Public

SAP Teched 2022
IN263 - Onboard and Manage New Trading Partners Using SAP Integration Suite

Exercise

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THE BEST RUN

TABLE OF CONTENTS

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THE BEST RUN

0 INTRODUCTION

In this session, you will learn how to onboard a new Trading Partner by using the following capabilities of the Integration Suite:

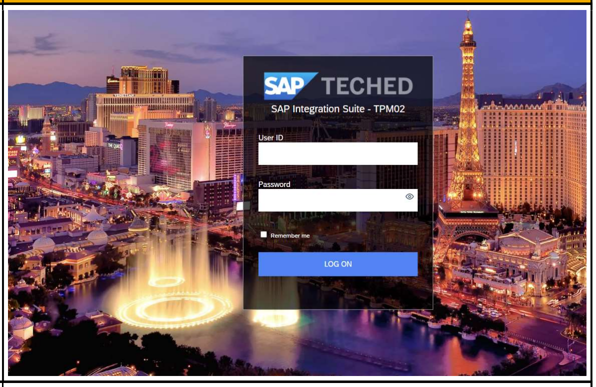
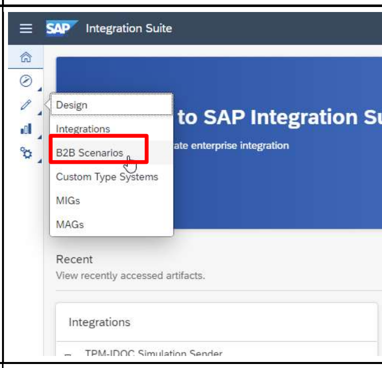
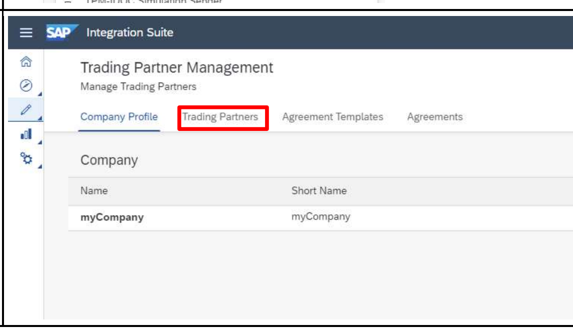
- Integration Advisor
- Trading Partner Management
- Cloud Integration

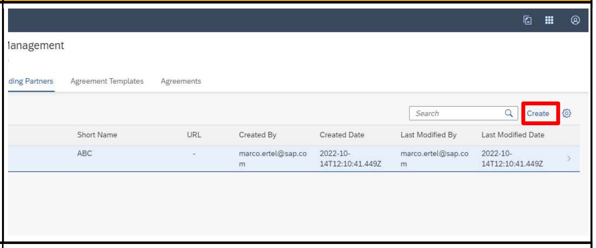
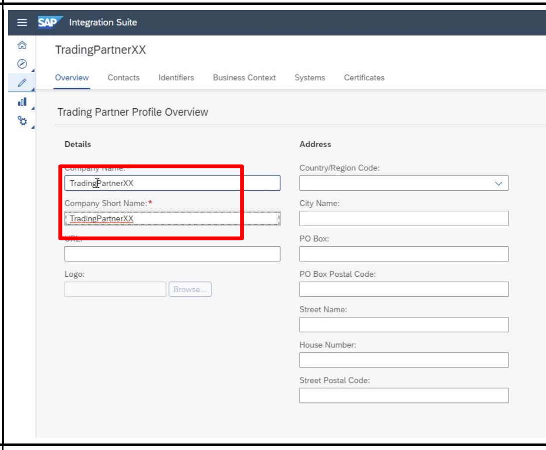
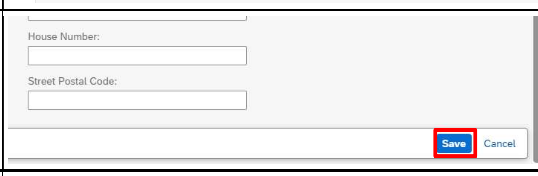
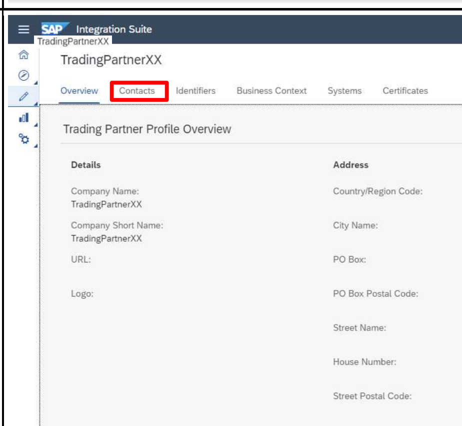
To make this session a successful one for all attendees, we recommend a good understanding of data structures (e. g. IDoc, SOAP, X12 or EDIFACT) along with some understanding of the SAP Cloud Integration. The business process that we will simulate in this exercise depicts the transfer of an Order using Idoc as a format over Cloud Integration to a (simulated)Trading Partner as an X12 850 (Purchase Order). To minimize the additional effort for you, the Idoc order is already prepared and will be directly sent to Cloud Integration as soon as you deploy your integration flow. The output will here not send to a real Trading Partner system but to the mail address you specify during the exercise.
Usually, when onboarding business partners you need to define interfaces – for each of them. Once defined, you can proceed modelling the mappings in need and document all pieces. Afterwards, you build an integration flow where you have to doublecheck the incoming structure, implement the mapping and execute further checks on the outbound structure. This step, you are obliged to do repeatedly for each of your business partners. Last, not least, you need to configure the outbound connection for each of your integration flows in your sending system.
With the usage of the Integration Advisor, developing and documenting of the structures needed will be much easier and faster than before as the Integration Advisor is using a machine learning process on top of the knowledge base, which contains the knowledge of all already implemented integrations and many type libraries. In this first part of the exercise, the creation of the structures and mappings in the Integration Advisor is already done. In a the X part of the exercise you also have to work on the MIG (interface) and on the MAG (mapping).

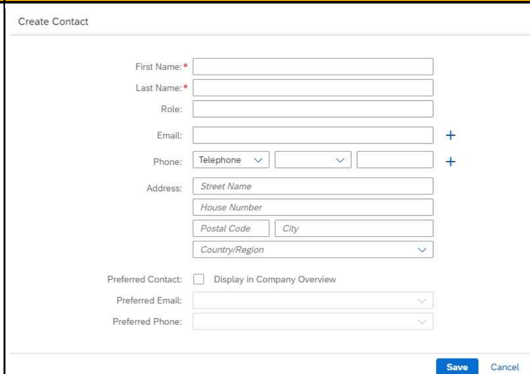
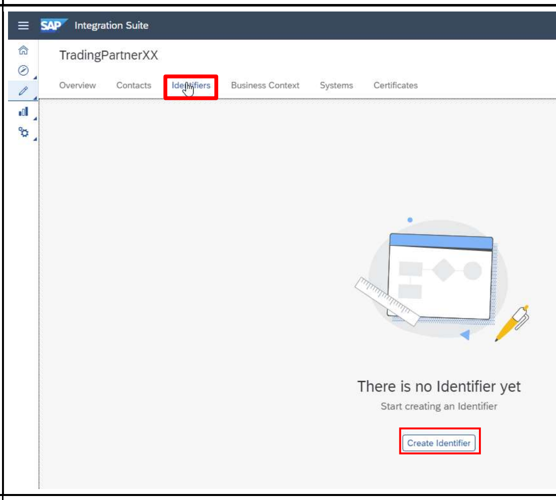
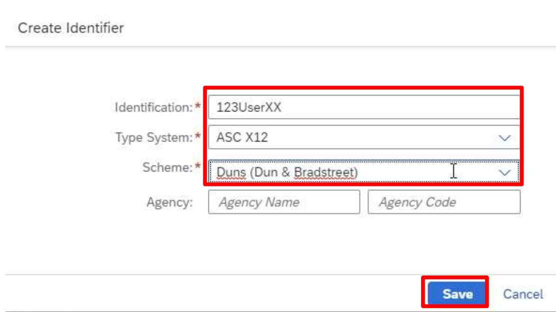
1 EXERCISE 1

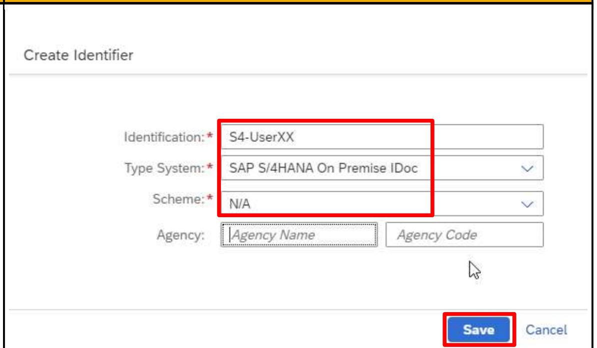
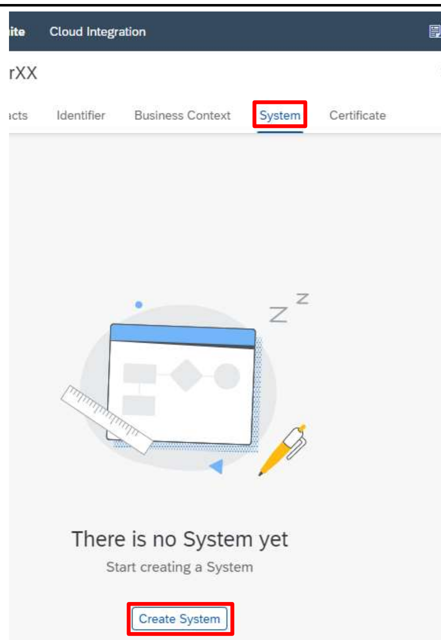
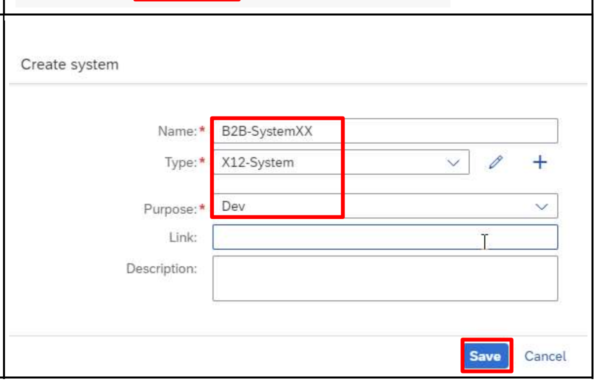
1.1 Create new Trading Partner

