

Reference manual

7.3

Expenses mobile application

Last updated 2019-07-11

The documentation is designed to support Unit4 Business World.

This document is intended for Unit4 Business World Consultants and customer Super Users, and thus assumes in-depth knowledge of existing Unit4 Business World functionality.

Every effort has been made to supply complete and accurate information; however, the information in this document is subject to change without notice. UNIT4 N.V. and its group companies assume no responsibility or liability for any errors that may occur in the documentation.

Unit4 welcomes your comments as part of the process of continuous development and improvement of the documentation. Please contact [Unit4 Customer Support](#) if you have any questions.

Copyright of the attached documentation is the property of UNIT4 N.V. and/or its group companies. Reproduction of this documentation for any purposes is prohibited without the prior express written authorisation of UNIT4 N.V. or its group companies. Any unauthorised use, copying or sale of the above may constitute an infringement of copyright and may result in criminal or other legal proceedings.

Copyright © 2019 UNIT4 N.V. and/or its group companies. All rights reserved. Any other brand names and/or trademarks referenced herein are either registered or unregistered trademarks of their respective proprietors.

Table of contents

Setup overview	4
Server setup	6
Automated receipt recognition setup	9

Setup overview

Making the application available

To make the Expenses mobile application available, you must:

- Install the Travel web service (if not already in place). For this purpose use the Business World Management Console.
- Assign access rights to the relevant users. This is a standard access rights setup in Business World Desktop (System administration>User access >Menu based access>Web services).

To get the full functionality of the application and be able to create expense claims, add expense transactions to claims and submit claims for approval, you also need to:

- Install the Expenses Experience Pack version 5.0.
- Assign access rights to the following public APIs:
 - Travel Expenses public API
 - Objects public API
 - Attributes public API
 - Attribute values public API
- Assign access rights to the following Business World objects:
 - Travel type
 - Travel expenses
 - Attributes
 - Attribute values
- Configure the public APIs in the Business World Management Console.

This document does not provide any details on the web service installations or how you assign access rights.

Note: Access rights are cached on the web server, in Business World and in APIs. The changes of access rights will not be effective until the cache is cleared in all of them.

Travel Web service

The purpose of the Travel web service is to support the Expenses mobile application. The Travel Web service can be changed without notice to support enhancements of the application.

Travel expenses public API

The Travel Expenses public API is used by the Expenses mobile application to get the new functionality aimed to create expense claims, add expense transactions to claims, submit claims for approval and manage the rejected claims.

Server setup overview

The Expenses mobile application is an integrated part of Expenses management in Business World. To make the various components work together, the following preparations must take place:

- An *attribute* reserved for mobile applications.
- Three document types tailored for receipts, that is, attachments to the expense entry. Two of these should be already in use.
- Configuration of three system parameters for identification of the special attribute and the document types.
- Configuration of three system parameters to enable Mileage registration.

The details are explained on the next pages.

Server setup

Attribute for Mobile applications

You need an attribute reserved for transactions originating from a Mobile service. The setup must be as follows:

Property	Value
Type	A (automatic update)
Field	Free
Mnt	O (optional)

Document types for expense attachments (images)

You need three document types for images of the receipts:

#	Purpose	Document key	Key ID
1	Attachments received from mobile application	External travel expenses via mobile	(None)
2	Receipts linked to resources	Attribute	RESNO
3	A general type for receipt images	GL Line	Registration of travel invoices

System parameters for attribute and document type identification

Travel Web service application will use three system parameters to get hold of the correct attribute and document types (all must be turned on):

- TT_WEB_EXT_TRANS must have a value corresponding to the Id of the attribute (above).
- TT_MOBILE_DOCTYPE must have a value corresponding to the Id of the document type for attachments received from the application (# 1 above).
- TT_RECEIPT_DOCTYPE must have a value listing the IDs of the receipt document types (#2 and #3 – in that order!), separated by a semi-colon.

Example: If the Ids of the document types were RECRESOURCE and RECGENERAL, the TT_RECEIPT_DOCTYPE value would be **RECRESOURCE;RECGENERAL**.

System parameters for Mileage registration

To handle automatic registration of distances, the application uses two system parameters. Both are turned on by default.

Parameter	Default value	Description
TT_MILEAGE_UNIT_NAME	km	A distance unit displayed in the application
TT_MILEAGE_UNIT_FACTOR	0.001	A factor used to convert the recorded distance in meters into the defined units in Business World.

Expense type for Mileage registration: You can also link a mileage registration directly to an expense type. To do so, you must activate the parameter TT_MIL_EXP_TYPE and identify the expense type. The mileage recording shall be linked as a parameter's value.

See below for more details.

Automatic recording of distance - in meters

When you use the Expenses mobile application to automatically record a distance, it will always get – via Google Maps – the distance in meters.

Before the distance is sent to the server as a plain number, the application will – by default – multiply the recorded number of meters with the factor given in TT_MILEAGE_UNIT_FACTOR.

If your Business World system is set up to handle another unit than kilometre for mileage registration, you must change the value of TT_MILEAGE_UNIT_FACTOR accordingly.

You should also change the default value of TT_MILEAGE_UNIT_NAME to let the application reflect the unit you use.

Example: When the distance unit is miles

If your Business World is set to miles as the unit for mileage compensation, you should change the parameter values as follows:

Parameter	Value
TT_MILEAGE_UNIT_NAME	miles
TT_MILEAGE_UNIT_FACTOR	0.00062

Automated receipt recognition setup

Automated receipt recognition, provided by Unit4 Receipt Recognition Service, allows the Expenses mobile application to automatically identify and process information of the receipt captured in a photo. This way, the user only has to take a picture of a receipt, instead of entering the receipt's data manually.

Receipt recognition support per country

The quality of automated receipt recognition depends on the number of times the recognition has been performed on receipts from a certain country. As of the 7.0 release, the application is capable of recognizing receipts from Norway, the UK, Spain, and Sweden due to the vast quantity of receipts already processed. For other countries, you may have to enter receipt data manually, until the application achieves the confidence level required to recognize the data automatically.

Configuration in Business World

Automated receipt recognition requires the following configuration in Business World:

1. Activate the `TT_RECEIPT_RECOGNITION` parameter to turn on the receipt recognition.
2. Activate the `TT_CONF_LEVEL_THR` parameter with a value between 0 and 1. This value will act as a confidence threshold for the application. If the application recognizes the receipt with a confidence level below the threshold, user confirmation will be required before adding the receipt to Business World Web.

Example: Assume the confidence threshold is set to 0.95 (95%). The system has processed a receipt picture, and it is 93% confident that the recognized data is accurate. Consequently, user confirmation is required before the receipt is sent to Business World Web, as 93% is below the required confidence level of 95%.

Note: Unit4 recommends to use the default value of 0.98.

3. Open the **Expense types** (THS075) window. All current expense types appear in the grid.

Note: You need to do this in the Web client. Desktop does not have the *Receipt type*, *Domestic* and *Abroad* fields, necessary to configure receipt recognition.

4. For optimal performance, make sure that every receipt type is properly mapped to an expense type. This might require expense type re-implementation. You should map one receipt to one expense type whenever possible, unless a domestic/abroad split is necessary.

Note: It is not possible to map multiple receipts to one expense type. If you face this problem, the expense type is probably too generic. You can try to replace it with multiple, more focused expense types, and then map a receipt type to each one.

Mobile receipt recognition should now work in accordance with your settings.