



User Guide | PUBLIC

Document Version: 1.4 – 2021-06-18

# How to Work with SAP Business One Microsoft 365 Integration

# Content

- 1 Document History. . . . . 3**
- 2 Introduction. . . . . 4**
- 3 Prerequisites. . . . . 5**
- 4 Authorizations. . . . . 6**
- 5 Setting Up for SAP Business One Microsoft 365 Integration. . . . . 8**
  - 5.1 Logging On to the Setup Page. . . . . 8
  - 5.2 Setting Up Your Applications. . . . . 9
  - 5.3 Binding Microsoft 365 Account. . . . . 11
  - 5.4 Uploading Templates. . . . . 12
  - 5.5 Unbinding Microsoft 365 Account. . . . . 13
  - 5.6 Configuring Traffic Control. . . . . 14
    - Windows Environment. . . . . 14
    - Linux Environment. . . . . 15
- 6 Exporting Documents in SAP Business One. . . . . 17**
- 7 Designing a Template. . . . . 18**
  - Fields Available For Export. . . . . 18

# 1 Document History

## Document History

Version	Date	Change
1.0	2019-10-18	Initial version
1.1	2020-03-17	Added more information about the <i>Job Service</i> component in the <i>Prerequisites</i> section.
1.2	2020-05-28	Updated with product name change from Office 365 to Microsoft 365.
1.3	2021-03-26	Updates for SAP Business One 10.0 Feature Package 2102 and SAP Business One 10.0 Feature Package 2102, version for SAP HANA: <ul style="list-style-type: none"><li>• Starting from SAP Business One Cloud 1.1 patch level 17, you can now work with SAP Business One Microsoft 365 integration in SAP Business One Cloud.</li><li>• Added a prerequisite for using SAP Business One Microsoft 365 integration in SAP Business One Cloud.</li></ul>
1.4	2021-06-18	Updated with an emphasis on the authorizations in SAP Business One, SAP Business One, version for SAP HANA, and SAP Business One Cloud.

## 2 Introduction

With SAP Business One Microsoft 365 integration, you do not have to install Microsoft Office Word or Excel, and you can achieve the following:

- Export documents, reports and queries from SAP Business One to the Microsoft OneDrive as Word or Excel files
  - Export the following marketing documents to Word and Excel:
    - Sales quotation
    - Sales order
    - Delivery
    - Return request
    - Return
    - A/R down payment request
    - A/R down payment invoice
    - A/R invoice
    - A/R invoice + payment
    - A/R reserve invoice
    - A/R credit memo
    - Purchase request
    - Purchase quotation
    - Purchase order
    - Goods receipt PO
    - Goods return
    - Goods return request
    - A/P down payment request
    - A/P down payment invoice
    - A/P invoice
    - A/P reserve invoice
    - A/P credit memo
  - Export grid data to Excel
  - Export queries to Excel
  - Export the *Customers Receivables Aging* report to Word
  - Export the *Open Items List* report to Word when you select A/R invoices or A/R reserve invoices
- View the exported file online in the Microsoft OneDrive
- Design your own export templates

# 3 Prerequisites

To use the SAP Business One Microsoft 365 integration feature, you must meet the following conditions:

- You have a Microsoft 365 account with which you can log on to OneDrive.
- You have installed the *Job Service* component, added the component to System Landscape Directory, and **set its service unit** in the System Landscape Directory control center. For more information, look for *SAP Business One Administrator's Guide* or *SAP Business One Administrator's Guide, version for SAP HANA* accordingly on <https://help.sap.com>.
- You have started the *Job Service* component.
  - For SAP Business One, in the *SAP Business One Service Manager* window, from the *Service* dropdown list, select *Job Service - Mailer*, and choose the *Play* button. For more information about the *SAP Business One Service Manager* window, see *SAP Business One Administrator's Guide*.
  - For SAP Business One, version for SAP HANA, make sure the job service is started. For more information about the job service status, see *SAP Business One Administrator's Guide, version for SAP HANA*.
- To use SAP Business One Microsoft 365 integration in SAP Business One Cloud, make sure you have registered the job service component in your service unit, as in the following process. For more information, see *SAP Business One Cloud Administrator's Guide* on <https://help.sap.com>.
  1. In the Cloud Control Center, choose ► *Central Components* ► *Service Units* ▾.
  2. Select the service unit that you are working with, in the *Service Unit Details* area, on the *Software Components* tab, choose *Register*.
  3. In the *Select Software Component* window, select the *Job Service* radio button, select the address from the dropdown list, and choose *Register*.

