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SAP® S/4HANA Utilities extensions for meter to cash processes by PROLOGA

Mobile On-Site Billing - Configuration Guide

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Document History



Before you start the implementation, make sure you have the latest version of this document. You can find the latest version at the following location: <u>http://service.sap.com/instguides</u> -> SAP Solution Extensions -> S/4HANA Utilities extensions for meter to cash processes -> 1.0

The following table provides an overview of the most important document changes.

Version	Important Changes	
1	Initial version	
2	Backend Configuration updated, information about Frontend configuration added	
3	Chapter 2.3 Archiving and Data Aging added	
4	Chapter 2.2.4 extended	
5	Chapter 3: Changed to new Fiori configuration apps	

Table 1: Most important document changes

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Note

1 Introduction

SAP® S/4HANA Utilities extensions for meter to cash processes by PROLOGA will support and optimize your business process regarding meter reading and billing & invoicing on-site at the customer location. For that process, all required data are downloaded from SAP® for Utilities into the Mobile On-Site Billing solution, thereby transmitting the data to the mobile devices. The meter reading result will be captured on-site at the customer location. Based on the connectivity available, the billing and invoicing process will be performed online in conjunction with the SAP backend, or offline on the mobile device itself.

The deep integration into SAP[®] for Utilities enables a reliable and accurate process of reading, billing and invoicing on-site. It uses the same validation, billing and invoicing rules as defined in the backend system and synchronized into the Mobile On-Site Billing solution.

SAP® S/4HANA Utilities extensions for meter to cash processes by PROLOGA interfaces with a series of mobile devices. Installed at your company, these units form the interface between the meter reader and your SAP[®] backend system.



An additional mobile application (not included within *SAP*® *S/4HANA Utilities extensions for meter to cash processes by PROLOGA*) is required in order to provide the full end-to-end process.

This document describes which steps are necessary to put SAP® S/4HANA Utilities extensions for meter to cash processes by PROLOGA into operation after you have successfully installed the add-on.

1.1 System overview

Through implementation of the PROLOGA software, there are two different architecture opportunities available:

- The one system architecture: This actually means that the system is going to run within your ${\sf SAP}^{\circledast}$ instance.
- The two system architecture: This means two separate SAP[®] systems, where an interface will be used to provide the communication between the PROLOGA middleware and your SAP[®] backend system.



In the current version of the add-on, the one system architecture is not yet supported.

The content of this current version of this document is limited to:

- the two system architecture
- the configuration required in the $\mathsf{SAP}^{\texttt{®}}$ IS-U / CCS backend system

1.2 Authorization Objects

Before starting the configuration of SAP® S/4HANA Utilities extensions for meter to cash processes by *PROLOGA* the authorization object S_TABU_NAM has to get assigned to the user for the relevant configuration transactions:

- Transaction /*PLGA/MOB_CNNCT_CCNF* (Table /PLGA/VCMOBCCNFG)
- Transaction /PLGA/MOB_CNNCT_CNFG (Table /PLGA/VMOBCCNFG)
- Transaction /PLGA/MOB_CNNCT_MRN (Table /PLGA/VMOBMRNOTE)

2 Backend Configuration

2.1 Requirements

A prerequisite for executing the configuration is the successful and correct installation of the add-on SAP S/4HANA Utilities extensions for meter to cash processes by PROLOGA.



If you need more information on the Gateway service configuration, please look into standard SAP[®] documentation: *Installing and Configuring SAP[®] NetWeaver Gateway 2.0*.

2.2

2.2 The Backend Configuration process

2.2.1 Form activation

When the add-on import is finished, the delivered form can be found in the Client 000. You need to make a copy of the forms into the target Client (100, 200...). Start the transaction with *Utilities --> Copy from Client* or use the transaction code *EFRM*:

Copy Application Form from Client		
🗅 🖉 🛷 ᡝ 🧪 🐺 🗈 🔥 📅 🕂 🧟 🛼		
Application form [또]	
Subobjects		
Hierarchy Attributes		
ট UD1(1)/100 Copy Application Form from Client	×	
Client 000		
Application form /plga/frm_mob_mr_downloa	ad	
	×	
O Form Class		
Change Scr Display		

Figure 1: Copy the Application Form

Finally, the application form must be activated through the transaction *EFRM*:

Edit Application Form: Initial Screen	
🗅 🖉 🕪 📫 🧪 🛱 🗈 🕸 📅 🕂 🧟 🛼	
Application form /PLGA/FRM_MOB_MR_DOWNLOAD	
Subobjects	
 Hierarchy 	
OAttributes	
O Farm	
Form Texts(SAPscript only)	
O User top include	
Generated function module	
O Form Class	
Change 🤣 Display	

Figure 2: Activation of the Application form

2.2.2 BAdI activation

The BAdI (Classic / Enhancement Implementations) must be activated, because it was delivered in an inactive state (see Figure 3 and Figure 4). The necessary object is:

• /PLGA/MOB_DWNLD_OSB (Classic BAdI)

BAdI Builder: Initial Screen for Implementations
🖆 📅 🗖 🙌 🗓
Edit Implementation
ONew BAdI Enhancement Implementation
Classic BAdI Implementation /PLGA/MOB_DWNLD_OSB
🗞 Display 🖉 Change

Figure 3: /PLGA/MOB_DWNLD_OSB (Classic BAdI)

