

Aras Test Automation Framework (TAF) 1.26 Installation Guide

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Document Conventions

The following table highlights the document conventions used in the document:

Convention	Description
Bold	This shows the names of menu items, dialog boxes, dialog box elements, and commands. Example: Click OK .
Code	Code examples appear in <code>courier</code> font. It may represent text you type or data you read.
Yellow highlight	Code highlighted in yellow draws attention to the code that is being indicated in the content.
Yellow highlight with red text	Red text highlighted in yellow indicates the code parameter that needs to be changed or replaced.
<i>Italics</i>	Reference to other documents.
Note:	Notes contain additional useful information.
Warning	Warning contains important information. Pay special attention to information highlighted this way.
Successive menu choices	Successive menu choices may appear with a greater than sign (-->) between the items that you will select consecutively. Example: Navigate to File --> Save --> OK .

1 Document Overview

This document provides detailed instructions on installing a Visual Studio extension with the Aras Test Automation Framework (TAF) templates. A novice engineer can install the Aras TAF templates following the described procedures.

2 Aras TAF Overview

The Aras Test Automation Framework (TAF) is a framework for writing and executing automated tests for the Aras Innovator platform. TAF supports both AML integration and Selenium web UI tests. The product also includes a Visual Studio extension that provides project templates to help users create and execute automated tests using TAF libraries.

The Aras TAF 1.26 release includes an API to simplify test automation for the applications listed in the following table.

Application	Application Version	Aras Innovator Version
Aras Component Engineering	<ul style="list-style-type: none"> 12.0R1 – 12.0R3 14 	<ul style="list-style-type: none"> 12.0 SP7 – 12.0 SP18 14 – 23
Aras Program Management	<ul style="list-style-type: none"> 12.0R1 14 	<ul style="list-style-type: none"> 12.0 SP7 – 12.0 SP18 14 – 23
Aras Technical Documentation	<ul style="list-style-type: none"> 12.0R1 14 	<ul style="list-style-type: none"> 12.0 SP7 – 12.0 SP18 14 – 23

3 Software and Hardware Requirements

The following table lists the minimum software requirements for the Aras TAF 1.26.

Software	Version
Visual Studio	<ul style="list-style-type: none"> Community 2019 Enterprise 2019 Professional 2019
.NET	<ul style="list-style-type: none"> 4.7.2
C#	<ul style="list-style-type: none"> 7.1
Aras Innovator	<ul style="list-style-type: none"> 12.0 SP7 – 12.0 SP18 14 – 23

4 Aras Feature License Requirements

The Aras Test Automation Framework requires an Aras TAF or Platinum-level subscription. To execute automated tests using the Aras TAF, a target Aras Innovator instance must have the valid **Aras.TestAutomationFramework** Feature License.

5 Downloading TAF Templates

The Aras TAF project templates are delivered as a zipped package, which subscribers can download from the [Aras FTP](#) site. The FTP content and folder structure are specific for a given logged-in user. The package should be downloaded and extracted to a machine where a supported Visual Studio is installed.

6 Installing Aras TAF Templates

6.1 Installing Aras TAF Templates in Visual Studios 2019

1. Unzip the Aras TAF package on a machine with installed Visual Studio 2019.
2. Go to the **Templates** folder in the unzipped package.
3. Double-click the **Aras.TAF.Templates.Installer.vsix** file to start the installer. The **User Account Control** dialog appears.

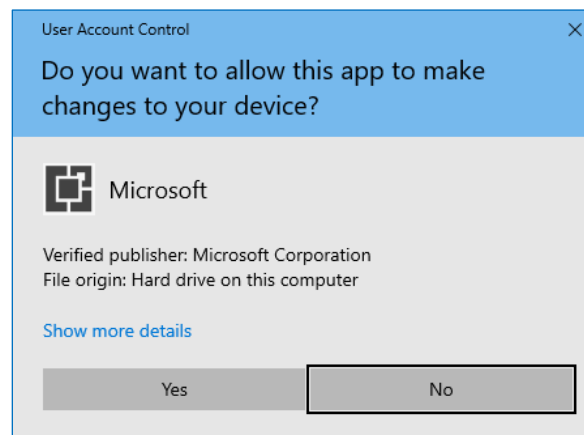


Figure 1. The **User Account Control** dialog

- Click **Yes**. The **VSIX Installer** dialog appears.