To check whether you have registered the job service component, in the Cloud Control Center, choose ► *Service Unit Components* ► *Job Services* ▾. You can find the job service you have added in the *Job Services* area.

- The following users have selected the *OneDrive* radio button in the *Export Word and Excel File To* section on the *Path* tab of the *General Settings* window.
  - SAP Business One, or SAP Business One, version for SAP HANA: superusers
  - SAP Business One Cloud: cloud operators or reseller operators that have opened a partner support user (PSU) connection

# 4 Authorizations

You can perform specific tasks with the following authorizations:

- For SAP Business One, or SAP Business One, version for SAP HANA:

User Task	User Authorization
<ul style="list-style-type: none"> <li>◦ Setting up the application</li> <li>◦ Viewing and unbinding the Microsoft 365 account of all users in the company</li> </ul>	<p>You are a superuser.</p> <p>To define a user as superuser, from the SAP Business One <i>Main Menu</i>, choose <b>Administration &gt; Setup &gt; General &gt; Users</b>. In the <i>Users - Setup</i> window, navigate to the user that you want to set as superuser, and select the <i>Superuser</i> checkbox.</p>
<p>Downloading, uploading and resetting exporting templates</p>	<p>You have full authorizations for the <i>General Settings</i> window.</p> <p>To set user authorizations for the <i>General Settings</i> window, from the SAP Business One <i>Main Menu</i>, choose <b>Administration &gt; System Initialization &gt; Authorizations &gt; General Authorizations</b>. In the <i>Authorizations</i> window, select the user for whom you want to set authorizations, and in <b>Administration &gt; System Initialization &gt; General Settings</b>, select <i>Full Authorization</i>.</p>
<ul style="list-style-type: none"> <li>◦ Viewing exporting templates</li> <li>◦ Binding, unbinding and changing the Microsoft 365 account</li> <li>◦ Changing the OneDrive folder in which you put the exported files</li> <li>◦ Exporting documents in SAP Business One</li> </ul>	<p>You have full authorizations for <i>MS-EXCEL</i> or <i>MS-WORD</i>.</p> <p>To set user authorizations for <i>MS-EXCEL</i> or <i>MS-WORD</i>, in the <i>Authorizations</i> window, select the user for whom you want to set authorizations, and in <b>General &gt; MS-EXCEL</b> or <b>General &gt; MS-WORD</b>, select <i>Full Authorization</i>.</p>

- For SAP Business One Cloud:

User Task	User Authorization
<ul style="list-style-type: none"> <li>◦ Setting up the application</li> <li>◦ Viewing and unbinding the Microsoft 365 account of all users in the company</li> </ul>	<p>You are a cloud operator or reseller operator that has opened a partner support user (PSU) connection.</p> <p>For more information, see <i>SAP Business One Cloud Administrator's Guide</i> on <a href="https://help.sap.com">https://help.sap.com</a>.</p>

User Task	User Authorization
<p>Downloading, uploading and resetting exporting templates</p>	<p>You have full authorizations for the <i>General Settings</i> window.</p> <p>To set user authorizations for the <i>General Settings</i> window, from the SAP Business One <i>Main Menu</i>, choose</p> <p>▶ <i>Administration</i> ▶ <i>System Initialization</i> ▶ <i>Authorizations</i> ▶ <i>General Authorizations</i> ▶. In the <i>Authorizations</i> window, select the user for whom you want to set authorizations, and in ▶ <i>Administration</i> ▶ <i>System Initialization</i> ▶ <i>General Settings</i> ▶, select <i>Full Authorization</i>.</p>
<ul style="list-style-type: none"> <li>○ Viewing exporting templates</li> <li>○ Binding, unbinding and changing the Microsoft 365 account</li> <li>○ Changing the OneDrive folder in which you put the exported files</li> <li>○ Exporting documents in SAP Business One</li> </ul>	<p>You have full authorizations for <i>MS-EXCEL</i> or <i>MS-WORD</i>.</p> <p>To set user authorizations for <i>MS-EXCEL</i> or <i>MS-WORD</i>, in the <i>Authorizations</i> window, select the user for whom you want to set authorizations, and in ▶ <i>General</i> ▶ <i>MS-EXCEL</i> ▶ or ▶ <i>General</i> ▶ <i>MS-WORD</i> ▶, select <i>Full Authorization</i>.</p>

# 5 Setting Up for SAP Business One Microsoft 365 Integration

## Context

You can follow the procedures below to complete the configurations for SAP Business One Microsoft 365 integration.