Business Add-In Builder: Display Implementation /PLGA/MOB_DWNLD_OSB		
🤣 🖻 🖆 🖧 🚊 🗓 Defin	ition Documenta Documentation	
Implementation Name	/PLGA/MOB_DWNLD_OSB Active	
Implementation Short Text	MOB Imp. ISU_MR_DOWNLOAD_OSB	
Definition Name	ISU_MR_DOWNLOAD_OSB	
Runtime Behavior	Implementation will be called	
Properties Interface		

Figure 4: Application form description

2.2.3 Middleware Destination in Backend

This destination will connect the backend system to the *PROLOGA* middleware. This connection provides a channel for the order downloading into the middleware. For the implementation, use the transaction */PLGA/MOB_CNNCT_CNFG* and navigate to the node *New Entries: Details of Added Entries*:

New Entries: Details of Added Entries	
🦻 🗟 🚨 🖪	
MOB Connect Configuration Destination	

Figure 5: Destinations in MOB side

2.2.4 MOB Connect Customizing in Backend

For the MOB Connect customizing in the backend, use the transaction /PLGA/MOB_CNNCT_CCNF and navigate to node New Entries: Details of Added Entries:

 		Goto Selection Utilities System Help
Import impl. class	<u>الا</u>	
MOB Connect Customizing Export impl. class Import impl. class	Change View	"MOB Connect Customizing": Details
Export impl. class Import impl. class	🦻 🖥 🛱	
Import impl. class	MOB Connect Customi	zing
	Export impl. class	
Masterdata impl. cla	Import impl. class	
	Masterdata impl. cla	

Figure 6: MOB Connect Customizing

In order to connect the SAP[®] *S*/4 backend system with an *ERP* legacy system based on SAP[®] *Business Suite on HANA*, please use the following classes for your customizing:

DD1(2)/100	Change View "MOB Connect Customizing": Details
Ø	💽 🔹 🔚 I 🐼 🚱 I 🖨 🖞 👘 👘 🖏 🎝 🎝 🎝 🗐 🔽
Change View "	MOB Connect Customizing": Details
🦘 昆 📭 月	
MOB Connect Customizi	ng
Export impl. class	/PLGA/CL_MOB_CONNECT_EXPORT_EX
Import impl. class	/PLGA/CL_MOB_CONNECT_IMPORT
Masterdata impl. cla	/PLGA/CL MOB CONNECT MDATA EX

Figure 7: MOB Connect Customizing for connection to legacy system



Both *_EX classes are example implementations only. They are not valid for a production environment. These export classes have to be implemented project specific.

For the MOB Connect, also the settings in transaction /PLGA/MOB_CNNCT_MRN are required:

		Jtilitie									
	👻 🛛 😓 🗸 🗸) 🔒 ii i	8 I 🎝 🔁 🖁	🗈 🎝 I 🜄	z 🕜 💻					
~h	'hange View, "MOR Enh. Meter Deader Notes": Overview										
Jinan	Change View "MOB Enh. Meter Reader Notes": Overview										
Ne	w Entries 🗈 🗟 🖾 🚯 🚯										
MOB Er	nh. Meter Reader Notes										
Note	CT.	CEC	OSB rel.	Dist. and	Block bill	The base					
Note	UF	CES	USB rel.	Pict. req.	BIOCK DIII	Fin. tour		MR note (text)			
01	01 Automatically estimate m			Pict. req. ✓		Order level	•	MR note (text) Estimate Meter Reading			
	01 Automatically estimate m 🔻		✓					. ,			
01	01 Automatically estimate m 🔻		✓			Order level	•	Estimate Meter Reading			
01 02	01 Automatically estimate m • 02 Reset meter reading •		✓✓			Order level Order level	•	Estimate Meter Reading Agent submission			
01 02 03	01 Automatically estimate m • 02 Reset meter reading • 03 Accept meter reading wit •		 <td></td><td></td><td>Order level Order level Order level</td><td>* *</td><td>Estimate Meter Reading Agent submission Meter reading o.k.</td>			Order level Order level Order level	* *	Estimate Meter Reading Agent submission Meter reading o.k.			
01 02 03 04	01 Automatically estimate m 02 Reset meter reading 03 Accept meter reading wit 04 Card stored for meter re		 <td></td><td></td><td>Order level Order level Order level Order level</td><td>* * *</td><td>Estimate Meter Reading Agent submission Meter reading o.k. Card stored</td>			Order level Order level Order level Order level	* * *	Estimate Meter Reading Agent submission Meter reading o.k. Card stored			

Figure 8: Change view "MOB Enh. Meter Reading Notes": Overview

3 Frontend Configuration

3.1 Requirements

To use the new implementation of *S/4HANA Utilities extensions for meter to cash processes by PROLOGA* based on *SAP RESTful Application Programming Model* you need to activate the new implementation via customizing. Please open the transaction sm30 for maintenance views and open the view /PLGA/VCMOBCFG:

~	$\mathbf{Q}_{\mathbf{k}}$ Find Maintenance Dialog	More \checkmark
Table/V Restrict Data Range	iew: [<mark>/PLGA/VCMOBCFG</mark>	
 No Restrictions Enter conditions Variant 		
6ð Display	C Edit	😞 Tra
	Figure 9: Maintenance D	Dialog

Set the checkmark in the dialog and save the changes:

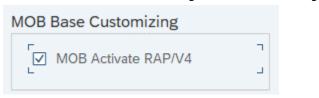


Figure 10: Switching to new RESTful implementation

This switch allows you to use the new improved Fiori Apps and benefit from future developments.

i

1.