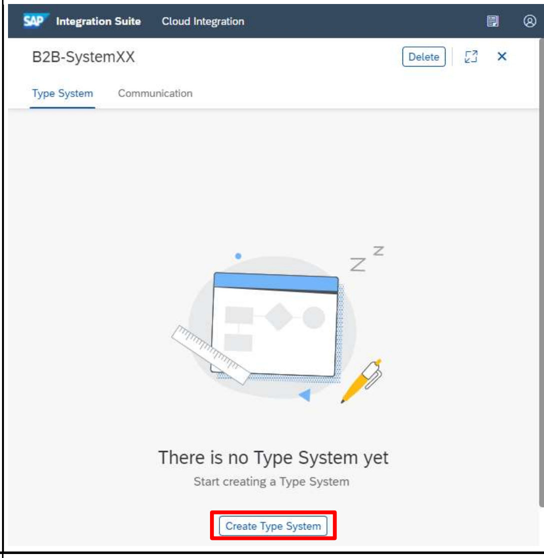
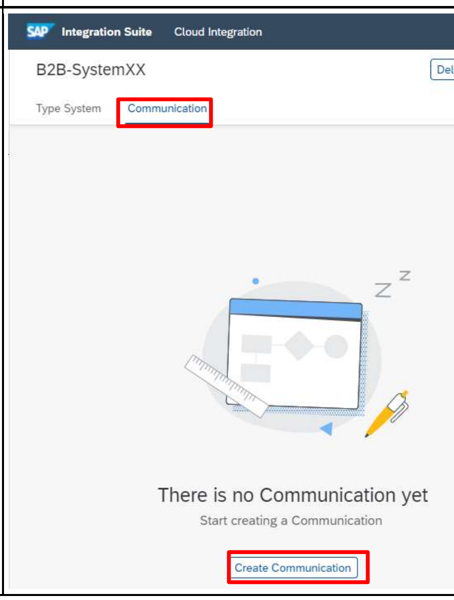
We have two tenants for this exercise. For the Groups 1-30 please use Tenant 1 and for the Groups 31-60 please use Tenant 2
Tenant 1: https://teched-tpm01.integrationsuite.cfapps.us10-002.hana.ondemand.com/
Tenant 2: https://teched-tpm02.integrationsuite.cfapps.us10-002.hana.ondemand.com/
For the User ID please use: UserXX (with XX the Number of your group)
As Password please use: Welcome1

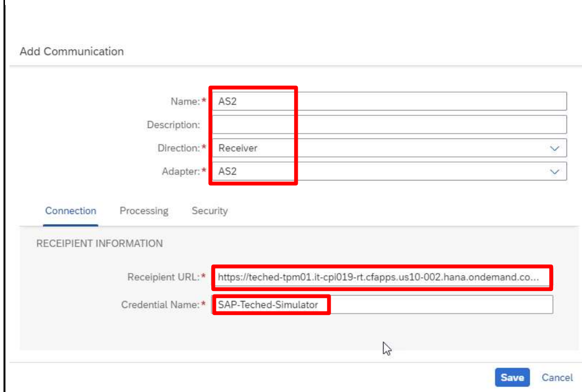
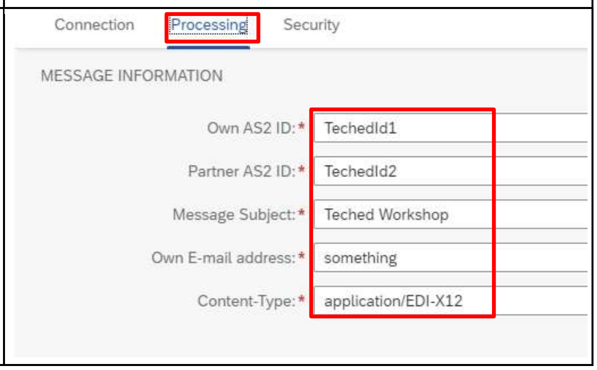
Explanation	Screenshot
1. Log on to the Integration Suite tenant with your system details provided to you by the instructors.	
2. Navigate to *Design* and select *B2B Scenarios*.	
3. As you want to onboard a new Trading Partner switch to the tab *Trading Partners*.	

<table>
<tr><th>Explanation</th><th>Screenshot</th></tr>
<tr><td>4. Select Create to create a new Trading Partner.</td><td>
</td></tr>
<tr><td>5. On the following screen, you need to maintain general data for the new trading partner as follows:
Company Name: TradingPartnerXX (with XX your group number)
Company Short Name: TradingPartnerXX (with XX your group number)
6. All the other fields are optional.</td><td>
</td></tr>
<tr><td>Please save the newly created Trading Partner.</td><td>
</td></tr>
<tr><td>7. Switch to the Contacts tab and select Create Contact.</td><td>
</td></tr>
</table>

Explanation	Screenshot
8. On the *Contacts* tab, you can optionally add names and details of persons which are responsible on the Trading Partner side.	
9. Navigate to the tab *Identifier* and select *Create Identifier*.	
10. Every Trading Partner needs at least two identifiers, one which is used in the X12 exchange and a second which is used in the S/4 System. Maintain the first identifier as follows: Use Identification *123UserXX* (with *XX* your group number), select Type System *ASC X12*, and Scheme *Duns (Dun & Bradstreet)*, then save the new identifier.	

Explanation	Screenshot
Maintain the second identifier as follows: Use Identification *S4-UserXX* (with *XX* your group number), select Type *System SAP S/4HANA on Premise IDoc*, and Scheme *N/A*, then save the new identifier.	
11. The Business Context is at the moment optional, but we need to create a system where the supported type system and communication details have to be maintained. Navigate to the tab *System* and select *Create System*.	
12. Please add the following Details: Name *B2B-SystemXX* (with *XX* your group number), Type *X12-System*, Purpose *Dev* and save the new system.	

Explanation	Screenshot
13. Select the beforehand created system to create the supported ~~type~~ Type ~~system~~System. On tab *Type System*, select *Create Type System*.	
Use *ASC X12* and Version 00*4010*, then save the new Type System.	
14. Next, you need to maintain the communication details. Switch to tab *Communication* and select *Create Communication*.	

Explanation	Screenshot
15. As this Trading Partner will receive (a) Purchase Order(s) with the AS2 protocol, you need to create an AS2 Receiver. As you have to authenticate at the AS2 Receiver you need here a credential (*SAP-Teched-Simulator)* and the Endpoint of that Trading Partner (please use: *https://teched-tpm01.it-cpi019-rt.cfapps.us10-002.hana.ondemand.com/as2/as2)*	
16. AS2 needs additional information which you have to maintain on the Tab *Processing*. The IDs (Own and Partner) must start with *Teched*. You can of course add something after that string. For the mail address you can in this exercise use any text. For the Content-Type use *application/EDI-X12*	

1.2 Use Agreement Template to create an agreement

With the Agreement, you instantiate the agreement template where you need to fill out the details of the trading partners. ~~Especially the Identifiers might be irritating if you use TPM for the first time.~~ TPM differentiates between ~~IDs~~ Identifiers which will be used in the system of the company and ~~IDs~~ Identifiers which are used in our example in the IDoc~~.~~ message. Let's have a look at the relevant part of our IDoc Payload:

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Commented [LM1]: Ich habe unseren Docu dazu verlinkt wie Identifiers bei uns benutzt werden