## 5.1 Logging On to the Setup Page

### Context

#### i Note

Only the following users can perform this procedure. For more information, see [Authorizations \[page 6\]](#).

- SAP Business One, or SAP Business One, version for SAP HANA: superusers
- SAP Business One Cloud: cloud operators or reseller operators that have opened a partner support user (PSU) connection

### Procedure

1. In a web browser, navigate to the following URL: `https://<server name>:<port>/of365`. The server and port should be the ones with which you configure the job service. The default port is 40000.

Alternatively, you can find the link in the following places:

- From the SAP Business One *Main Menu*, choose **Administration** > *System Initialization* > *General Settings* > **Path** tab, in the *Export Word and Excel File To* section, you can find the *SAP Business One Microsoft 365 Integration* link.
- In the SAP Business One toolbar, choose the *My Personal Settings...* icon. On the *Services* tab of the *Users - Setup* window, you can find the *SAP Business One Microsoft 365 Integration* link.



### i Note

The link on the [Services](#) tab is only available when the [OneDrive](#) radio button is selected in the [Export Word and Excel File To](#) section on the [Path](#) tab of the [General Settings](#) window.

### i Note

The configuration URL is supported in the following web browsers: Google Chrome, Microsoft Edge (based on Chromium), Mozilla Firefox, and Apple Safari.

To check whether the Microsoft Edge browser is based on Chromium, choose ► [Help and feedback](#) ► [About Microsoft Edge](#) ►.

2. In the logon page, select the company for which you want to configure SAP Business One Microsoft 365 integration, and enter your SAP Business One user name and password. If you are in SAP Business One Cloud, you need to enter the domain name and password first.

The [Template Management](#) page appears.

## Results

You have come to the starting page where you configure SAP Business One Microsoft 365 integration. To complete the configurations, continue with the procedures in [Setting Up Your Applications \[page 9\]](#) and [Binding Microsoft 365 Account \[page 11\]](#).

## 5.2 Setting Up Your Applications

### Context


Follow the steps below to register SAP Business One Microsoft 365 integration with the Microsoft identity platform. This setting is company wide. If you have more than one company to configure, you need to log on to each company and make the configuration.

### i Note

Only the following users can perform this procedure. For more information, see [Authorizations \[page 6\]](#).

- SAP Business One, or SAP Business One, version for SAP HANA: superusers
- SAP Business One Cloud: cloud operators or reseller operators that have opened a partner support user (PSU) connection

## Procedure

1. In the upper right corner of the *Template Management* page, choose  and choose *Application Settings*.
2. In the *Register Your App* step, go to the *Microsoft App Registration Portal* and refer to the help document on the Microsoft website for more information.

### → Recommendation

We recommend that you choose *Show more* for detailed steps with screenshots. The screenshots may be outdated, as Microsoft may update them from time to time.

### i Note

All the steps in *Step 2* are performed in the *Microsoft App Registration Portal*.

- a. In the *Microsoft App Registration Portal*, log on to Microsoft Azure, and choose *New registration*.
- b. In the *Register an application* page, enter the name for your app, copy the redirect URI from the *Application Settings* page of SAP Business One Microsoft 365 integration (after you choose *Show more*), paste it to the *Redirect URI* field of the registration portal with the *Web* option, and choose *Register*.

### i Note

In the *Supported account types* section, select *Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)*. The screenshot may be outdated, as Microsoft may update it from time to time.

Supported account types

Who can use this application or access this API?

