Dynamics
Advanced Field Service 3.1

Installation Guide

Document History

Version	Description	Author(s)	Date
1.0	Initial document	HSO Innovation AG	6-12-2019

Author: HSO Innovation AG
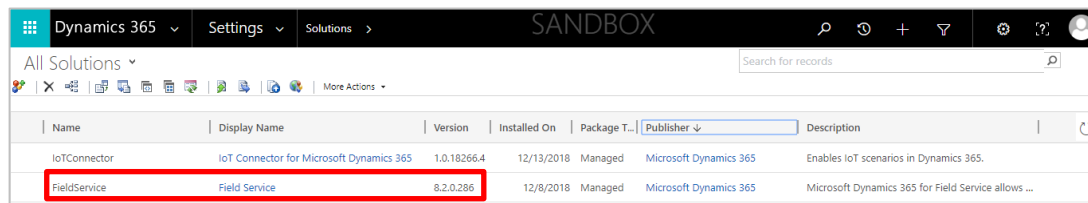Date: 6-12-2019
Version: 1.0

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1 Introduction

This document describes the procedure to install HSO Innovation Dynamics Advanced Field Service 3.1 via Microsoft AppSource.

1.1 Prerequisite

A prerequisite for installing HSO Innovation Dynamics Advanced Field Service 3.1 is that Microsoft Dynamics 365 for Field Service version 8.x should have been installed.


Note that HSO Innovation Dynamics Advanced Field Service 3.1 is not supported on lower D365 for Field Service versions!

1.2 AppSource

To install our HSO Innovation solution, go to AppSource and search for the app Dynamics Advanced Field Service or click the link below:
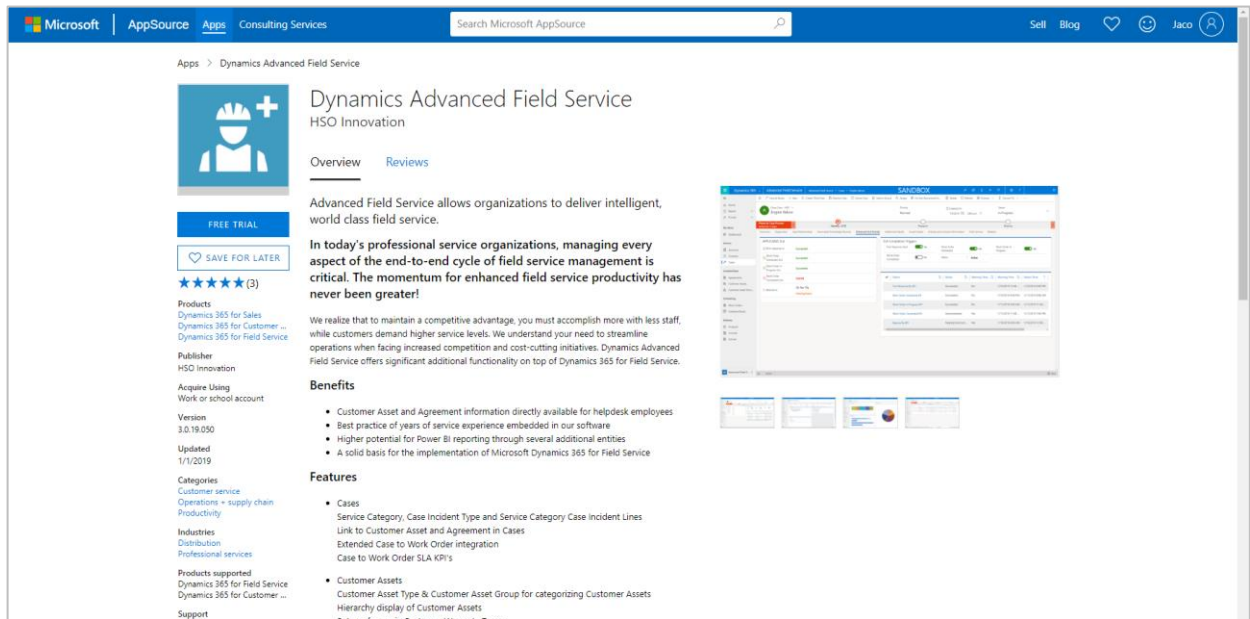
https://appsource.microsoft.com/en-us/marketplace/apps?search=Advanced%20Field%20Service&page=1

We advise you to perform the installation procedure in browser Chrome. Please also do not run the browser in an incognito session.
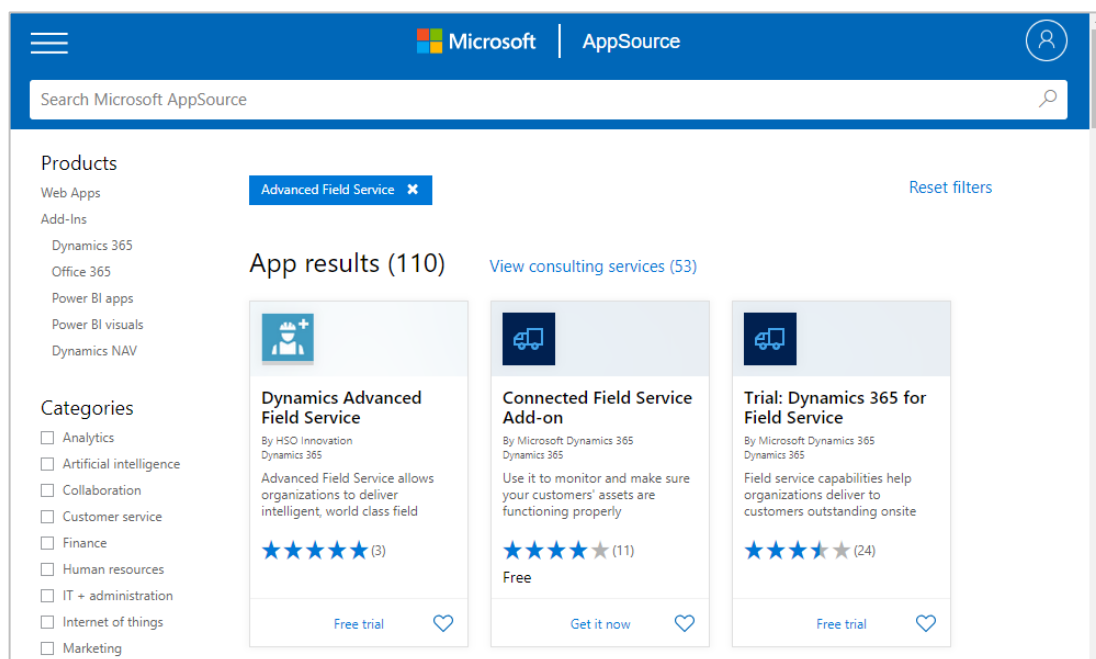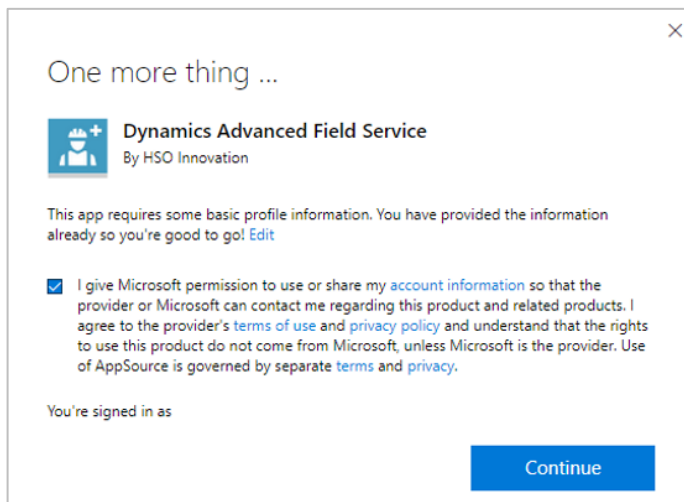
1.3 Trial Dynamics Advanced Field Service