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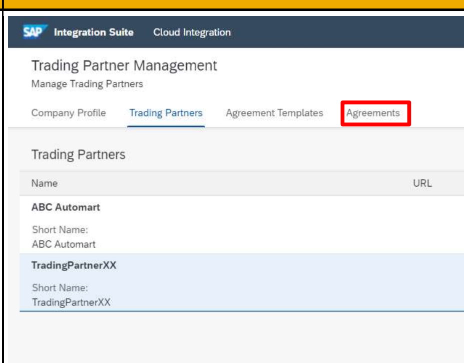
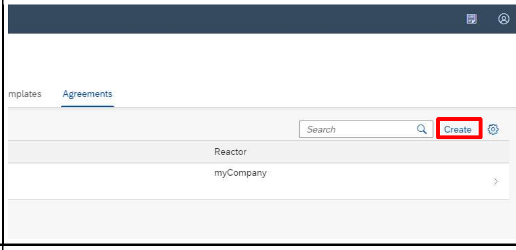
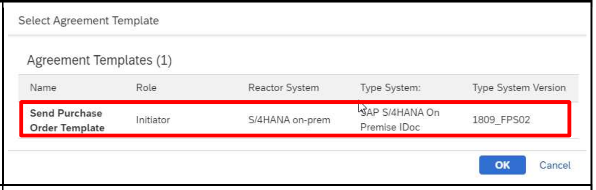
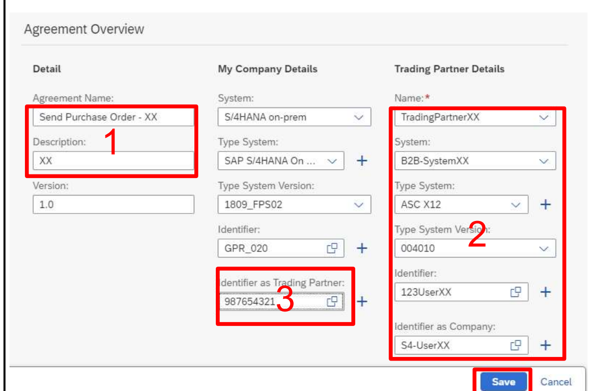
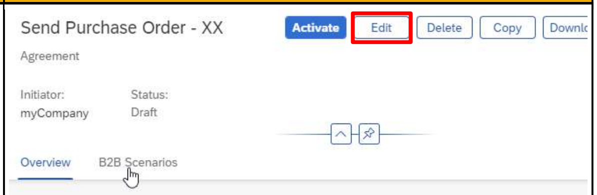
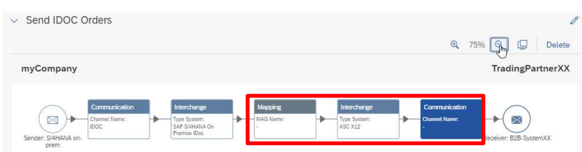
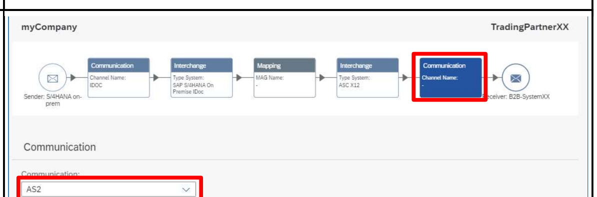
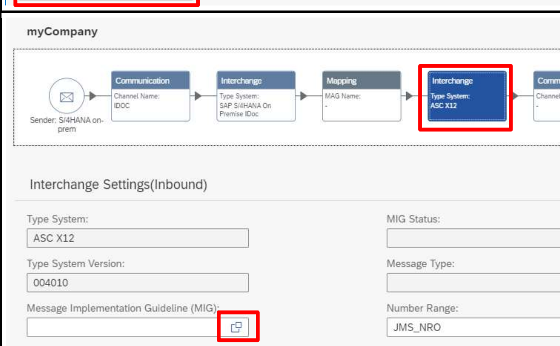
<ORDERS05 xmlns="urn:sap-com:document:sap:idoc:soap:messages">
<IDOC BEGIN="1">
<EDI_DC40 SEGMENT="1">
<TABNAM>EDI_DC40</TABNAM>
<DOCNUM>0000000000000002</DOCNUM>
<DOCREL>1809_FPS02</DOCREL>
<DIRECT>2</DIRECT>
<OUTMOD>3</OUTMOD>
<IDOCTYP>ORDERS05</IDOCTYP>
<MESTYP>ORDERS</MESTYP>
<MESCOD>EX</MESCOD>
<MESFCT>A48</MESFCT>
<STD></STD>
<STDVRS>4010</STDVRS>
<STDMES>850</STDMES>
<SNDPOR>SUBSYSTEM</SNDPOR>
<SNDPRT>KU</SNDPRT>
<SNDPRN>GPR_020</SNDPRN>
<RCVPOR>SAPMAT</RCVPOR>
<RCVPRT>LS</RCVPRT>
<RCVPRN>S4-UserXX</RCVPRN>
<CREDAT>20221007</CREDAT>
<CRETIM>071312</CRETIM>
<REFINT>004301228</REFINT>
<REFGRP>4301367</REFGRP>
<REFMES>ORDERS05</REFMES>
<SERIAL>20221007071312</SERIAL>

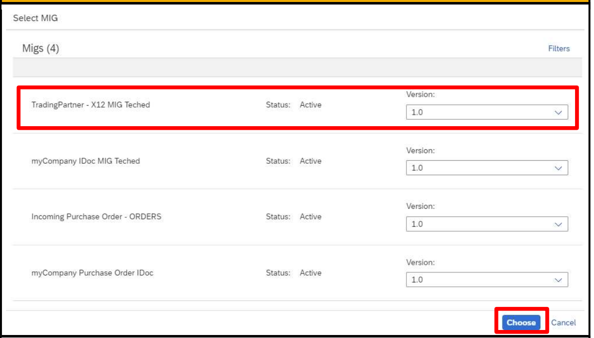
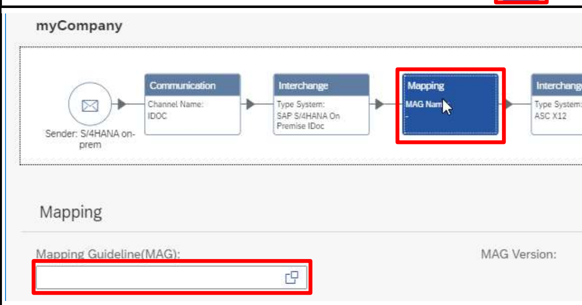
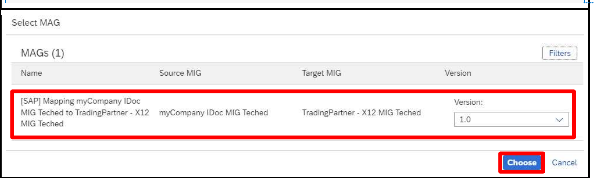
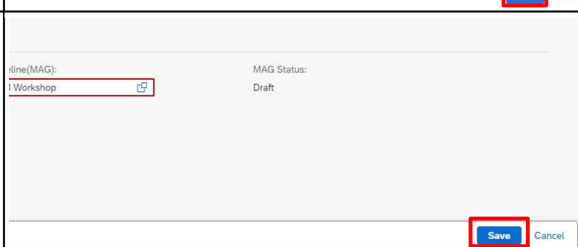
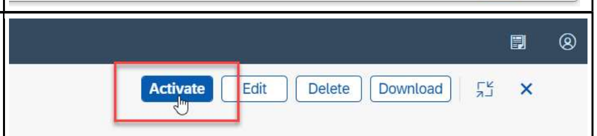
GPR_020 is the Identifier which you can find in the My Company Details.
S4-UserXX can be found in the Details of the Trading Partner under "Identifier as Company" (as usual the XX will then be your group number).

Explanation	Screenshot
1. Navigate back to *Design → B2B Scenarios*, and switch to the tab *Agreements*.	

Explanation	Screenshot
2. On the *Agreements* tab, create a new Agreement.	
3. In the upcoming dialog, select the existing Agreement Template *Send Purchase Order Template* and select *OK*.	
4. Please start with renaming the Agreement to *Send Purchase Order – XX* and change the Description. Now you need to specify with which Trading Partner you want to communicate by entering the following details in the following order (with *XX* your group number): Maintain the Trading Partner Details with Name *TradingPartnerXX*, System *B2B-SystemXX*, Type System *ASC X12*, Type System Version *4010*, Identifier *123UserXX*, and Identifier as Company *S4XX*. Finally, select the Identifier as Trading Partner *987654321* from the drop-down. Hint: use the drop-down help but start with the Trading Partner Details and select the Identifier as Trading Partner as the last one. When done, save your settings.	

Explanation	Screenshot
5. For the newly created agreement, switch to the *Edit* Mode	
6. Navigate to the tab *B2B Scenarios*.	
7. There you see the transactions for the scenario. In our exercise, it is only one transaction (one-way). In general, it could be several and those could also be two-way transactions. The first two elements within the flow (note, flow goes from left to right) Communication and Interchange are pre-filled from the Agreement Template, but the others have to be filled out now.	
8. Please start on the right by clicking on the first *Communication* box within the flow and select *AS2* for Communication.	
9. Please click now on the *Interchange* box to define the Message Implementation Guideline. Select the drop-down list. Note: The Message Implementation Guideline have been already prepared by using the Integration Advisor capability of SAP Integration Suite.	

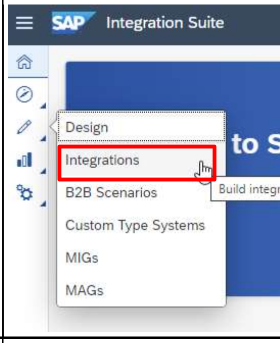
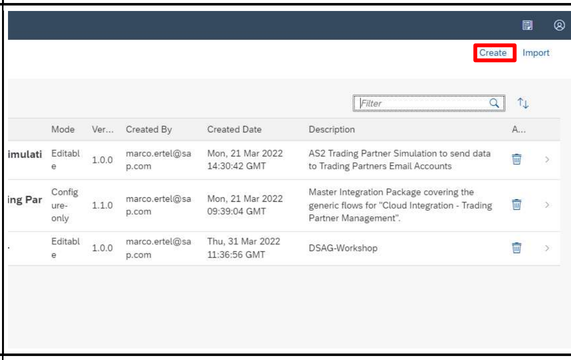
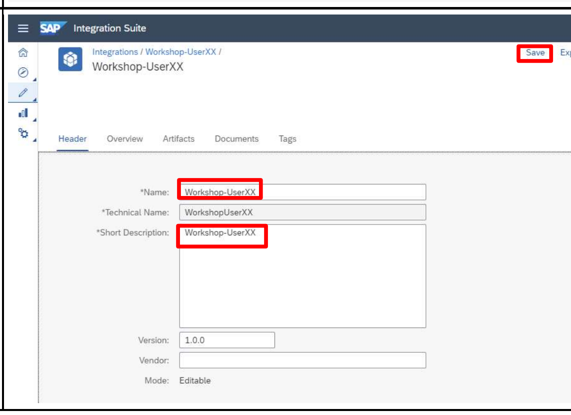
Commented [LM2]: Update ab T9 RTC

