



innovation

# 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

# Table of Contents

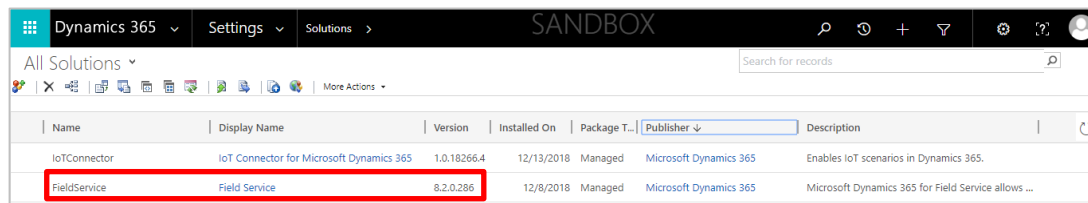
<b>1</b>	<b>Introduction .....</b>	<b>4</b>
1.1	Prerequisite.....	4
1.2	AppSource.....	4
1.3	Trial Dynamics Advanced Field Service .....	5
<b>2</b>	<b>Getting started .....</b>	<b>7</b>
2.1	Solutions .....	7
2.1.1	License request file.....	7
2.1.2	Installation issues.....	8
2.2	Upgrading from previous AFS versions to AFS3.1 .....	10
2.2.1	AFS – Apply Copy Agreement Additional Properties.....	10
2.2.2	AFS – Clone Agreement SLA to Agreement SLA Setup .....	11
2.2.3	Apply Solution Upgrade issues.....	13
2.3	Advanced Field Service App .....	16
2.4	Setup entities AFS before starting.....	17
2.4.1	General.....	17
2.4.2	Number Sequence.....	17
2.4.3	Customer Asset Group .....	18
2.4.4	Customer Asset Type .....	19
2.4.5	Set parameters in Advanced Field Service Setting .....	20

# 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.



Name	Display Name	Version	Installed On	Package T...	Publisher	Description
IoTConnector	IoT Connector for Microsoft Dynamics 365	1.0.18266.4	12/13/2018	Managed	Microsoft Dynamics 365	Enables IoT scenarios in Dynamics 365.
FieldService	Field Service	8.2.0.286	12/8/2018	Managed	Microsoft Dynamics 365	Microsoft Dynamics 365 for Field Service allows ...

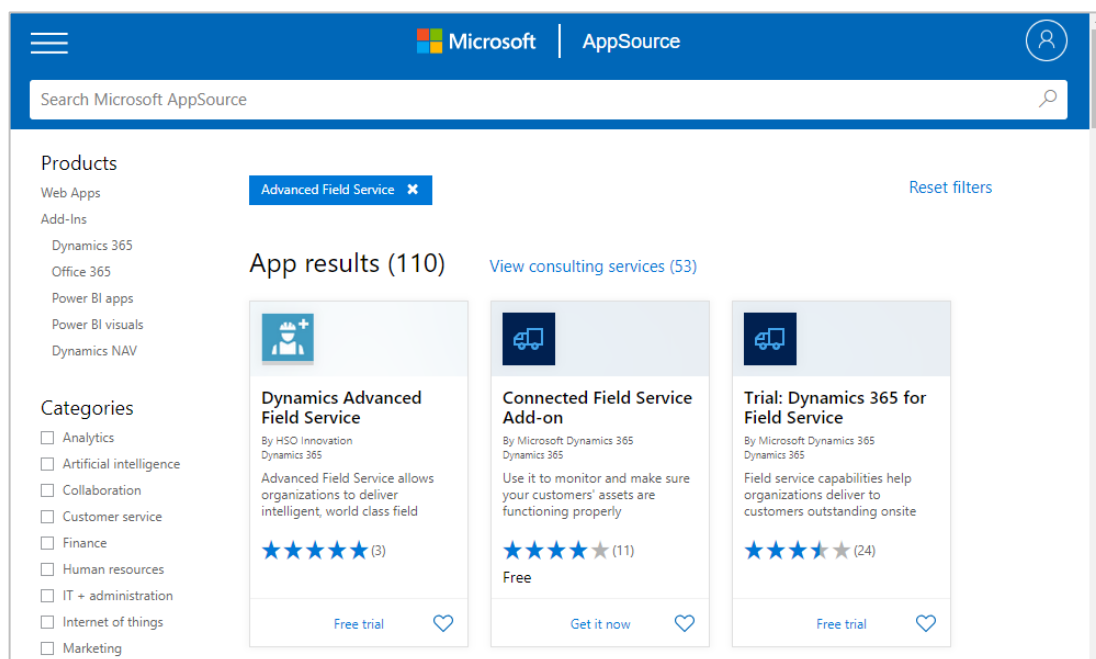
Note that HSO Innovation Dynamics Advanced Field Service 3.1 is not supported on lower D365 for Field Service versions!

## 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:

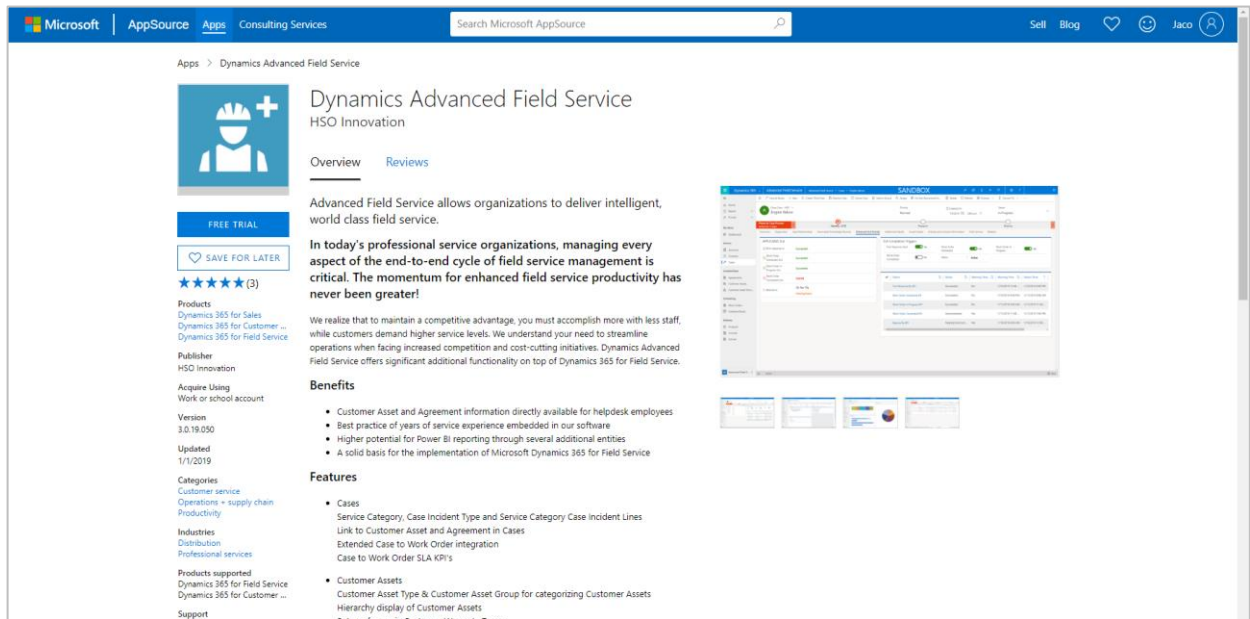
<https://appsource.microsoft.com/en-us/marketplace/apps?search=Advanced%20Field%20Service&page=1>