On the Dynamics Advanced Field Service page in AppSource, select 'Free Trial'.

The following pop-up will be displayed:

Accept the permission tick box and hit 'Continue'.

Based on your login credentials Microsoft will find your Dynamics 365 online environments. Select the environment in which you want to install Dynamics Advanced Field Service, select the tick boxes and hit 'Agree'.
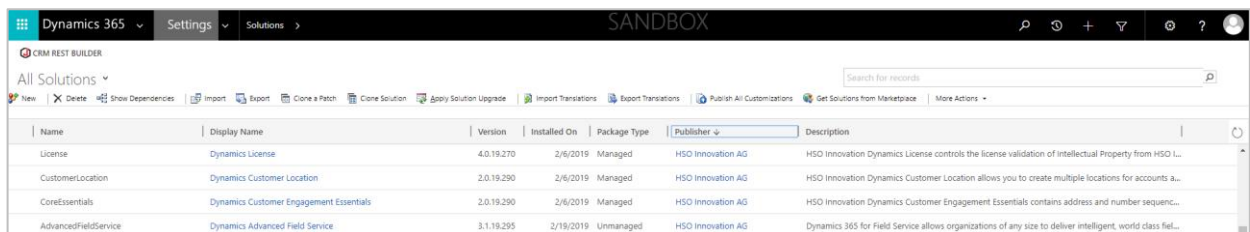

The solution will now be installed in your online Dynamics 365 environment.

2 Getting started

2.1 Solutions

Once Dynamics Advanced Field Service is installed in your online Dynamics 365 environment go to Settings / Solutions. You will notice that four managed solutions from HSO Innovation have been installed:

- Solution 'Dynamics Advanced Field Service'
- Solution 'Dynamics Customer Location'
- Solution 'Dynamics Customer Engagement Essentials'
- Solution 'Dynamics License'

2.1.1 License request file

Before you can start working with HSO Innovation Dynamics Advanced Field Service it is required to install a trial license file.

First, go to solution 'Dynamics License' and select the *Configuration* page. For each module fill the column *Request* in section *Installed Module Licenses*. Then, hit button '*Get License Request*' which will result in a license request file to be downloaded in your download folder.

Secondly, send the downloaded license request file to hsonnlicenses@hso.com and we will deliver you a trial license as soon as possible.

If you hit the button Get License Request and you have not filled in a request quantity, an error message will appear and the license request file cannot be generated.

After you have received the license file, go to solution 'License' and select the *Configuration* page. Here you can import the license file in section '*Save the license*'. After importing the license file, you can use the full functions and features of HSO Innovation Dynamics Advanced Field Service.

2.1.2 Installation issues

Browser

It is advised to run the installation procedure in browser Chrome. Further, do not run the installation in an incognito browser.

Get license request

When the button *Get License Request* results is disabled, the system is missing the relevant license records which are required to generate the request file.

If this situation occurs in your environment, please contact hsonnlicenses@hso.com and we will help you importing the license module records which will resolve the issue.

File Format Error

If the error message 'The license cannot be applied. File format error contact your add-on software vendor' comes up, the license file is corrupt.

If this situation occurs in your environment, generate a new license request file and send it to hsonnlicenses@hso.com. We will deliver you a new license file.

2.2 Upgrading from previous AFS versions to AFS3.1

If you are installing Advanced Field Service 3.1 in an organization that already has Advanced Field Service 3.0 or earlier versions of AFS installed, it might be necessary to run two different workflows which will update existing data in two different entities.
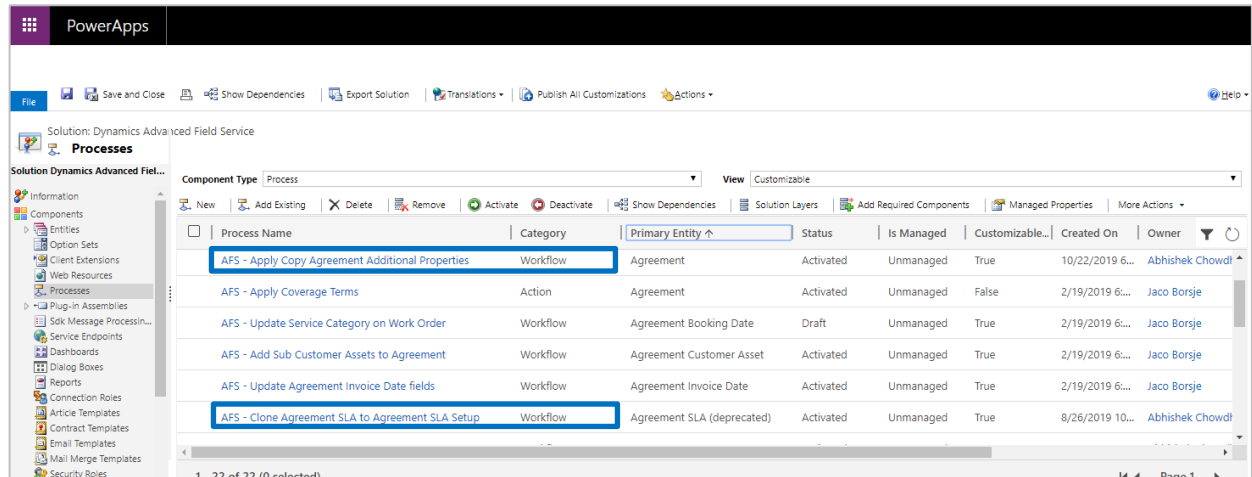
Further, it is possible that you encounter Apply Solution Upgrade issues. We described the most obvious ones in below paragraphs and how to solve these issues.