Accounts in any organizational directory (Any Azure AD directory - Multitenant)

Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)

Personal Microsoft accounts only

- c. In the page of your app, choose *API permissions*, *Add a permission*, *Microsoft Graph*, and *Delegated permissions*.
- d. Select the checkboxes of the following permissions and choose *Add permissions*.
  - o *Files.Read*
  - o *Files.Read.All*
  - o *Files.ReadWrite*
  - o *Files.ReadWrite.All*
  - o *Sites.Read.All*
  - o *Sites.ReadWrite.All*
  - o *offline\_access*
  - o *openid*
  - o *profile*
- e. In the page of your app, choose *Authentication*, and in the *Implicit grant* section, select the checkboxes of *Access tokens* and *ID tokens*, and choose *Save*.
- f. In the page of your app, choose *Certificates & secrets*, choose *New client secret*, specify relevant information for the secret, and choose *Add*.

3. In the page of your app, choose [Overview](#), copy the application (client) ID and paste it to the field in the [Enter Application \(Client\) ID](#) step of SAP Business One Microsoft 365 integration.
4. In the page of your app, choose [Certificates & secrets](#), copy the client secret from the [Value](#) column and paste it to the field in the [Enter Client Secret](#) step of SAP Business One Microsoft 365 integration.
5. In the [Application Settings](#) page of SAP Business One Microsoft 365 integration, choose [Save](#).

## Results

You have registered SAP Business One Microsoft 365 integration with the Microsoft identity platform.

## 5.3 Binding Microsoft 365 Account

### Context

Follow the steps below to bind your Microsoft 365 account whose OneDrive you want to use to SAP Business One Microsoft 365 integration so that you can export files to your OneDrive cloud storage directly. This setting is user specific.


#### i Note

As Microsoft needs some time to sync the secret, you may not be able to bind the Microsoft 365 account right after you set up your application.

#### i Note

Users with full authorizations for [MS-EXCEL](#) or [MS-WORD](#) can perform this procedure. For more information, see [Authorizations \[page 6\]](#).

### Procedure

1. Log on to the setup page with an authorized user. In the upper right corner of the [Application Settings](#) page, choose  and choose [My Account](#).


This page displays the server, company, and SAP Business One user code with which you are currently logged on.

### i Note

If you are none of the following users, to open the setup page, in the SAP Business One toolbar, choose the *My Personal Settings...* icon. On the *Services* tab of the *Users - Setup* window, you can find the *SAP Business One Microsoft 365 Integration* link.

- SAP Business One, or SAP Business One, version for SAP HANA: superusers
- SAP Business One Cloud: cloud operators or reseller operators


The link on the *Services* tab is only available when the *OneDrive* radio button is selected in the *Export Word and Excel File To* section on the *Path* tab of the *General Settings* window. For more information, see [Prerequisites \[page 5\]](#).

2. In the *Microsoft 365 Account* field, choose .
3. In the newly opened page, log on with the Microsoft 365 account whose cloud storage you want to use.

### i Note

If you are binding a Microsoft 365 account for the first time, Microsoft will ask for your permissions for certain access. In the dialog that appears, choose the button to accept those permissions.

The logged-on account is automatically entered in the *Microsoft 365 Account* field.

4. In the *OneDrive Folder* field, choose , and select or create a folder in which you want to put your exported files.

By default, SAP Business One Microsoft 365 integration will create a folder called *B1* for exported files in your OneDrive account.

## Results

You have completed the configurations for SAP Business One Microsoft 365 integration, and you can now start using SAP Business One Microsoft 365 integration to export documents. For more information, see [Exporting Documents in SAP Business One \[page 17\]](#).

## 5.4 Uploading Templates

### Context

SAP Business One Microsoft 365 integration provides predefined templates for every document type. However, you can always upload your customized templates using the steps below. This setting is company wide. For more information about customizing a template, see [Designing a Template \[page 18\]](#).

## → Recommendation

We recommend that you create a customized template from an SAP-predefined template. To do this, in the *File Name* column of the *Template Management* page, click the file name for a predefined template to download it. Edit the template and save your changes.

## Procedure

1. In the upper left corner of the SAP Business One Microsoft 365 integration page, choose *SAP Business One*.

The *Template Management* page appears.

2. In the *Upload* column, choose the corresponding *Upload* for the document for which you want to upload a customized template, .

You can always reset the templates to the predefined ones by choosing *Reset*.

3. Select your template and choose *Open*.


The time of the upload and the user who performs it appear in the *Update Time* and *By* fields, respectively.

