



**SAP**<sup>®</sup> Partner  
Open Ecosystem

**Znk@**  
Consulting

## Znk – Innovative SAP add-ons: YAC with SharePoint

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YAC - All you SAP documents accessible anywhere from any device  
Integration with MS SharePoint Online – **Maintenance** Demo Screen Captures

Znk Consulting Sàrl, 2020

# YAC – Your Attachments Connector Demo

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Maintenance – Orders, Functional Locations and Partners

# SharePoint Integration Demo Script

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- Attachments to Functional Locations, SAP to SharePoint
- Attachments to Orders, SAP to SharePoint
- SAP UIs, Fiori Apps, WebDynpro, SAP DMS
- YAC Configuration: SharePoint, Metadata
- SharePoint « Workspaces »: Different possible views
- Maintenance Worker on Mobile device: Add photo to Order
- Retrieve photo from Order in SAP with 2-Way AutoSync

<b>Order</b>	<b>Location</b>	<b>Partner</b>	<b><i>Name</i></b>
<b>4000050</b>	<b>BRE2-B1-F1-R2</b>	50000050	EC
<b>4000051</b>	<b>BRE2-F05-470</b>	50000050	EC
4000061	BRE2-F05-450	50000050	EC
4000062	BERL-F05-450	50000050	EC
4000063	BERL-F05-475	50000050	EC
<b>4000167</b>	<b>BERL-F06-450</b>	50000400	SCIC
<b>4000168</b>	<b>BERL-F06-450</b>	50000050	EC

- **Order, Location and Partner** are defined as Metadata in SharePoint
- + **Source** added also as 4th Metadata to identify to which SAP object the document is attached
- + **User** added as 5th Metadata to store the SAP user

# Views in SharePoint

- Selecting the view « Maintenance » already displays the Metadata in columns, we'll see how it looks like when documents are coming...

SharePoint

ZnkYac Private group

Not following  
1 member

Search

+ New Upload Quick edit Sync Export to Excel PowerApps Flow ... Maintenance

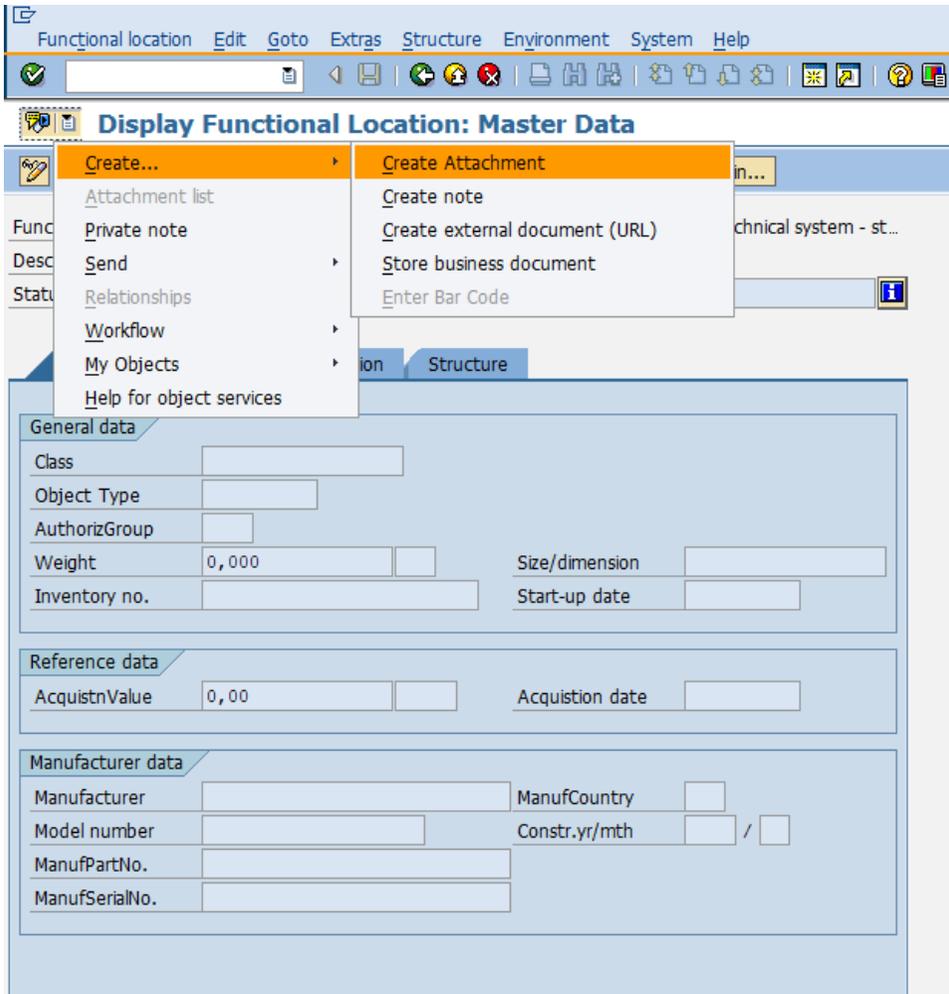
### Documents

Name	Modified	Partner	Location	Order	Source	User
Contracts	June 20, 2019					
DemoMah	January 17					
Maintenance	8 hours ago					
Manual Docs	January 24, 2019					

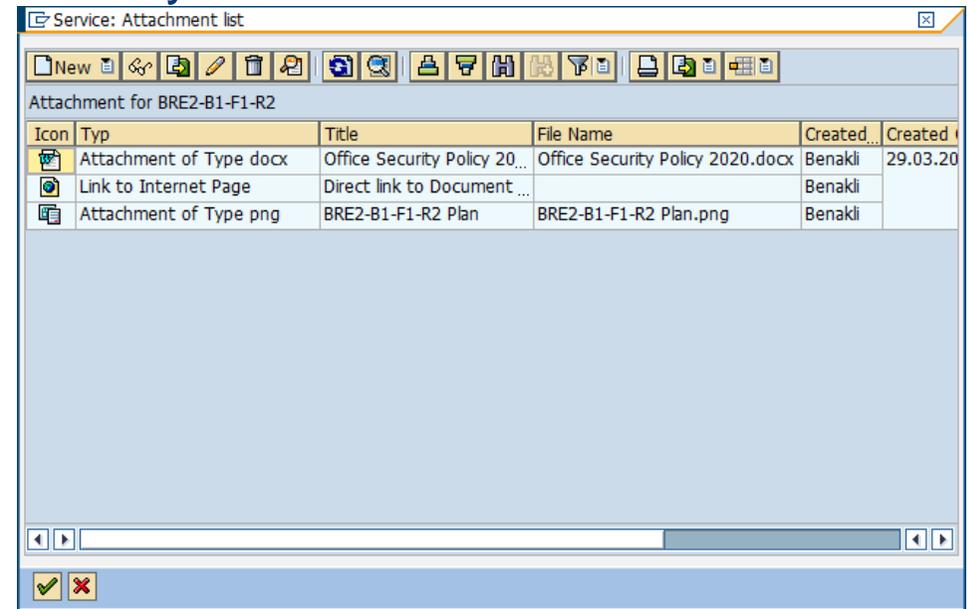
- On Start the « Maintenance » folder is empty.

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# Functional Location BRE2-B1-F1-R2 - SAP



- No attachments present initially
- We'll simply add 2 attachments here, the office plan and a word document describing the applicable security Policy. Once done:



- -> Immediately in SharePoint...