2.2.1 AFS – Apply Copy Agreement Additional Properties

In AFS3.1 we have added 3 new Two Option fields in the entity Agreement that are used in the Copy Agreement function.
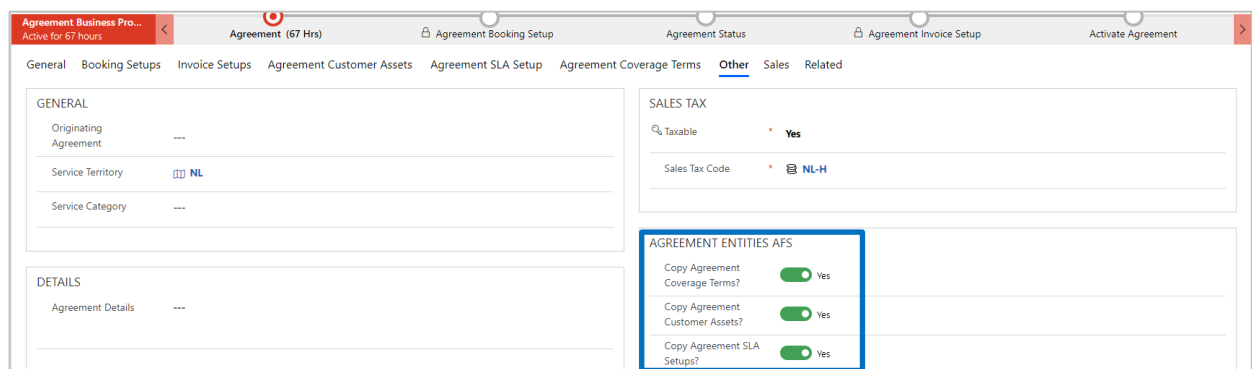
Only if you have existing agreements in your organization, the workflow needs to be run in order to populate these fields in these agreements.

As the workflow *AFS – Copy Agreement Additional Properties* is an on-demand workflow, the workflow can be triggered via the agreement form by selecting all agreements and trigger the process under the Flow option.

Confirm by clicking OK.

If in your situation there too many agreements for manual triggering in your organization it is also possible to trigger the workflow collectively via the *Bulk Workflow Execution* tool in the XRM toolbox.

Note that you have to run both Active Agreements as well as Inactive Agreements.

When the workflows are processed you will receive the following message:

2.2.2   AFS – Clone Agreement SLA to Agreement SLA Setup

AFS3.0 has been released with Agreement SLA functionality which enables you to specify SLA coverage for cases as part of the Agreement that you define for your customer.

Due to a corrupt SLA ID display field we had to deprecate this entity and introduce a new entity in AFS3.1. Further, we introduced the possibility to specify SLA coverage for work orders as well, for which we need to introduce a new *SLA Entity* field.

Only if you have existing agreements in your organization using Agreement SLA functionality, the workflow needs to be run in order copy the existing records from entity *Agreement SLA* to the new entity *Agreement SLA Setup* including adding setting the attribute value SLA Entity = Case.

Note that the entity *Agreement SLA* has been deprecated but is not removed from the solution in order to prevent data loss while updating the AFS solution.

The workflow *AFS - Clone Agreement SLA to Agreement SLA Setup* which will copy the data to the new target entity can only be triggered collectively via the *Bulk Workflow Execution* tool in the XRM toolbox.

Note that you have to run both Active Agreements as well as Inactive Agreements.

When the workflows are processed you will receive the following message:

2.2.3   Apply Solution Upgrade issues

In the newest versions of Dynamics Customer Engagement Essentials, Dynamics Customer Location and Dynamics Advanced Field Service a different technical setup was implemented for web resources. This has impact on quite a few forms that are part of these solutions.

As the HSO forms are set to Customizable False, there is a good chance that in a customer project implementation some of the HSO forms have been copied to new custom forms. This means that the form properties of these forms will still contain the deprecated web resources.

If this is the case, the result of the installation will be that the Apply Solution Upgrade function will fail, resulting in dependency errors related to the deprecated web resources still present in copied forms.

In the project, these dependency errors need to be resolved by replacing the deprecated web resources with the new (renamed) web resources. When this has been corrected, the Apply Solution Upgrade can be performed successfully.

Note that it is important to resolve these errors and perform the Apply Solution Upgrade else it will not be possible to upgrade to a newer version of the solution.
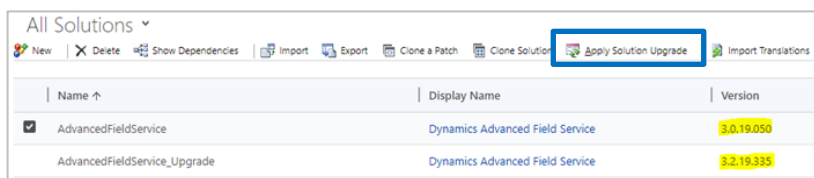
Changed forms in solution Dynamics Customer Engagement Essentials 2.0:

