



One Identity Manager 8.1.1

HTML5 Development Guide

## Copyright 2019 One Identity LLC.

### ALL RIGHTS RESERVED.

This guide contains proprietary information protected by copyright. The software described in this guide is furnished under a software license or nondisclosure agreement. This software may be used or copied only in accordance with the terms of the applicable agreement. No part of this guide may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording for any purpose other than the purchaser's personal use without the written permission of One Identity LLC .

The information in this document is provided in connection with One Identity products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of One Identity LLC products. EXCEPT AS SET FORTH IN THE TERMS AND CONDITIONS AS SPECIFIED IN THE LICENSE AGREEMENT FOR THIS PRODUCT, ONE IDENTITY ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL ONE IDENTITY BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF ONE IDENTITY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. One Identity makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. One Identity does not make any commitment to update the information contained in this document.

If you have any questions regarding your potential use of this material, contact:

One Identity LLC.  
Attn: LEGAL Dept  
4 Polaris Way  
Aliso Viejo, CA 92656

Refer to our Web site (<http://www.OneIdentity.com>) for regional and international office information.

### Patents

One Identity is proud of our advanced technology. Patents and pending patents may apply to this product. For the most current information about applicable patents for this product, please visit our website at <http://www.OneIdentity.com/legal/patents.aspx>.

### Trademarks

One Identity and the One Identity logo are trademarks and registered trademarks of One Identity LLC. in the U.S.A. and other countries. For a complete list of One Identity trademarks, please visit our website at [www.OneIdentity.com/legal](http://www.OneIdentity.com/legal). All other trademarks are the property of their respective owners.

### Legend

-  **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.
-  **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.
-  **IMPORTANT, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

One Identity Manager HTML5 Development Guide  
Updated - August 2019  
Version - 8.1.1

# Contents

<b>About this guide</b> .....	<b>4</b>
<b>Architecture of One Identity Manager HTML applications</b> .....	<b>5</b>
<b>HTML Application development</b> .....	<b>6</b>
Installing the One Identity Visual Studio Code extension .....	7
Setting up working environment .....	7
Connecting to the One Identity Manager database .....	7
Creating a development folder .....	8
One Identity Using the Visual Studio Code extension .....	9
Compilation branches .....	9
Selecting a compilation branch .....	9
Creating a compilation branch .....	10
Deleting a compilation branch .....	10
Updating the API Client .....	10
Creating HTML applications automatically .....	11
Compile HTML applications and save to database .....	11
Check translations .....	12
<b>About us</b> .....	<b>13</b>
Contacting us .....	13
Technical support resources .....	13

## About this guide

This guide shows web developers how to view One Identity Manager HTML applications as code and how to understand their internal functionality. For that purpose, One Identity provides you with an extension for Visual Studio Code.

### Available documentation

The online version of One Identity Manager documentation is available in the Support Portal under [Online documentation](#). Videos providing further information are available at [www.YouTube.com/OneIdentity](http://www.YouTube.com/OneIdentity).

## Architecture of One Identity Manager HTML applications

One Identity Manager manages a folder structure that contains the source files for all HTML applications. In the data model, this folder structure is stored as part of automatic software updates and it is assigned the machine role **HTML Development**.

You can store this folder structure locally in a development folder. In the development folder, the folders for database modules are stored at the top level. Below that you will find a folder for each HTML application. See section [Creating a development folder](#) on page 8 to find out how to create a development folder.

The HTML applications are structured as nodeJS applications that use the **Angular** framework. Generally, any HTML applications that can be compiled as nodeJS applications are supported.

The HTML applications use the API Client to communicate with the One Identity Manager API. API Client is an npm library that is automatically generated and stored to the database during API compilation. API Client controls all network access on the API Server.

Much of the logic for HTML applications is realized by plugins that can be used independently of a specific HTML application. You can also use this logic for your own applications.

## HTML Application development

In this section, you will find information on how to deal with the One Identity Visual Studio Code extension.