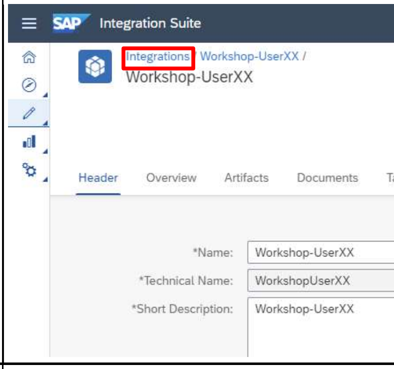
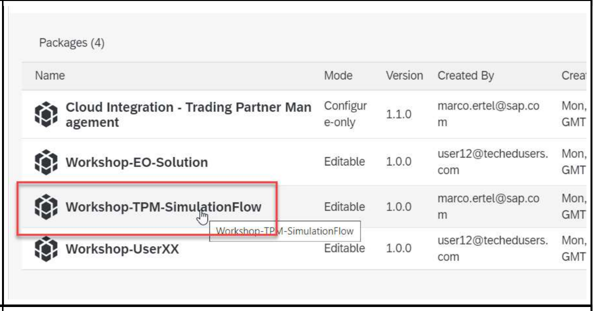
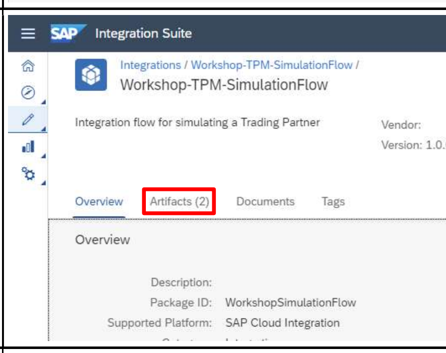
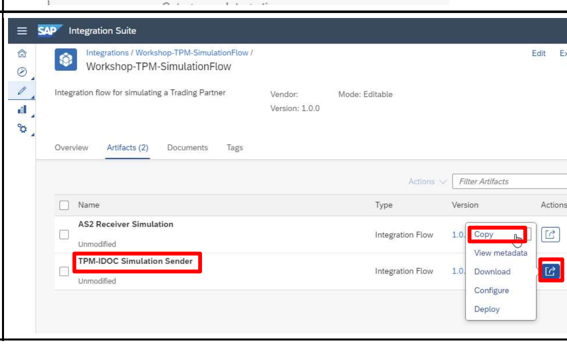
Explanation	Screenshot
10. In the pop up select *TradingPartner – X12 MIG Teched* and select *Choose*.	
11. Last step for the definition of the Agreement is to select the *Mapping* box (which is also prepared by using the Integration Advisor). Select the drop-down list.	
12. In the pop up select *[SAP] Mapping myCompany IDoc MIG Teched to TradingPartner - X12 MIG Teched* and select *Choose*.	
13. Please save now the Agreement.	
14. Activate the Agreement to publish all necessary data to the Partner Directory of Cloud Integration. With this, the Status will change from *Draft* to *Active*.	

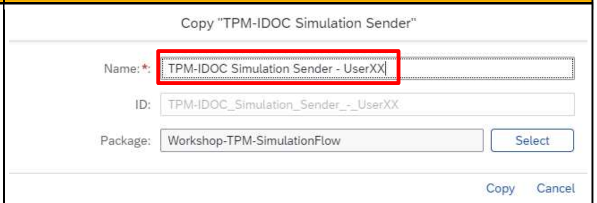
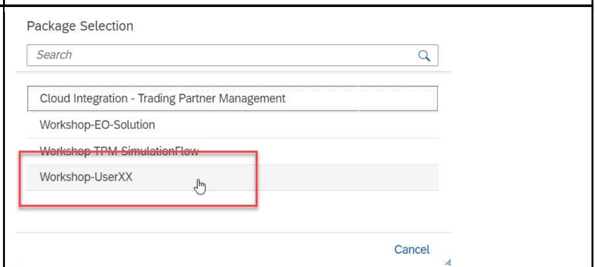
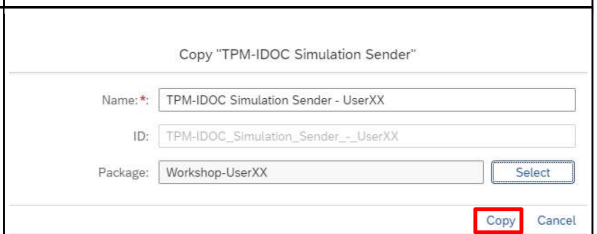
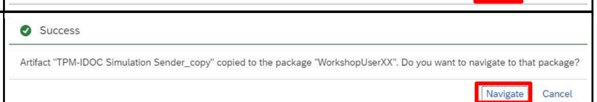
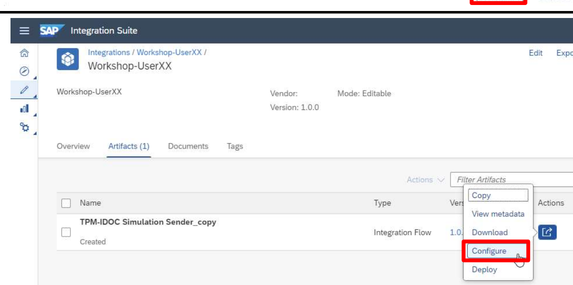
Commented [LM3]:

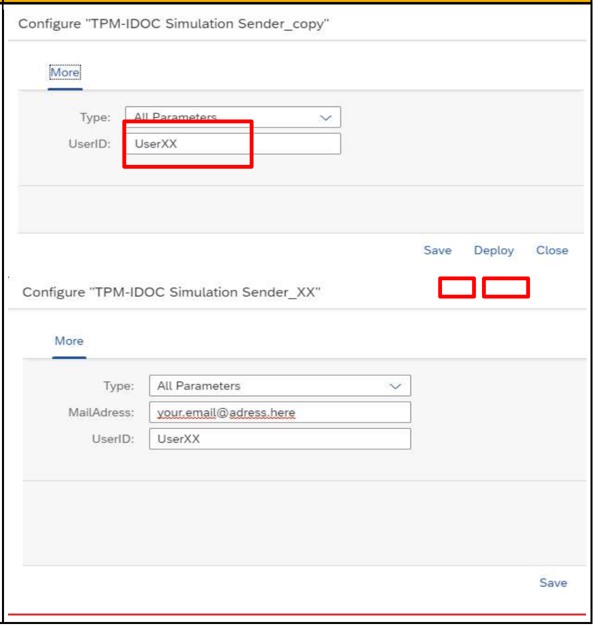
1.3 Prepare Simulation Flow and send a message

As we have defined that our Company will send an ~~Idoc~~ IDoc Order using the IDOC Protocol we need to simulate this sender. For this we have built an integration flow which you have to copy to a new package, configure and deploy. The IDoc message is ~~send~~ sent as soon as the integration flow is deployed.

<table>
<tr><th>Explanation</th><th>Screenshot</th></tr>
<tr><td>1. Navigate to Design -> Integrations.</td><td>
</td></tr>
<tr><td>2. If you haven’t done so before, create a new Package by clicking Create.</td><td>
</td></tr>
<tr><td>3. Use Workshop-UserXX for Name and Short Description with XX your user Id and save the package.</td><td>
</td></tr>
</table>

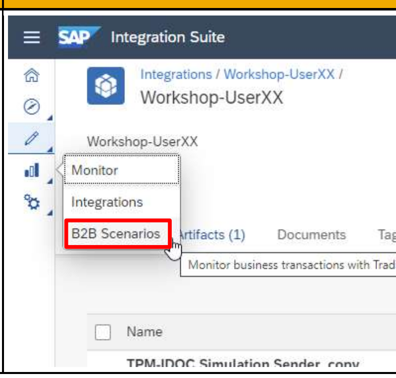
<table>
<tr><th>Explanation</th><th>Screenshot</th></tr>
<tr><td>4. Navigate back to the list of existing packages by clicking Integrations.</td><td>
</td></tr>
<tr><td>5. Open the package Workshop-TPM-SimulationFlow.</td><td>
</td></tr>
<tr><td>6. In the package, switch to tab Artifacts.</td><td>
</td></tr>
<tr><td>7. Copy the integration flow TPM-IDOC Simulation Sender to your own package. Select Copy from the Actions menu of the TPM-IDOC Simulation Sender integration flow.</td><td>
</td></tr>
</table>

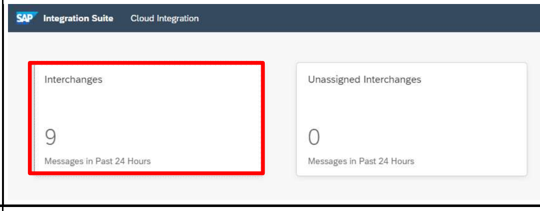
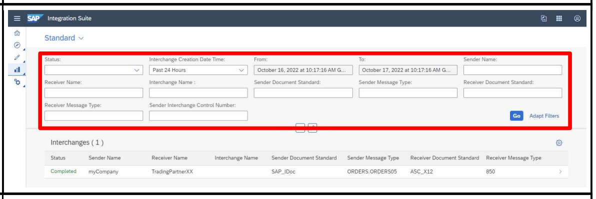
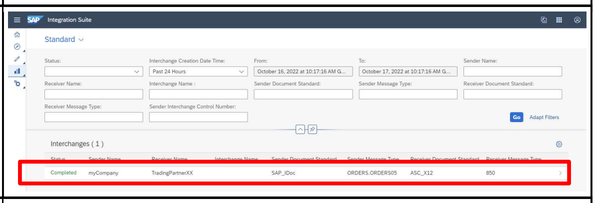
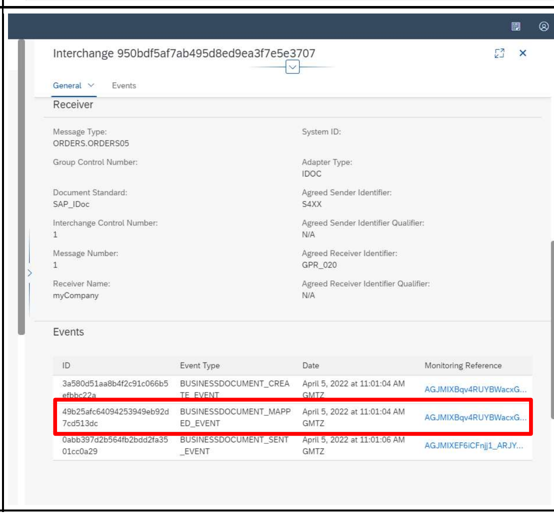
Explanation	Screenshot
8. In the popup, change the name to *TPM-~~AS2~~ IDOC Simulation Sender - UserXX* (with *UserXX* using your ID). Then select *Select* to change the target package.	
9. In the upcoming package selection screen, select your package *Workshop-UserXX*.	
10. Next, select *Copy*.	
11. On the next dialog, select *Navigate* to open your package.	
12. You now have to *Configure* the integration flow. Select *Configure* from the *Actions* menu of the *TPM-IDOC Simulation Sender - UserXX* integration flow.	