Form	Target	Name	Replaced with	Event	Pass
Address Location	Form Properties	hds_/AddressLocation/AddressLocation.js	hds_/ces/AddressLocation/AddressLocation.js	hds.ces.AddressLocation.Form.onLoad	Yes
Address Location	Form Properties	hds_/CESValidateLicense/CESValidateLicense.js	hds_/ces/ValidateLicense/ValidateLicense.js	hds.ces.ValidateLicense.Form.onLoad	Yes
Address Location	WebResource_AddressSug	hds_/AddressSuggestions/AddressSuggestions.html	hds_/ces/AddressSuggestions/AddressSuggestions.html	-	-
Address Role	Form Properties	hds_/CESValidateLicense/CESValidateLicense.js	hds_/ces/ValidateLicense/ValidateLicense.js	hds.ces.ValidateLicense.Form.onLoad	Yes
CES Settings	Form Properties	hds_/Administration/Administration.js	hds_/ces/Administration/Administration.js	hds.ces.Administration.Form.onLoad	Yes
CES Settings	Form Properties	hds_/CESValidateLicense/CESValidateLicense.js	hds_/ces/ValidateLicense/ValidateLicense.js	hds.ces.ValidateLicense.Form.onLoad	Yes
CES Settings	Entity Icon	hds_icons/16x16/administration.svg	hds_/ces/Administration/icons/administration.svg	-	-
Number Sequence	Form Properties	hds_/CESValidateLicense/CESValidateLicense.js	hds_/ces/ValidateLicense/ValidateLicense.js	hds.ces.ValidateLicense.Form.onLoad	Yes
Number Sequence Setting (deprecate	Form Properties	hds_/CESValidateLicense/CESValidateLicense.js	hds_/ces/ValidateLicense/ValidateLicense.js	hds.ces.ValidateLicense.Form.onLoad	Yes
Account - HSO	Form Properties	hds_/CESValidateLicense/CESValidateLicense.js	hds_/ces/ValidateLicense/ValidateLicense.js	hds.ces.ValidateLicense.Form.onLoad	Yes

Changed forms in solution Dynamics Customer Location 2.0:

Form	Target	Name	Replaced with	Event	Pass
Customer Location	Form Properties	hds_/CustomerLocation/CustomerLocation.js	hds_/cln/CustomerLocation/CustomerLocation.js	hds.cln.CustomerLocation.Form.onLoad	Yes
Customer Location	Form Properties	hds_/CLNValidateLicense/CLNValidateLicense.js	hds_/cln/ValidateLicense/ValidateLicense.js	hds.cln.ValidateLicense.Form.onLoad	Yes
Customer Location	Field WebResource_Addre	hds_/AddressLocation/AddressLocationView.html	hds_/ces/AddressLocationView/AddressLocationView.html	-	-
Customer Location Account	Form Properties	hds_/CustomerLocationAccount/CustomerLocationAccount.js	hds_/cln/CustomerLocationAccount/CustomerLocationAccount.js	hds.cln.CustomerLocationAccount.Form.onLoad	Yes
Customer Location Account	Form Properties	hds_/CLNValidateLicense/CLNValidateLicense.js	hds_/cln/ValidateLicense/ValidateLicense.js	hds.cln.ValidateLicense.Form.onLoad	Yes
Customer Location Group	Form Properties	hds_/CLNValidateLicense/CLNValidateLicense.js	hds_/cln/ValidateLicense/ValidateLicense.js	hds.cln.ValidateLicense.Form.onLoad	Yes
Customer Location Relation	Form Properties	hds_/CustomerLocationRelation/CustomerLocationRelation.js	hds_/cln/CustomerLocationRelation/CustomerLocationRelation.js	hds.cln.CustomerLocationRelation.Form.onLoad	Yes
Customer Location Relation	Form Properties	hds_/CLNValidateLicense/CLNValidateLicense.js	hds_/cln/ValidateLicense/ValidateLicense.js	hds.cln.ValidateLicense.Form.onLoad	Yes
Customer Location Settings	Form Properties	hds_/Administration/Administration.js	hds_/ces/Administration/Administration.js	hds.ces.Administration.Form.onLoad	Yes
Customer Location Settings	Form Properties	hds_/CLNValidateLicense/CLNValidateLicense.js	hds_/cln/ValidateLicense/ValidateLicense.js	hds.cln.ValidateLicense.Form.onLoad	Yes
Customer Location Settings	Entity Icon	hds_icons/16x16/administration.svg	hds_/ces/Administration/icons/administration.svg	-	-
Customer Location Structure Designer	Form Properties	hds_/CustomerLocationStructure/CustomerLocationStructure.js	hds_/cln/CustomerLocationStructure/CustomerLocationStructure.js	hds.cln.CustomerLocationStructure.Form.onLoad	Yes
Customer Location Structure Designer	Form Properties	hds_/CLNValidateLicense/CLNValidateLicense.js	hds_/cln/ValidateLicense/ValidateLicense.js	hds.cln.ValidateLicense.Form.onLoad	Yes
Customer Location Structure Designer	Field WebResource_Custor	hds_/DndTree/dndtree.html	hds_/ces/DndTree/dndtree.html	-	-
Customer Location Type	Form Properties	hds_/CLNValidateLicense/CLNValidateLicense.js	hds_/cln/ValidateLicense/ValidateLicense.js	hds.cln.ValidateLicense.Form.onLoad	Yes

Changed forms in solution Dynamics Advanced Field Service 3.1:

