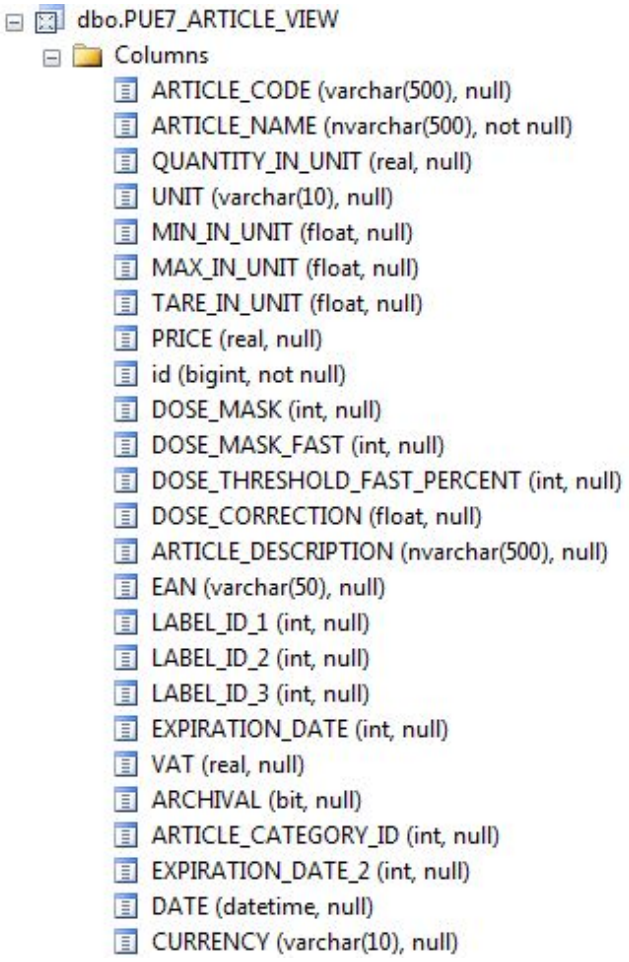
1. Terminal Configuration

Prior synchronization configure the terminal. In order to do that, set respective parameters, go to Setup/Databases/Databases configuration/SQL connection.



2. PUE7_ARTICLE_VIEW - Products

View for synchronizing products table. Unique ID field required.

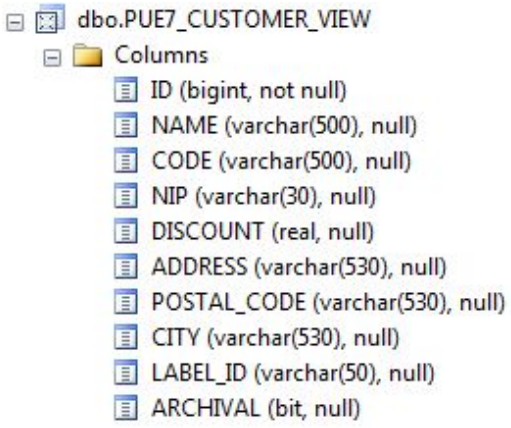


[ARTICLE_CODE] - Code
[ARTICLE_NAME] - Name
[QUANTITY_IN_UNIT] - Mass
[UNIT] - Unit
[MIN_IN_UNIT] - Min in unit
[MAX_IN_UNIT] Max in unit
[TARE_IN_UNIT] Tare in unit
[PRICE] - Price
[id] – Database id
[DOSE_MASK] – Slow dosing mask
[DOSE_MASK_FAST] – Fast dosing mask
[DOSE_THRESHOLD_FAST_PERCENT] – Percent threshold for fast dosing switching
[DOSE_CORRECTION] – Correction of automatic dosing
[ARTICLE_DESCRIPTION] - Description
[EAN] – EAN Code

[LABEL_ID_1] – label ID
[LABEL_ID_2] – C label ID
[LABEL_ID_3] – CC label ID
[EXPIRATION_DATE] - Product validity period
[VAT] - VAT value related to a product
[ARCHIVAL] - Archival, disables record editing/selecting
[ARTICLE_CATEGORY_ID] – Category ID
[EXPIRATION_DATE_2] – The additional number of validity days
[DATE] - Date
[CURRENCY] - Currency

3. PUE7_CUSTOMER_VIEW - Customers

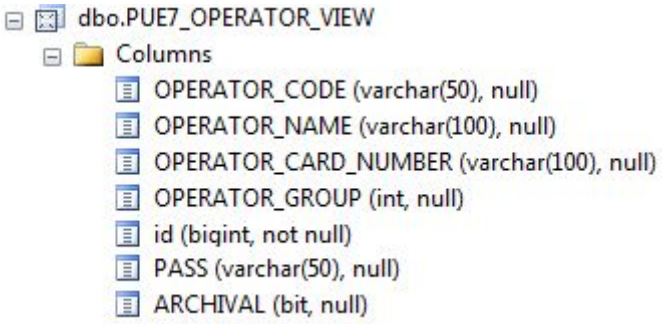
View for synchronizing customers table. Unique ID field required.