We advise you to perform the installation procedure in browser Chrome. Please also do not run the browser in an incognito session.

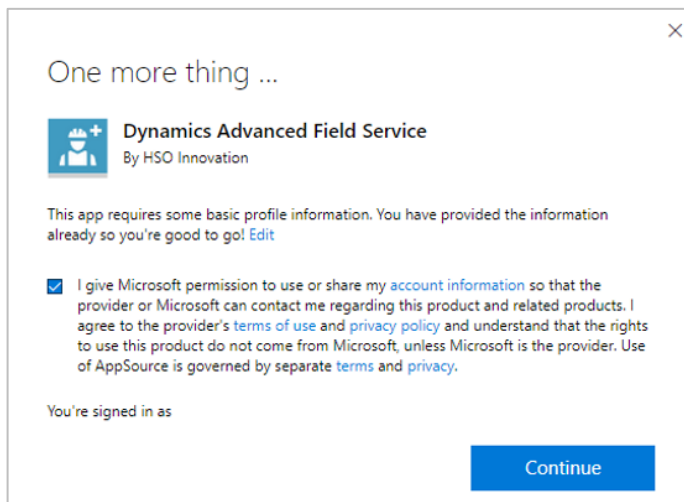


### 1.3 Trial Dynamics Advanced Field Service

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'.

Microsoft Dynamics 365 Office 365

Microsoft

Hso Innovation



Dynamics Advanced Field Service

Microsoft Dynamics 365 for Field Service allows organizations of any size to deliver intelligent, world-class field service, managing all aspects of the end-to-end field service management cycle. Dynamics Advanced Field Service offers significant additional functionality on top of Dynamics 365 for Field Service.

Benefits

- Customer Asset and Agreement information directly available for helpdesk employees
- Improved integration of Customer Assets and Agreements
- Work Orders executed under warranty and Agreement Coverage
- Higher potential for Power BI reporting through several additional entities

Uitgever: Hso Innovation

De toepassing toevoegen aan Dynamics 365

Selecteer de Dynamics 365-organisatie waaraan u deze toepassing wilt toevoegen.

Verbinding maken met Dynamics 365

Organisatie om de toepassing aan toe te voegen: **Dynamics 365 Field Service Sandbox (org3f4d9be9)**

☒ Akkoord gaan met de [juridische voorwaarden](#) en [privacyverklaring](#)

☒ Akkoord gaan met de [privacyverklaring](#) en [juridische voorwaarden](#) voor het importeren van oplossingen in Dynamics 365

Mee eens Annuleren

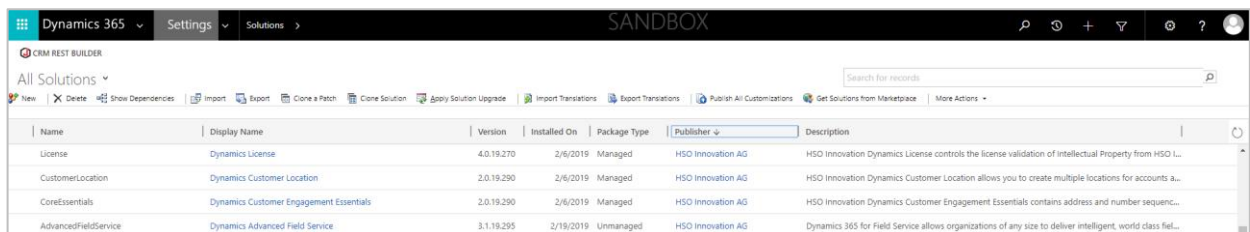
The solution will now be installed in your online Dynamics 365 environment.

## 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'



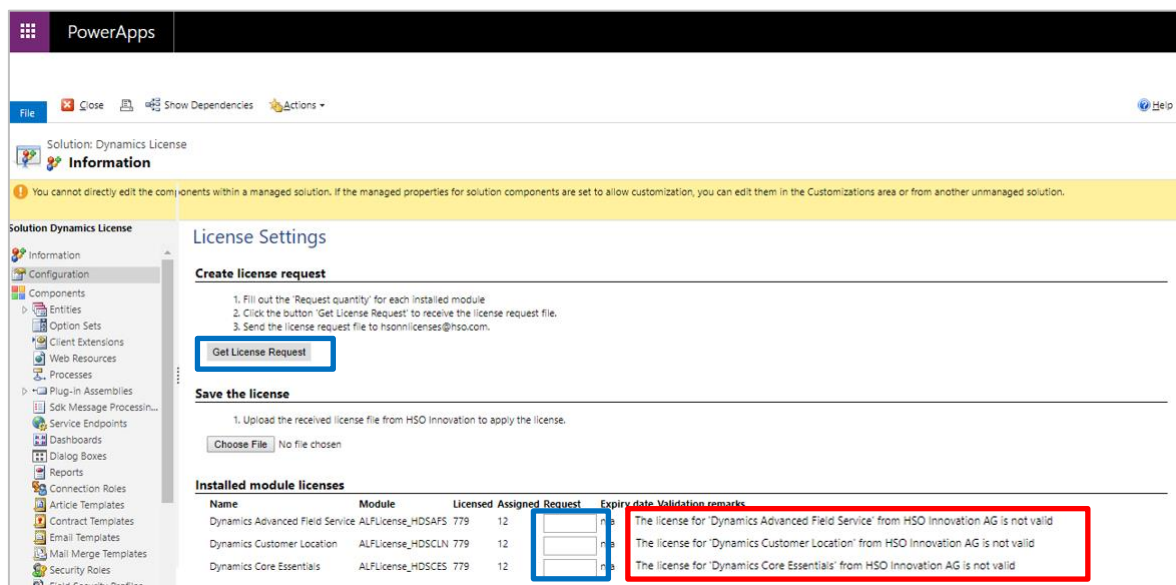
Name	Display Name	Version	Installed On	Package Type	Publisher	Description
License	Dynamics License	4.0.19.270	2/6/2019	Managed	HSO Innovation AG	HSO Innovation Dynamics License controls the license validation of intellectual Property from HSO I...
CustomerLocation	Dynamics Customer Location	2.0.19.290	2/6/2019	Managed	HSO Innovation AG	HSO Innovation Dynamics Customer Location allows you to create multiple locations for accounts a...
CoreEssentials	Dynamics Customer Engagement Essentials	2.0.19.290	2/6/2019	Managed	HSO Innovation AG	HSO Innovation Dynamics Customer Engagement Essentials contains address and number sequenc...
AdvancedFieldService	Dynamics Advanced Field Service	3.1.19.295	2/19/2019	Unmanaged	HSO Innovation AG	Dynamics 365 for Field Service allows organizations of any size to deliver intelligent, world class fel...