## 5.5 Unbinding Microsoft 365 Account

### Context



You can always modify or unbind the Microsoft 365 account that you have bound to SAP Business One Microsoft 365 integration.

There are two places where you can unbind your account:

- In the upper right corner of the SAP Business One Microsoft 365 integration page, choose  and choose *Account Management*. Select the account that you want to unbind, and choose *Unbind*.

#### i Note

Only a superuser can perform this procedure. For more information, see [Authorizations \[page 6\]](#).

- In the upper right corner of the SAP Business One Microsoft 365 integration page, choose  and choose *My Account*. In the *Microsoft 365 Account* field, choose .

## 5.6 Configuring Traffic Control

### Context

SAP Business One Microsoft 365 integration supports the following two kinds of traffic control:

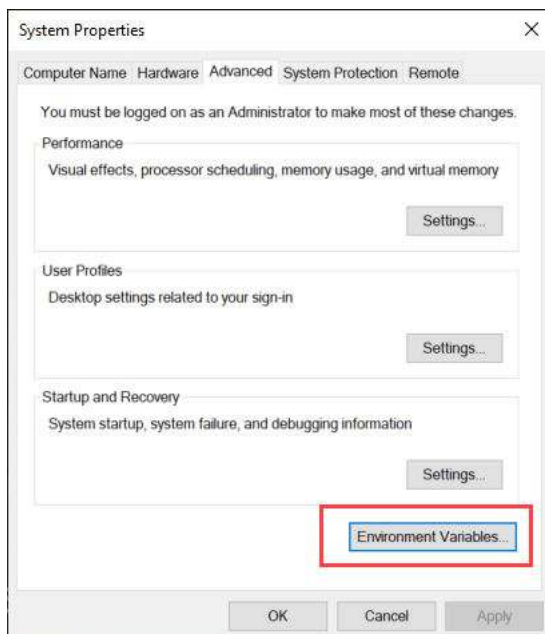
- You can control the maximum number of exporting tasks that are happening concurrently in one company. The factor to manage this control is `SAP_BUSINESS_ONE_OF365_TENANT_EXPORT_DOC_MAX_COUNT`, and the default value is set to 30.
- You can control the maximum number of exporting tasks that are happening concurrently by one user. The factor to manage this control is `SAP_BUSINESS_ONE_OF365_USER_EXPORT_DOC_MAX_COUNT`, and the default value is set to 5.

To modify these values, perform the following on the machine where you have installed the *Job Service* component.