# Functional Location BRE2-B1-F1-R2 - SharePoint

SharePoint

ZnkYac Private group

Search

+ New Upload Quick edit Share Copy link Sync Download

Home Conversations Documents Shared with us Notebook

Documents > Maintenance > FunctionalLocation(BUS0010)

Name	Modified	Partner
BRE2-B1-F1-R2	About a minute ago	

- Documents automatically added in generated and configurable folder structures
- Metadata updated automatically
- Partner and Order are empty as no link with these in the Location

ZnkYac Private group

Search

+ New Upload Quick edit Share Copy link Sync Download Export to Excel Maintenance

Home Conversations Documents Shared with us Notebook Pages Site contents

Documents > Maintenance > FunctionalLocation(BUS0010) > BRE2-B1-F1-R2

Name	Modified	Partner	Location	Order	Source	User
BRE2-B1-F1-R2 Plan.png	A few seconds ago		BRE2-B1-F1-R2		FunctionalLocation	BENAKKA
Office Security Policy 2020....	A few seconds ago		BRE2-B1-F1-R2		FunctionalLocation	BENAKKA

☆ Not following  
👤 1 member

# Other attachments to functional locations added in SAP

Documents > Maintenance > FunctionalLocation(BUS0010)

Name	Modified	Partner	Location
BERL-F06-450	A few seconds ago		
BRE2-B1-F1-R2	17 minutes ago		
BRE2-F05-470	A few seconds ago		

- The metadata 'Source' indicates to which SAP object the attachment was initially added
- The metadata 'User' indicates the SAP user-id of the user having added the attachment

Documents > Maintenance > FunctionalLocation(BUS0010) > BERL-F06-450

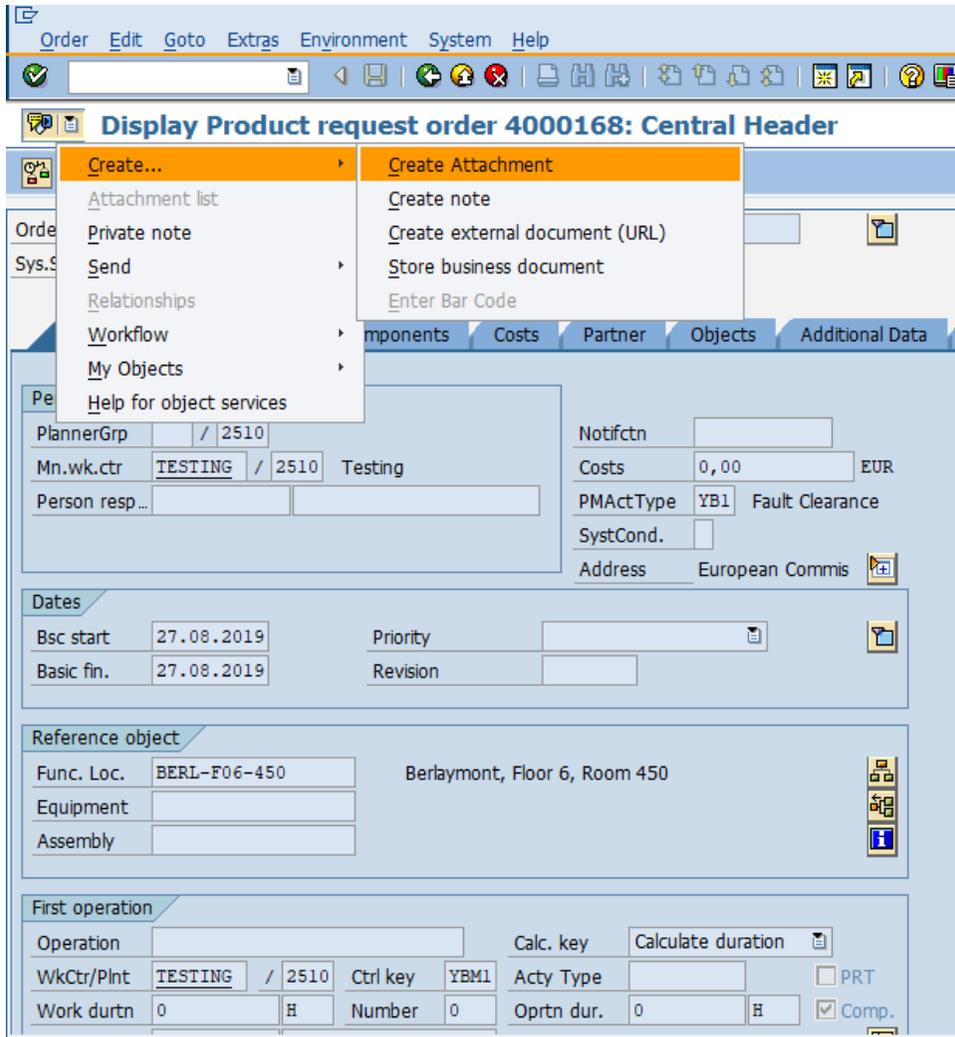
Name	Modified	Partner	Location	Order	Source	User
BERL-F06-450.jpg	About a minute a...		BERL-F06-450		FunctionalLocation	BENAKKA

Documents > Maintenance > FunctionalLocation(BUS0010) > BRE2-F05-470

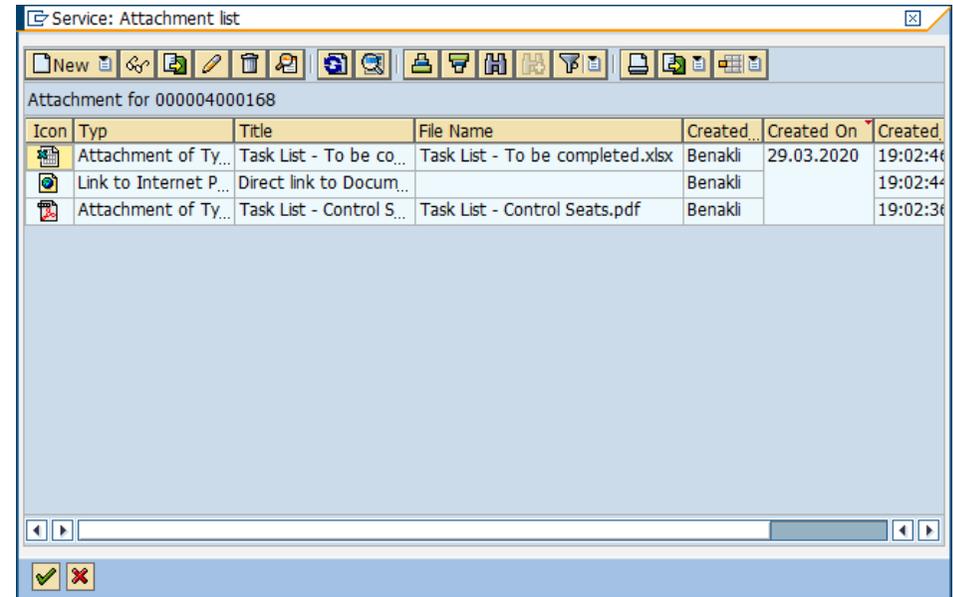
Name	Modified	Partner	Location	Order	Source	User
BRE2-F05-470.png	About a minute a...		BRE2-F05-470		FunctionalLocation	BENAKKA

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# Order 4000168 - SAP



- In the same manner we add attachments to a few Orders.
- Usually Task List in PDF
- + Excel with Task list to be completed to 4000168



- -> Immediately in SharePoint...

# Attachments to Orders in SharePoint

Documents > Maintenance > MaintenanceOrder

Name	Modified	Partner
000004000050-New request for building BRE2	About a minute a...	
000004000051-Product request_multiple	About a minute a...	
000004000167-Servers Testing	About a minute a...	
000004000168-Control Seats	About a minute a...	

- For Orders we've configured YAC so that the order description is added to the Order folder, easier for later retrieval by worker
- We could also have an upper folder per work center, requester, etc.
- All metadata have values here as an order is linked to a Location and a Partner; Source is up to date

Documents > Maintenance > MaintenanceOrder > 000004000168-Control Seats

Name	Modified	Partner	Location	Order	Source	User
Task List - Control Seats.pdf	About a minute a...	European Commission (50000050)	BERL-F06-450	Control Seats (000004000168)	MaintenanceOrder	BENAKKA
Task List - To be completed.xlsx	About a minute a...	European Commission (50000050)	BERL-F06-450	Control Seats (000004000168)	MaintenanceOrder	BENAKKA

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# YAC Supports all SAP User Interfaces

- As YAC is implemented as pure ABAP and plugged directly into the central attachment functions of SAP, it natively supports all attachments types and all User Interfaces: SAP GUI, WebGUI, WebDynpro, Fiori Apps, etc.

The image shows two overlapping screenshots of the SAP Fiori 'Purchase Contract' application. The top screenshot displays the contract header with fields for Purchasing Organization (2510), Supplier (25300001), Consumption Percentage, Approval Status (Workflow not applicable), and Supplier Evaluation Rating (5 stars). The bottom screenshot shows the 'Attachments' section, which is currently empty, with a message: 'No entries found. Drop files to upload, or use the "+" button.' A green arrow points from the text 'Example on Purchase Contract, down to the attachment section' to the attachments area.