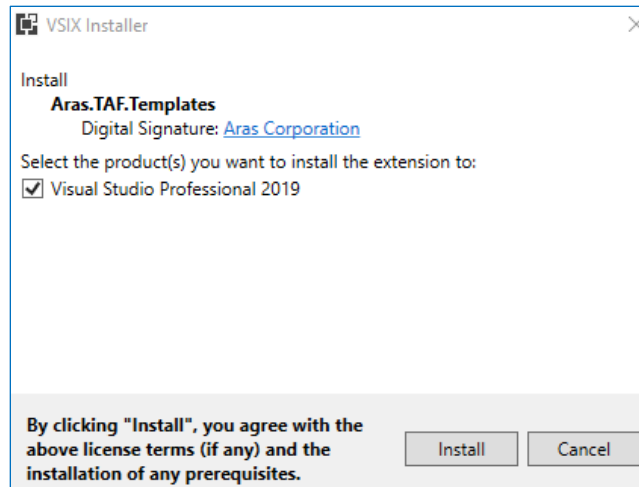


Figure 2. The **VSIX Installer** dialog

- Ensure that the Visual Studio 2019 option is selected.
- Click the **Install** button. The installation process begins.

Note: If you have open Visual Studio processes, the installer will ask you to end them (see Fig. 2). If so, save the open Visual Studio projects, and click the **End Tasks** button to stop the processes and continue the installation.

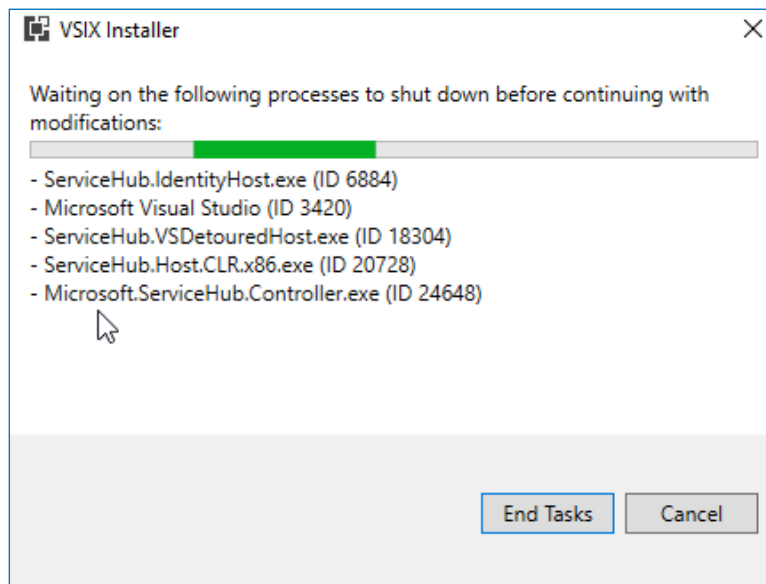


Figure 3. The installer dialog asks to end all running Visual Studio processes

Once the extension with TAF templated is installed, the dialog informs about the successful installation.

