

Education Accelerator

Installation Guide

[1. Licensing and Access requirement for all installation methods 3](#_Toc124179120)

[2. Higher Education Portal Events feature dependency on Dynamics 365 Marketing application 3](#_Toc124179121)

[3. Installation Methods 3](#_Toc124179122)

[4. Prerequisites for Package Deployer Installation Methods 3](#_Toc124179123)

[4.1. Install Power Shell and Power Shell for Platform Administrators 4](#_Toc124179124)

[4.2. Install the latest version of the Power Platform CLI 4](#_Toc124179125)

[4.3. Install and Update Package Deployer 4](#_Toc124179126)

[4.4. Provision a blank Power Pages site 4](#_Toc124179127)

[4.5. Configure Power Pages site. 4](#_Toc124179128)

[5. Instructions for Package Deployer installation methods 4](#_Toc124179129)

[5.1. Download and prepare files for the first package deployment 5](#_Toc124179130)

[5.2. Deploy the first package. 5](#_Toc124179131)

[5.3. Download and deploy remaining packages 5](#_Toc124179132)

[5.4. Update Portal Binding. 7](#_Toc124179133)

[5.5. (Optional) Update Side Navigation site setting for Program Registration Portal 7](#_Toc124179134)

[5.6. Set up portal user login for sample student 7](#_Toc124179135)

[5.7. (Optional) Modify user time zone personalization settings 8](#_Toc124179136)

[5.8. Set up a Bing Maps Key in portal configurations 8](#_Toc124179137)

[5.9. Enable Power BI K-12 Learning Standards Dashboard in K-12 Portal 8](#_Toc124179138)

[6. Install specific solutions manually 8](#_Toc124179139)

[6.1. Install first managed solutions manually 9](#_Toc124179140)

[6.2. Install additional managed solutions manually 9](#_Toc124179141)

[6.3. Install first data solutions manually 10](#_Toc124179142)

[6.4. Import additional data solutions manually. 10](#_Toc124179143)

[7. Check that all Power Automate Flows are turned on 11](#_Toc124179144)

[8. Customize education data model 12](#_Toc124179145)

# Licensing and Access requirement for all installation methods

You must be a member of the Administrator role in a developer environment, and you must have a valid [Power Apps](https://learn.microsoft.com/power-apps/powerapps-overview) license to install the Higher Education Accelerator. If you have not been added to the Administrator Role or do not have a Power Apps license assigned to you, you can create a free, personal developer environment by accessing the [Power Apps Developer Plan](https://powerapps.microsoft.com/developerplan/).

# Higher Education Portal Events feature dependency on Dynamics 365 Marketing application

The Higher Education Portal includes an `Events` feature that has a dependency on the [Dynamics 365 Marketing application](https://learn.microsoft.com/dynamics365/marketing/overview). You can learn more about the `Events` feature in the *Education Accelerator Walkthrough Guide* (document can be accessed from the [Documentation folder](https://github.com/microsoft/Industry-Accelerator-Education/tree/master/documentation) in GitHub). If you want to include the `Events` feature in your portal solution, you will need to install the Dynamics 365 Marketing application in your target environment. Follow the instructions in the [Purchase and Set up Dynamics 365 Marketing](https://learn.microsoft.com/dynamics365/marketing/purchase-setup) article to install this application. You will also need to acquire a Dynamics 365 Marketing license.

**Note:** The `Events` feature is the only feature with a dependency on the Dynamics 365 Marketing application, so you do not need to install this application or acquire a Dynamics 365 Marketing license if you do not plan to use the `Events` feature.

# Installation Methods

The education accelerator includes an education data model that includes concepts for both higher education and K-12 education. The education accelerator also includes sample applications and sample data that are designed to show use cases of the data model. Some of the sample applications and sample data are contextualized specifically for higher education scenarios and some of the sample applications and sample data are contextualized specifically for K-12 education.

You can learn more about the intended use cases of the sample applications in the *Education Accelerator Walkthrough Guide*. You can also learn more about the technical design of all components of the education accelerator in the *Solution Packaging Design & ERD* document. Both of these documents can be accessed from the [Documentation folder](https://github.com/microsoft/Industry-Accelerator-Education/tree/master/documentation) in GitHub. We recommend reading these documents prior to beginning the installation process to choose which solutions to install.