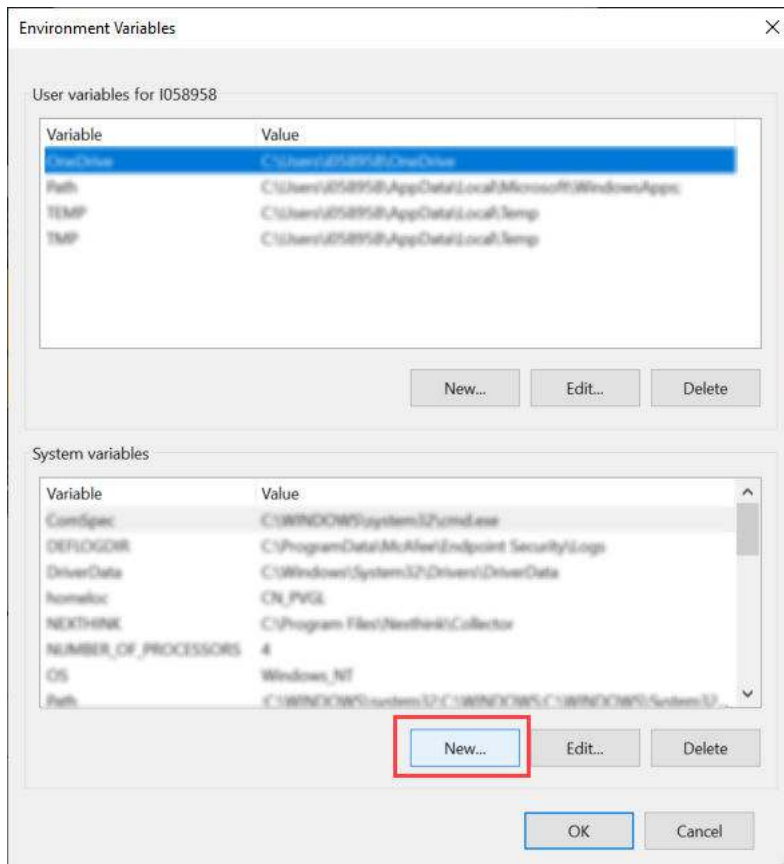
## Windows Environment

### Procedure

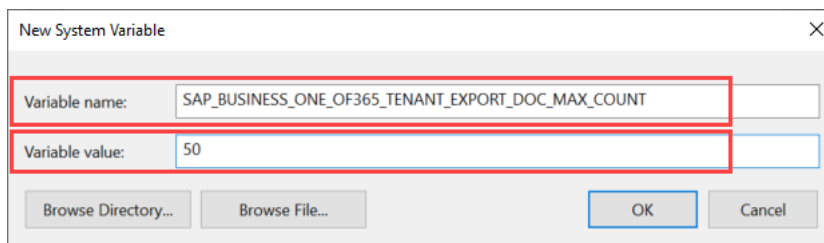
1. Open the *System Properties* window, and on the *Advanced* tab, choose *Environment Variables...*



2. In the *System variables* section of the *Environment Variables* window, choose *New*.



3. In the *New System Variable* window, enter the factor that you want to modify and its value that you want to define. In the screenshot below, the example value is defined as **50**.



4. On the *Services* tab of the *Task Manager* window, right-click *BI Server Tools*, and choose *Restart*. Alternatively, right-click *BI Server Tools*, choose *Stop* and then *Start*.

## Linux Environment

### Procedure

1. Assume the installation directory is `/opt/sap/SAPBusinessOne/`, and enter `#cd /opt/sap/SAPBusinessOne/Common/tomcat/bin`.
2. Add the following two lines to the file `cataline.sh`. These lines will define the maximum number of concurrent exporting tasks in one company as 50 and by one user as 5.

```
export SAP_BUSINESS_ONE_OF365_TENANT_EXPORT_DOC_MAX_COUNT=50
```

```
export SAP_BUSINESS_ONE_OF365_USER_EXPORT_DOC_MAX_COUNT=5
```



3. Restart SAP Business One server tools using `#/etc/init.d/sapb1servertools restart`.



# 6 Exporting Documents in SAP Business One

On the machines where you have installed the server components or the SAP Business One client application, make sure that the operating system time is the same as the network time, and that you can access the OneDrive. Otherwise, you may not export documents successfully. If you cannot open the OneDrive page, try setting a proxy in your network.

## Procedure

1. From the SAP Business One *Main Menu*, choose ► *Administration* ► *System Initialization* ► *General Settings* ►, and on the *Path* tab, in the *Export Word and Excel File To* section, select the *OneDrive* radio button.
2. In SAP Business One, open the document that you want to export.
3. In the toolbar, to export the document as an Excel file, choose , and to export the document as a Word file, choose .

### i Note

Only a user with full authorization for *MS-WORD* or *MS-EXCEL* can choose the two buttons mentioned in step 3 above. For more information, see [Authorizations \[page 6\]](#).

### i Note

Make sure that you have set your default web browser as Google Chrome, Microsoft Edge, Mozilla Firefox or Apple Safari.

## Results

The exported file is opened in the OneDrive page in your default web browser.

# 7 Designing a Template

## Context

You can design both Word and Excel templates for each type of marketing documents.

## Procedure

1. Download an SAP-predefined template. To do this, in the *File Name* column of the *Template Management* page, click the file name for a predefined template to download it.

### i Note

You can create a new Word or Excel file from scratch. However, we recommend that you create a customized template from an SAP-predefined template.

2. Open the file and define the fields that you want to export.

To identify a field, use the following placeholder:

- For fields that are not in the table area of the *Contents* tab, use `#{<BO>.<field>}`. For more information about the business objects and fields, see the following section.
- For fields that are in the table area of the *Contents* tab, use `#{Lines.<field>}`. For more information about the types of tables, see the following section.

When you are exporting documents, the placeholder will be replaced by the value in the database.

3. Save the document.

## Fields Available For Export

You can find fields available for export in this [complete list](#). Some of the descriptions are the example values of the fields.