Value Contract 4600000056

Purchasing Organization: 2510 (2510) Supplier: 25300001 Consumption Percentage: [ ] Approval Status: Workflow not applicable Supplier Evaluation Rating: ★★★★★

Purchasing Document Status:

General Information | Release Order Documents | Contract Consumption and Leakage

Contract Type: Value Contract (WK) Purchasing Group: Group 001 (001)

Created on: 19.04.2018 Purchasing Organization: Purch. Org. 2510 (2510)

Valid From: 19.04.2018 Company Code: European Commission (2)

Valid To:

Test purchase contract:

Predicted Expiry Date:

Value Contract 4600000056

Attachments

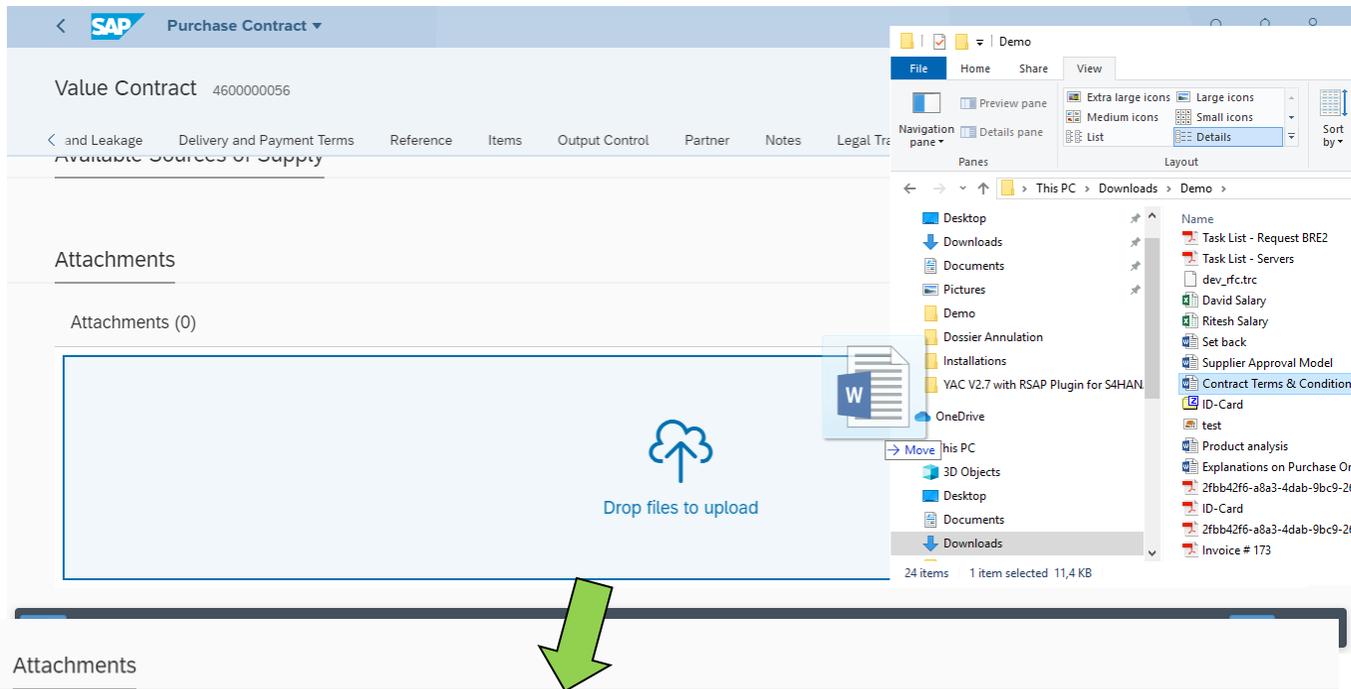
Attachments (0) Add a Link +

No entries found

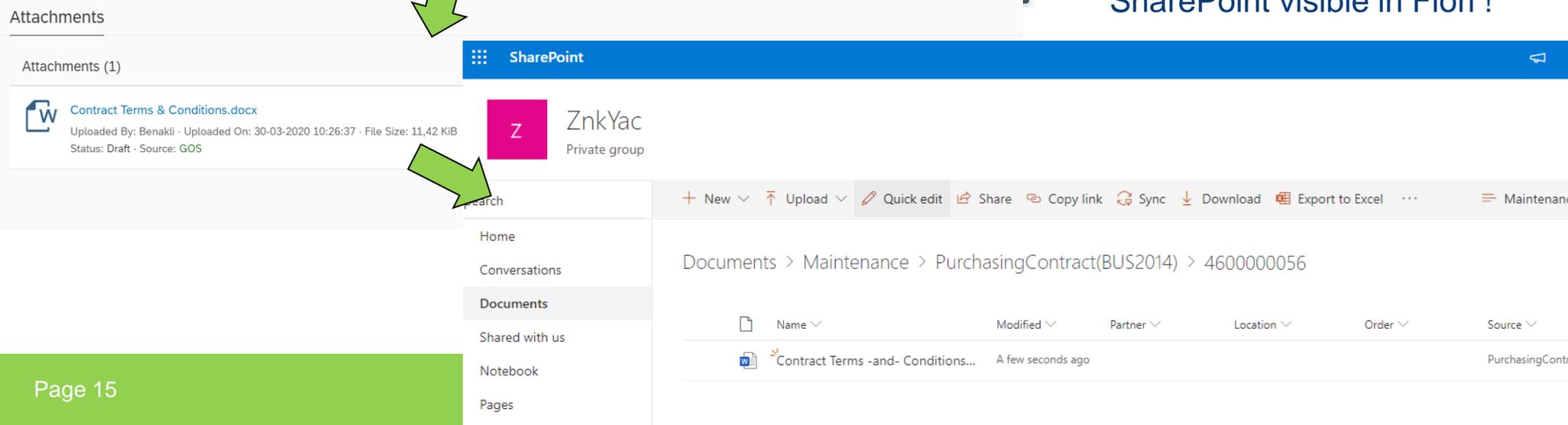
Drop files to upload, or use the "+" button.

Example on Purchase Contract, down to the attachment section

# YAC Supports all SAP User Interfaces – Fiori Apps



- Fiori Apps support Drag & Drop
- Once the attachment is added to the App and saved it is automatically sent to SharePoint
- In SharePoint, it is stored within automatically generated folder structure, with configured metadata/SharePoint attributes
- 2-Way AutoSync is fully supported, document added in SharePoint visible in Fiori !



# WebDynpro and SAP DMS

- WebDynpro attachments are also fully supported, as well as integration with SAP DMS as for example in the Maintenance Order WebDynpro below
- 2-Way AutoSync also works, documents added in SharePoint are automatically added to corresponding SAP DMS object (DIR) and visible in DMS Fiori Apps and WebDynpros

< **SAP** Change Product request order: 4000080

Read Only **Check Entries** Set User Status  $\vee$  Set System Status  $\vee$  Additional Functions  $\vee$  You can also  $\vee$

Order: 4000080 Description: test   Order Type:   Product request order Technical Object:   System Status: REL NMAT PRC SETC 📎 1 Document(s)

General Data Location Data Organizational Data Operation Data Object List Costs Documents Permits

Documents

🗑️ | [Display Document](#) [Add Attachment](#)

<input type="checkbox"/>	Document	Part	Version	Type	Description
<input type="checkbox"/>	10000000022	000	00	Image of Damage	
<input type="checkbox"/>					$\vee$
<input type="checkbox"/>					$\vee$
<input type="checkbox"/>					$\vee$
<input type="checkbox"/>					$\vee$
					....