Once you have chosen which solutions to install, you can use one of these four installation methods to deploy solutions from the Higher Education Accelerator:

1. Install all higher education solutions with the Package Deployer.
2. Install all K-12 education solutions with the Package Deployer.
3. Install only Program Registration Portal and related solutions with the Package Deployer.
4. Install specific solutions manually (You cannot install portal solutions with this method).

# Prerequisites for Package Deployer Installation Methods

There are three installation methods that utilize the *Package Deployer*:

1. Install all higher education solutions with the Package Deployer.
2. Install all K-12 education solutions with the Package Deployer.
3. Install only Program Registration Portal and related solutions with the Package Deployer.

Follow the instructions in this section if you have chosen one of these installation methods. If you have chosen to install specific solutions manually, you can skip to [section 6](#_Prerequisite_to_Install).

## Install Power Shell and Power Shell for Platform Administrators

If you do not have *Power Shell* installed, follow the [instructions for installing Power Shell](https://learn.microsoft.com/powershell/scripting/install/installing-powershell?view=powershell-7.2).

Once you have installed Power Shell, follow the [instructions for Installing Power Shell for Power Platform Administrators](https://learn.microsoft.com/power-platform/admin/powershell-installation).

## Install the latest version of the Power Platform CLI

If you do not have *Power Platform CLI* installed, follow the instructions for installing Power Platform CLI in the article [What is Power Platform CLI](https://learn.microsoft.com/power-platform/developer/cli/introduction) .

If you have previously installed Power Platform CLI, follow the instructions for updating Power Platform CLI in the article [What is Power Platform CLI](https://learn.microsoft.com/power-platform/developer/cli/introduction) .

## Install and Update Package Deployer

If you do not have *Package Deployer* installed, follow the instructions for downloading and launching tools using Power Platform CLI in the [Dataverse development tools](https://learn.microsoft.com/power-apps/developer/data-platform/download-tools-nuget) article.

**Note:** You only need to install the Package Deployer (PD).

If you have previously installed the Package Deployer, follow the instructions for updating tools using the Power Platform CLI in the [Dataverse development tools](https://learn.microsoft.com/power-apps/developer/data-platform/download-tools-nuget) article.

**Note**: You only need to update the Package Deployer (PD).

## Provision a blank Power Pages site

Create a blank [*Power Pages*](https://learn.microsoft.com/power-pages/introduction) site in the appropriate environment by following the instructions given in the article [Create a site with Power Pages](https://learn.microsoft.com/power-pages/getting-started/create-manage).

**Note:** This step might take 12-25 min

## Configure Power Pages site.

The education accelerator’s portal solutions include custom code, so you will need to update the Power Pages system settings to allow JavaScript (.js), cascading style sheet (.css) files and scalable vector graphics (.svg) files. You can do this by removing the “.js,” “.css,” and “.svg” extensions from set blocked file extension for attachments section of system settings. The article [Define system settings from the General tab](https://learn.microsoft.com/dynamics365/customerengagement/on-premises/admin/system-settings-dialog-box-general-tab?view=op-9-1) gives instructions for accessing the system settings.

# Instructions for Package Deployer installation methods

This section provides step-by-step instructions for installing solutions with the Package Deployer.

**Note**: All three installation methods that utilize the Package Deployer require installing multiple packages, but the Package Deployer can only be used to install one package at a time.

## Download and prepare files for the first package deployment

The steps below will give you instructions to download and prepare the first package for deployment.

**Note:** The package for the education data model must be installed prior to installing any other packages.

1. Download *PackageDeployer\_DataModelCore.zip*from the [Package Deployer folder](https://github.com/microsoft/Industry-Accelerator-Education/tree/master/packagedeployer) on GitHub.
2. Unblock the downloaded folder (if needed). To check if a downloaded folder is blocked, select and hold (or right-click) the folder and then select **Properties**. Find the **Security** property and read the information provided. If the information indicates the folder is blocked or might be blocked and there is an option to unblock it, choose this option. Be sure to apply your changes.
3. Extract all files from the folder.

## Deploy the first package.

Deploy the package using Package Deployer by following the instructions in the [Deploy packages using Package Deployer and Windows PowerShell](https://learn.microsoft.com/power-platform/admin/deploy-packages-using-package-deployer-windows-powershell#PD_tool) article.