The current documentation for SAP S/4HANA Utilities extensions for meter to cash processes by PROLOGA describes the new implementation. If you don't activate the new implementation, please use the documentation for SAP S/4HANA Utilities extensions for meter to cash processes by PROLOGA version 3.0. To get an older version of this documentation go to <u>https://help.sap.com/docs/</u> and search for product SAP S/4HANA Utilities extensions for meter-to-cash processes by PROLOGA. On the product page you can select the older version (3.0) directly beneath the title.

3.2 Master Data Synchronization

It is necessary to synchronize the master data (like meter readers, notes and tax data) from CCS to MOM.

You can run the synchronization manually by starting the transaction se38 and select /PLGA/MOB_IMPORT_MASTER_DATA.

< SAP	MOB Master data replication
✓ ☐ Save as Variant	More ~
r Structure data: L Meter reader: Meter reading notes: Billing engine data:	

Figure 11: Master Data Synchronization

Check all options to do a complete synchronization.

We recommend to schedule this program as a daily job. To do so we need a variant of the input parameters of this program. Click on variants in transaction se38.

<	SAP											ABAP	Editor: Initial Scr
		✓ 1) <i>></i> :	e	ג¤⊐ ע	Ei≁	i	Ŵ	1	AB	🕒 Debugging	🕒 With Variant	D Variants
	5			00T 144	0750					-	Cruste		
	Progra	m: /PLGA/N		JRT_MA				Q			Create		

Figure 12: Master Data Synchronization Variant

Enter a name for	the variant and	press "Create".
------------------	-----------------	-----------------

<	SAP		ABA	AP: Va	riants	- Initia	al Screen	
	~	Catalog	1	AB	Ŵ	i	More \checkmark	
	Program: /PLGA	/MOB_IMPOR	T_MAST	TER_DA	ATA			
	Variant: ZTEST		þ			C Ci	reate	

Figure 13: Master Data Synchronization Create Variant

Check all options and click on "Attributes".

<	SAP	Edit Variants: Variant ZTEST
	~	S Attributes More ~
r L		Structure data: Meter reader: Meter reading notes: Billing engine data:

Figure 14: Variant Parameters

Enter a description and click on "Save".

< SAP	Varia	nt Attributes		
✓ Ø U	se Screen Assignmer	nt i More 🗸		Exit
Variant Name: ZTEST * Description: Comple Only for Background Processing Protect Variant Only Display in Catalog				
System Variant (Automatic Trans	port)			
Screen Assignment				
Created Selection Screer				
1000				
Objects for selection screen				
🚊 🗐 🔍 🖶 🕄 Techni	cal name			
Dynpro Field name	Ty Protect field H	ide field Hide field 'T	Save field without values	Switch GI
1.000 Structure data	P			
1.000 Meter reader	P			
1.000 Meter reading notes	P			
			Sa	ve Cancel

Figure 15: Variant Attributes

Now you can return to transaction se38 and click on "Execute \rightarrow Background".

≡	<u>P</u> rogram <u>E</u> di	t <u>G</u> oto	Uti	litie <u>s</u>	En <u>v</u> i	ronmen	it S	ystem	<u>H</u> elp			
<	<u>C</u> reate	(F5)										
	C <u>h</u> ange	(F6)										
	<u>D</u> isplay	(F7)		<i>*/</i> *	Ċ	ν	E⊒+	i	Ŵ	Ē	AB	🕒 Debugging
	Ch <u>e</u> ck		>									
	<u>G</u> enerate	(Ctrl+F3)										
	Ac <u>t</u> ivate	(Shift+F9)								<u> </u>	0	Create
	Exec <u>u</u> te		>	[Direct I	Process	ing		(F8)			Create
Sub	P <u>r</u> int	(Ctrl+P)		[D <u>e</u> bugg	ging		(Shift	+F5)			
•	С <u>о</u> ру	(Ctrl+F5)		l	J <u>n</u> it Te	sts	(Ctr	l+Shift+	F10)			
	Re <u>n</u> ame	(Ctrl+F6)		l	Jn <u>i</u> t Te	sts With			>			
	De <u>l</u> ete	(Shift+F2)		Ē	<u>B</u> ackgro	ound						
	E <u>x</u> it	(Shift+F3)		F	Runtime	e Ana <u>l</u> y	sis					
	Documentation			١	Nith V <u>a</u>	riant		(Shift	+F6)			
	Documentation			<u>(</u>	<u>Overvi</u> e	ew of V	ariants	(Shift	+F7)			
	6ð Display			1	Change	•						

Figure 16: Scheduled Master Data Synchronization

Select the variant name you created and click on "Schedule".

< SAP	Execute Report in Background
└── Variant	s Job overview Spool More \smallsetminus
Report Name: [/F Variant Name: Z T	LGA/MOB_IMPORT_MASTER_DATA
Run Now	Schedule

Figure 17: Master Data Synchronization Scheduling

Enter a job name and press "Schedule".