#### 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](mailto:hsonnlicenses@hso.com) and we will deliver you a trial license as soon as possible.



**License Settings**

**Create license request**

1. Fill out the 'Request quantity' for each installed module
2. Click the button 'Get License Request' to receive the license request file.
3. Send the license request file to [hsonnlicenses@hso.com](mailto:hsonnlicenses@hso.com).

**Get License Request**

**Save the license**

1. Upload the received license file from HSO Innovation to apply the license.

**Choose File** No file chosen

**Installed module licenses**

Name	Module	Licensed	Assigned	Request	Expiry date	Validation remarks
Dynamics Advanced Field Service	ALPLicense_HDSAFS	779	12			The license for 'Dynamics Advanced Field Service' from HSO Innovation AG is not valid
Dynamics Customer Location	ALPLicense_HDSCLN	779	12			The license for 'Dynamics Customer Location' from HSO Innovation AG is not valid
Dynamics Core Essentials	ALPLicense_HDSCES	779	12			The license for 'Dynamics Core Essentials' from HSO Innovation AG is not valid

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.

**Create license request**

1. Fill out the 'Request quantity' for each installed module
2. Click the button 'Get License Request' to receive the license request file.
3. Send the license request file to [hsonnlicenses@hso.com](mailto:hsonnlicenses@hso.com).

Get License Request

Please enter a whole number as request quantity for module ALFLicense\_HDSAFS

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.

Installed module licenses						
Name	Module	Licensed	Assigned	Request	Expiry date	Validation remarks
Dynamics Advanced Field Service ALFLicense_HDSAFS		779	12			n/a
Dynamics Customer Location ALFLicense_HDSCU		779	12			n/a
Dynamics Core Essentials ALFLicense_HDSCB		779	12			n/a

## 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.

PowerApps

File Close Show Dependencies Actions

Solution: Dynamics License

Information

You cannot directly edit the components within a managed solution. If the managed properties for solution components are set to allow customization, you can edit them in the Customizations area or from another unmanaged solution.

Solution Dynamics License

Information

Configuration

Components

Entities

Option Sets

Client Extensions

Web Resources

Processes

Plug-in Assemblies

Sdk Message Processin...

Service Endpoints

Dashboards

Dialog Boxes

Reports

Connection Roles

Article Templates

Contract Templates

Email Templates

Mail Merge Templates

Security Roles

Field Security Profiles

Status: Existing

License Settings

Create license request

1. Click the button 'Get License Request' to receive the license request file.
2. Send the license request file to [hsonnlicenses@hso.com](mailto:hsonnlicenses@hso.com).

Get License Request

It is not possible to generate a license request file as no module records are present. Please consult the installation guide of the product, paragraph Installation Issues.

Save the license

1. Upload the received license file from HSO Innovation to apply the license.

Bestand kiezen

Geen bestand gekozen

Installed module licenses

No license module record(s) present

If this situation occurs in your environment, please contact [hsonnlicenses@hso.com](mailto: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.

**Save the license**  
1. Upload the received license file from HSO Innovation to apply the license.  

Bestand kiezen

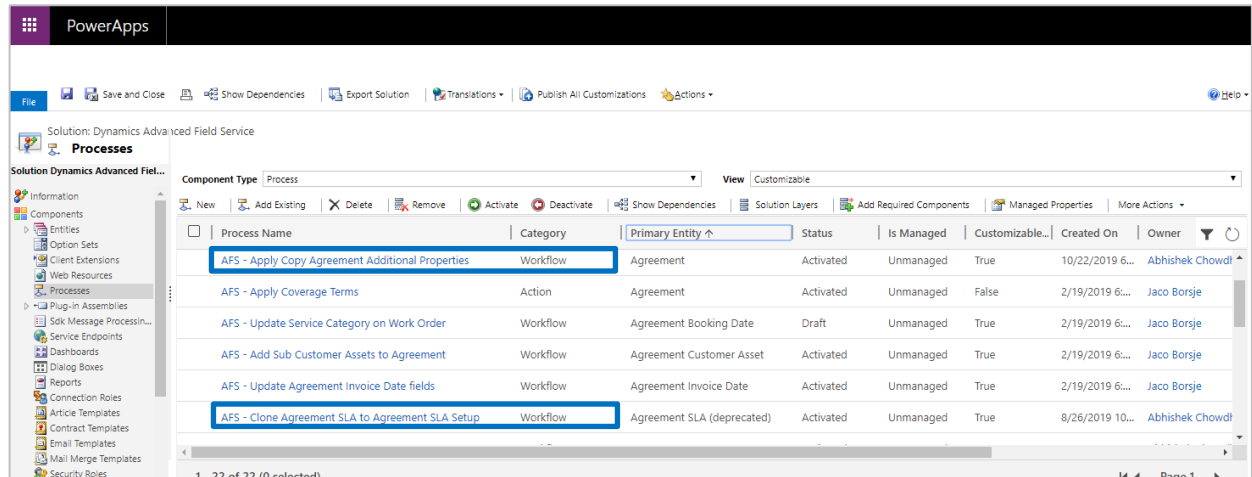
Org812f9138 AFS CES CLN expiry date 30042019.lic  
The license cannot be applied. File format error, contact your add-on software vendor  