## Download and deploy remaining packages

Table 1 below shows the packages that need to be installed if you are installing all higher education solutions with the Package Deployer. Table 2 below shows the packages that need to be installed if you are installing all K-12 education solutions. Table 3 below shows the packages that need to be installed if you are installing only the *Program Registration Portal* and related solutions with the Package Deployer. Repeat the steps in [section 5.1 to 5.2](#_Download_and_prepare) for the remaining packages that need to be installed for your chosen installation method.

**Note**: The first package in each table (*PackageDeployer\_DataModelCore.zip*) should already be installed. Remember that the Package Deployer can only be used to install one package at a time.

**Table 1- Packages needed to install all higher education solutions using Package Deployer**

| **Package Folder Name** | **Solution Files it Contains** |
| --- | --- |
| PackageDeployer\_DataModelCore.Zip | • EducationAnchorDataModelCore\_managed.zip • EducationAcceleratorCommon\_managed.zip • EducationAcceleratorConnectionRoles\_managed.zip • EducationCoreBusinessLogic\_managed.zip • EducationAccelerator-RequiredData.zip |
| PackageDeployer\_HiEd.zip | • EducationAnchorHigherEd\_managed.zip •Dynamics365HigherEducationAcceleratorCanvasModel\_managed.zip |
| PackageDeployer\_ProgramManagement.zip | • EducationAnchorProgramManagement\_managed.zip •EducationProgramManagementModelApps\_managed.zip |
| PackageDeployer\_HiEdSampleData.zip | • EducationAnchorHigherEdSampleData\_managed.zip • HIED-SampleData.zip |
| PackageDeployer\_HiEdMarketingSampleData.zip  **Note:** Skip this installation if you have not installed the Dynamics 365 Marketing application. See [section 2](#_Higher_Education_Portal) for more information. | * HigherEdMarketingSampleDataAnchor\_managed.zip * HIED-MarketingSampleData.zip |
| PackageDeployer\_HiEdPortal.Zip | * Dynamics365HigherEdPortal\_managed.zip * EducationAnchorHigherEdEduPortal\_managed.zip * HIED-PortalData.zip |

**Table 2- Packages needed to install all K-12 education solutions using Package Deployer**

| **Package Folder Name** | **Solution Files it Contains** |
| --- | --- |
| PackageDeployer\_DataModelCore.Zip | • EducationAnchorDataModelCore\_managed.zip • EducationAcceleratorCommon\_managed.zip • EducationAcceleratorConnectionRoles\_managed.zip • EducationCoreBusinessLogic\_managed.zip • EducationAccelerator-RequiredData.zip |
| PackageDeployer\_K12.zip | * EducationAnchorK12\_managed.zip * EducationK12ModelApps\_managed.zip |
| PackageDeployer\_K12SampleData.zip | * EducationAnchorK12SampleData\_managed.zip * K12-SampleData.zip |
| PackageDeployer\_K12Portal.zip | * EducationAnchorK12EduPortal\_managed.zip * EducationAcceleratorK12Portal\_managed.zip * K12-PortalData.zip |

**Table 3- Packages needed to install only Program Registration Portal and related solutions using**

**Package Deployer**

| **Package Folder Name** | **Solution Files it Contains** |
| --- | --- |
| PackageDeployer\_DataModelCore.Zip | * EducationAnchorDataModelCore\_managed.zip * EducationAcceleratorCommon\_managed.zip * EducationAcceleratorConnectionRoles\_managed.zip * EducationCoreBusinessLogic\_managed.zip * EducationAccelerator-RequiredData.zip |
| PackageDeployer\_HiEdPortal.Zip | * Dynamics365HigherEdPortal\_managed.zip * EducationAnchorHigherEdEduPortal\_managed.zip * HIED-PortalData.zip |

## Update Portal Binding.

After you deploy the package for the *Higher Education Portal*, *K12 Portal*, or *Program Registration Portal*, you need to update the portal binding. Complete the following steps to update the portal binding:

1. Navigate to **portal admin center** by following the instructions provided in the [Power Apps portals admin center](https://learn.microsoft.com/power-apps/maker/portals/admin/admin-overview) article.
2. Change **Select Website Record** to the name of the portal. This will be **Higher Ed / Program Management Portal (Custom)** for the Higher Education Portal, **K12 Portal (custom)** for the K12 Portal, or **Higher Ed / Program Management Portal (Custom)** for the Program Registration Portal**.**
3. Select **Update**

**Note:** It may take up to 5 minutes for website binding data to sync. Wait a few minutes before attempting to open the portal URL.