< SAP	Schedule Report
	\sim Variants Job overview Spool More \sim
Schedule job	Report Name: /PLGA/MOB_IMPORT_MASTER_DATA Variant Name: ZTEST
	JobName: ZMOB_MD_SYNC Start Date: 15.11.2022 [14:46:37]
Schedu	Schedule periodically

Figure 18: Schedule Periodically

Now	you	can	select	a period.	We recommend	a daily	basis.
-----	-----	-----	--------	-----------	--------------	---------	--------

Report Nam	e: /PLGA/MOB_IMPORT_MASTER_DATA	
Variant Nam	UD3(3)/100 Schedule Report ×]
JobNam	Period interval	
Start Da	Months 1 Weeks 1 Days 1 Hours 1	
	Minutes 1	
	√ %	

Figure 19: Daily Schedule

After pressing "Ok" the master data synchronization runs as in background as a job.

3.3 General Configuration

The general configuration app of On-Site Billing allows you to configure imported necessary settings like the connection to the CCS backend system or the sap file setting for document import from the mobile app.

To open the general configuration, click the related button in the Fiori Launchpad:

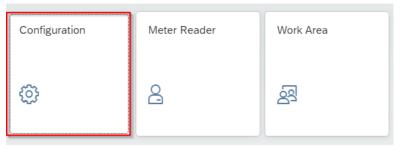


Figure 20: Configuration Link

The configuration app is opened. After clicking the "Go" button you will see a single line with key "1":

Editing Status:

	Adapt Filters (1)
Configurations (1)	Image: A state of the state
MOB Config	
1 >	

Figure 21: Configuration App

This line doesn't contain any settings itself but is the bracket for all sub settings. Click on the table line to open the settings. You will see the following settings:

- MOB Backend Configuration
- BGRFC Processors
- Trigger Billing
- Document Import.

3.3.1 MOB Backend Configuration

This configuration allows you to set the RFC destinations to communicate with your CCS system. If you don't use two separate SAP systems for MOM and CSS, then you can skip this configuration.

1					Edit [Ċ
RFC Destinations	BGRFC Processors	Trigger Billi	ng Document Import			
MOB Backen	d Configuration (1)			0		
Destination Type		De	stination			
Default		OS	B_MOB_TO_CCS		>	

Figure 22: MOB Backend Configuration

In our screenshot we have already configured a destination. To do so press the "Edit" button in the top right conner of you screen and then "Create" in the top right of the backend configuration table. A popup will open to ask for the destination type:

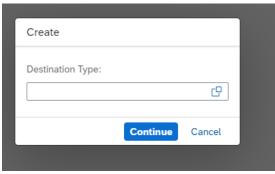


Figure 23: Destination Type

For now only one type is supported (Empty – with description "Default"). So, you can leave the input empty and press "Continue". A page is opened where you can select the RFC destination and then press "Apply". Now the app returns to the backend configuration table which contains your new setting. To store the new configuration, you need to press "Save" in the lower right corner:

1				Display	Saved V	ersion) [<i>C</i>
RFC Destinations	BGRFC Processors	Trigger Billing	Document	Import			
MOB Backen	d Configuration (1)	Cr	eate Delete	Paste	0	e	~
Destination T	уре	D	estination				
Default			DSB_MOB_TO	CCS	C	>	
					s	ave	Cancel

Figure 24: MOB Background Configuration – Save

You are now back to the "view mode" of the configuration page. To adjust you setting you can press "Edit" again and select a different RFC destination directly in the table row.

All configuration apps are using the Draft concept of SAP Fiori apps. See <u>SAP Help</u> for more information.

3.3.2 BGRFC Processors

Here you can configurate to background processing queues (BGRFCs) for different On-Site Billing processes.

To do so, switch the page to edit mode by pressing "Edit" in the top right conner. Now you can BGRFCs to different process types by pressing "Create" in the top right of the table "MOB BGRFC Configuration":

1				
RFC Destinations BGRFC Processors Trigge	r Billing Document Import			
BGRFC Processors				
MOB BGRFC Configuration (7)				Create
Process Type	Destination	Queue Prefix		Ctrl+Enter
Upload orders (to CCS) E_MRO_COMP	OSB_BGRFC_EXPORT_M	EMRO] >	
Trigger B&I (to CCS) E_TBI	OSB_BGRFC_TBI] >	
Import documents (from mobile)	OSB_BGRFC_IMPORT_D] >	
Import orders (from CCS)	OSB_BGRFC_IMPORT_M	IMRO] >	
Import online request (from mobile)	OSB_BGRFC_OLR	IOLR] >	
Import results (from mobile)	OSB_BGRFC_IMPORT_R	IOSB] >	
Maintenance MAINTENANC	OSB_BGRFC_MAINTENA] >	

Figure 25: MOB BGRFC Configuration – Edit

Now a popup opens, where you can select the process type:

Queue Pretix:
Create
Process Type:*
Continue Cancel

Figure 26: MOB BGRFC Configuration - Create Popup

Process Type	Process Description
E_MRO_COMP	Upload of order results from MOM to CCS
E_TBI	Trigger Billing & Invoicing in CCS after result upload
I_DOCS	Import documents / pictures created by the mobile app into MOM
I_MRO	Download orders from CCS into MOM
I_ONLI_REQ	Processing of online invoice requests by mobile app
I_RESULTS	Import results from mobile app into MOM
MAINTENANC	Maintenance – cleanup of old tours / orders

After pressing "Continue" a new detail page opens where you can enter the BGRFC destination and the queue prefix for the selected process type:

Header undefined		
Object Information		
Process Type: Trigger B&I (to CCS) (E_TBI)		
Process Type: Trigger B&I (to CCS) (E_TBI)	Destination: *	Queue Prefix:

Figure 27: MOB BGRFC Configuration - Create Page

The queue prefix needs to be filled with the same value entered for the destination in transaction sbgrcconf (if any was set). Please check out the configuration manual for more details.