Retry

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

## 2.2 Upgrading from previous AFS versions to AFS3.1

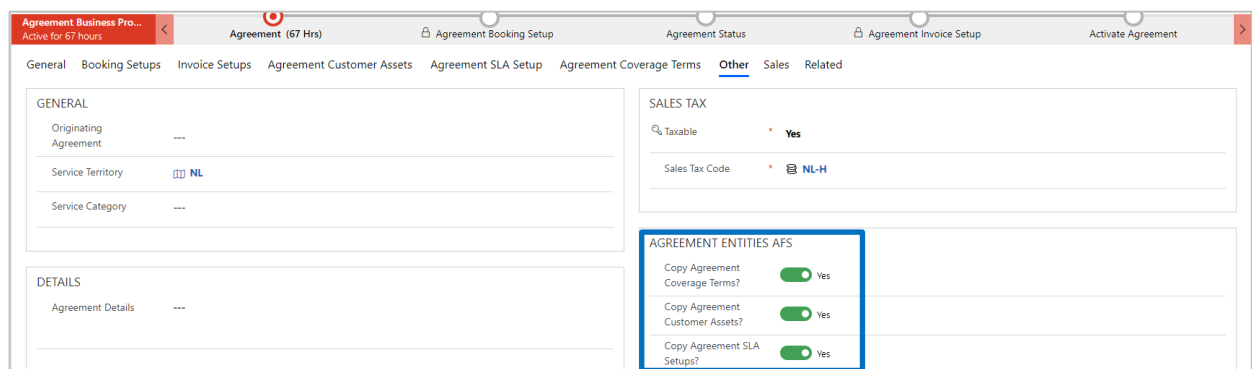
If you are installing Advanced Field Service 3.1 in an organization that already has Advanced Field Service 3.0 or earlier versions of AFS installed, it might be necessary to run two different workflows which will update existing data in two different entities.



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.

Agreement Number	Agreement Type	Billing Account	Service Account	System Status	Substatus	End Date	Coverage Start Date
✓ SC190004	Service All In	Wellington Hospital	Wellington Hospital	Estimate	Quotation	8/31/2020	---
✓ SC190003	Service All In	Van Dijk Transport B.V.	Van Dijk Transport B.V.	Active	Activated	9/30/2020	---
✓ SC190002	Service Basic	Arriva Nederland B.V.	Arriva Nederland B.V.	Estimate	Quotation	8/1/2019	7/31/2020
✓ SC190001	Service All In	Networks B.V.	Networks B.V.	Active	Activated	8/1/2019	7/31/2020

Confirm by clicking OK.

Confirm Application of Workflow

**This workflow will be applied to 4 Agreements.**

You can monitor workflow jobs by opening each Agreement and clicking Workflows. Are you sure that you want to continue?

OK

Cancel

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.

Record Count: 102 Batch Size: 200 (0-1000) Interval Delay: 0 seconds

FetchXML Query

```

<fetch version="1.0" output-format="xml-platform" mapping="logical" distinct="false">
  <entity name="msdyn_agreement">
    <attribute name="msdyn_name" />
    <attribute name="msdyn_systemstatus" />
    <attribute name="msdyn_substatus" />
    <attribute name="msdyn_serviceaccount" />
    <attribute name="msdyn_status" />
    <attribute name="msdyn_address" />
    <attribute name="msdyn_billingaccount" />
    <order attribute="msdyn_name" descending="true" />
    <filter type="and">
      <condition attribute="statecode" operator="eq" value="0" />
    </filter>
  </entity>
</fetch>

```

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

Bulk Workflow Execution

Finished @ 13:19

Workflows Started: 102 of 102

Errors: 0

OK

## 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.

Agreement Business Pro... Active for 67 hours						
Agreement (67 Hrs)						
Agreement Booking Setup Agreement Status Agreement Invoice Setup Activate Agreement						
General Booking Setups Invoice Setups Agreement Customer Assets Agreement SLA Setup Agreement Coverage Terms Other Sales Related						
+ New Agreement SLA S... Refresh Run Report						
Agreement	SLA	SLA Entity	Account	Customer Asset ID (Customer Asset)	Customer Asset	Created On
SC190050	3 - Bronze	Case	Siemens B.V.	---	---	10/22/2019 3:21 PM
SC190050	1 - Gold	Case	Siemens B.V.	GEN000018	Generator SL32 GEN18	10/22/2019 3:22 PM

**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.

PowerApps

File Show Dependencies Solution Layers Publish Update Icons Delete Managed Properties Help

Agreement SLA (deprecated)

**Information**

Solution Dynamics Advanced Field Service

- Agreement Coverage Term
- Agreement Customer Asset
- Agreement Invoice Date
- Agreement Invoice Product
- Agreement Invoice Setup
- Agreement SLA (deprecated)
- Agreement SLA Setup
- Agreement Type
- Bookable Resource
- Bookable Resource Category
- Bookable Resource Category Assn

General Primary Field Controls

**Entity Definition**

Display Name \* Agreement SLA (deprecated)

Plural Name \* Agreement SLAs

Name \* hds\_agreementsla

Primary Image

Color

Description Specify the unique agreement SLAs for an agreement.

☐ Virtual Entity

Data Source [None]

Ownership \* User or Team

☐ Define as an activity entity.

☐ Display in Activity Menus

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.

XrmToolBox for Microsoft Dynamics 365 for CE and PowerApps Common Data Service (v1.2019.7.34)

Connect Windows Tools About Open organization

**Bulk Workflow Execution (H5...)**

Refresh Validate Query Start Workflows Help

Workflow

Select an On-Demand Workflow:

AFS - Clone Agreement SLA to Agreement SLA

Record Count: 8 Batch Size: 200 (0-1000) Interval Delay: 0 seconds

View

Select a Source Type:

Use Custom FetchXML Query

Use CRM View FetchXML Query

Active Agreement SLAs

Inactive Agreement SLAs

FetchXML Query

```

<fetch version="1.0" mapping="logical">
  <entity name="hds_agreementsla">
    <attribute name="createdon" />
    <order attribute="hds_customerasset" descending="false" />
    <filter type="and">
      <condition value="0" attribute="statecode" operator="eq" />
    </filter>
    <attribute name="statecode" />
    <attribute name="hds_customerasset" />
    <attribute name="hds_agreement" />
    <attribute name="hds_account" />
    <attribute name="hds_agreementasset" />
  </entity>
</fetch>

```

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

Bulk Workflow Execution

Finished @ 13:27

Workflows Started: 8 of 8

Errors: 0

OK

## 2.2.3 Apply Solution Upgrade issues

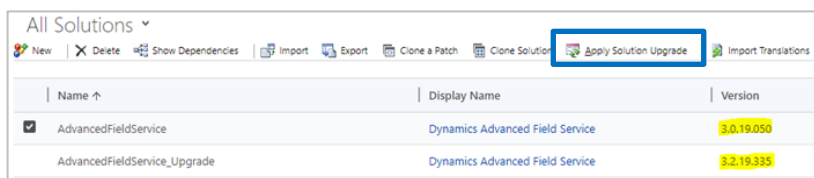
In the newest versions of Dynamics Customer Engagement Essentials, Dynamics Customer Location and Dynamics Advanced Field Service a different technical setup was implemented for web resources. This has impact on quite a few forms that are part of these solutions.