## (Optional) Update Side Navigation site setting for Program Registration Portal

If you have chosen to install only the Program Registration Portal and related solutions, you should follow the instructions below to update the side navigation site setting. If you have chosen to install all the higher education or K-12 solutions, you should skip to [section 5.6](#_Set_up_Portal). This is because side navigation can only be disabled for the Program Registration Portal; it cannot be disabled for the Higher Education Portal or the K12 Portal.

* + - 1. Navigate to **Portal Management App** by following the instructions provided in the [Portal Management app overview](https://learn.microsoft.com/power-apps/maker/portals/configure/configure-portal) article.
      2. Select **Site Settings** in the sitemap in the left navigation pane of the **Portal Management App**.
      3. Navigate to **ProgramRegistration/ShowSideNavigation** and set value to **false**.

## Set up portal user login for sample student

The directions below explain the procedure to set up the portal user login for a sample higher education student named *Anton Chew* or a sample K-12 student named *Stuart Ulmer*. We created sample contact data for Anton Chew and Stuart Ulmer, so creating a user login for one of these students will enable you to view the portal experience from the perspective of a student.

1. Navigate to **Portal Management App** by following the instructions provided in the [Portal Management app overview](https://learn.microsoft.com/power-apps/maker/portals/configure/configure-portal) article.
2. Create an invitation for a sample student by following the instructions for creating invitations from the **Portal Management app** in the [Invite contacts to your portals](https://learn.microsoft.com/power-apps/maker/portals/configure/invite-contacts)article. If you want to view the Higher Education Portal or Program Management Portal, you should create an invitation for *Anton Chew.* If you want to view the K-12 Portal, you should create an invitation for *Stuart Ulmer*.
3. Select **Save** on the invitation form.
4. Navigate to the **Advanced** tab on the Invitation form.
5. Copy the invitation code to your clipboard.
6. Navigate to the portal**.**
7. Select **Sign In** and then select **Redeem Invitation.**
8. Paste the invitation code and select **Register**.
9. Complete the sample student’s registration by entering a username and password and saving.
10. To view the sample student’s education records, navigate to the **Coursework** page of the **Higher Education Portal** for *Anton Chew* or the **K-12 Portal** for *Stuart Ulmer*.

## (Optional) Modify user time zone personalization settings

There may be a time-zone display difference between the portals (i.e., **Higher Education Portal, K12 Portal, Program Registration Portal**) and the model-driven apps (i.e., H**igher Education App, K-12 App, Program Management App**). If so, you can go to [personal options](https://learn.microsoft.com/en-us/dynamics365/customerengagement/on-premises/basics/set-personal-options?view=op-9-1#to-set-personal-options) to see personalization settings and then change the **Time Zone** accordingly under the **General tab**

## Set up a Bing Maps Key in portal configurations

The directions below explain how to setup a *Bing Maps Key* if you plan to use the *Events* feature in the Higher Education Portal (see the [Education Accelerator Walkthrough Guide](https://github.com/microsoft/Industry-Accelerator-Education/blob/master/documentation/EducationAccelerator.Walkthrough.Guide.docx) for a description of this feature). If you do not plan to use the Events feature in the Higher Education Portal, you can skip to [section 6](#_Prerequisite_to_Install).

**Note:** Skip this step if you have not installed the Dynamics 365 Marketing application. See [section 2](#_Higher_Education_Portal) for more information.

Complete the following steps to setup Bing Maps Key in Portal Configurations:

1. Generate a Bing Maps Key by following the instructions provided in the [Getting a Bing Maps Key](https://docs.microsoft.com/bingmaps/getting-started/bing-maps-dev-center-help/getting-a-bing-maps-key) article.
2. Navigate to the **Portal Management App** by following the instructions provided in the [Portal Management app overview](https://learn.microsoft.com/power-apps/maker/portals/configure/configure-portal) article.
3. Select **Site Settings** in the Sitemap in the left navigation pane of the Portal Management App.
4. Search for **MRP\_Bing\_Key** in list of site settings.
5. Open **MRP\_Bing\_Key** site settings record and update the **Value** field with the Bing Maps Key.