By pressing "Apply" you return to the previous page. Here you can create a new BGRFC entry or press "Save" to store your changes in the system.

When you press "Edit" you can change the existing configuration for the process types directly in the table.

3.3.3 Trigger Billing

The trigger billing configuration allows to control when and for which results the billing and invoicing in CCS is started after result upload.

This process can relieve the overnight processing of order results in CCS.

To configure trigger billing switch the page into edit mode be pressing "Edit" in the top right corner:

RFC Destinations BGRFC Processors Trigger Bill	ing Document Import						
Trigger Billing							
MOB TBI Configuration (3)							Create
Order Type	Order Type (Result)	Active	Active toda	Active from	Active to		
Order with Offline Bill F	Order with Offline Bill F			09:00:00 😭	18:00:00 📄	>	
Order with Offline Bill	Order without Bill W			09:00:00	18:00:00	>	
Order without Bill W	Order without Bill W			09:00:00 👘	18:00:00	>	

Figure 28: Trigger Billing – Edit

Now you can edit existing entries directly within the table or create new ones by pressing "Create" in the table header. A popup opens to select the original order type and the order type according to the result:

Order Type:	Create		
Order Type (Result):	Order Type:		
Order Type (Result):			\sim
×	Order Type (Result):		
			\sim
Continue Cancel		Continue	Cancel

Figure 29: Trigger Billing - Create Popup



Please keep in mind: not all combinations of order types are useful for the trigger billing process (e.g. online billing process) and some combinations are not valid at all. For instance: an order with type "without bill" will never return type "Order with offline Bill".

After pressing "Continue" you can enter the span while trigger billing should be active for this type combination, if the combination should be active and if the processing should be only trigger on the same day (order date):

Order Type:	Active:	Active from:	
Order without Bill (W)		00:00:00	Э
Order Type (Result):	Active today only:	Active to:	
Order without Bill (W)		00:00:00	Э

Figure 30: Trigger Billing - Edit Page

To return to the previous page press "Apply". Now you can make additional changes or press "Save" to store the configuration.

3.3.4 Document Import

Here you can configure for the document type the logical file name from SAP to use to store the document in MOMs file system.

To configure the document, import press "Edit" in the top right corner.

Now you can change the logical file of existing entries or create a new document type configuration by pressing "Create" in the header of the "MOB Document Configuration" table:

RFC Destinations	BGRFC Processors	Trigger Billing	Document Import						
Document Import									
MOB Docume	nt Configuration (1)						Create	
Document T	ype	File	e		Parent Directory				
Image file PICTURE		Z	ZMOBPICTUREFILE	C	ZMMTESTFILEDIR	C	>		

Figure 31: Document Import - Edit

On "Create" a popup opens where you need to select the document type:

Create		
Document Type: *		C
	Continue	Cancel

Figure 32: Document Import - Create Popup

Now you can select the logical file:

PICTURE

Header undefined				
Object Information				
Document Type:				
Image file (PICTURE)				
Document Type:	File:*		Parent Directory:	
Image file (PICTURE)	ZMOBPICTUREFILE	C	ZMMTESTFILEDIR	œ
-	iauna 22. Desument Impert	Daga		

Figure 33: Document Import - Edit Page

Press "Apply" to return to the general configuration page, where you can press "Save" to store the changes in the system.

You can configure two logical filenames:

- File
- Parent Directory.

"File" is used to define the directory and name scheme to create a document e.g. a picture:

Dialog Structure	Log. File:	ZMOBPICTUREFILE
└☐ Logical File Path Definition	, i i i i i i i i i i i i i i i i i i i	
🗀 Assignment of Physical Paths to	Name:	
🗂 Logical File Name Definition, Cross	Physical file:	<sysid>_<client>_<date>_<param_1>.jpg</param_1></date></client></sysid>
🗀 Definition of Variables	Data format:	BIN
C Syntax Group Definition		
🗋 Assignment of Operating System to	Applicat.area:	
	Logical path:	ZMOBFILES

Figure 34: Example Logical Filename

"File" is used to save the document content received from the mobile app on the server.

"Parent Directory" is logical filename pointing to parent directory of "File":

Dialog Structure	Log. File:	ZMMTESTFILEDIR
\sim \Box Logical File Path Definition		
🗀 Assignment of Physical Paths to	Name:	MM MOB parent dir
🗂 Logical File Name Definition, Cross	Physical file:	
Definition of Variables	Data format:	DIR
🗋 Syntax Group Definition		
🗀 Assignment of Operating System to	Applicat.area:	
	Logical path:	ZMMTEST_MOB

Figure 35: Example Logical Filename for Parent Directory



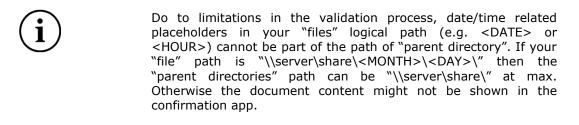
In the example screenshots the logical path "ZMMOBFILES" is a fully qualified sub directory of "ZMMTEST_MOB".

"Parent Directory" is only necessary to display the documents in the confirmation app. It allows the app to prevent directory traversal issues.

The "parent directory" must be readable for SAP, just like "File".

Example:

The path of "File" points to the directory "\\server\share\P01\100\", then the path of "parent directory" can be for instance "\\server\share\P01\100\" or "\\server\share\".