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

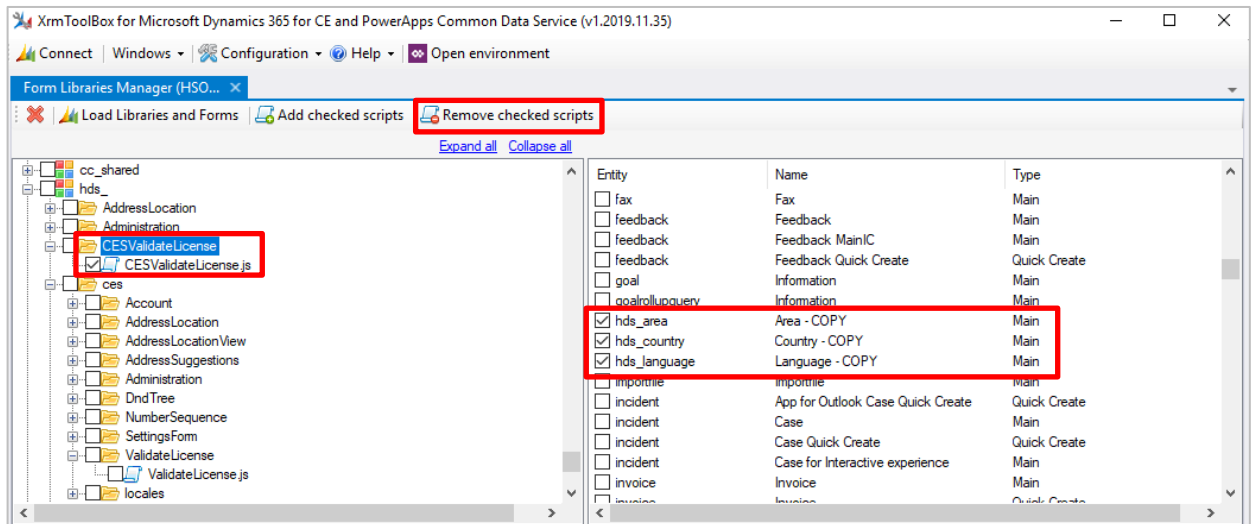
Changed forms in solution Dynamics Customer Location 2.0:

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_Address	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_Custom	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/AFSValidateLicense.js	hds_/afs/ValidateLicense/ValidateLicense.js	hds.afs.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_/afs/ValidateLicense/ValidateLicense.js	hds.afs.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 - HSO	Field WebResource_Address	hds_/AddressLocation/AddressLocationView.html	hds_/ces/AddressLocation/View/AddressLocationView.html	-	-
Customer Asset - Mobile - HSO	Form Properties	hds_/CustomerAsset/CustomerAsset.js	hds_/afs/CustomerAsset/CustomerAsset.js	hds.afs.CustomerAsset.Form.onLoad	Yes
Customer Asset - Mobile - HSO	Field WebResource_Address	hds_/AddressLocation/AddressLocationView.html	hds_/ces/AddressLocation/View/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 Template	Field WebResource_Custom	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_Custom	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>	-	-

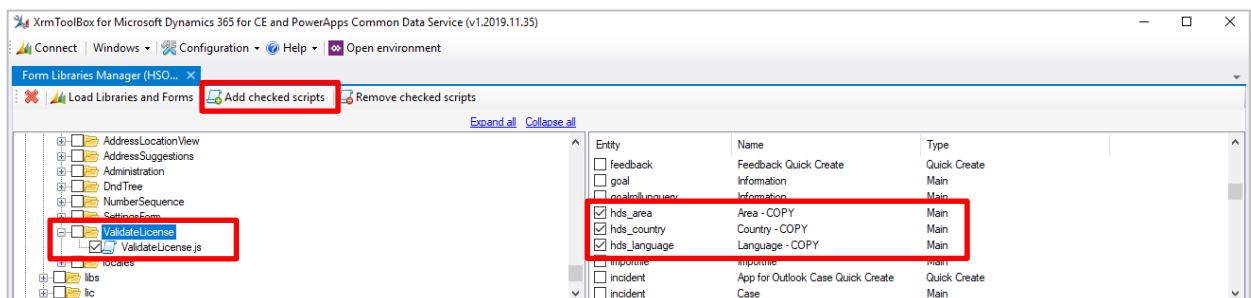
Note that you can use the XRMToolBox Form Libraries Manager in order to add/remove scripts in multiple forms. For example, remove the deprecated *CESValidateLicense.js* file collectively:



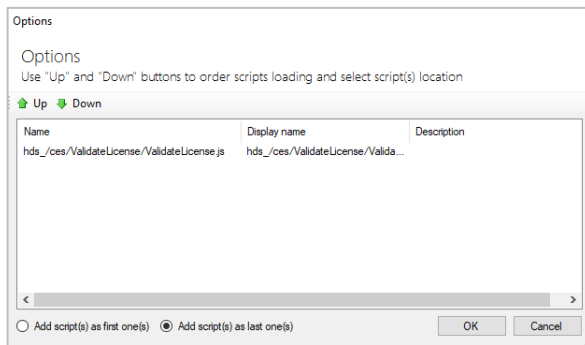
After selecting *Remove checked scripts*, the following message will be displayed: 'The library 'hds\_/CESValidateLicense.js' is used by 1 event. If you remove the library, 1 event will be removed too'.