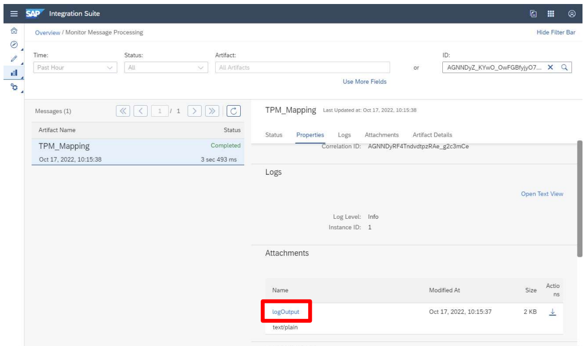
Explanation	Screenshot
13. Please configure the integration flow with your mail address and UserID *UserXX*. The transformed message will be sent to this Mailadress. Then select *Save* and *Deploy*. Once the integration flow is successfully deployed, the message is sent and should appear in your mailbox a few seconds later.	

1.4 Monitor the scenario

As the sent IDoc message is now sent to the generic integration flow and from there via the AS2 Adapter to other (already prepared) integration flow you should get an email in your inbox with the payload as an X12 850 message. To monitor B2B Scenarios let's have a look at the B2B Monitoring.

Explanation	Screenshot
1. Navigate to the B2B Monitoring by selecting *Monitor → B2B Scenarios*.	

Explanation	Screenshot
2. On the tiles you see how many interchanges had been processed in the last 24 hours. Click on the left tile.	
3. Now you see all messages from the last 24 hours. You can restrict them by using the filters.	
4. Click on one of your *Completed* interchanges.	
5. On this page, you see more details like Sender Name, Adapter Type, … and you can also jump to the technical monitoring if this is necessary.	

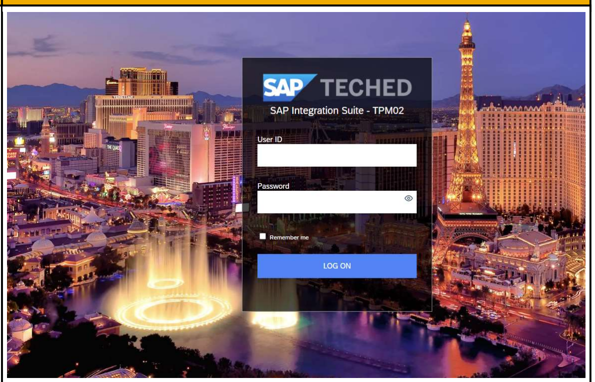
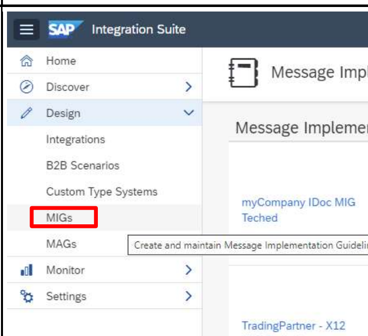
Explanation	Screenshot
6. Depending on the Event you've selected, you see here more details on a technical level to solve issues if necessary.	

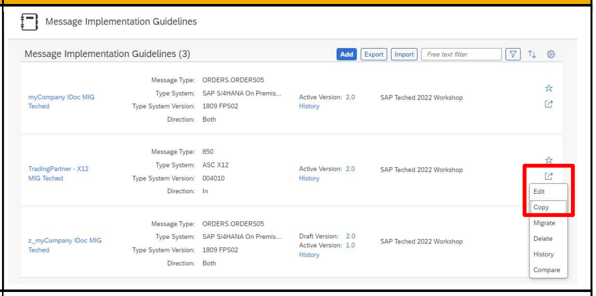
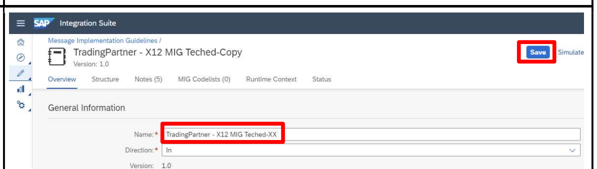
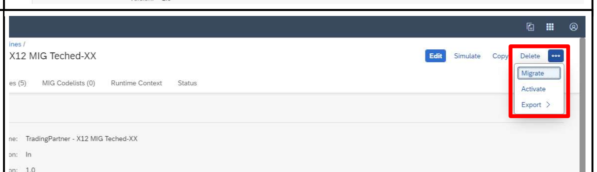
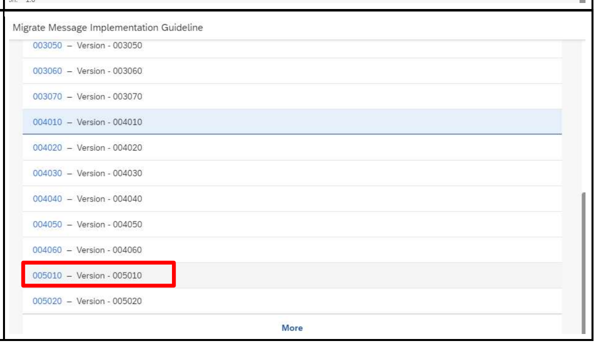
Congrats, you have successfully completed the first exercise.

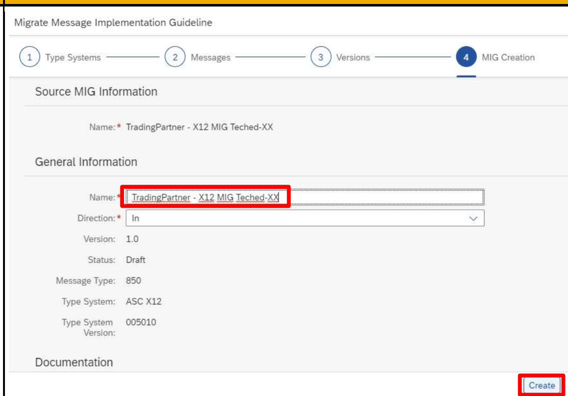
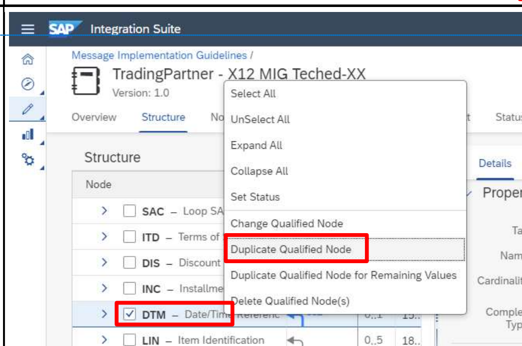
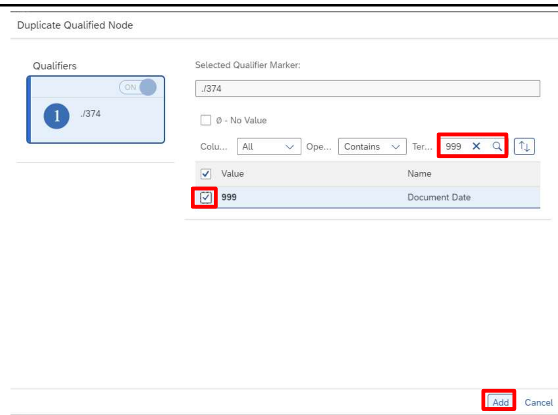
2 OPTIONAL: EXERCISE 2

2.1 U~~u~~pdate MIG of the Trading Partner to a new Version

Partner hat Version von 4010 auf 5010 geändert, Partner hat zusätzliches DTM (999) eingefügt.

Explanation	Screenshot
1. Log on to the Integration Suite tenant with your system details provided to you by the instructors.	
2. Navigate to the MIGS (Design->MIGs)	

<table>
<tr><th>Explanation</th><th>Screenshot</th></tr>
<tr><td>3. Copy the MIG TradingPartner – X12 MIG Teched</td><td>
</td></tr>
<tr><td>4. Switch in the copied MIG to the Edit Mode</td><td>
</td></tr>
<tr><td>5. Navigate to the Overview Tab and rename it to TradingPartner - X12 MIG Teched-XX (with XX your group number) and save the MIG.</td><td>
</td></tr>
<tr><td>6. Now you can migrate the MIG from version 4010 to version 5010. Click ~~on~~ the ~~...~~<u>Overflow button “…”</u> then Migrate.</td><td>
</td></tr>
<tr><td>7. Click on Version <u>00</u>5010.</td><td>
</td></tr>
</table>

<table>
<tr><th>Explanation</th><th>Screenshot</th></tr>
<tr><td>8. Change the name by deleting the migrated path that it will have the name TradingPartner – X12 MIG Teched-XX (with XX your group number).
Then click on Create.</td><td>
</td></tr>
<tr><td>9. Now we ~~need~~ want to ~~an~~ addi~~tion~~ a new DTM node, qualified with value 999 (Document Date). To create this, select the DTM Node and then right-click for the context menu and select there the entry Duplicate Qualified Node.</td><td>
</td></tr>
<tr><td>10. Search now for 999, select the checkbox and press Add.</td><td>
</td></tr>
</table>