3.4 Map Configuration

Map configuration allows you to make all necessary settings to use a map in your Fiori apps (e.g. Planning). These settings are transportable. This is not yet supported by a Fiori app. The settings can be done via a maintenance dialog. You can start transaction sm30 and show the dialog for view /PLGA/VMOBCFGMAP:

Table/V	iew:		
Restrict Data Range			
No Restrictions			
O Enter conditions			
O Variant			
රට Display	🖉 Edit	🕀 Transport	🔓 Customizing
	F:	ntenen a Diala a Chaut	

Figure 36: Map Maintenance Dialog Start

For now, only the Id DEFAULT is used. Later developments might allow different settings for different use cases.

So please create map settings like:

ID: DEFAULT						
MOB Map configuration						
Product ID:	 OSM					
Provider:	OPEN STREET MAP					
Copyright:	OPENSTREETMAP					
Initial Zoom Level:	7					
Initial Latitude:	51,165690000000					
Initial Longitude:	10,451526000000					
URL:	https://a.tile.openstreetmap.org/{LOD}/{X}/{Y}.png					

Figure 37: Map Maintenance Dialog Edit



Please keep in mind: the map settings above are only an example. You will need adjust the values to your map provider. See the <u>SAP</u> wiki for more information.

Initial Zoom, Longitude and Latitude allows you to specific which map section is shown on opening the map.

3.5 Meter Reader Configuration

In the meter reader configuration, you can configure your imported meter readers from the CCS system to use then with Mobile On-Site Billing. Click the "Meter Reader" button in the Fiori Launchpad:



Figure 38: Meter Reader Link

When you press "Go" in the following page you will see a list of available meter readers:

Search	٩	Editing S All	Status:			Active:	~	Go Adapt Filters (1)
Meter Readers (68)							Deactivate	Activate 🔕 f 🖉
Meter Reader ID	Name 🚊		Active	Reader Code	System User	Main Reading Center	Last Login	Last Contact
12	Bernd Bleutgen		No	009				>
4	Dirk Mueller		Yes	001	CHILLMANN	Center I (MRC1)		>
5	Franz Meier		No	002				>
9	Hans Fischer		Yes	006	MMERBITZ	Center I (MRC1)	21.07.2022, 14:53:14	21.07.2022, 14:53:14 >



(i)
\langle		J

If you see no meter reader please check, that the master data synchronization is active. See chapter 3.2 for more information.

You can filter the meter reader list by using the filter bar:

		Editing Status:	Ac	ctive:		
Search	Q	All	~	~	Go	Adapt Filters (1)
		Fig	gure 40: Meter Re	ader Filter Bar		

You can search for the ID or the meter reader name. Use the drop-down list to filter for drafts or for the Active state. Via "Adapt Filters" you can add additional filters, e.g. for the SAP user name. If you filter for a text column you might want to use the asterisk (*) to search for text parts.

You can select one or more-meter readers and use the buttons "Deactivate" and "Activate" to enable usage of those meter readers for the mobile app / On-Site Billing. Of course, you can only deactivate active meter readers and activate inactive users. To activate a meter reader, it is also necessary that a SAP user is assigned to this meter reader.

To edit the configuration of a specific meter reader, click directly on the row of that meter reader (not the select checkbox) which opens the detail page of that meter reader:

9				dit Activate	Deactivate	Ľ
General Information Additi	onal Centers					
General		Assignment	Communication			
Name: Hans Fischer	Active: Yes	Center: Center I (MRC1)	Last Login: 21.07.2022, 14:53:14			
Reader Code: 006		User: MMERBITZ	Last Contact: 21.07.2022, 14:53:14			
Additional Centers						
Assigned Meter Readi	ng Centers		Search	Q	0	~
Meter Reader	Center					
	No items available.					

Figure 41: Meter Reader Detail Page

In this page you can press "Edit" (top right corner) and assign an SAP user and a main meter reading center:

9			Display Saved Version Activate Deactivate
General Information Additional	Centers		
General		Assignment	Communication
Name:	Active:	Center:	Last Login:
Hans Fischer	Yes	Center I (MRC1)	21.07.2022, 14:53:14
Reader Code:		User:	Last Contact:
006		MMERBITZ 🗗	21.07.2022, 14:53:14
Additional Centers			
Assigned Meter Reading G	Centers	Create Delete P	aste Search Q 🖗 僆
Meter Reader	Center		
No	items available.		

Figure 42: Meter Reader – Edit

Using the button "Create" in the top right of "Assigned Meter Reading Centers" you can assign additional meter reading centers to this meter reader. After completion of your changes you can press save to apply the new configuration.

Via the buttons "Activate" and "Deactivate" you can change the active state of this meter reader.

3.6 Work Area Configuration

Work areas allow you to restrict the amount of data accessible for a dispatcher in planning and confirmation. Work areas are mandatory for both apps.