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:



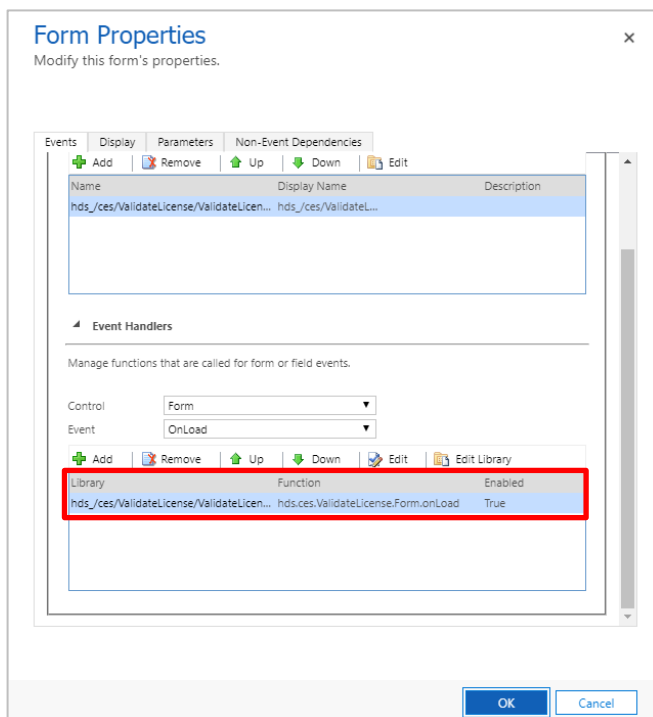
Select the correct order of the script (if applicable).



The result:

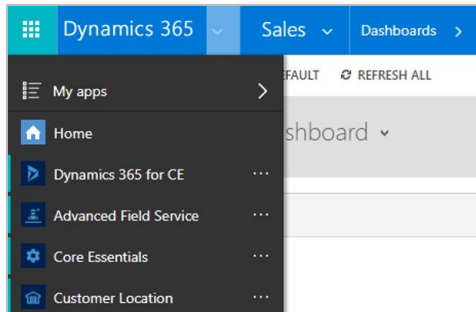
Entity	Form	Script	Message
hds_area	Area - COPY	hds_/ces/ValidateLicense/ValidateLicense.js	Added!
hds_country	Country - COPY	hds_/ces/ValidateLicense/ValidateLicense.js	Added!
hds_language	Language - COPY	hds_/ces/ValidateLicense/ValidateLicense.js	Added!

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

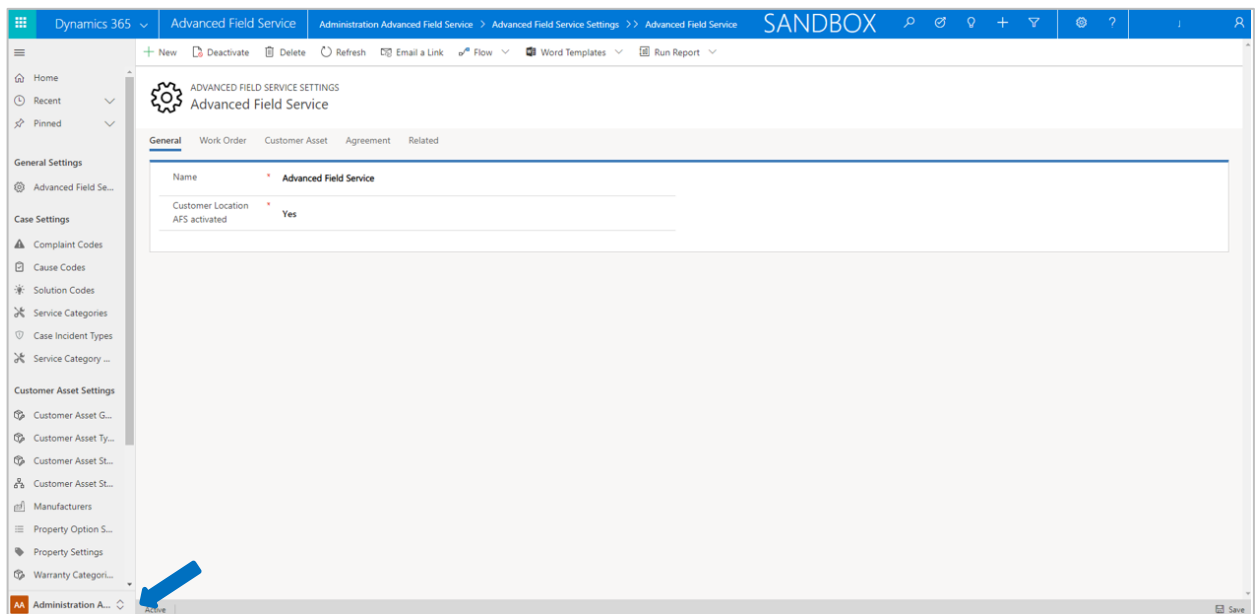
The solution includes an app that will be installed as well. The app can be accessed by selecting the drop-down arrow at the right of Dynamics 365 in the menu bar:



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:

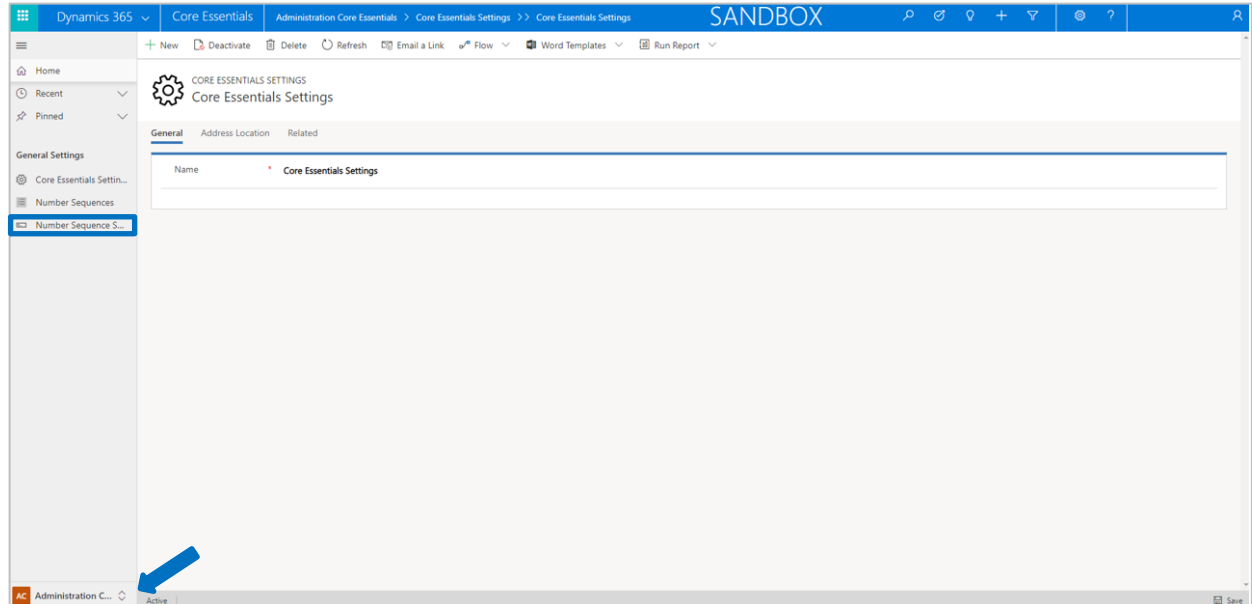
- Number Sequence
- Customer Asset Group
- Customer Asset Type
- Parameters

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.