[ID] Database ID
[NAME] - Name
[CODE] - Code
[NIP] – Tax No.
[DISCOUNT] - Discount
[ADDRESS] - Address
[POSTAL_CODE] – Postal code
[CITY] - City
[LABEL_ID] – Label ID
[ARCHIVAL] - Archival, disables record editing/selecting

4. PUE7_OPERATOR_VIEW - Operators

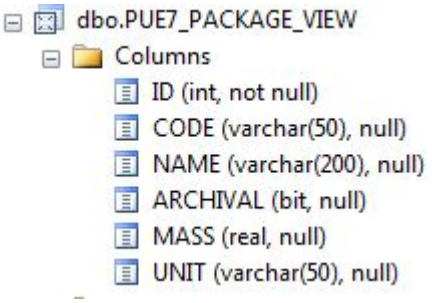
View for synchronizing operators table. Unique ID field required.



[OPERATOR_CODE] - Code
[OPERATOR_NAME] - Name
[OPERATOR_CARD_NUMBER] – Card number
[OPERATOR_GROUP] – Group number
[id] – Database ID
[PASS] – Password
[ARCHIVAL] - Archival, disables record editing/selecting

5. PUE7_PACKAGE_VIEW - Packages

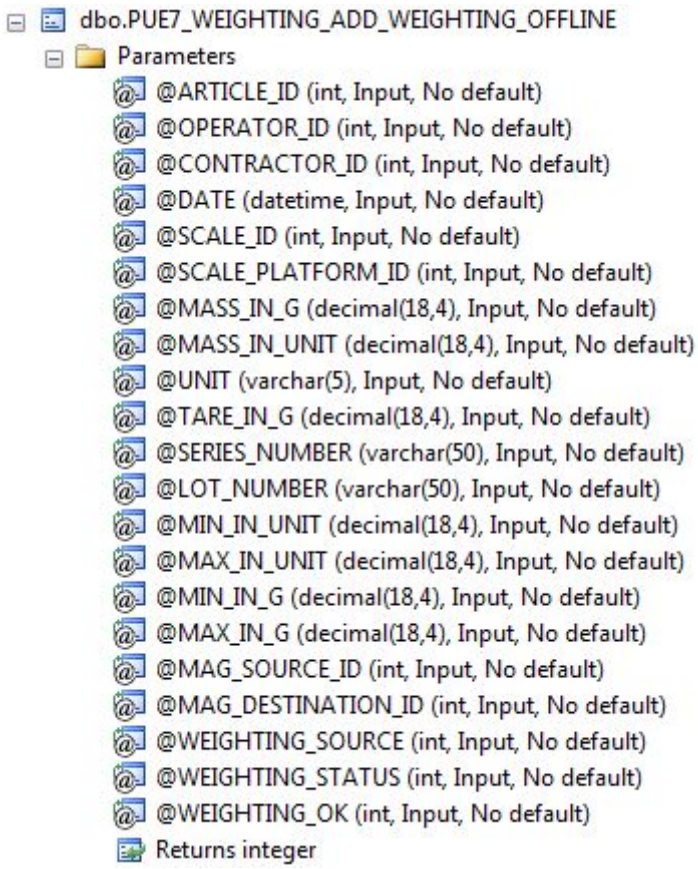
View for synchronizing packages table. Unique ID field required.



[ID] - Database ID
[CODE] - Code
[NAME] - Name
[ARCHIVAL] - Archival, disables record editing/selecting
[MASS] – Mass value (Tare value)
[UNIT] - Unit

6. PUE7_WEIGHTING_ADD_WEIGHTING_OFFLINE - Weighings

Procedure for synchronizing weighings table.