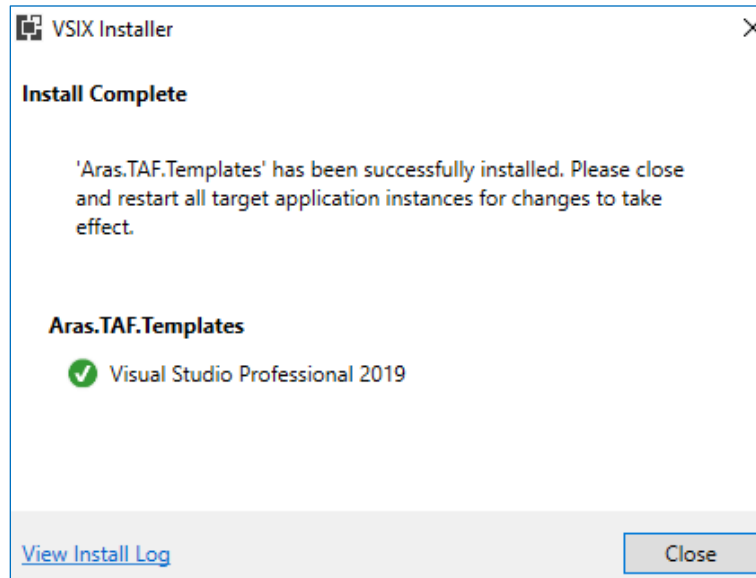


Figure 4. The installer dialog informs about a successful installation

7. Click the **Close** button.
8. Open Visual Studio 2019 and begin using the Aras TAF project templates.

6.2 Installing Aras TAF Templates in Visual Studio 2022

1. Unzip the Aras TAF package on a machine with installed Visual Studio 2022.
2. Go to the Templates folder in the unzipped package.
3. Open PowerShell console and navigate to the Templates folder in the unzipped package.
4. Fill `.\InstallTemplate.ps1` to the PowerShell console.

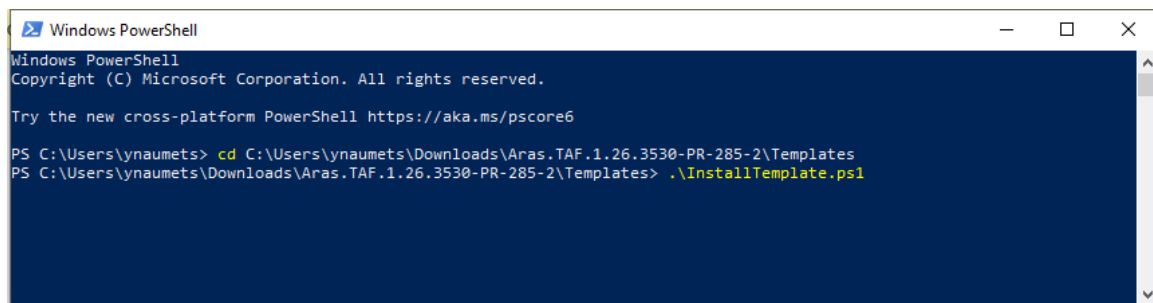


Figure 5. The PowerShell Console with Installation command.

5. Click Enter.

Once the extension with TAF templates is installed, the PowerShell Console informs about the successful installation.

```

Select Windows PowerShell
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\ynaumets> cd C:\Users\ynaumets\Downloads\Aras.TAF.1.26.3530-PR-285-2\Templates
PS C:\Users\ynaumets\Downloads\Aras.TAF.1.26.3530-PR-285-2\Templates> .\InstallTemplate.ps1
Installing Aras TAF Templates...
The following template packages will be installed:
  C:\Users\ynaumets\Downloads\Aras.TAF.1.26.3530-PR-285-2\Templates\Aras.TAF.Templates.1.26.3530-PR-285-2.nupkg
Success: Aras.TAF.Templates::1.26.3530-PR-285-2 installed the following templates:
Template Name      Short Name  Language  Tags
-----
Aras Innovator 12 Selenium Tests Template  I12Template [C#]    Test/ NUnit/Selenium
Aras Innovator 14+ Selenium Tests Template  I14+Template [C#]    Test/ NUnit/Selenium
Aras Integration Tests Template             ItafTemplate [C#]    Test/ NUnit/Integration
PS C:\Users\ynaumets\Downloads\Aras.TAF.1.26.3530-PR-285-2\Templates>

```

Figure 6. The PowerShell console informs about a successful installation.