- Table 1 displays all the fields that are supported by SAP Business One Microsoft 365 integration and that are not in the table area of the *Contents* tab.

There are five kinds of business objects:

- `Doc` stands for the marketing document
- `BP` stands for the business partner of the marketing document
- `Payment` stands for the payment information of the marketing document

- `Contact` stands for the contact person of the marketing document
- `Company` stands for the information of the company that creates the marketing document

Field names may be the same, but as they belong to a different object, you can still identify them with the placeholder `${<BO>.<field>}`. If you do not enter the object name in the placeholder, the default object `Doc` will be used.

### ❁ Example

You enter a placeholder as `${DocNum.Val}`, and the system will use `${Doc.DocNum.Val}`.

- Tables 2 - 5 display all the fields that are supported by SAP Business One Microsoft 365 integration and that are in the table area of the *Contents* tab.
  - Fields in Table 2 belong to *Item* type and the *Summary Type* is *No Summary*.
  - Fields in Table 3 belong to *Service* type and the *Summary Type* is *No Summary*.
  - Fields in Table 4 belong to *Item* type and the *Summary Type* is *By Items*.
  - Fields in Table 5 belong to *Item/Service* type and the *Summary Type* is *By Documents*.

You can find the *Item/Service Type* and *Summary Type* on the *Contents* tab of the marketing document. In a template, you can design four types of tables, and the system will export the data to the table according to the opened document. To define the specific types of tables, add respective beginning placeholders as follows and the ending placeholder `<End of the table>`.

Table Type	Beginning Placeholders
<i>Item</i> type and the <i>Summary Type</i> is <i>No Summary</i>	<code>&lt;Begin of the table: Type = Item&gt;</code>
<i>Service</i> type and the <i>Summary Type</i> is <i>No Summary</i>	<code>&lt;Begin of the table: Type = Service&gt;</code>
<i>Item</i> type and the <i>Summary Type</i> is <i>By Items</i>	<code>&lt;Begin of the table: Type = Item&amp;Summary Type=By Items&gt;</code>
<i>Item/Service</i> type and the <i>Summary Type</i> is <i>By Documents</i>	<code>&lt;Begin of the table: Summary Type=By Documents&gt;</code>

When exporting, the system will first match the table type to the beginning placeholders. If the placeholders cannot be accurately matched, the system will export the data to the table whose beginning placeholder matches part of the table type.

### ❁ Example



The document that you want to export is of *Item* type, and its *Summary Type* is *By Items*, and in the template, there is no such placeholder as `<Begin of the table: Type = Item&Summary Type=By Items>`. The system will export the data to the table whose beginning placeholder is `<Begin of the table: Type = Item>`.

# Important Disclaimers and Legal Information

## Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information.

About the icons:

- Links with the icon : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:
  - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.
  - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.
- Links with the icon : You are leaving the documentation for that particular SAP product or service and are entering a SAP-hosted Web site. By using such links, you agree that (unless expressly stated otherwise in your agreements with SAP) you may not infer any product claims against SAP based on this information.

## Videos Hosted on External Platforms

Some videos may point to third-party video hosting platforms. SAP cannot guarantee the future availability of videos stored on these platforms. Furthermore, any advertisements or other content hosted on these platforms (for example, suggested videos or by navigating to other videos hosted on the same site), are not within the control or responsibility of SAP.

## Beta and Other Experimental Features

Experimental features are not part of the officially delivered scope that SAP guarantees for future releases. This means that experimental features may be changed by SAP at any time for any reason without notice. Experimental features are not for productive use. You may not demonstrate, test, examine, evaluate or otherwise use the experimental features in a live operating environment or with data that has not been sufficiently backed up.

The purpose of experimental features is to get feedback early on, allowing customers and partners to influence the future product accordingly. By providing your feedback (e.g. in the SAP Community), you accept that intellectual property rights of the contributions or derivative works shall remain the exclusive property of SAP.

## Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

## Gender-Related Language

We try not to use gender-specific word forms and formulations. As appropriate for context and readability, SAP may use masculine word forms to refer to all genders.



© 2021 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company. The information contained herein may be changed without prior notice.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies.

Please see <https://www.sap.com/about/legal/trademark.html> for additional trademark information and notices.