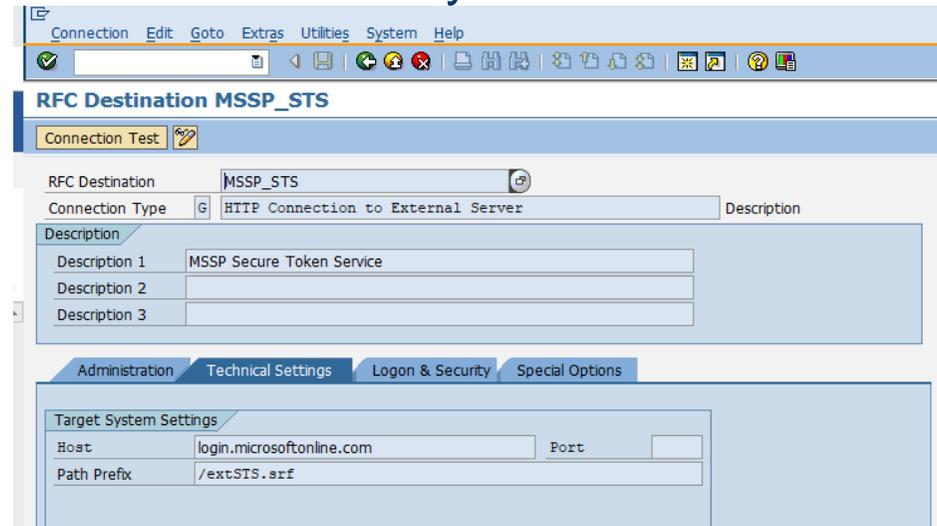
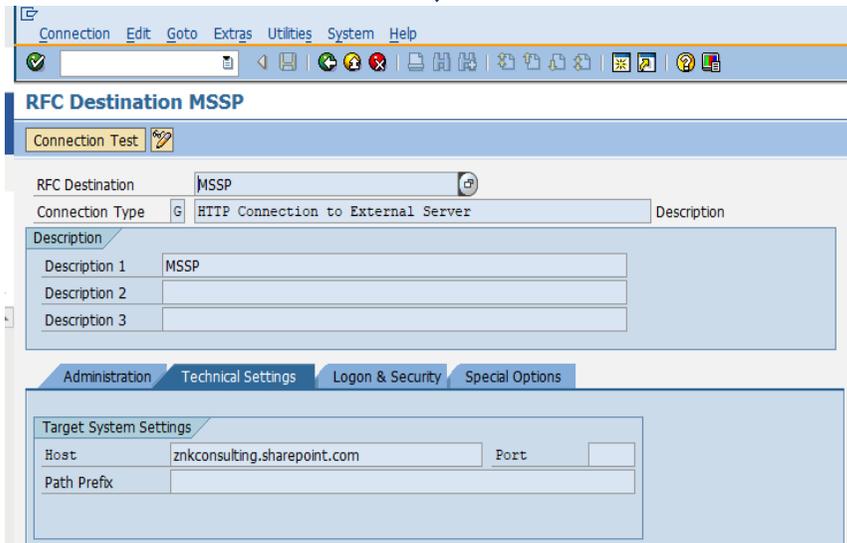
Original Files

Document	File Name	Description
YP1/10000000022/000/00	<a href="#">Task List - Servers.xlsx</a>	

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# YAC SharePoint Configuration

- For SharePoint Online: 2 RFC destinations must be defined, one to your SharePoint site, one to the standard Microsoft Security Token Server



- Then in YAC you have to indicate which are the RFCs to be used and the user-id/password of the SharePoint 'YAC' user

## Display View "YAC Setup MS SharePoint Secure Token Service Configurati

YAC Setup MS SharePoint Secure Token Service Configuration			
MSSP Server	MS STS Server	User Name	Password
MSSP	MSSP_STS	karim.benakli@znkconsulting.onmicrosoft.com	

# YAC Target Folders Configuration

- By default the folder where the attachments are stored is created as
  - <ObjectDescription>( <ObjectType> ) / <ObjectKey>
  - E.g.: .../MaintenanceOrder(BUS2007)/000004000050
- However this is freely configurable, system fields can be used as well as fields coming from the tables of the object.
- For our demo we've configured the Maintenance Order folder so that the order description is added to the object key:

All objects go under Maintenance with default folder structure

But for Maintenance Orders we have a specific structure with order text in the folder name

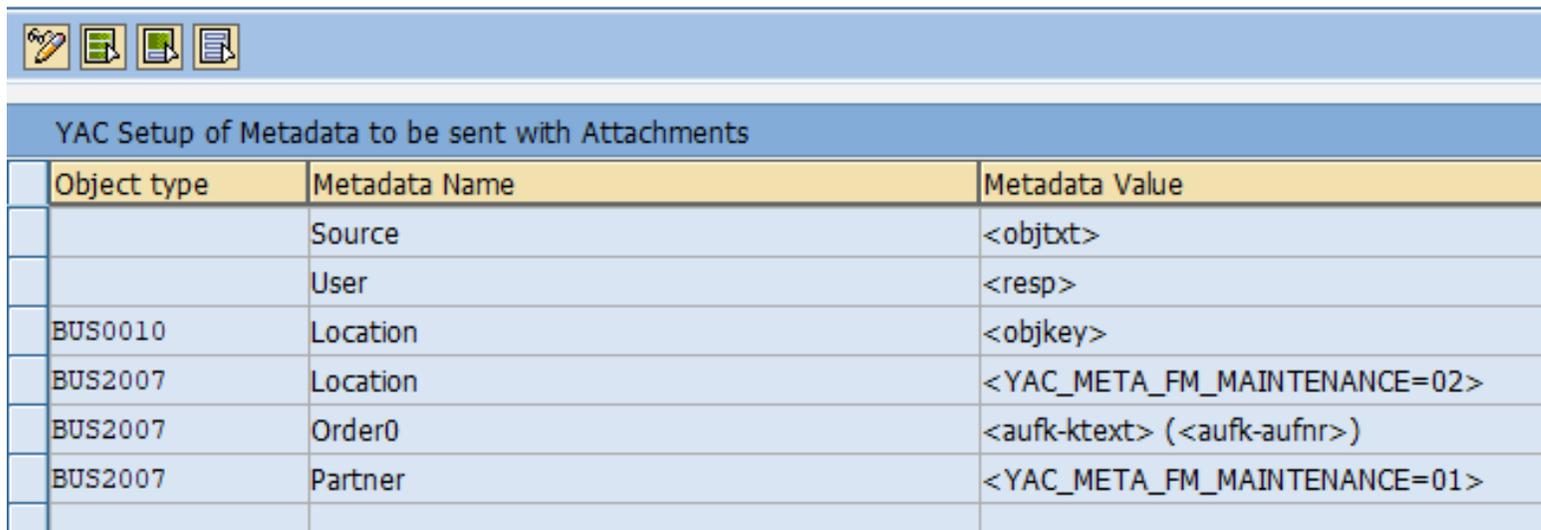
Display View "YAC Business Objects": Overview

Object type	Target Path
	MSSP:/sites/ZnkYac/Shared Documents/Maintenance
BUS1006	SDC:ZnkV:/Demo/ <but000-NAME_LAST> <but000-NAME_FIRST>
BUS2007	MSSP:/sites/ZnkYac/Shared Documents/Maintenance/<objtxt>/<objkey>-<aufk-ktxt>
MESSAGE	/usr/sap/tmp/yac:

# YAC Metadata Configuration

- Metadata values can be freely configure by making use of system tables, objects tables data and function modules
- For this demo the following configuration is used:

## Display View "YAC Setup of Metadata to be sent with Attachments": Over



Object type	Metadata Name	Metadata Value
	Source	<objtxt>
	User	<resp>
BUS0010	Location	<objkey>
BUS2007	Location	<YAC_META_FM_MAINTENANCE=02>
BUS2007	Order0	<aufk-ktxt> (<aufk-aufnr>)
BUS2007	Partner	<YAC_META_FM_MAINTENANCE=01>

- Part of the configuration is for all objects, other part is object specific
- YAC\_META\_FM\_MAINTENANCE is a function module used for returning the Partner (with 01) and Functional Location (with 02) as a small logic is required to achieve this (the information is not directly available in the order tables)

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# SharePoint Views

- SharePoint views can be very easily defined and configured on basis of various elements, including metadata.
- For the demo we've defined 4 views:

SharePoint

ZnkYac  
Private group

Not following  
1 member

Search

+ New Upload Quick edit Share Copy link Sync Download Export to Excel

Home  
Conversations  
Documents  
Shared with us  
Notebook  
Pages  
Site contents  
BusinessPartners  
Recycle bin  
Edit

Maintenance

- ✓ List
- Compact List
- Tiles
- All Documents
- ✓ Maintenance
- Maintenance Locations
- Maintenance Orders
- Maintenance Partners
- Save view as
- Set current view as default
- Edit current view
- Format current view

- **Maintenance**, already used before for displaying the maintenance Metadata in the list
- **Maintenance Locations, Orders and Partners** displaying all documents associated to a given object, grouped by this object... see next slide

[Return to classic SharePoint](#)

# SharePoint View – Maintenance Locations

The screenshot shows a SharePoint document library view for a group named 'ZnkYac'. The view is titled 'Documents' and displays a list of documents with columns for Name, Modified, Partner, Order, Source, and User. The documents are grouped by location: 'Location : BERL-F06-450 (4)', 'Location : BRE2-B1-F1-R2 (3)', and 'Location : BRE2-F05-470 (2)'. The 'BRE2-F05-470 (2)' group is expanded, showing two documents: 'BRE2-F05-470.png' and 'Task List - Multiple Requests.pdf'. The 'Task List - Multiple Requests.pdf' document has a 'Source' metadata field with the value 'MaintenanceOrder'.