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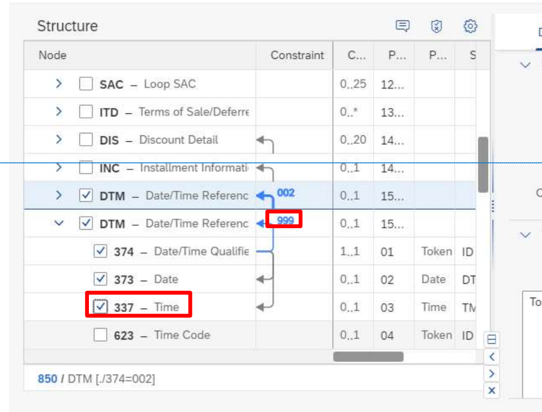
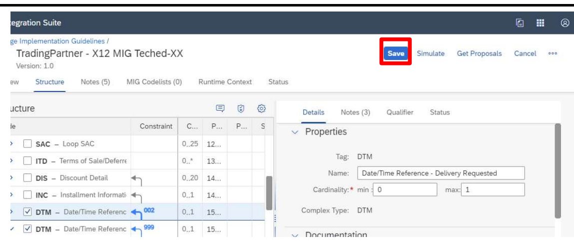
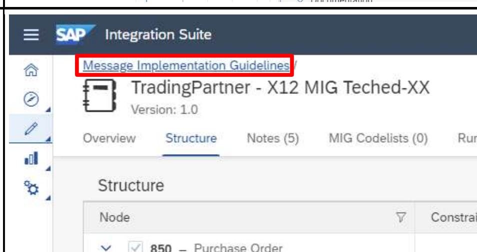
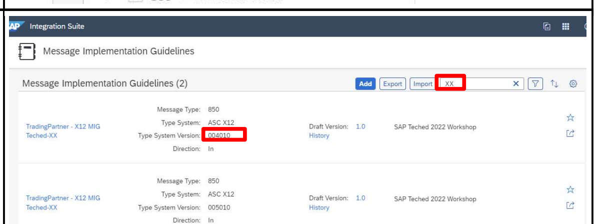
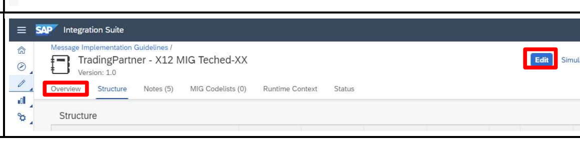
Explanation	Screenshot
11. This adds another DTM node with the Qualifier value 999 which has ~~now~~ to be modified as the Trading Partner also wants to have the time (337) in the message. ~~Open~~ Collapse the DTM Node and checkmark the *337*.	
12. Save the MIG.	
13. Rename the 4010 MIG to make the next steps easier. For this go to the ~~overview~~list of MIGs.	
14. Search your MIG by entering the group number in the search field and select the one with the version 4010. Open that MIG.	
15. Switch to the *Edit* Mode and navigate to the *Overview*	

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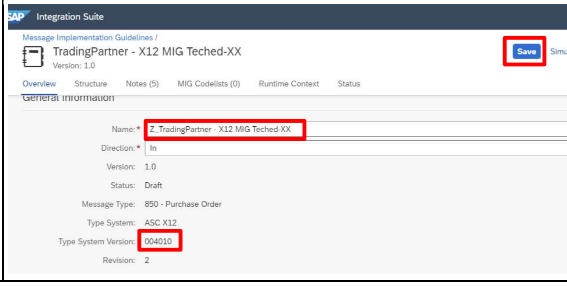
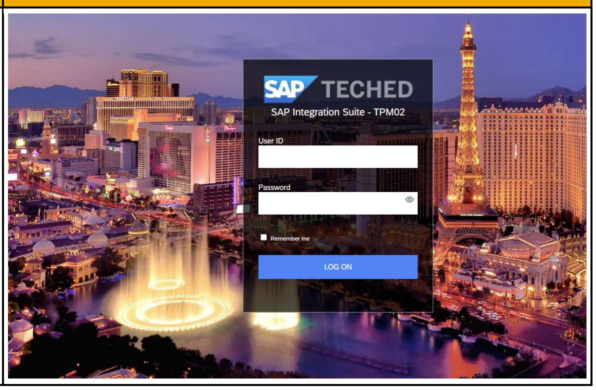
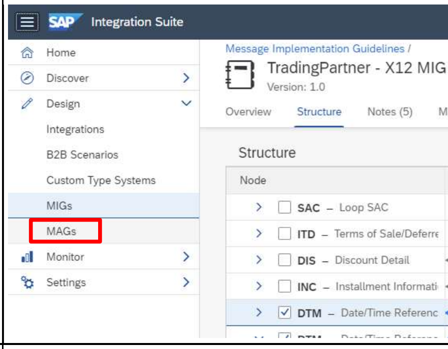
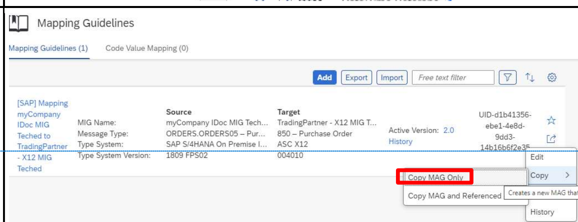
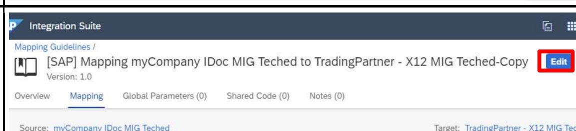
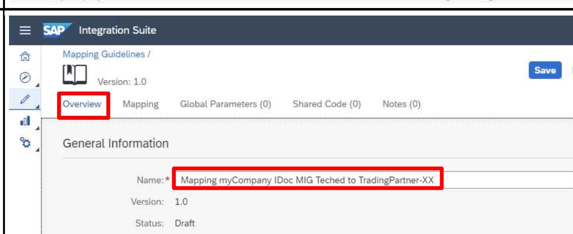
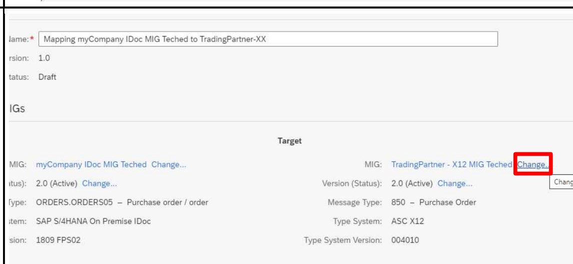
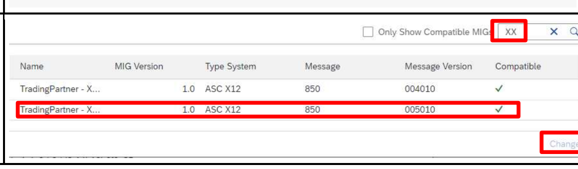
Explanation	Screenshot
16. Be sure it is the one with the version 004010(!) and then rename it to *Z_TradingPartner - X12 MIG Teched-XX* And press *Save*.	

2.2 Ccreate a NEW MAG to fit the updated MIG

und möchte anderes Datumsformat, sowie ein paar weitere Mappingänderungen:

copy MAG auf eigenes MAG (und umbenennen)
austausch des Target MIG durch das neu erstellte MIG
ändern des mappings
-löschen des Mappings von credat nach BEG 374
-anlegen E1EDK02_001->DATUM nach BEG373
-anlegen E1EDK03_002->DTM(374=002)->373
-anlegen E1EDK03_12 DATUM->DTM(374=999)->373
-anlegen E1EDK03_12 UZEIT->DTM(374=999)->374
Datumsformat ändern

Explanation	Screenshot
1. Log on to the Integration Suite tenant with your system details provided to you by the instructors.	

Explanation	Screenshot
2. Navigate to the MAGs (Design->MAGs)	
3. Copy the original MAG (*[SAP] Mapping myCompany IDoc MIG Teched to TradingPartner - X12 MIG Teched)*. Please **copy only the MAG** (see Screenshot) as otherwise the MIGs also will be copied.	
4. In the copied MAG switch to ~~the~~ *Edit* Mode.	
5. ~~And n~~Navigate to the Overview Tab to rename the MAG *Mapping myCompany IDoc MIG Teched to TradingPartner-XX* (with XX your group number)	
6. Replace the Target MIG with the MIG you've created in Exercise 2.1 by clicking on the *Change* of the Target MIG.	
7. Enter your group Number in the search field. Then select the MIG with the Message Version 005010 and click on *Change.*	