| Form	Target	Name	Replaced with	Event	Pass
All AFS forms	Form Properties	hds_/AFSValidateLicense/ValidateLicense.js	hds_/ces/ValidateLicense/ValidateLicense.js	hds.ces.ValidateLicense.Form.onLoad	Yes
Advanced Field Service Settings	Form Properties	hds_/Administration/Administration.js	hds_/ces/Administration/Administration.js	hds.ces.Administration.Form.onLoad	Yes
Advanced Field Service Settings	Form Properties	hds_/AFSValidateLicense/AFSValidateLicense.js	hds_/ces/ValidateLicense/ValidateLicense.js	hds.ces.ValidateLicense.Form.onLoad	Yes
Advanced Field Service Settings	Entity Icon	msdyn_/Icons/SVG/Administration.svg	hds_/ces/Administration/icons/administration.svg	-	-
Agreement - HSO	Form Properties	hds_/Agreement/Agreement.js	hds_/afs/Agreement/Agreement.js	hds.afs.Agreement.Form.onLoad	Yes
Agreement - HSO	Form Properties	hds_/AFSValidateLicense/AFSValidateLicense.js	hds_/afs/ValidateLicense/ValidateLicense.js	hds.afs.ValidateLicense.Form.onLoad	Yes
Case - HSO	Form Properties	hds_/Incident/Incident.js	hds_/afs/Incident/Incident.js	hds.afs.Incident.Form.onLoad	Yes
Case - HSO	Form Properties	hds_/AFSValidateLicense/AFSValidateLicense.js	hds_/afs/ValidateLicense/ValidateLicense.js	hds.afs.ValidateLicense.Form.onLoad	Yes
Case for Interactive Experience - HSO	Form Properties	hds_/Incident/Incident.js	hds_/afs/Incident/Incident.js	hds.afs.Incident.Form.onLoad	Yes
Case for Interactive Experience - HSO	Form Properties	hds_/AFSValidateLicense/AFSValidateLicense.js	hds_/afs/ValidateLicense/ValidateLicense.js	hds.afs.ValidateLicense.Form.onLoad	Yes
Customer Asset - HSO	Form Properties	hds_/CustomerAsset/CustomerAsset.js	hds_/afs/CustomerAsset/CustomerAsset.js	hds.afs.CustomerAsset.Form.onLoad	Yes
Customer Asset - HSO	Form Properties	hds_/AFSValidateLicense/AFSValidateLicense.js	hds_/afs/ValidateLicense/ValidateLicense.js	hds.afs.ValidateLicense.Form.onLoad	Yes
Customer Asset - Mobile - HSO	Field WebResource_Addres	hds_/AddressLocation/AddressLocationView.html	hds_/ces/AddressLocationView/AddressLocationView.html	-	-
Customer Asset - Mobile - HSO	Form Properties	hds_/CustomerAsset/CustomerAsset.js	hds_/ces/CustomerAsset/CustomerAsset.js	hds.afs.CustomerAsset.Form.onLoad	-
Customer Asset - Mobile - HSO	Field WebResource_Addres	hds_/AddressLocation/AddressLocationView.html	hds_/ces/AddressLocationView/AddressLocationView.html	-	-
Customer Asset Structure Designer	Form Properties	hds_/CustomerAssetStructure/CustomerAssetStructure.js	hds_/afs/CustomerAssetStructure/CustomerAssetStructure.js	hds.afs.CustomerAssetStructure.Form.onLoad	Yes
Customer Asset Structure Designer	Form Properties	hds_/AFSValidateLicense/AFSValidateLicense.js	hds_/afs/ValidateLicense/ValidateLicense.js	hds.afs.ValidateLicense.Form.onLoad	Yes
Customer Asset Structure Designer	Field WebResource_Custon	hds_/DndTree/dndtree.html	hds_/ces/DndTree/dndtree.html	-	-
Customer Asset Structure Template	Form Properties	hds_/CustomerAssetStructureTemplate/CustomerAssetStructureTemplate.js	hds_/afs/CustomerAssetStructureTemplate/CustomerAssetStructureTemplate.js	hds.afs.CustomerAssetStructureTemplate.Form.onLoad	Yes
Customer Asset Structure Template	Form Properties	hds_/AFSValidateLicense/AFSValidateLicense.js	hds_/afs/ValidateLicense/ValidateLicense.js	hds.afs.ValidateLicense.Form.onLoad	Yes
Customer Asset Structure Template	Field WebResource_Custon	hds_/DndTree/dndtree.html	hds_/ces/DndTree/dndtree.html	-	-
Product Price List	Form Properties	hds_/PriceListItem/PriceListItem.js	hds_/afs/PriceListItem/PriceListItem.js	hds.afs.PriceListItem.Form.onLoad	Yes
Product - HSO	Form Properties	hds_/Product/Product.js	hds_/afs/Product/Product.js	hds.afs.Product.Form.onLoad	Yes
Product - HSO	Form Properties	hds_/AFSValidateLicense/AFSValidateLicense.js	hds_/afs/ValidateLicense/ValidateLicense.js	hds.afs.ValidateLicense.Form.onLoad	Yes
Work Order - HSO	Form Properties	hds_/WorkOrder/WorkOrder.js	hds_/afs/WorkOrder/WorkOrder.js	hds.afs.WorkOrder.Form.onLoad	Yes
Work Order - HSO	Form Properties	hds_/AFSValidateLicense/AFSValidateLicense.js	hds_/afs/ValidateLicense/ValidateLicense.js	hds.afs.ValidateLicense.Form.onLoad	Yes
Work Order - Mobile - HSO	Form Properties	hds_/WorkOrder/WorkOrder.js	hds_/afs/WorkOrder/WorkOrder.js	hds.afs.WorkOrder.Form.onLoad	Yes
Work Order - Mobile - HSO	Form Properties	hds_/AFSValidateLicense/AFSValidateLicense.js	hds_/afs/ValidateLicense/ValidateLicense.js	hds.afs.ValidateLicense.Form.onLoad	Yes
Work Order Product - HSO	Form Properties	hds_/WorkOrderProduct/WorkOrderProduct.js	hds_/afs/WorkOrderProduct/WorkOrderProduct.js	hds.afs.WorkOrderProduct.Form.onLoad	Yes
Work Order Service - HSO	Form Properties	hds_/WorkOrderService/WorkOrderService.js	hds_/afs/WorkOrderService/WorkOrderService.js	hds.afs.WorkOrderService.Form.onLoad	Yes
Work Order Service - HSO	Form Properties	hds_/libs/jquery.min.js	<removed>		

Note that you can use the XRMToolBox Form Libraries Manager in order to add/remove scripts in multiple forms. For example, remove the deprecated *CESValidateLicense.js* file collectively:
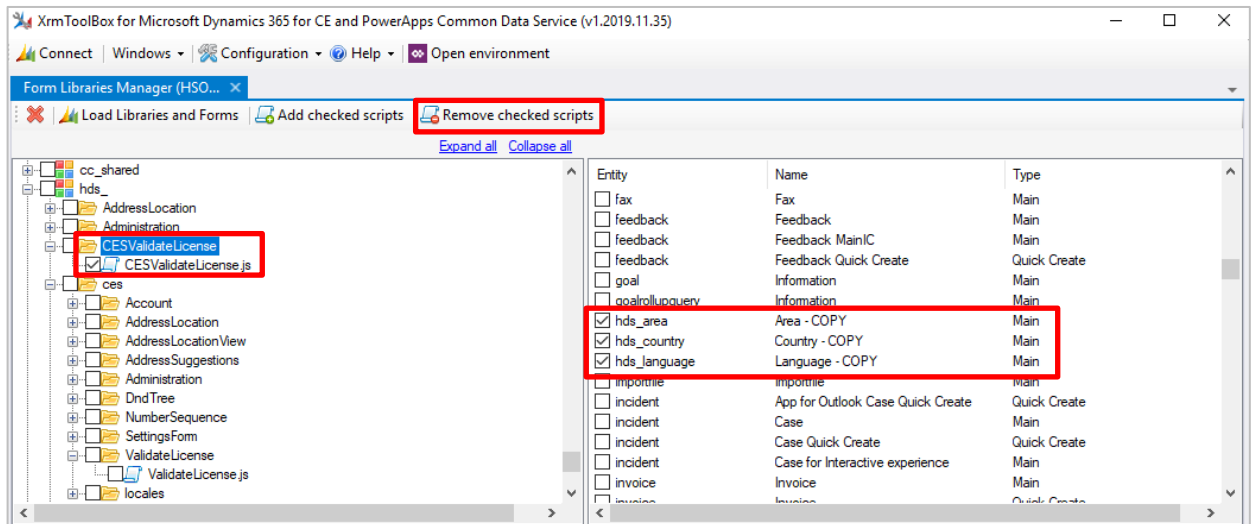

After selecting *Remove checked scripts*, the following message will be displayed: 'The library 'hds_/CESValidateLicense.js' is used by 1 event. If you remove the library, 1 event will be removed too'.