You can use the Visual Studio Code extension to launch the ImxClient commandline program directly in Visual Studio Code without any in-depth knowledge of the syntax:

- [Connect](#) to the database
- [Create](#) the development folder
- [Manage and use](#) compilation branches
- [Update](#) HTML applications with the same setup
- [Compile](#) a HTML application
- [Update](#) the base libraries (API Client)
- [Check](#) for missing translations

The Visual Studio Code extension also provides you with the following helpful information:

- Status of the current database connection
- Information about the ImxClient used
- Information about the API Client used
- Status of the development order
- Compilation branch display
- Information on the last translation check

### Related topics

- [Installing the One Identity Visual Studio Code extension](#) on page 7
- [Setting up working environment](#) on page 7
- [One Identity Using the Visual Studio Code extension](#) on page 9

# Installing the One Identity Visual Studio Code extension

## *To install the One Identity Visual Studio Code extension*

1. Start Visual Studio Code.
2. In Visual Studio Code, click **Extensions** in the left navigation.
3. In **Extensions**, click ... | **Install from VSIX**.
4. In the file browser, select the file vcode-extension.vsix in the One Identity Manager installation folder and click **Install**.
5. Restart Visual Studio Code.
6. In Visual Studio Code, click **Explorer** in the left navigation.
7. In **Explorer**, navigate to **One Identity | Configuration**.
8. Next to **Imx client**, click **One Identity Manager: edit imx client path**.
9. In the file browser, select the file ImxCli.exe in the One Identity Manager installation folder and click **Open**.

## Setting up working environment

In this section, you will learn how to use the One Identity Visual Studio Code extension to set up your working environment. After setup, you will be able to use the Visual Studio Code extension and its functions without any issues.

### Related topics

- [Connecting to the One Identity Manager database](#) on page 7
- [Creating a development folder](#) on page 8

## Connecting to the One Identity Manager database

Many of the functions available to you in the Visual Studio Code extension require a connection to the One Identity Manager database.

### ***To connect to the One Identity Manager database***

1. In Visual Studio Code, click **Explorer** in the left navigation.
2. In **Explorer**, navigate to **One Identity | Workspace**.
3. Next to **Database**, click **One Identity Manager: connect to database**.  
The dialog to select the database connection is opened.
4. In the dialog, perform one of the following actions:
  - to use an existing connection to the One Identity Manager database, select it in the **Select a database connection** menu.
  - OR -
  - to create a new connection to the One Identity Manager database, click **Add new connection** and enter a new connection.
5. Under **Authentication method**, enter the method and the login data to sign into the database.
6. Click **Log in**.

## **Creating a development folder**

You must perform the following actions to create a development folder:

- Download the HTML application folders from the database and save them as sub-folders in the development folder.
- Download the libraries from the database and save them in the sub-folder `imx-modules` in the development folder.
- The newest libraries are downloaded to the sub-folder `imx-modules` in the development folder. Skip this step if a connection to the database has not been established (also see [Connecting to the One Identity Manager database](#) on page 7).

### ***To set up a One Identity Manager development folder***

1. In Visual Studio Code, click **File | Open folder** in the toolbar.
2. In the file browser, select the folder that you would like to use as a development folder.
3. In Visual Studio Code, click **Explorer** in the left navigation.
4. In **Explorer**, navigate to **One Identity | Workspace**.
5. Next to **Development folder**, click **One Identity Manager: set up development folder**.
6. Confirm this prompt with **Continue setup**.



# One Identity Using the Visual Studio Code extension

In this section, you will learn how to use the One Identity Visual Studio Code extension.

## Related topics

- [Compilation branches](#) on page 9
- [Updating the API Client](#) on page 10
- [Creating HTML applications automatically](#) on page 11
- [Compile HTML applications and save to database](#) on page 11
- [Check translations](#) on page 12

## Compilation branches

Use compilation branches to manage different versions of your compiled project and to store the versions in the database. You can [select](#) the required compilation branch, show available compilation branches, [create](#) compilation branches and [delete](#) compilation branches.

## Related topics

- [Selecting a compilation branch](#) on page 9
- [Creating a compilation branch](#) on page 10
- [Deleting a compilation branch](#) on page 10

## Selecting a compilation branch

### *To select and use a compilation branch*

1. In Visual Studio Code, click **Explorer** in the left navigation.
2. In **Explorer**, navigate to **One Identity | Configuration**.
3. Next to **Branch ID**, click **One Identity Manager: edit branch id**.