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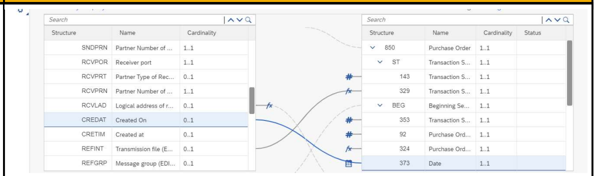
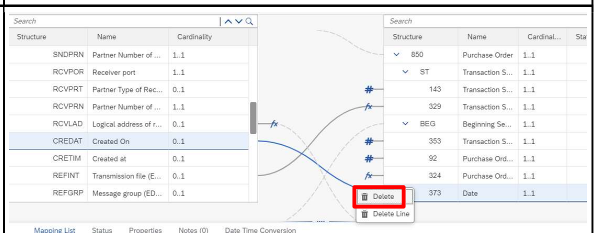
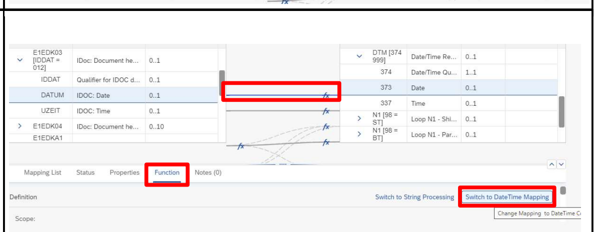
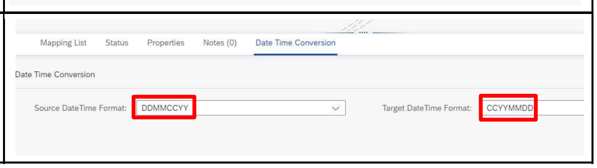
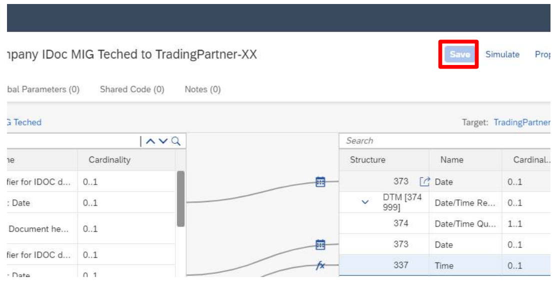
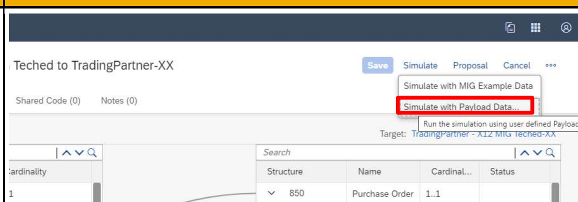
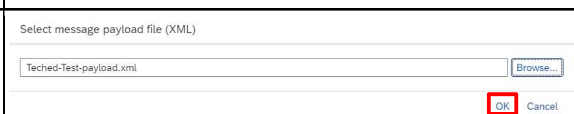
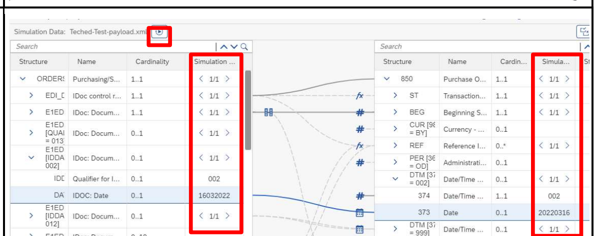
Explanation	Screenshot
8. Switch back to the Tab Mapping. Search for the Mapping from EDI_DC40->~~Credat~~ CREDAT to BEG->373	
9. Acknowledge the warning.	
10. Switch to the Mapping Tab of the source MAG and search for the connection from EDI_DC40->CREDAT to BEG->373 and do a click with the right mouse button on the line to delete.	
11. Now we need to create some new mappings: search for E1EDK03[IDDAT=012]->DATUM and connect this to DTM[374=999]->373 and UZEIT to 337.	
12. Select now the line connecting the two date fields and select function in the lower part and *Switch to DateTimeMapping*.	
13. Select for the Source Format: *DDMMCCYY* and for the target format *CCYYMMDD*	

Explanation	Screenshot
14. Save the MAG	

2.3 Simulate new MAG in IA

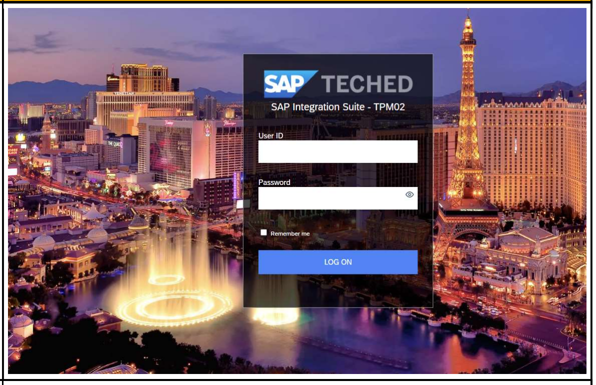
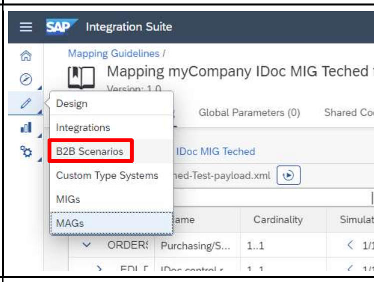
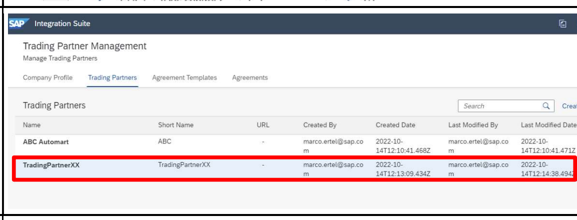
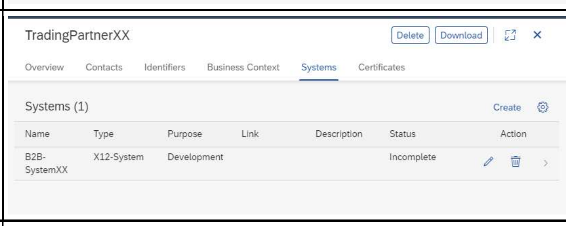
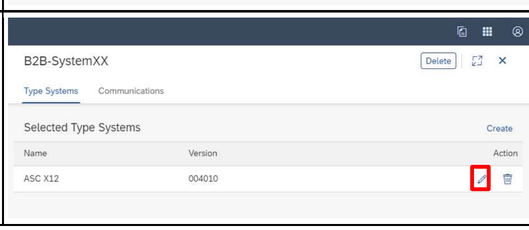
Directly in the Integration Advisor you can now simulate the mapping. Either with test data coming directly from the MIG or by uploading a payload.
The needed payload can be found here in github *Teched-Test-payload.xml*. Please download it.

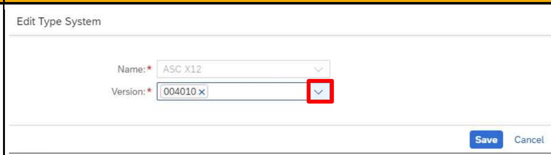
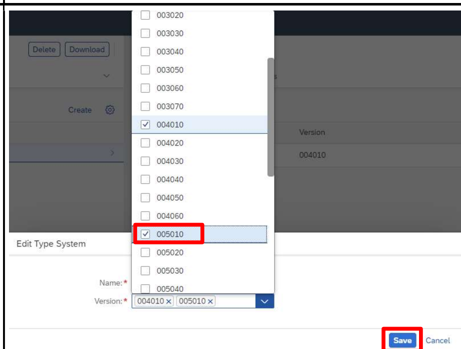
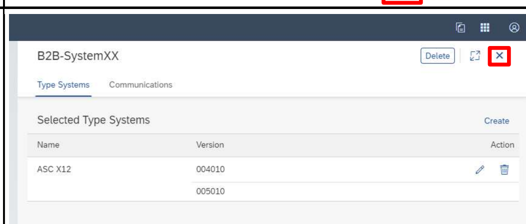
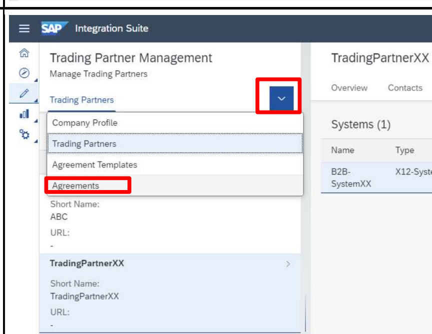
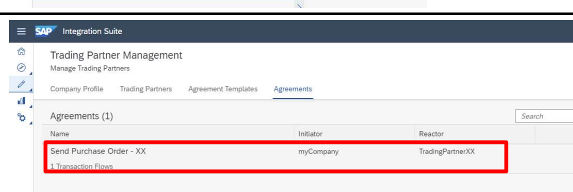
Explanation	Screenshot
1. Click now on the *Simulate* Button and select *Simulate with Payload Data*.	
2. Using the *Browse* Button navigate to the downloaded *Teched-Test-payload.xml*	
3. And press *OK*	
4. Now a new column on the source and target side of the mapping is added where the values from the payload and the result of the mapping is displayed. If you need to modify the mapping, you can easily rerun the simulation with the button	

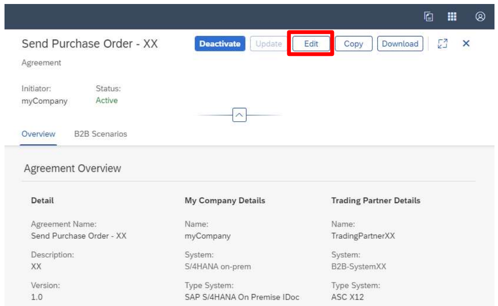
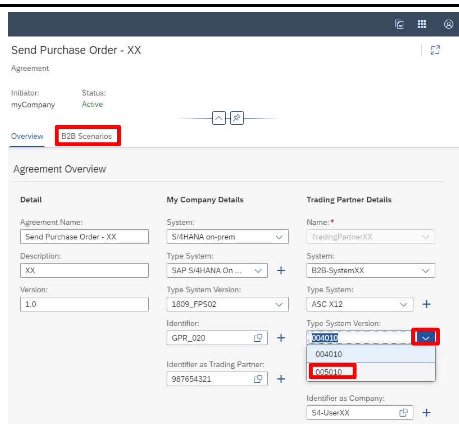
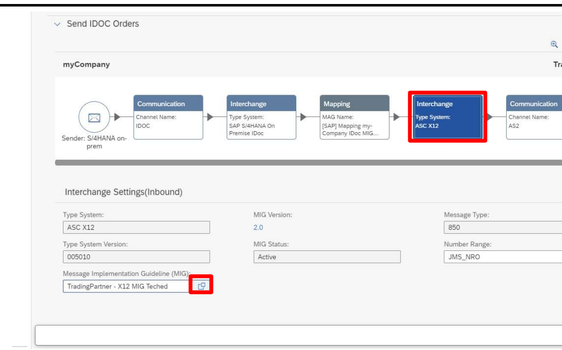
3 OPTIONAL: EXERCISE 3