It is necessary to confirm this action but remind yourselves to add the events again if a script has been inserted collectively via the XRMToolBox.

Add the new script *ValidateLicense.js* that need to be inserted and select the correct forms:
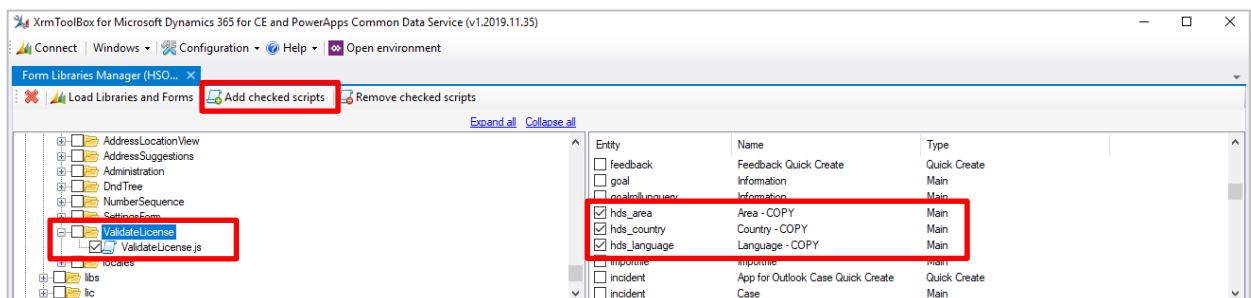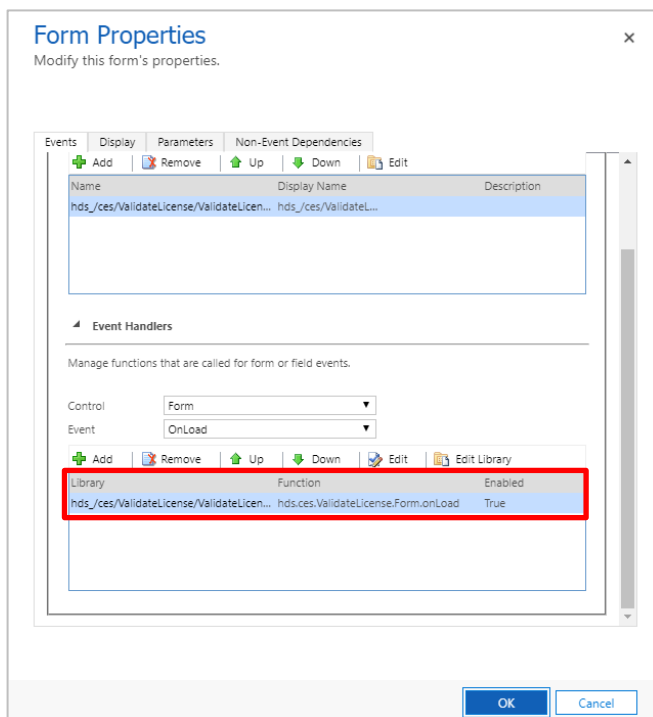
Select the correct order of the script (if applicable).
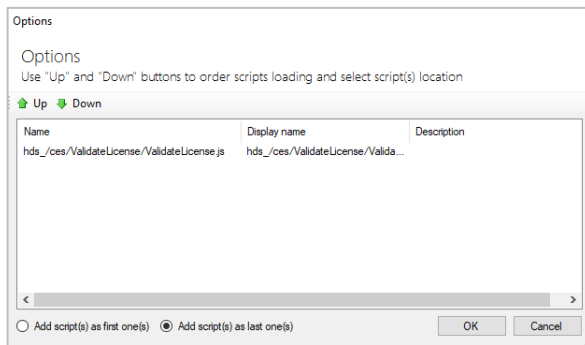
The result:

Note that when a script is added collectively to multiple forms, the event(s) of the script should still be added manually in the form properties of all the selected forms, else the script will not work.

2.3 Advanced Field Service App

The solution includes an app that will be installed as well. The app can be accessed by selecting the drop-down arrow at the right of Dynamics 365 in the menu bar:
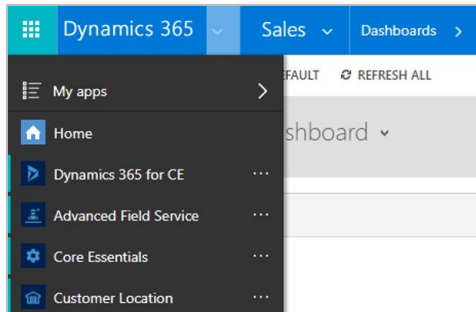
HSO Innovation Dynamics Advanced Field Service functionality is integrated within the standard forms of Dynamics 365 for Field Service. The app contains standard entities such as Work Orders, Agreements & Customer Assets and it gives you access to the section Administration Advanced Field Service.

The page Administration Advanced Field Service gives you access to the setup tables which are part of the HSO Innovation Dynamics Advanced Field Service solution.