**TIP:** If a connection to the One Identity Manager database has not yet been established, you must set up the connection now (see [Connecting to the One Identity Manager database](#) on page 7).

A menu with available compilation branches is opened.

4. In the menu, click the compilation branch you would like to use.

# Creating a compilation branch

## *To create a compilation branch*

1. In Visual Studio Code, click **Explorer** in the left navigation.
2. In **Explorer**, navigate to **One Identity | Configuration**.
3. Next to **Branch ID**, click **Add branch**.

An input field opens.

4. In the input field, enter a name for the compilation branch and press **Enter**.

**TIP:** If a connection to the One Identity Manager database has not yet been established, you must set up the connection now (see [Connecting to the One Identity Manager database](#) on page 7).

# Deleting a compilation branch

## *To delete a compilation branch*

1. In Visual Studio Code, click **Explorer** in the left navigation.
2. In **Explorer**, navigate to **One Identity | Configuration**.
3. Next to **Branch ID**, click **One Identity Manager: edit branch id**.

**TIP:** If a connection to the One Identity Manager database has not yet been established, you must set up the connection now (see [Connecting to the One Identity Manager database](#) on page 7).

A menu with available compilation branches is opened.

4. In the menu, click the configuration branch you would like to delete.
5. In **Explorer** next to **Branch ID**, click **Delete branch**.
6. Confirm this prompt with **OK**.

# Updating the API Client

You can update the base libraries and, therefore, the API client at any time.

## *To update the API Client*

1. In Visual Studio Code, click **Explorer** in the left navigation.
2. In **Explorer**, navigate to **One Identity | Workspace**.
3. Next to **API Client**, click **One Identity Manager: update api client**.

- ❶ **TIP:** If a connection to the One Identity Manager database has not yet been established, you must set up the connection now (see [Connecting to the One Identity Manager database](#) on page 7).

## Creating HTML applications automatically

To recognize and create HTML applications automatically, check the folders available in your development folder. It involves the following steps:

- The sub-folder `assets` in the working directory is connected to the sub-folder `src/assets` in the application.
- The relevant plugins are connected and integrated.

- ❶ **NOTE:** HTML applications are also automatically set up before each compilation.

### *To automatically create HTML applications*

1. In Visual Studio Code, click **Explorer** in the left navigation.
2. In **Explorer**, navigate to **One Identity | Workspace | Development folder**.
3. Next to **Apps**, click **reload existing apps**.

- ❶ **TIP:** If a connection to the One Identity Manager database has not yet been established, you must set up the connection now (see [Connecting to the One Identity Manager database](#) on page 7).

## Compile HTML applications and save to database

You can compile your HTML applications and save the results automatically to the One Identity Manager database.

### *To compile HTML applications and save to the database*

1. In Visual Studio Code, click **Explorer** in the left navigation.
2. In **Explorer**, navigate to **One Identity | Workspace | Development folder | Apps**.
3. Click **Compile app** next to the HTML application that you would like to compile and save to the database.

- ❶ **TIP:** If a connection to the One Identity Manager database has not yet been established, you must set up the connection now (see [Connecting to the One Identity Manager database](#) on page 7).

A debug compilation is executed and the changes are saved to the enabled [Compilation branch](#).

## Check translations

In your HTML application, you can check the development folder for missing translations.

### ***To check the development folder for missing translations***

1. In Visual Studio Code, click **Explorer** in the left navigation.
2. In **Explorer**, navigate to **One Identity | Workspace | Development folder**.
3. Next to **Translations**, click **Check translations**.

A report opens. The report shows you any files containing texts that have not yet been translated or have not been translated in full.

One Identity solutions eliminate the complexities and time-consuming processes often required to govern identities, manage privileged accounts and control access. Our solutions enhance business agility while addressing your IAM challenges with on-premises, cloud and hybrid environments.

## Contacting us

For sales or other inquiries, visit <https://www.oneidentity.com/company/contact-us.aspx> or call +1-800-306-9329.

## Technical support resources

Technical support is available to One Identity customers with a valid maintenance contract and customers who have trial versions. You can access the Support Portal at <https://support.oneidentity.com/>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request
- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to-videos at [www.YouTube.com/OneIdentity](http://www.YouTube.com/OneIdentity)
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product