Name	Modified	Partner	Order	Source	User
> Location : BERL-F06-450 (4)					
> Location : BRE2-B1-F1-R2 (3)					
▼ Location : BRE2-F05-470 (2)					
BRE2-F05-470.png	Yesterday at 9:47 AM			FunctionalLocation	BENAKKA
Task List - Multiple Requests.pdf	Yesterday at 11:35 PM	European Commission (50000050)	Product request_multiple (000004000051)	MaintenanceOrder	BENAKKA

- Locations are displayed as groups with the number of documents included
- All documents having the given location as Metadata are displayed
- We can see in the 'Source' Metadata the origin of the documents (can be many)
- Many other possibilities: Hierarchies with groups and sub-groups, filters, totals, etc.

# SharePoint View – Maintenance Partners

SharePoint navigation bar with icons for Home, Search, and user profile (SY).

View on all documents per Partner. Note that for this demo there are no documents attached to Partners in SAP, the view is fully generated on basis of the « Partner » metadata

ZnkYac Private group logo and name.

Not following  
1 member

- Search
- Home
- Conversations
- Documents**
- Shared with us
- Notebook
- Pages
- Site contents
- BusinessPartners
- Recycle bin
- Edit

Document actions: + New, Upload, Share, Copy link, Sync, Download, Export to Excel. Maintenance Partners view title and filters.

Documents > Maintenance

Name	Modified	Location	Order	Source	User
Partner : European Commission (50000050) (4)					
Task List - Multiple Requests.pdf	Yesterday at 11:3...	BRE2-F05-470	Product request_multiple (000004000051)	MaintenanceOrder	BENAKKA
Task List - Request BRE2.pdf	Yesterday at 11:3...	BRE2-B1-F1-R2	New request for building BRE2 (000004000050)	MaintenanceOrder	BENAKKA
Task List - To be completed.xlsx	Yesterday at 11:3...	BERL-F06-450	Control Seats (000004000168)	MaintenanceOrder	BENAKKA
Task List - Control Seats.pdf	Yesterday at 11:3...	BERL-F06-450	Control Seats (000004000168)	MaintenanceOrder	BENAKKA
Partner : SCIC (50000400) (1)					
Task List - Servers.pdf	Yesterday at 11:3...	BERL-F06-450	Servers Testing (000004000167)	MaintenanceOrder	BENAKKA

[Return to classic SharePoint](#)

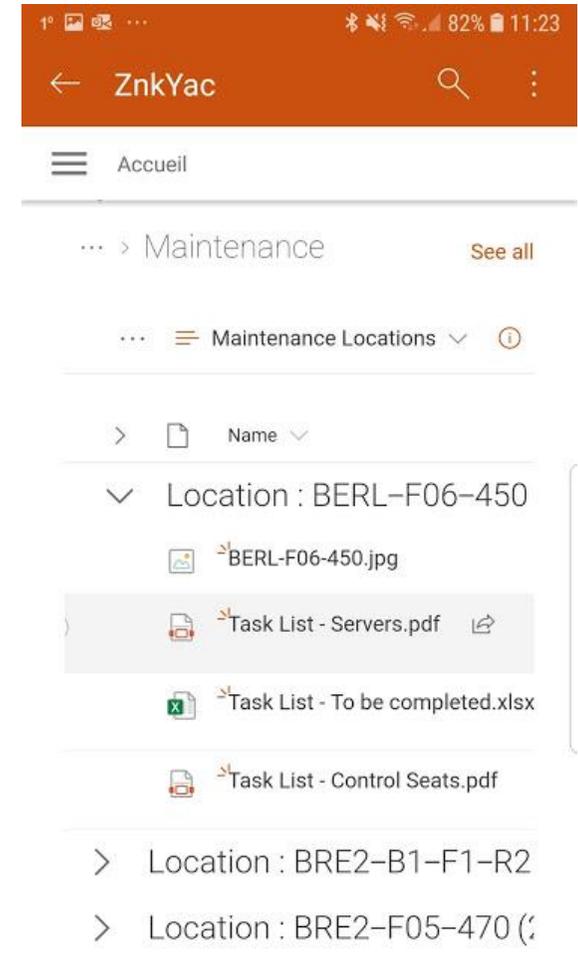
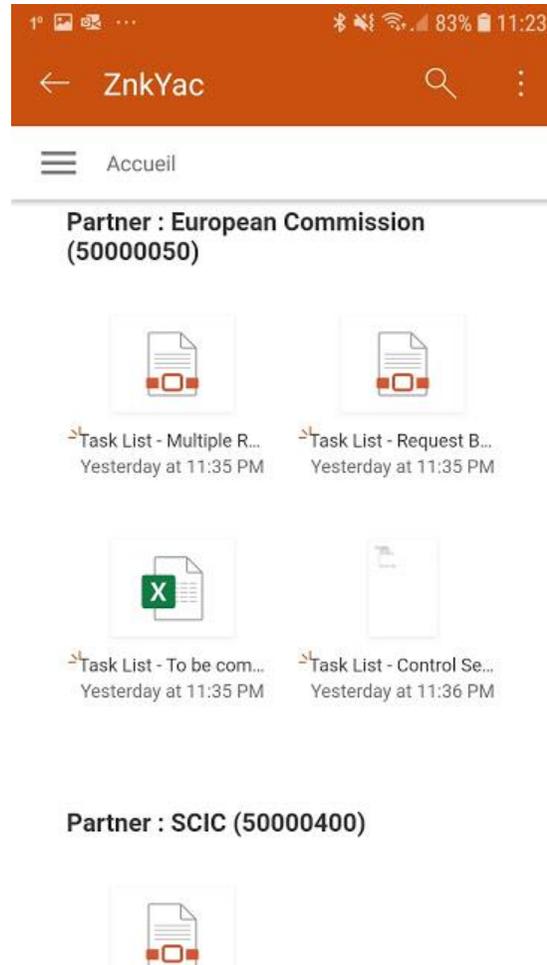
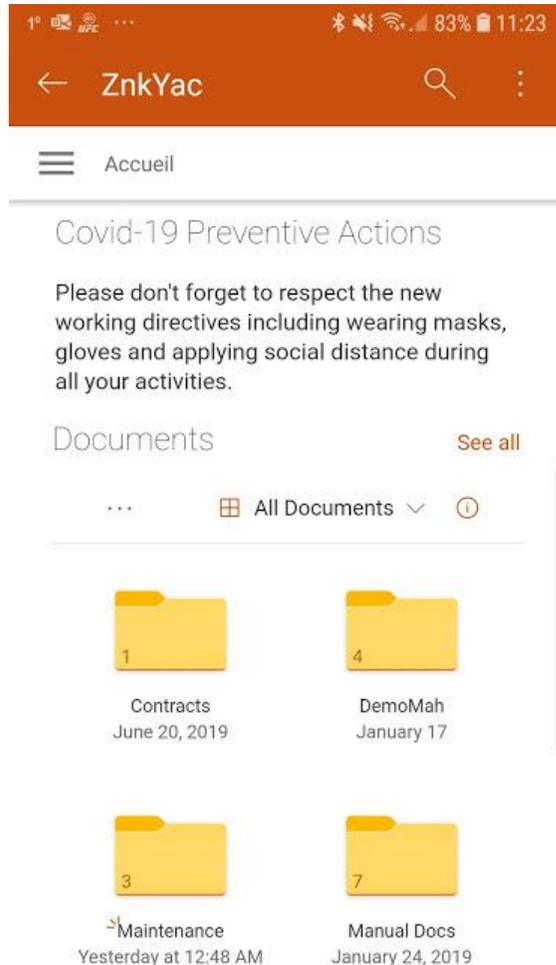
# SharePoint View – Maintenance Orders

We can also of course create simple Views on any other metadata, example given here on the Orders, with a selection of the metadata displayed in columns

The screenshot shows a SharePoint document library view for 'Maintenance Orders'. The view is customized to display specific metadata in columns. The columns are: Name, Modified, Partner, Location, Source, and User. The view shows a list of documents, including task lists and order requests.