The screenshot shows the 'Engine Sequence' form in Dynamics 365 Core Essentials. The left sidebar contains navigation options: Home, Recent, Pinned, General Settings, Core Essentials Settings, Number Sequences, and Number Sequence S... The main content area has a top bar with actions: New, Deactivate, Delete, Refresh, Email a Link, Flow, and Word Templates. Below this is a header for 'NUMBER SEQUENCE Engine Sequence'. The 'General' tab is active, showing fields: Name (Engine Sequence), Increment Size (1), Execute As (a dropdown menu with a green plus icon and a magnifying glass icon), Prefix (ENG), Suffix (---), Number Positions (6), and Next Number (9).

The screenshot shows the 'Active Number Sequences' table in Dynamics 365 Core Essentials. The left sidebar is the same as the previous screenshot. The main content area has a top bar with actions: Show Chart, New, Delete, Refresh, Email a Link, Flow, and Run Report. Below this is a header for 'Active Number Sequences'. The table has columns: Name, Increment Size, and Prefix. The data rows are:

Name	Increment Size	Prefix
Account Sequence	1	ACC
equence	1	ADR
Building Sequence	1	BLD
Cylinder Sequence	1	CYL
Engine Sequence	1	ENG

### Parameters

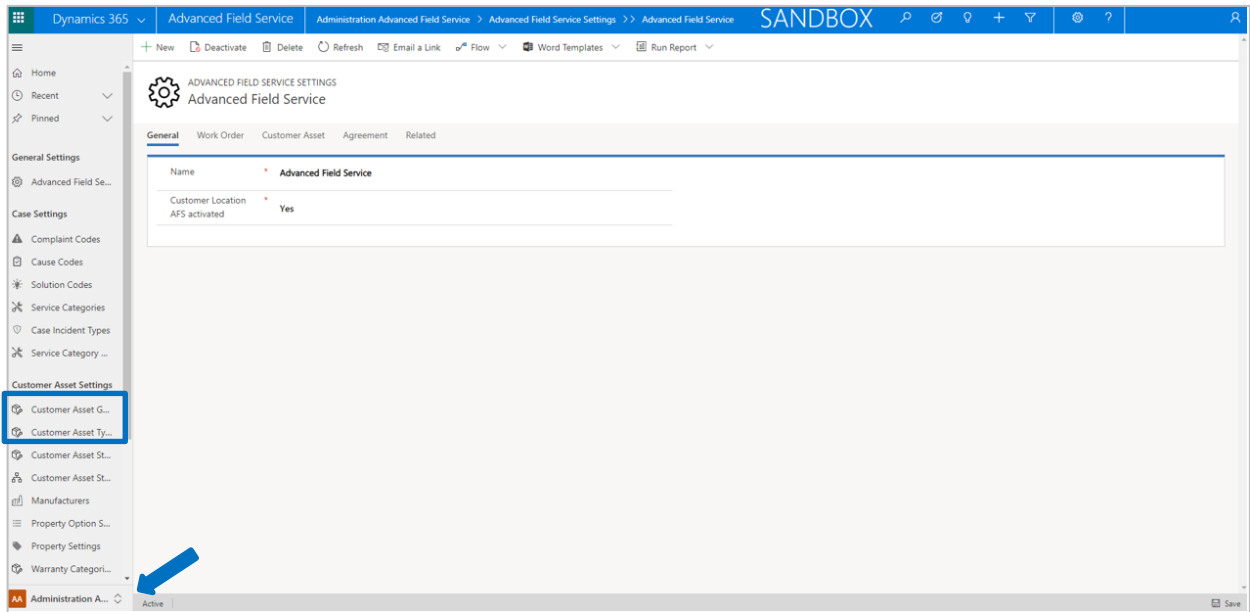
In form Core Essentials Settings fill in the parameter for Address Numbering Sequence, the Map Api Key and set parameter *Address Location Activated* to Yes. If the Map Api Key is not filled here, the address recognition will not be available in form Address Location.

The screenshot shows the 'Core Essentials Settings' form in Dynamics 365 Core Essentials. The left sidebar contains navigation options: Home, Recent, Pinned, General Settings, Core Essentials Settings (highlighted), Number Sequences, and Number Sequence S... The main content area has a top bar with actions: New, Deactivate, Delete, Refresh, Email a Link, Flow, and Word Templates. Below this is a header for 'CORE ESSENTIALS SETTINGS Core Essentials Settings'. The 'Address Location' tab is active, showing fields: Address Number Sequence (Address Sequence), Map Api Key (AqYzGoLfyr9d51BblStCexU6UHg4J88320qccuYCFSSLVvulvs\_sr1MuN1OX4Ys), and Address Location Activated (Yes).