## Enable Power BI K-12 Learning Standards Dashboard in K-12 Portal

The K-12 Portal includes a *K12 Learning Standards Dashboard* feature that was created with [Power BI.](https://learn.microsoft.com/power-bi/fundamentals/power-bi-overview) You can learn more about this feature in the *Education Accelerator Walkthrough Guide,* which is located in the [Documentation folder](https://github.com/microsoft/Industry-Accelerator-Education/tree/master/documentation) in GitHub. If you would like to enable this feature in the K-12 Portal, follow the instructions in the *K12 Power BI Reports Deployment Guide*. This guide is also located in the [Documentation folder](https://github.com/microsoft/Industry-Accelerator-Education/tree/master/documentation) in GitHub.

# Install specific solutions manually

The instructions in this section explain how to install specific solutions manually.

**Note:** You cannot install portal solutions with this method.

## Install first managed solutions manually

You must install the managed solutions for the education data model prior to installing any other managed solutions or data files. The *Education Data Model* folder includes four managed solution files:

* *EducationAnchorDataModelCore\_managed.zip*
* *EducationAcceleratorCommon\_managed.zip*
* *EducationAcceleratorConnectionRoles\_managed.zip*
* *EducationCoreBusinessLogic\_managed.zip*

Download each file and refer to the instructions provided in the [Import solutions](https://learn.microsoft.com/power-apps/maker/data-platform/import-update-export-solutions) article to manually install these solutions. Each of the solutions takes approximately 2-to-5 minutes to install.

**Note:** The *Education Data Model* folder also includes a data file. The instructions for installing this data solution are in [section 6.3](#_Install_first_data).

## Install additional managed solutions manually

Table 4 below shows the managed solutions that are often used in higher education contexts. Table 5 below shows the managed solutions that are often used in K-12 contexts. Repeat the process described in [section 6.1](#_Install_first_managed) for each managed solution file that you wish to install.

**Note**: The managed solution files in the first folder (*Education Data Model*) in Table 4 and Table 5 should already be installed.

**Note:** Some of the solution folders in Table 4 and Table 5 also include data files. The instructions for installing these data solutions are in [section 6.4](#_Instructions_for_installing).

**Table 4- Managed solution files needed to install specific higher education solutions manually**

| **Solution Folder Name** | **Managed Solution Files Contained in Solution Folder** |
| --- | --- |
| Education Accelerator Data Model | • EducationAnchorDataModelCore\_managed.zip • EducationAcceleratorCommon\_managed.zip • EducationAcceleratorConnectionRoles\_managed.zip • EducationCoreBusinessLogic\_managed.zip |
| Higher Education Accelerator Power Apps | • EducationAnchorHigherEd\_managed.zip •Dynamics365HigherEducationAcceleratorCanvasModel\_managed.zip |
| Higher Education Program Management Apps | • EducationAnchorProgramManagement\_managed.zip • EducationProgramManagementModelApps\_managed.zip |
| Higher Education Sample Data | • EducationAnchorHigherEdSampleData\_managed.zip |
| Higher Education Marketing Sample Data | • HigherEdMarketingSampleDataAnchor\_managed.zip |

**Table 5- Managed solution files needed to install specific K-12 education solutions manually**

| **Solution Folder Name** | **Managed Solution Files Contained in Solution Folder** |
| --- | --- |
| Education Accelerator Data Model | • EducationAnchorDataModelCore\_managed.zip • EducationAcceleratorCommon\_managed.zip • EducationAcceleratorConnectionRoles\_managed.zip • EducationCoreBusinessLogic\_managed.zip |
| K-12 Education Accelerator Power Apps | * EducationAnchorK12\_managed.zip * EducationK12ModelApps\_managed.zip |
| K-12 Sample Data | * EducationAnchorK12SampleData\_managed.zip |

## Install first data solutions manually

The *EducationAccelerator-RequiredData.zip* solution must be installed before any other data solutions. This file can be found in the *Education Accelerator Data Model* folder. Complete the following steps to install data solutions:

1. Download the solution files.
2. Acquire the *Configuration Migration tool (CMT)* by following the instructions provided in the [Dataverse development tools](https://learn.microsoft.com/power-apps/developer/data-platform/download-tools-nuget) article.
3. Import the data solution files by following the instructions provided in the [Import configuration data](https://learn.microsoft.com/power-platform/admin/import-configuration-data) article.