Name	Modified	Partner	Location	Source	User
Order : Control Seats (000004000168) (2)					
Task List - To be completed.xlsx	Yesterday at 11:3...	European Commission (50000050)	BERL-F06-450	MaintenanceOrder	BENAKKA
Task List - Control Seats.pdf	Yesterday at 11:3...	European Commission (50000050)	BERL-F06-450	MaintenanceOrder	BENAKKA
Order : New request for building BRE2 (000004000050) (1)					
Order : Product request_multiple (000004000051) (1)					
Task List - Multiple Requests.pdf	Yesterday at 11:3...	European Commission (50000050)	BRE2-F05-470	MaintenanceOrder	BENAKKA
Order : Servers Testing (000004000167) (1)					

# SharePoint Mobile App



All Views can also be used on the SharePoint Mobile App

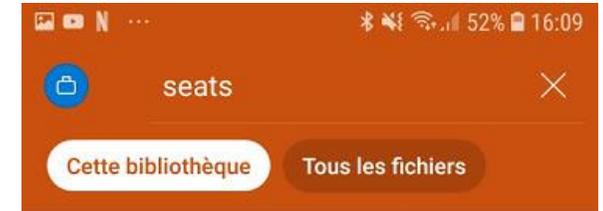
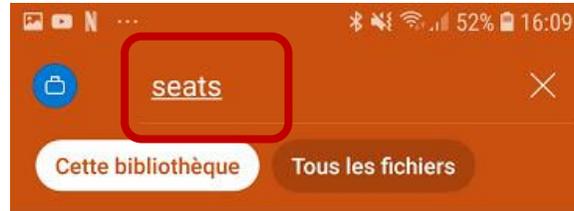
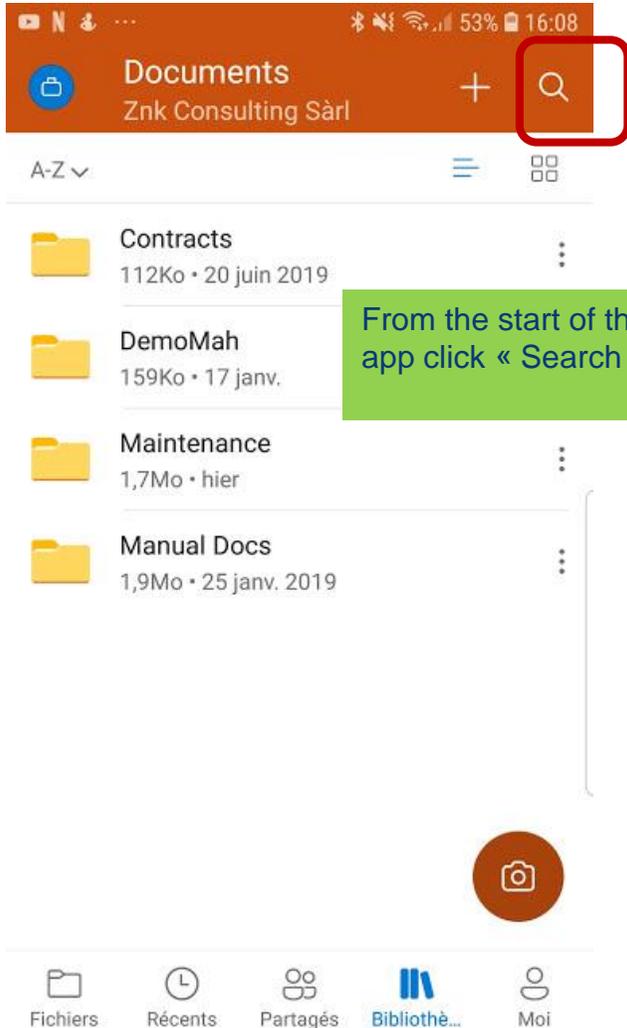
All your SAP documents are available anytime, anywhere and from any device !

# SharePoint Integration Demo Script

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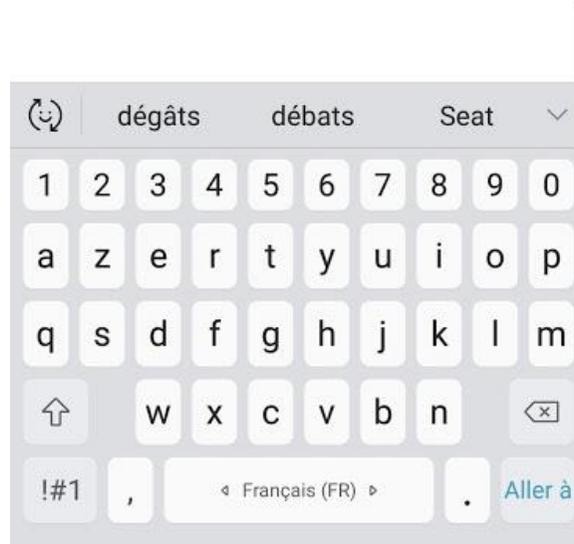
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# OneDrive App – Retrieve the Maintenance Order



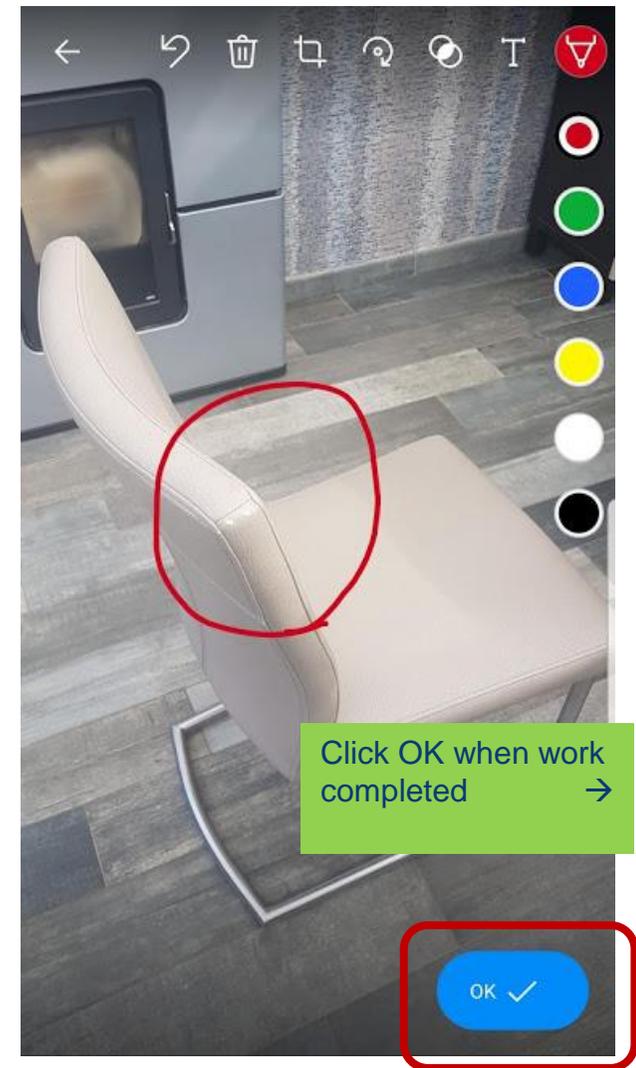
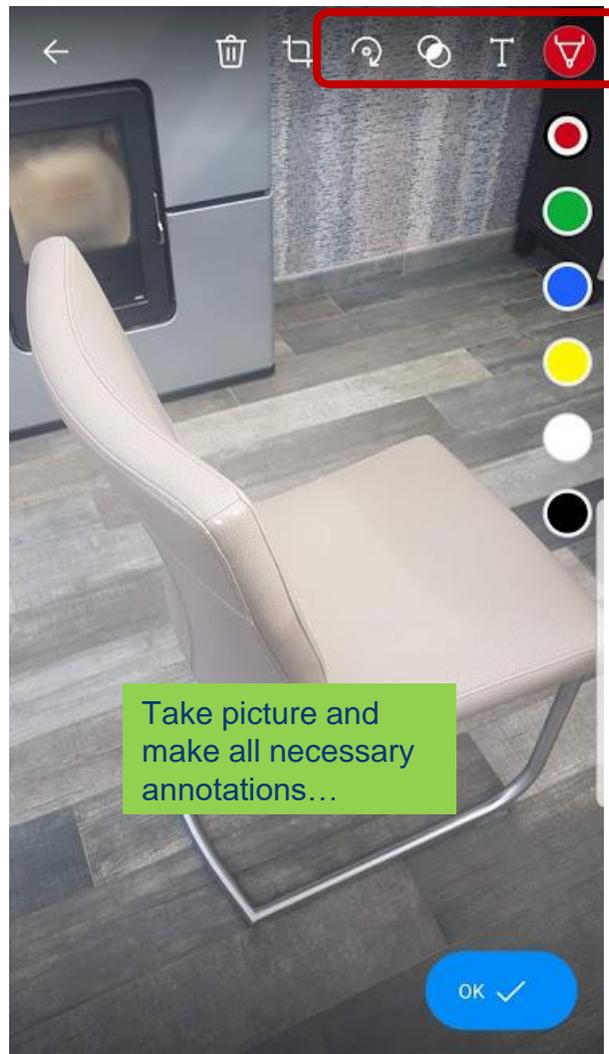
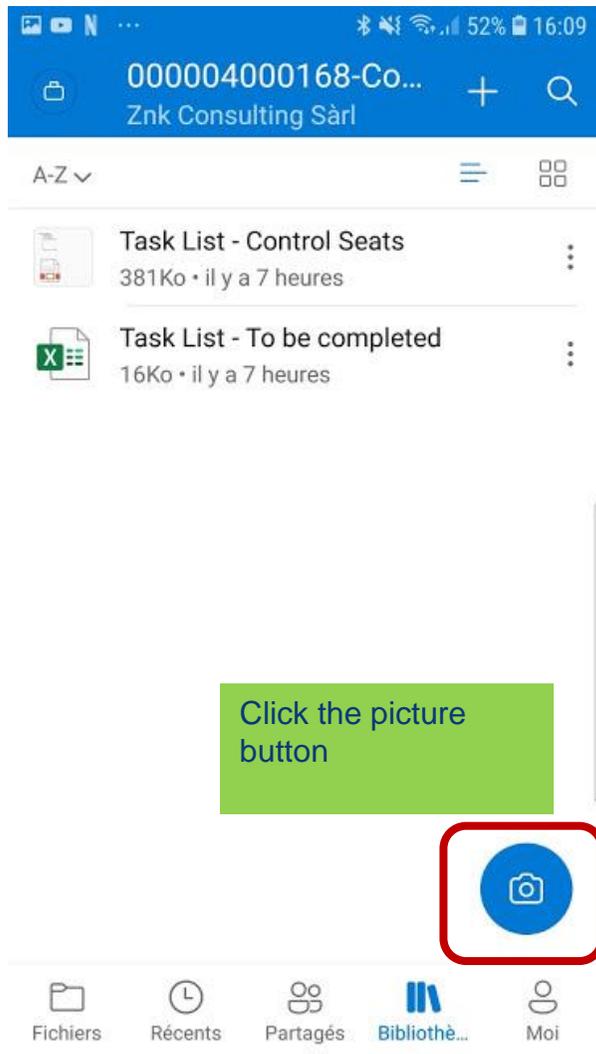
From the start of the app click « Search »