6. Open Visual Studio 2022 and begin using the Aras TAF project templates.

7 Aras TAF Project Templates

7.1 Creating a New Project from a Template

1. Open Visual Studio and click **Create a New Project**.
2. Select the template for the type of automated tests you need to create:
 - a. **Aras Innovator 12 Selenium Tests Template**: web UI tests for the Aras Innovator 12 client.
 - b. **Aras Innovator 14+ Selenium Tests Template**: web UI tests for the Aras Innovator 14 or higher client.

- c. **Aras Integration Tests Template:** AML integration tests for all supported Aras Innovator releases.

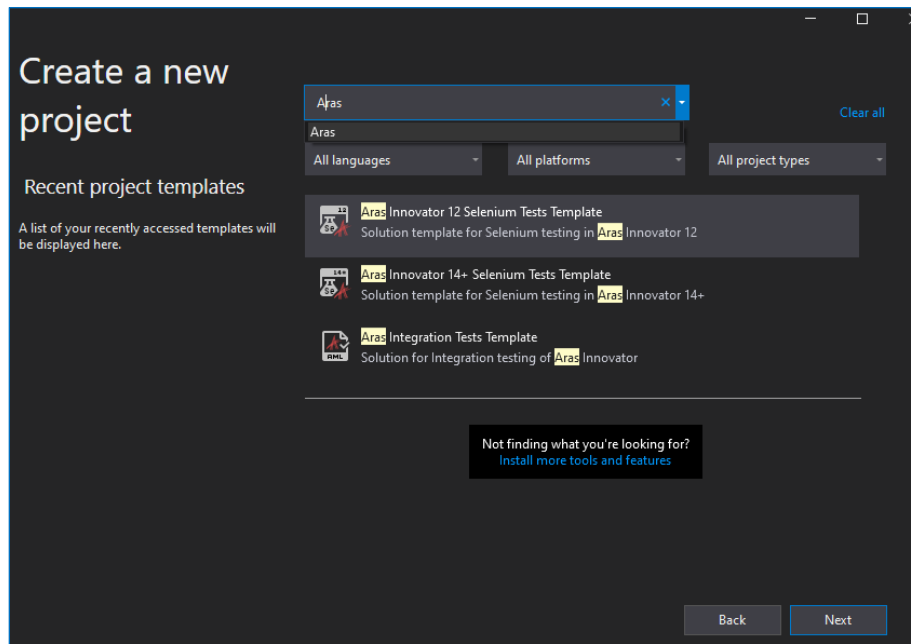


Figure 7. The **Create a new project** Visual Studio dialog with the TAF templates

- 3. Click the **Next** button. The **Configure your new project** Visual Studio dialog appears.