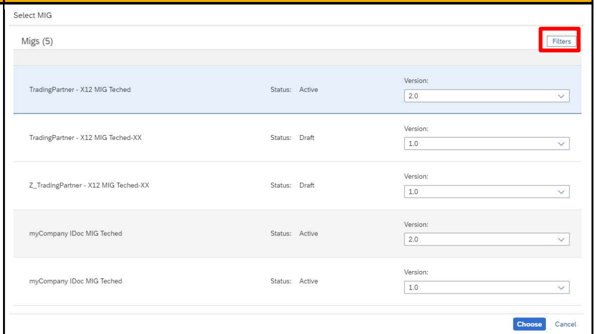
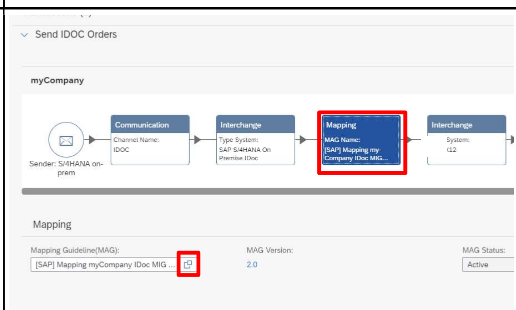
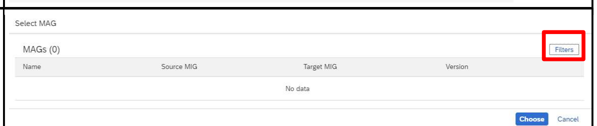
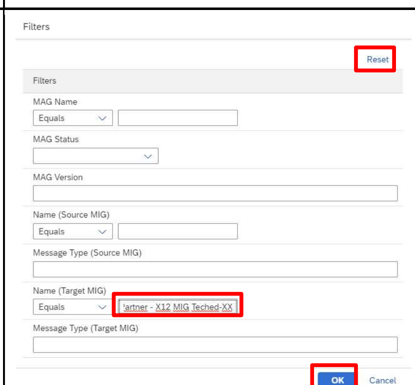
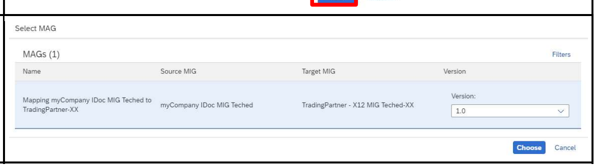
3.1 use new MIG and MAG in TPM

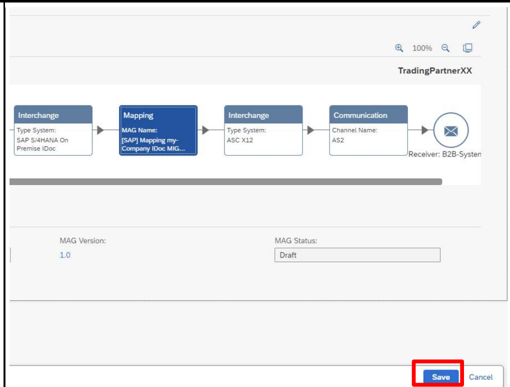
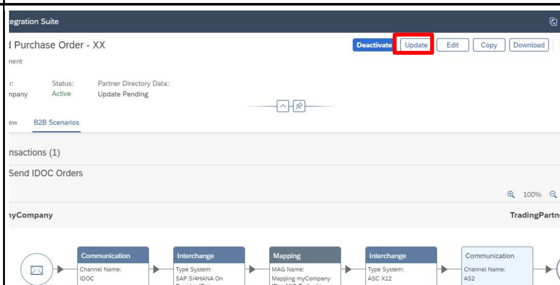
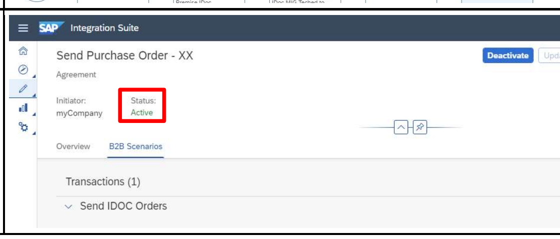
After you've now created a new Target MIG and a adjusted MAG this should be used also in the TPM.

Explanation	Screenshot
1. Log on to the Integration Suite tenant with your system details provided to you by the instructors.	
2. Navigate to the B2B Scenarios (*Design->B2B Scenarios*)	
3. As the Trading Partner now wants a message in the version 5010 this has to be added in its systems. Select your Trading Partner (*TradingPartnerXX* with XX your group number)	
4. Navigate to the Systems and open the B2B-SystemXX by selecting it.	
5. Now the Type System has to be modified. Please click on the pencil.	

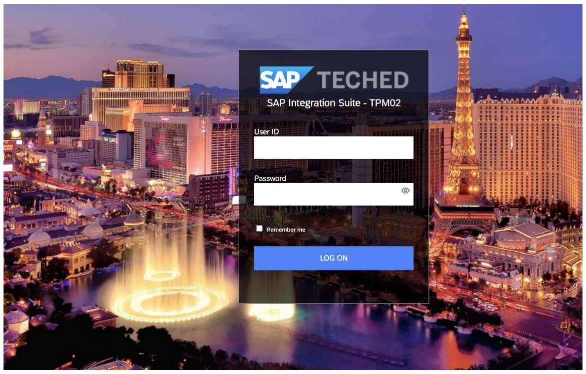
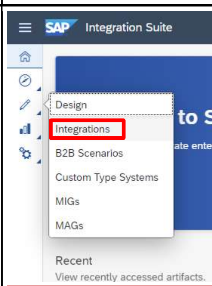
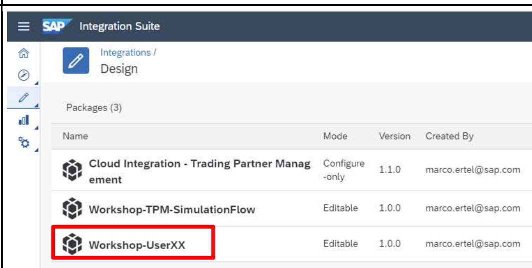
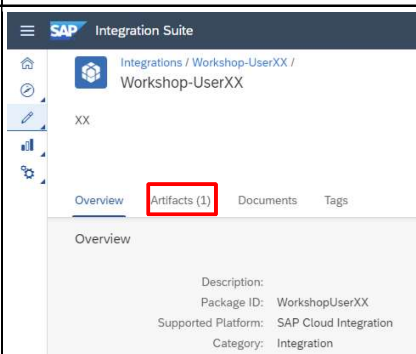
<table>
<tr><th>Explanation</th><th>Screenshot</th></tr>
<tr><td>6. Open the drop-down Box for the versions</td><td>
</td></tr>
<tr><td>7. And select version 005010 and save.</td><td>
</td></tr>
<tr><td>8. Navigate to your Trading Partner Agreement by closing the System</td><td>
</td></tr>
<tr><td>9. Then select the Agreements in the menu</td><td>
</td></tr>
<tr><td>10. Select your Agreement (Send Purchase Order - XX with XX your group number)</td><td>
</td></tr>
</table>

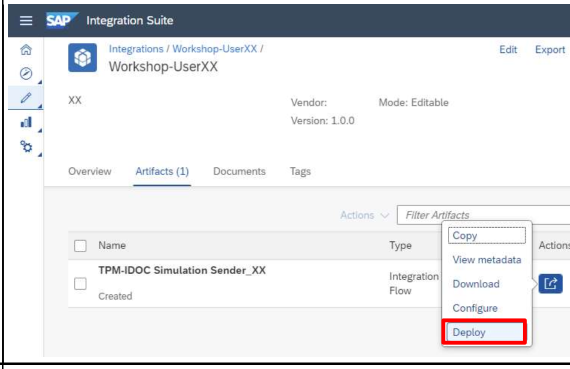
Explanation	Screenshot
11. Switch to the *Edit* Mode.	
12. Change now the used Type System Version of the Trading Partner from 4010 to 5010 using the dropdown and then navigate to the *B2B Scenarios*.	
13. There you have to exchange the used MIG and MAG. Let's start with the MIG. Select the right Interchange and then use the drop down for the MIG.	

Explanation	Screenshot
14. As there might be a lot of MIGs in the system you can use the *Filter* or if you know already the correct MIG (*TradingPartner – X12 MIG Teched-XX with XX your group number*) you can directly select it	
15. The newly created MAG has now to be assigned by clicking on the *Mapping* and then using the drop-down	
16. Please modify the filter.	
17. Reset the filter and enter the Name of the Target MIG (*TradingPartner - X12 MIG Teched-XX* with XX your group number)	
18. Select the MAG you've created in Exercise 2.2	

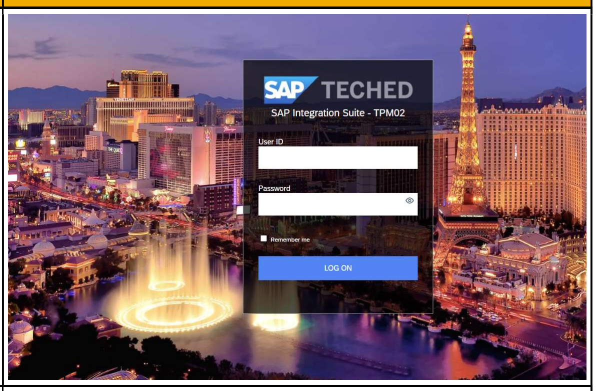
Explanation	Screenshot
19. The Agreement is now changed, needs to be saved.	
20. And the necessary data in the Partner Directory needs to be updated.	
21. Check if the update was successful.	

3.2 send new test message

<table>
<tr><th>Explanation</th><th>Screenshot</th></tr>
<tr><td>1. Log on to the Integration Suite tenant with your system details provided to you by the instructors.</td><td>
</td></tr>
<tr><td>2. Navigate to Design-> Integrations</td><td>
</td></tr>
<tr><td>3. Navigate to your package Workshop-UserXX (with your XX your group number)</td><td>
</td></tr>
<tr><td>4. In the Package navigate to the Artifacts</td><td>
</td></tr>
</table>

Explanation	Screenshot
5. Now deploy the iflow again which sends again a test message	
6. Now you should see a new mail in your inbox and also can use the monitoring features from chapter 1.4	

~~4 OPTIONAL: EXERCISE 4…IRGENDWAS IM MONITORING MIT DEN ACKS~~

~~Explanation~~	~~Screenshot~~
~~1. Log on to the Integration Suite tenant with your system details provided to you by the instructors.~~	

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~~Explanation~~	~~Screenshot~~