Look for « Seats »

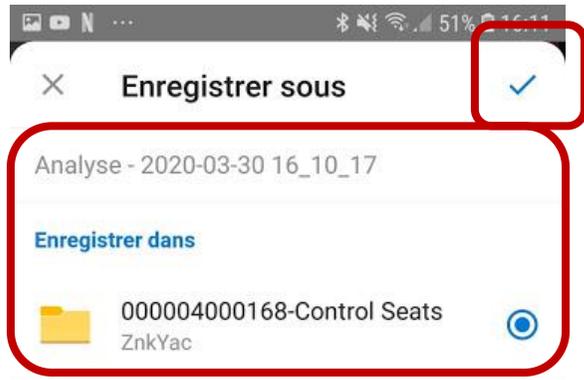


One folder for an Order found, select it... →

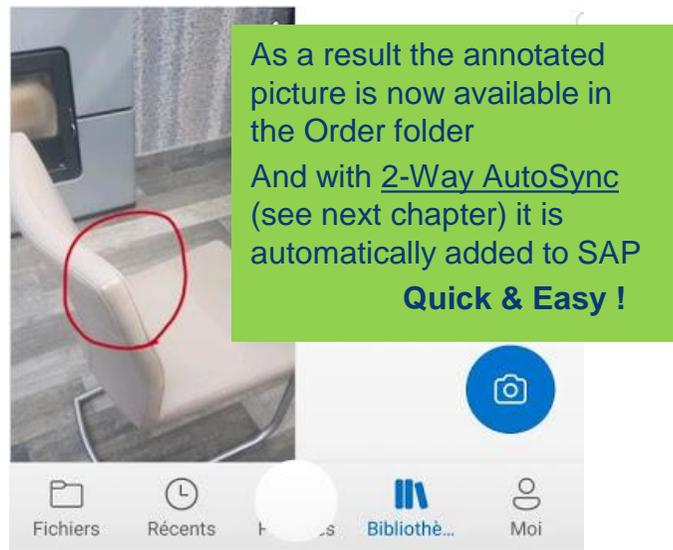
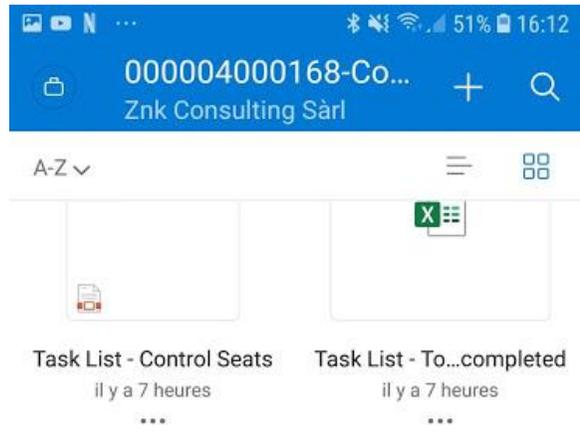
# OneDrive App – Take and Annotate Picture



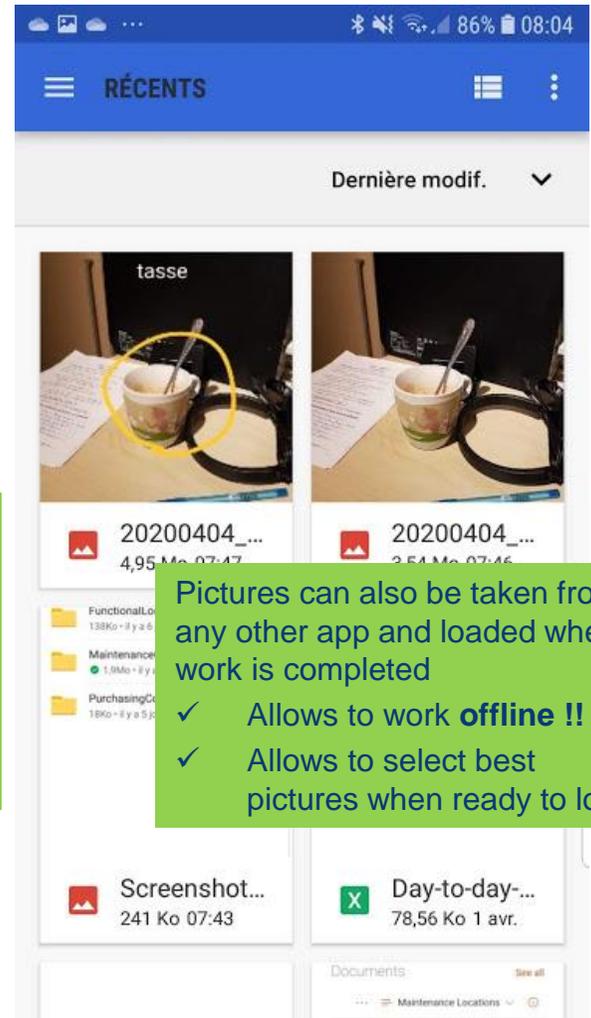
# OneDrive App – Save and Check Result – On/Offline



The file can be renamed and then saved  
Metadata can be completed if needed (depending on scenario)



As a result the annotated picture is now available in the Order folder  
And with 2-Way AutoSync (see next chapter) it is automatically added to SAP  
**Quick & Easy !**



Pictures can also be taken from any other app and loaded when work is completed  
✓ Allows to work **offline !!**  
✓ Allows to select best pictures when ready to load