To configure your work areas, press the related button in Fiori Launchpad:

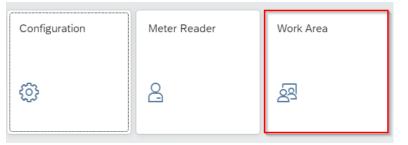


Figure 43: Work Area Link

In the opened page press "Go" to show all existing work areas:

	Editing Status:	Active:	
Search Q	All 🗸	✓ Go	Adapt Filters (1)
Work Areas (6)		Create Delete	
🗋 Work Area 🚊 Activ	ve		
Unit Test \$WA1 Yes	>		
Unit Test - Mass \$WAM Yes	>		
NO CENTERS ASSIGNED Yes	>		
AREA I Yes	>		

Figure 44: Work Areas

To create a new work area press "Create" in the header of the table. A popup opens where you need to enter an identifier for your work area:

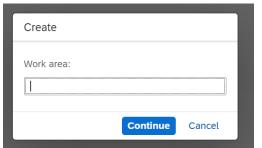


Figure 45: Work Area - Create Popup

After pressing "Continue" the detail page of the new work area opens, where you can define it:

MY_WA					
General Information Meter Reader Centers Users					
Active:	Area:				
Meter Reader Centers					
Meter Reader Centers		Create D	Delete Paste	Search	۹ 🖨 🗸
Center					
No items available.					
Users					
Users		Create D	Delete Paste	Search	۹ 🕲 🗁 🗸
User					
No items available.					
					Create Cancel

Figure 46: Work Area - Edit Page

You can:

- Check "Active" to make the work area usable in planning and confirmation
- You can give the work area a description
- By pressing "Create" in the table "Meter Reader Centers" you can assign meter reading centers to this work area
- By pressing "Create" in the table "Users" you can make this work area usable for new dispatchers
 In both tables you can select rows and press "Delete" to remove them again.



After entering the user or the meter reading center in their create popups and pressing "Continue" a detail page is opened where cannot change any data. This is a technical necessity for this type of Fiori app. Please just press "Apply".

If you are finished with you changes, press "Create" to store the new work area in the system. The work area detail page will switch into read only mode. By pressing "Edit" you can change the configuration again. Otherwise, you can press the back button in the top left corner of the page to return to the list of work areas.

Here you can create a new work area, delete an existing work area by selecting a row and pressing "Delete" or you can inspect a work area by clicking on a row to open the detail page.

3.7 Data Archiving and Data Aging

To run the program for archiving data, go to transaction *SE38* and select /PLGA/MOB_ARCHIVE_MRTOUR_JOB.

Program Edit Goto System Help Image: System Help		
MOB Delete MR Tours and MR Orders via Job	로 <u>P</u> rogram <u>E</u> dit	<u>G</u> oto S <u>v</u> stem <u>H</u> elp
	Ø	💌 🖉 🔄 😨 😓 🛗 👘 🖏 🎝 🎝 💭 🔜
✓ Test mode active? ✓ Only finished tours	MOB Delete	MR Tours and MR Orders via Job
☑ Only finished tours	l 🔁	
☑ Only finished tours	Test mode active?	2
		,
	Last changed (days)	

Figure 47: Data Archiving first page

Parameters

- "Test mode active?": if this option is selected, the program runs in test mode; the data are not canceled but a log is foreseen in order to check the result for the program running in the normal mode. If this option is not selected, the program runs in normal mode and deletes the tours.
- "Only finished tours": if this option is selected, the program deletes only the tours already finished. Otherwise also the tours that are not yet finished are deleted.
- "Age of tours (days)": the number entered in the field determines the age of the tours that will be selected for the deletion. For example, the value is set to100 only the tours executed 100 days ago are selected for the deletion.
 - Every day is counted, not only working days The age of the tour is calculated based on the execution date and not on the creation date



If have switched the system to the new implementation RAP/V4 (see chapter 3.1), then "Test mode active?" is not used anymore. This means on execute the program deletes the matching tours regardless if the option is checked or not.

After the execution a log is shown:

List Edit Got	to System Help
MOB Dele	ete MR Tours and MR Orders via Job
MOB Delete N	MR Tours and MR Orders via Job
Four 4008: 7	Tour deleted
	Tour deleted Tour deleted
	hed tours out of 3 tours older than 15.10.2017 deleted. (test mode active)
i See bgRI	FC monitor for more details (especially regarding errors).

Figure 48: Data Archiving Log

The job can be scheduled. Click on Program – Execute in Background.

☞ <u>Program</u> <u>E</u> dit	<u>G</u> oto S <u>y</u> stem	_ Help
< <u>E</u> xecute	F8	🔍 😪 I 🚔 🖞 🖄 I 🎝 🗘 🗘 I 🥃 💽 I 🖉 🖳 👘
Execute and Prin	nt Ctrl+P	
Execute in Back	ground F9	MR Orders via Job
Exit	Shift+F3	
		-
✓ Test mode active?		
✓ Only finished tours		
Age of tours (days)		31
Last changed (days)		

Figure 49: Data Archiving Background Execution

Click on "Immediate" and select "Periodic Job". Click on "Period values" and chose a parameter, for example "Weekly".

Program Edit Goto System Help
MOB Delete MR Tours and MR Orders via Job
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
A Immediate Date/Time After Job After Event Operation Mode 🜩
Date/Time ✓ Immediate Start
After Job Hourly Daily Operation Mode Weekly Monthly Other period Fridage
After Event
Periodic Job Check Period values Restrictions

Figure 50: Periodic Job

To choose more parameters, for example the day and time of the weekly execution, click on "Date/Time"; the related parameters are shown.