In our online documentation you can find information of the functions and features of the solution including these setup entities.
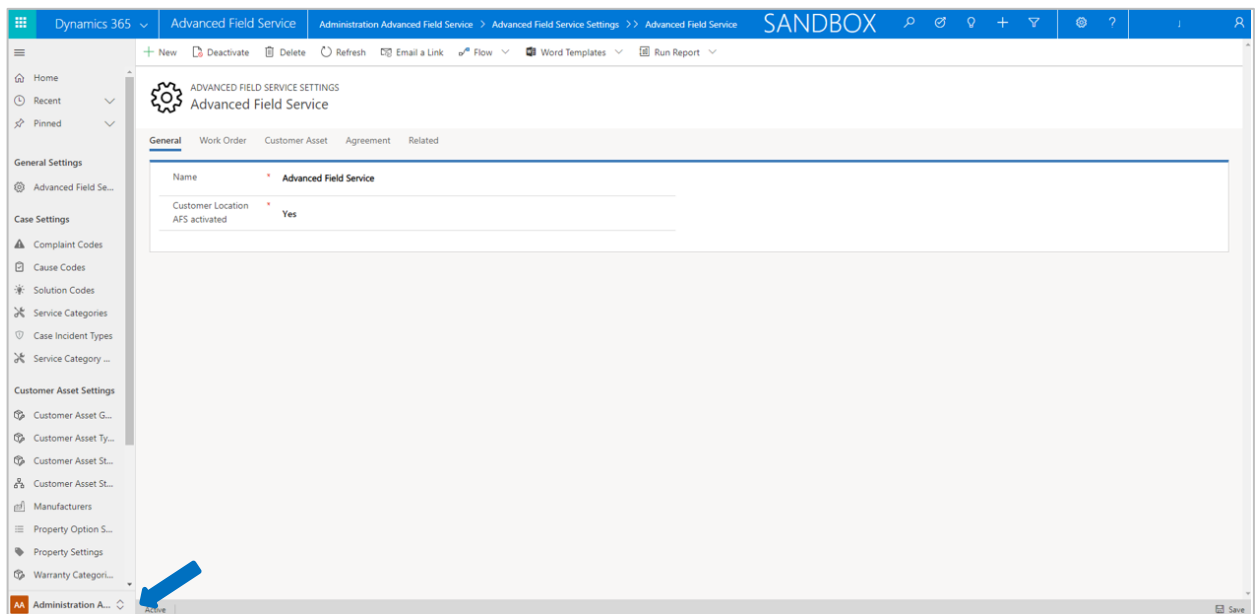
Note that D365 for Field Service version 8.x is not available anymore in the classic web user interface and can only be accessed via a model driven app.

2.4 Setup entities AFS before starting

2.4.1 General

Before you can start trying out HSO Innovation Dynamics Advanced Field Service it is required to setup some data in a few entities in Administration Advanced Field Service:

- Number Sequence
- Customer Asset Group
- Customer Asset Type
- Parameters

As we have added auto-numbering functionality to the entity Customer Asset (based on Customer Asset Group or Customer Asset Type) it is required to fill at least 1 record in each of these entities in case you want to create a customer asset in Dynamics 365 for Field Service. Further, a Customer Asset Address has been introduced with auto-numbering as well, which requires the setup of an address sequence number and a parameter setting in solution Core Essentials.

Note it is required to have the license file uploaded before you can continue with paragraphs below.

2.4.2 Number Sequence

The entity Number Sequence can be accessed via the app Core Essentials.
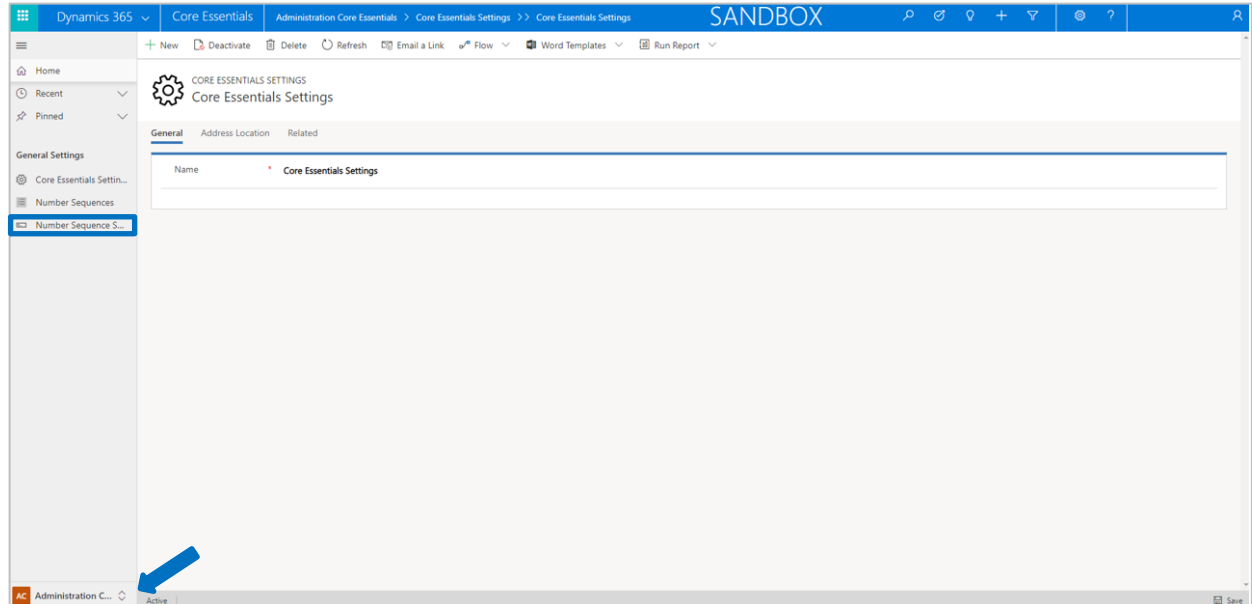
Number Sequence

Define at least two records (one for addresses and one for customer assets) in entity Number Sequence. It is possible to define a prefix and suffix and the length of the number sequence can be defined.

Note: It is mandatory to fill in a user with a system administrator security role in the field '*Execute as*'. This is necessary for enabling a plugin to write to 'next number' in the entity Number Sequence once a customer asset or address is created. We advise to define a separate user for this purpose.

Parameters

In form Core Essentials Settings fill in the parameter for Address Numbering Sequence, the Map Api Key and set parameter *Address Location Activated* to Yes. If the Map Api Key is not filled here, the address recognition will not be available in form Address Location.


Via Administration - Scheduling Parameters in the standard app Universal Resource Scheduling a Map Api key can be found.