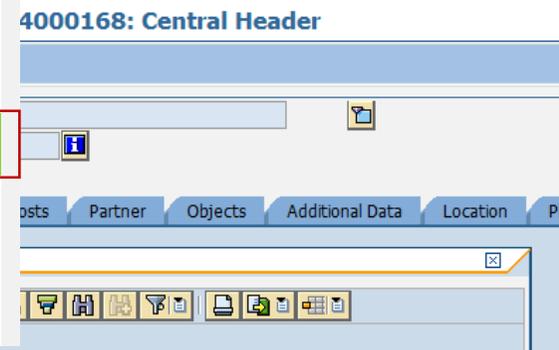
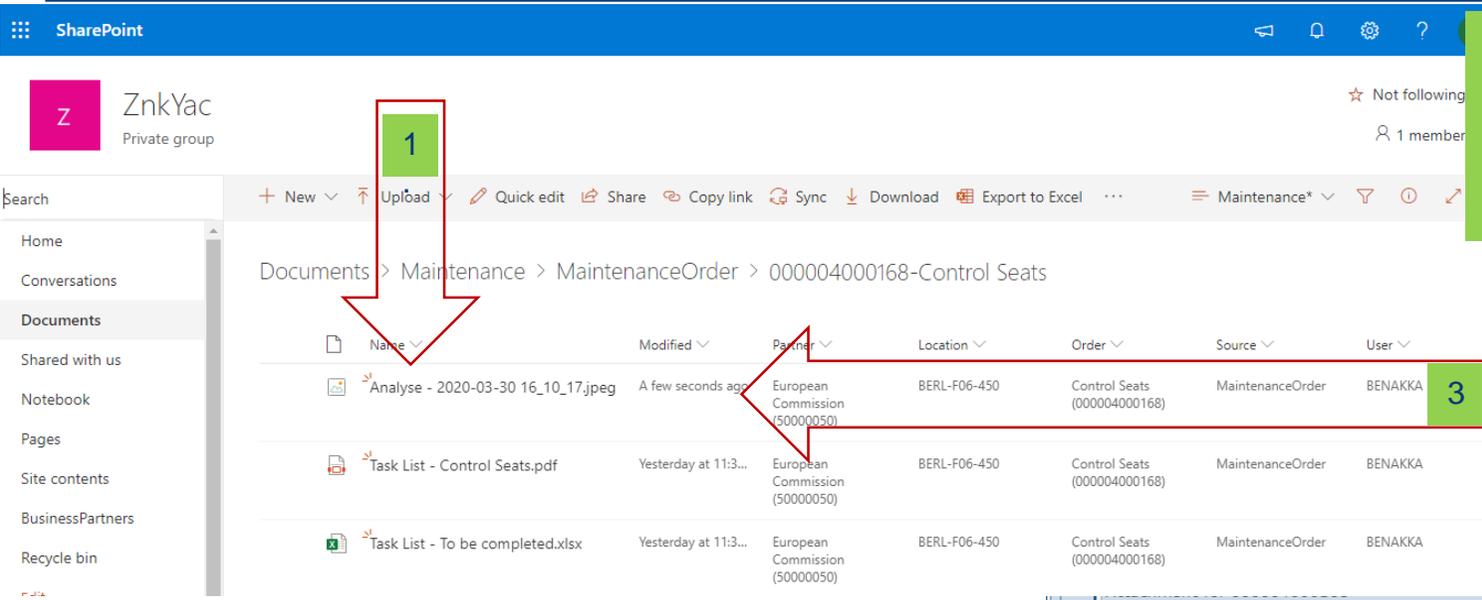
# SharePoint Integration Demo Script

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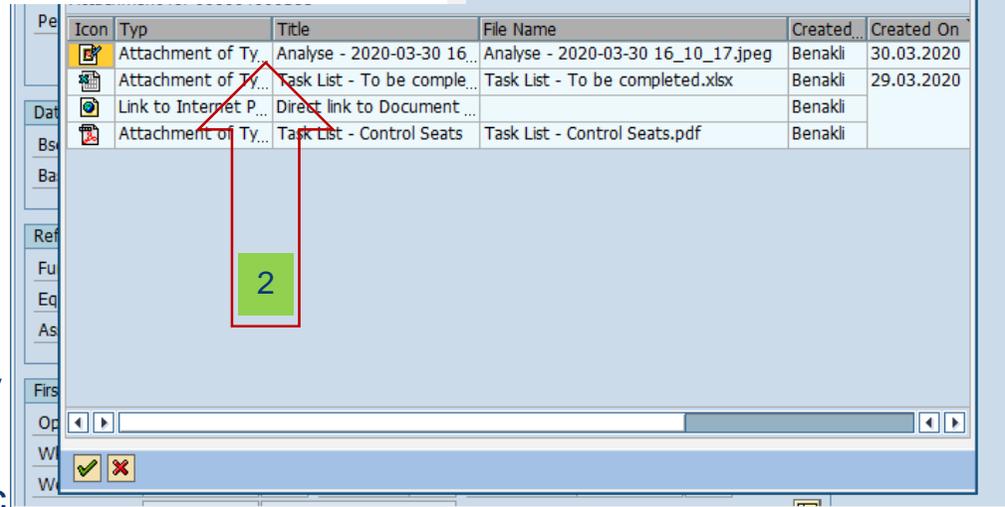
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# News 2020 – 2-Way AutoSync with SharePoint !

1. Manually added to SharePoint in Web browser, OneDrive App, etc.
  2. AutoSync -> added to SAP
  3. Attributes updated !
- + Also works one delete in SharePoint



- Files added directly in SharePoint folder are automatically attached in SAP to the corresponding SAP object !
- As a result we have the exact same number of files in the SharePoint folder and in the Order Attachments List (just one URL more here)
- Metadata of the files in SharePoint are automatically updated !!!
- Works with Fiori, SAPGUI, WebDynpro, SAP DMS, etc.



# Perfect SAP and SharePoint Documents Integration !

Display Product request order 4000168: Central Header

Order YBA1 4000168 Control Seats

Sys.Status REL GMPS MACM PRC SETC

HeaderData Operations Components Costs Partner Objects Additional Data Location P

Service: Attachment list

Attachment for 000004000168

Icon	Typ	Title	File Name	Created...	Created On
	Attachment of Ty...	Analyse - 2020-03-30 16...	Analyse - 2020-03-30 16_10_17.jpeg	Benakli	30.03.2020
	Attachment of Ty...	Task List - To be comple...	Task List - To be completed.xlsx	Benakli	29.03.2020
	Link to Internet P...	Direct link to Document ...		Benakli	
	Attachment of Ty...	Task List - Control Seats	Task List - Control Seats.pdf	Benakli	

ZnkYac

Accueil

Documents See all

Maintenance Locations

Location : BERL-F06-450

BERL-F06-450.jpg Yesterday at 9:47 AM

Task List - Servers.pdf Yesterday at 11:35 PM

Task List - To be com... Yesterday at 11:35 PM

Task List - Control Se... Yesterday at 11:36 PM

ZnkYac

Accueil

Documents See all

Maintenance Locations

Name

Location : BERL-F06-450

BERL-F06-450.jpg

Task List - Servers.pdf

Task List - To be completed.xlsx

Task List - Control Seats.pdf

Analyse - 2020-03-30 ...

Location : BRE2-B1-F1-R2

Location : BRE2-F05-470(

SharePoint

ZnkYac Private group

Search + New Upload Sync Export to Excel PowerApps Flow

Documents

Shared with us Notebook Pages Site contents BusinessPartners Recycle bin Edit

Documents

Name	Modified	Partner	Order	Source	User
Location : BERL-F06-450 (5)					
BERL-F06-450.jpg	Yesterday at 9:47...			FunctionalLocation	BENAKKA
Task List - Servers.pdf	Yesterday at 11:3...	SCIC (50000400)	Servers Testing (000004000167)	MaintenanceOrder	BENAKKA
Task List - To be completed.xlsx	Yesterday at 11:3...	European Commission (50000050)	Control Seats (000004000168)	MaintenanceOrder	BENAKKA
Task List - Control Seats.pdf	Yesterday at 11:3...	European Commission (50000050)	Control Seats (000004000168)	MaintenanceOrder	BENAKKA
Analyse - 2020-03-30 ...	5 minutes ago	European Commission (50000050)	Control Seats (000004000168)	MaintenanceOrder	BENAKKA
Location : BRE2-B1-F1-R2 (3)					
Location : BRE2-F05-470 (2)					

Return to classic SharePoint



Thank you very much!

**Karim Benakli**  
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