© UD1(1)/100 Start Time 🛛 🖉
Immediate Date/Time After Job After Event Operation Mode
Date/Time
Scheduled Start Date Time
No Start After Date Time
System Zone CET Use Alternative Time Zone
After Job Operation Mode
After Event
Alter Event
Periodic Job
Check Period values Restrictions 🔀

Figure 51: Data Archiving Date/Time scheduling

To add more parameters click on "Restrictions".
UD1(1)/100 Start Time
Immediate Date/Time After Job After Event Operation Mode
Date/Time
✓ Immediate Start
After Job Calendar-Driven Job Execution
Not on Sundays or public holidays O Move job to previous day
○ Move job to next workday
After Event Check Transfer
✓ Periodic Job
Check Period values Restrictions 🛪

Figure 52: Data Archiving Scheduling Restrictions

Another possibility is to run the job after another job, an event or in operation mode (for example "normal" or "night").

		-			
Immediate	Date/Time	After Job	After Event	Operation Mode	⇒
		1			

Figure 53: Data Archiving operation mode

Important: the operation mode can be used when there are memory limitations in SAP: In this case we may not be able to define high number of dialog or background processes. Operation modes are a concept provided by SAP to take advantage of this fact. We can define more dialog processes and less batch processes during day time and vice versa. We can define the duration for day and night time operation mode. The System will switch to day or night, based on the settings and improve the system performance.

In order to check the result of the automatic program execution after the scheduling of the job, go to the transaction SM37, select the job with the program name and click on "Job log":

Job Overview						
🛐 Refresh 🎤 Release 💷 🗊 🖉 Spool 🗟 Job log	fresh Image: Control of the server of th					
Selected job names: * Selected user names: Jobs for client : 100	: : : 	✓ Finished	✓ Canceled			
Event-Driven Event ID: ABAP program Program name :						
JobName Spo	ool Job doc	Job CreatedB	Status	Start date	Start Time	
/plga/mob_archive_mrtour_job			Finished	23.01.2018	10:07:58	
*Summary						

Figure 54: Data Archiving Job Log 1/2

The job log is shown.

	Job Log E	b Log Entries for /PLGA/MOB_ARCHIVE_MRTOUR_JOB / 10071000							
	🛐 📑 Long te	🔁 Long text 🔁 Previous Page 🚯 Next page 🔠 🗃							
J	Tob log over	rview for	job: /FLGA/MOB_ARCHIVE_MRTOUR_JOB / 10071000						
ſ	Job log	Time	Message text uncoded	Message ID	Msg.no.	Msg.ty			
ſ	23.01.2018	10:07:58	Job started	00	516	s			
	23.01.2018	10:07:58	Step 001 started (program /PLGA/MOB ARCHIVE MRTOUR JOB, variant £000000000029, user ID ECERUTTI)	00	550	S			
	0.0 0.1 0.010			0.0	001	-			
	23.01.2018	10:07:58	✓ 3 finished tours out of 3 tours older than 15.10.2017 deleted. (test mode active)	00	001	1 1			
			3 finished tours out of 3 tours older than 15.10.2017 deleted. (test mode active) See bgRFC monitor for more details (especially regarding errors).	00	001	I			

Figure 55: Data Archiving Job Log 2/2

For more information about the bgRFC, please read the related documentation at <u>https://help.sap.com/saphelp_nw73EhP1/helpdata/en/48/927c2caa6b17cee10000000a421937/frameset.htm</u>

Another option for monitoring is the transaction *SLG1*. The result of each job and eventual errors or exceptions can be checked here.

Display logs								
🕄 😨 🛷 Technical Information 🚺 He	elp							
Date/Time/User	Number External ID	Object text	Subobject Text	Transaction	Program		Log number	
▽ ■ 22.01.2018 16:11:42	1 0000000000000000	PROLOGA Mobile OnSite Billing	Archiving meter reading data		SAPMSSY1	Dialog proces	. 0000000000000258854	
Problem class Other	1							
22.01.2018 16:11:42	1 0000000000000000	PROLOGA Mobile OnSite Billing	Archiving meter reading data		SAPMSSY1	Dialog proces	. 0000000000000258856	
22.01.2018 16:11:42	1 000000000000000	PROLOGA Mobile OnSite Billing	Archiving meter reading data		SAPMSSY1	Dialog proces	. 0000000000000258855	
22.01.2018 16:13:10	1 000000000000000	PROLOGA Mobile OnSite Billing	Archiving meter reading data		SAPMSSY1	Dialog proces	. 0000000000000258857	
22.01.2018 16:13:10	1 000000000000000	PROLOGA Mobile OnSite Billing	Archiving meter reading data		SAPMSSY1	Dialog proces	. 0000000000000258859	
22.01.2018 16:13:10	1 000000000000000	PROLOGA Mobile OnSite Biling	Archiving meter reading data		SAPMSSY1	Dialog proces	. 0000000000000258858	
47 i 🖴 😽 🛗 🔀 🏹 🖬 🔀 🖓 🖬 i		0 01						
Type Message Text								
Archiving: Tour 4008 from 11.01.20	016 (MRU ABLM1101, meter reader	22) was deleted.						
▷ 22.01.2018 16:13:10 ▷ 22.01.2018 16:13:10 ▷ 22.01.2018 16:13:10	1 000000000000000000000000000000000000	PROLOGA Mobie OnSte Biling PROLOGA Mobie OnSte Biling PROLOGA Mobie OnSte Biling	Archiving meter reading data Archiving meter reading data		SAPMSSY1 SAPMSSY1	Dialog proces Dialog proces	. 0000000000000258857 . 00000000000000258859	

Figure 56: Data Archiving in SLG1