@ARTICLE_ID – ID of a weighed product
@OPERATOR_ID – ID of an operator carrying out weighing process
@CONTRACTOR_ID – ID of a customer assigned to a product
@DATE – Date of measurement
@SCALE_ID – Terminal ID
@SCALE_PLATFORM_ID – Platform ID
@MASS_IN_G – Mass given in grams
@MASS_IN_UNIT – Mass given in current unit
@UNIT, - Current unit
@TARE_IN_G –Tare given in grams
@SERIES_NUMBER – Series number
@LOT_NUMBER – Lot number
@MIN_IN_UNIT – Minimum value in a unit
@MAX_IN_UNIT – Maximum value in a unit
@MIN_IN_G – Minimum value in grams
@MAX_IN_G – Maximum value in grams
@MAG_SOURCE_ID – ID of a source warehouse assigned to the weighing
@MAG_DESTINATION_ID – ID of a target warehouse assigned to the weighing

@WEIGHTING_SOURCE – Way of performing the measurement *
@WEIGHTING_STATUS – Weighing status **
@WEIGHTING_OK – Status confirmation for weighing comprised within thresholds***

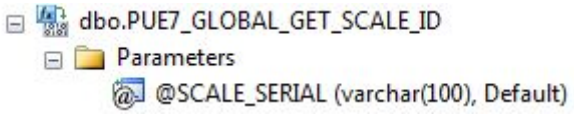
* @WEIGHTING_SOURCE parameter can have the following values:
‘0’ – Standard weighing (Mass taken from weighing platform)
‘1’ – Mass value entered manually by an operator

** @WEIGHTING_STATUS parameter can have the following values:
‘0’ - None – No thresholds
‘1’ – Min range
‘2’ – OK range
‘3’ – Max range
‘4’ - Min 2 range
‘5’ - Max 2 range

* @WEIGHTING_OK parameter can have the following values:
‘0’ – Weighing out of OK threshold or no thresholds used
‘1’ – Weighing within OK threshold

7. PUE7_GLOBAL_GET_SCALE_ID – Terminal ID

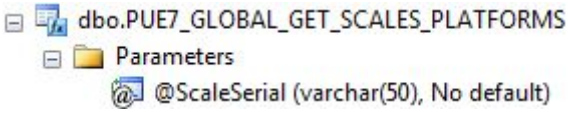
Procedure for getting terminal ID (INT).



@SCALE_SERIAL – Terminal’s serial number

Returned values:
@SCALE_ID – Database ID

7. PUE7_GLOBAL_GET_SCALES_PLATFORMS - Platforms



@SCALE_SERIAL – Terminal’s serial number

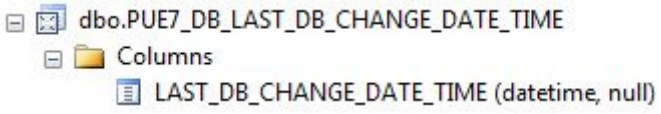
Returned values:

[id] - Database ID
[NAME] - Name
[NUMBER] - Number

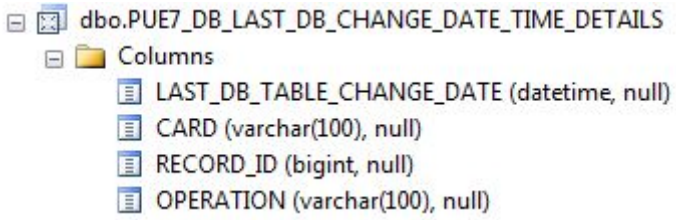
9. Changes synchronization LAST_DB_CHANGE_DATE_TIME LAST_DB_TABLE_CHANGE_DATE

In order to provide quick and trouble-free synchronization of changes among the tables on a server and scale data, create new table for registering changes in the tables [PUE7_DB_LAST_DB_CHANGE_DATE_TIME]. The terminal checks date of the last registered change by comparing the date with the date of its synchronization. The check is carried out in accordance with internal interval. In case of detecting newer date, the terminal acquires all records describing changes occurring later than on the day of the last synchronization.

[PUE7_DB_LAST_DB_CHANGE_DATE_TIME_DETAILS].



[LAST_DB_CHANGE_DATE_TIME] – Date of the last change in any table



[LAST_DB_TABLE_CHANGE_DATE] – Change date
[CARD] – Name of a table in which the change was made*
[RECORD_ID] – ID of a modified record
[OPERATION] – Operation type**

* [Card] field may take the following values:

'ARTICLES'
'OPERATORS'
'PACKAGES'
'CUSTOMERS'

* [OPERATION] field may take the following values:

‘DELETE’
‘INSERT_UPDATE’