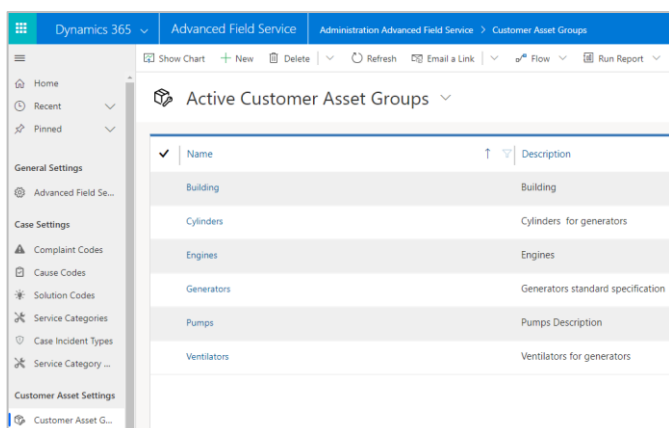
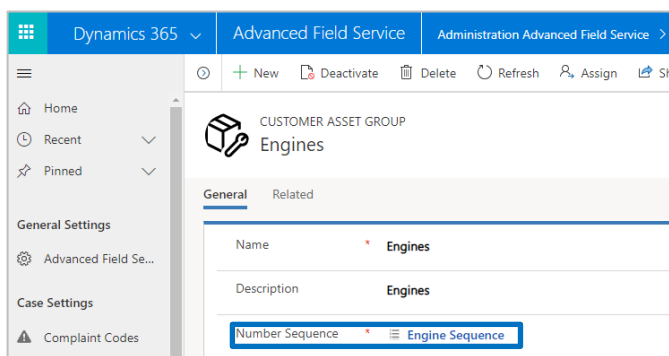
Via Administration - Scheduling Parameters in the standard app Universal Resource Scheduling a Map Api key can be found.

### 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.

Dynamics 365 Advanced Field Service Administration Advanced Field Service

Home Recent Pinned

General Settings Advanced Field Se...

Case Settings Complaint Codes Cause Codes Solution Codes Service Categories

CUSTOMER ASSET TYPE Turbo Engine 2

General Properties Related

Type Name \* Turbo Engine 2

Description Turbo Engine 2.0L

Customer Asset Group \* Engines

Manufacturer Eagle Engines

Number Sequence ---

Dynamics 365 Advanced Field Service Administration Advanced Field Service > Customer Asset Types

Home Recent Pinned

General Settings Advanced Field Se...

Case Settings Complaint Codes Cause Codes Solution Codes Service Categories

Active Customer Asset Types

Type Name	Description	Customer Asset Group	Number Sequence
Cylinder GEN	Cylinder for engine in generator	Cylinders	---
Generator Silent	Generator Type Silent	Generators	---
Generator SL32	Generator Type SL32	Generators	---
Turbo Engine 2	Turbo Engine 2.0L	Engines	---
Turbo Engine 3	Turbo Engine 3.0 liter	Engines	---

#### 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:

Dynamics 365 Advanced Field Service Administration Advanced Field Service

Home Recent Pinned

General Settings Advanced Field Se...

Case Settings

ADVANCED FIELD SERVICE SETTINGS Advanced Field Service

General Work Order Customer Asset Agreement Related

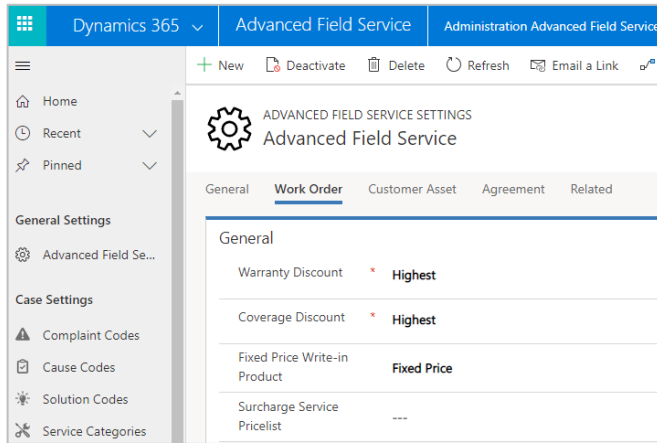
Name \* Advanced Field Service

Customer Location \* AFS activated Yes

Set the following parameters:

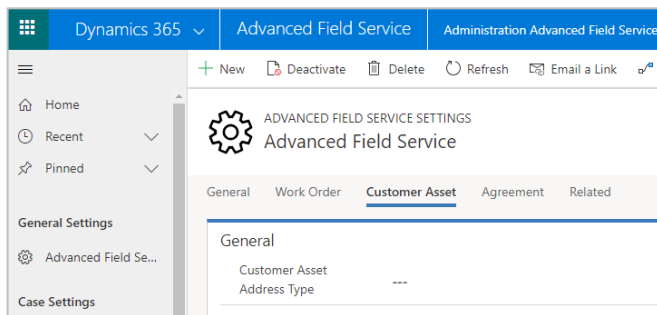
- Customer Location AFS activated Yes
- Warranty Discount Highest

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



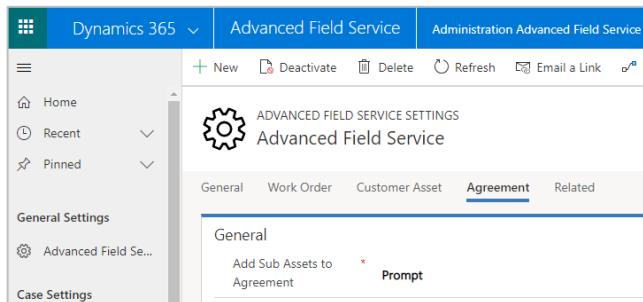
The screenshot shows the 'Advanced Field Service Settings' page in Dynamics 365, specifically the 'Work Order' tab. The left sidebar contains navigation options: Home, Recent, Pinned, General Settings (Advanced Field Se...), and Case Settings (Complaint Codes, Cause Codes, Solution Codes, Service Categories). The main content area is titled 'ADVANCED FIELD SERVICE SETTINGS' and 'Advanced Field Service'. Below the tabs (General, Work Order, Customer Asset, Agreement, Related), the 'General' section is active, displaying the following settings:

Setting	Value
Warranty Discount	Highest
Coverage Discount	Highest
Fixed Price Write-in Product	Fixed Price
Surcharge Service Pricelist	---



The screenshot shows the 'Advanced Field Service Settings' page in Dynamics 365, specifically the 'Customer Asset' tab. The left sidebar is identical to the previous screenshot. The main content area is titled 'ADVANCED FIELD SERVICE SETTINGS' and 'Advanced Field Service'. Below the tabs (General, Work Order, Customer Asset, Agreement, Related), the 'Customer Asset' section is active, displaying the following settings:

Setting	Value
Customer Asset Address Type	---



The screenshot shows the 'Advanced Field Service Settings' page in Dynamics 365, specifically the 'Agreement' tab. The left sidebar is identical to the previous screenshots. The main content area is titled 'ADVANCED FIELD SERVICE SETTINGS' and 'Advanced Field Service'. Below the tabs (General, Work Order, Customer Asset, Agreement, Related), the 'Agreement' section is active, displaying the following settings:

Setting	Value
Add Sub Assets to Agreement	Prompt