## Import additional data solutions manually.

Table 6 below shows the data solutions that are often used in higher education contexts. Table 7 below shows the data solutions that are often used in K-12 contexts. Repeat the process described in [section 6.3](#_Instructions_for_installing) for each data solution file that you wish to install.

**Note**: The data solution files in the first folder (*Education Data Model*) in Table 6 and Table 7 should already be installed.

**Table 6- Data solution files needed to install specific higher education solutions manually**

| **Solution folder Name** | **Data solution files it contains** | **Time to Import Data** |
| --- | --- | --- |
| Education Accelerator Data Model | EducationAccelerator-RequiredData.zip | 3-8 Minutes |
| Higher Education Sample Data | HIED-SampleData.zip | 8-25 Minutes |
| Higher Education Marketing Sample Data  **Note:** Skip this installation if you have not installed the Dynamics 365 Marketing application. See [section 2](#_Higher_Education_Portal) for more information. | HIED-MarketingSampleData.zip | 8-25 Minutes |

**Table 7- Data solution files needed to install specific K-12 education solutions manually**

| **Solution folder Name** | **Data solution files it contains** | **Time to Import Data** |
| --- | --- | --- |
| Education Accelerator Data Model | * EducationAccelerator-RequiredData.zip | 3-8 Minutes |
| K12 Sample Data | * K12-SampleData.zip | 8-25 Minutes |

# Check that all Power Automate Flows are turned on

Some solutions include [Power Automate Flows](https://learn.microsoft.com/power-automate/overview-cloud) that are installed when the corresponding solution file is installed. The names of the solutions that contain Flows and the names of the Flows are listed in Table 8. Some Flows may be turned off and others may be turned on upon installation. Check that all flows listed in Table 8 are turned on by following the instructions in the [Turn flows on or off article](https://learn.microsoft.com/power-automate/disable-flow#turn-flows-on).

**Table 8- Solution names and corresponding Flows.**

| **Solution Name** | **Flow Name** |
| --- | --- |
| Education Accelerator Common | Accept Appointment |
| Education Accelerator Common | Appointment - Add Regarding as Required Attendee |
| Education Accelerator Common | FL - > Course Histories -> Update Is Course Required |
| Education Accelerator Common | FL - > Course History -> Update Is Course Completed |
| Education Accelerator Common | FL - Course History -> Update Academic Period |
| Education Accelerator Common | FL -> Appointments -> Update StatusCode and StateCode |
| Education Accelerator Common | FL -> Course Section -> Update Registration Start and End date in School's Timezone |
| Education Accelerator Common | FL -> Set Duration Bell Schedule Time |
| Education Accelerator Common | FL->Create School Calendar Dates for School Calendar |
| Education Accelerator Higher Education Portal | Notes Portal - Prefix WEB for notes on Student Resource |
| Education Accelerator Higher Education Apps | Applicant State Code Task Creation |

# Customize education data model

The education data model is designed to align to industry standards, particularly the [Ed-Fi](https://www.ed-fi.org/what-is-ed-fi/ed-fi-data-standard/) and [Schools Interoperability Framework](https://data.a4l.org/sif-specifications/) data standards. You can learn about the technical design of the education data model in the *Solution Packaging Design & ERD* document and the *Education Accelerator Metadata* document. Both of these documents can be accessed from the [Documentation folder](https://github.com/microsoft/Industry-Accelerator-Education/tree/master/documentation) in GitHub.

If you wish to customize the education data model, you can use Power Apps to [create and edit Dataverse tables](https://learn.microsoft.com/power-apps/maker/data-platform/create-edit-entities-portal). The display names for each table can be edited or localized as needed by accessing the table *Properties*. You can also [create and edit Dataverse columns](https://learn.microsoft.com/power-apps/maker/data-platform/create-edit-fields).

**Note:** If you choose to install the *K-12 App* or *K-12 Portal,* the solution includes scripts to change the display name of the *program level* table to*grade level.* You can undo this by following the instructions above.