2.4.3   Customer Asset Group

Define at least one record in entity Customer Asset Group. The Customer Asset Group is a mandatory field in the entity Customer Asset Type.
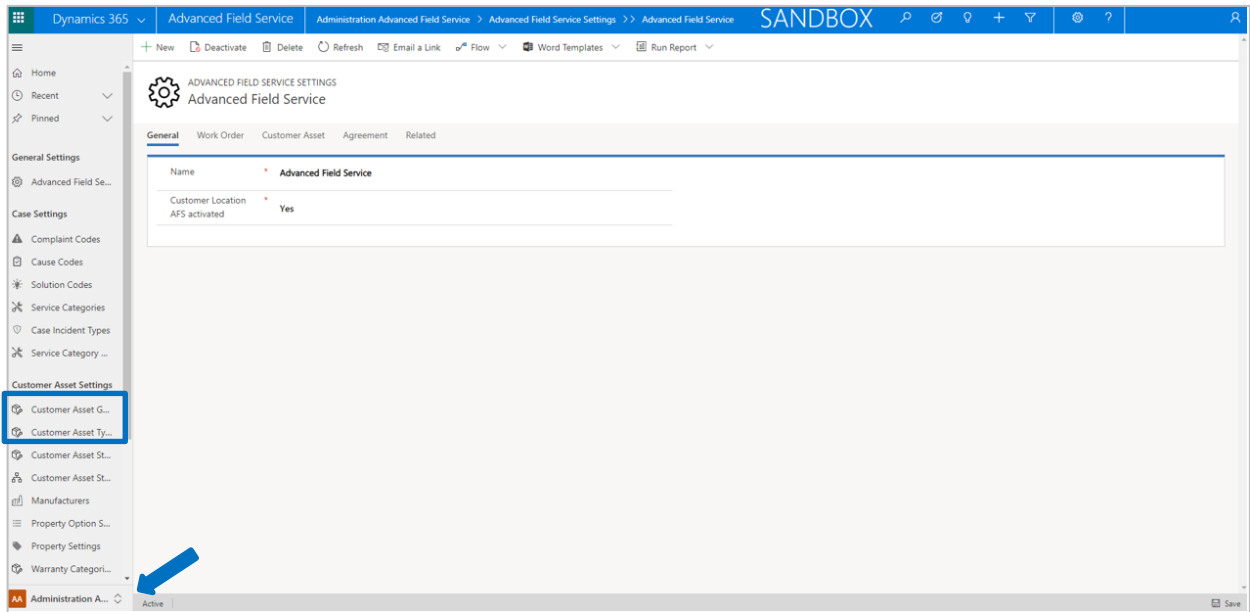
Note: A number sequence is a mandatory field in the entity Customer Asset Group and functions as a fall back mechanism if a number sequence is not defined on the Customer Asset Type.
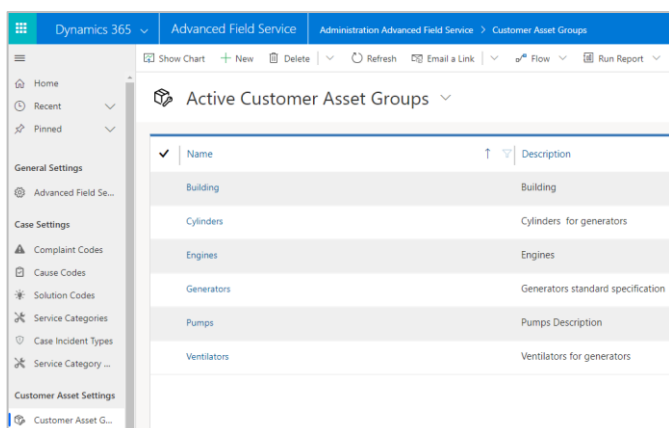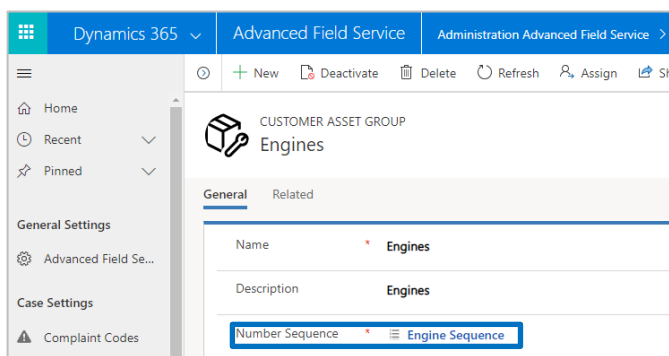
2.4.4   Customer Asset Type

Define at least one record in entity Customer Asset Type (Customer Asset Group is a mandatory field).

Note: A number sequence is not a mandatory field in the entity Customer Asset Type, however, when filled it will take precedence over the number sequence from the Customer Asset Group that is linked to the Customer Asset Type.

2.4.5   Set parameters in Advanced Field Service Setting

Set the parameters in the form Advanced Field Service Setting which can be found via Administration Advanced Field Service:
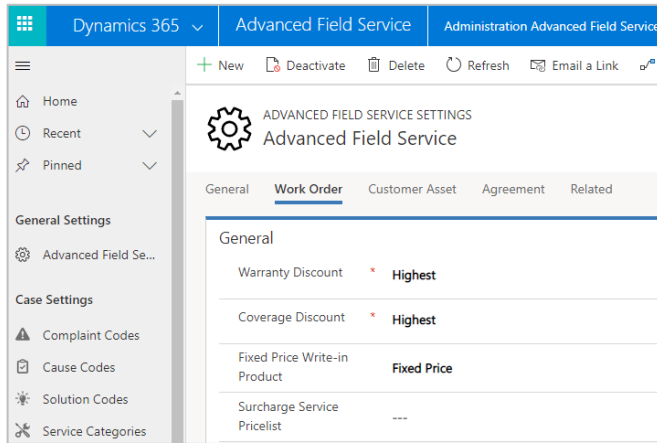
Set the following parameters:
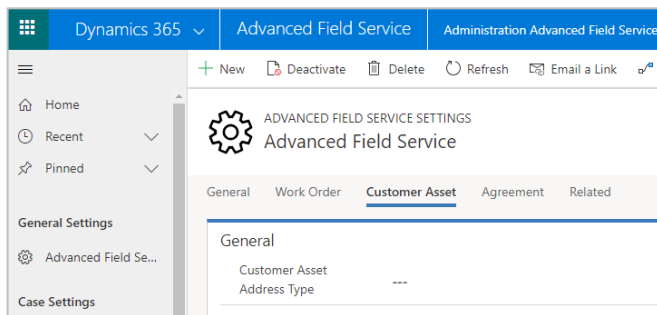
- Customer Location AFS activated   Yes
- Warranty Discount   Highest

- Coverage Discount   Highest
- Fixed Price Write-in Product   Fixed Price
- Customer Asset Address Type   \<blank\>
- Add Sub Assets to Agreement   Prompt