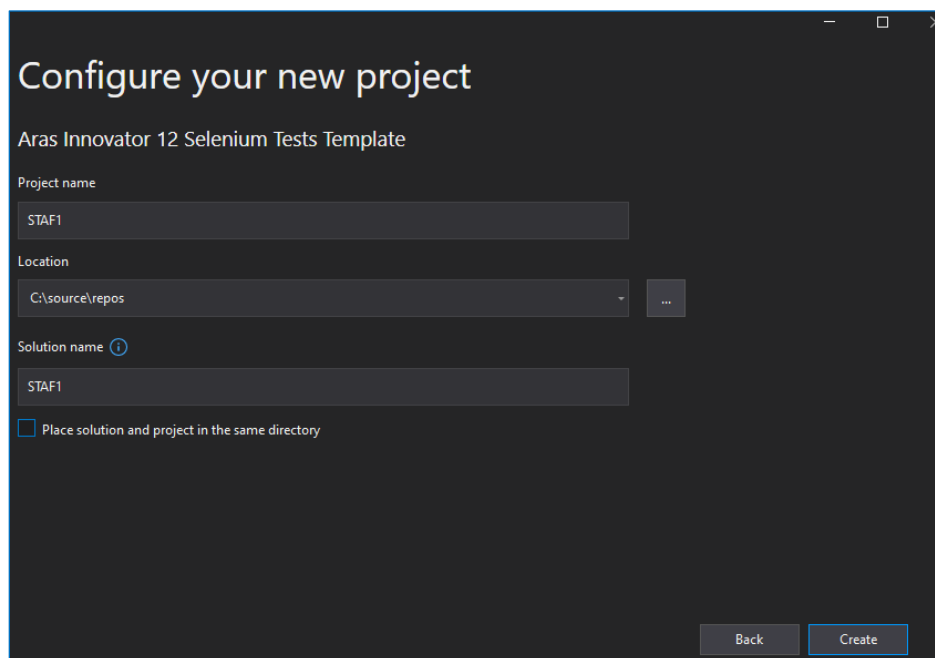


Figure 8. The **Configure your new project** Visual Studio dialog

- 4. Fill in the **Project name**, **Location**, and **Solution name** project properties.
- 5. Deselect **Place solution and project in the same directory**.
- 6. Click the **Create** button. The new TAF project is created.

- Configure the project according to the given type of the automated tests. For the configuring details, see the matching subsection.

7.2 Configuring Aras Selenium Test Solutions

- In the Visual Studio Solution Explorer, expand the **Aras.ProjectName.Tests** project and double-click the **TestCredentials.json** file to open it.

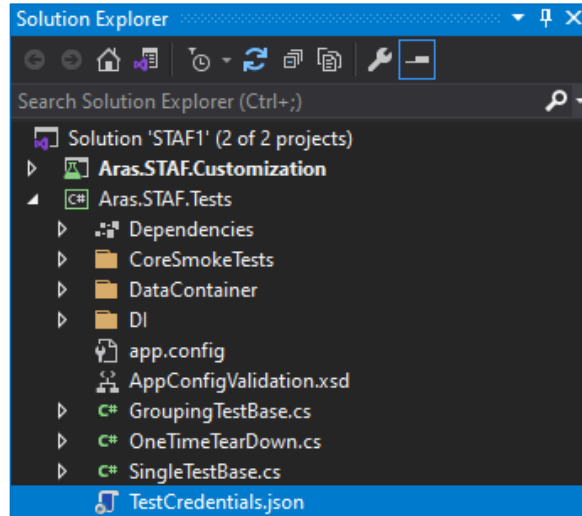


Figure 9. The **TestCredentials.json** file

- In the `Users` array, add an object with the `LoginName` and `Password` properties for each user you want to use in your tests.

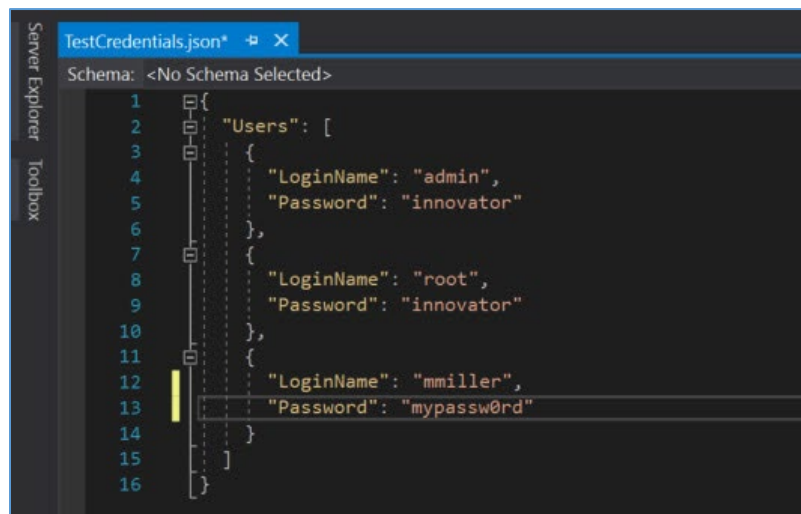


Figure 10. A custom `Users` array

3. In the Visual Studio Solution Explorer, double-click the **app.config** file to open it.

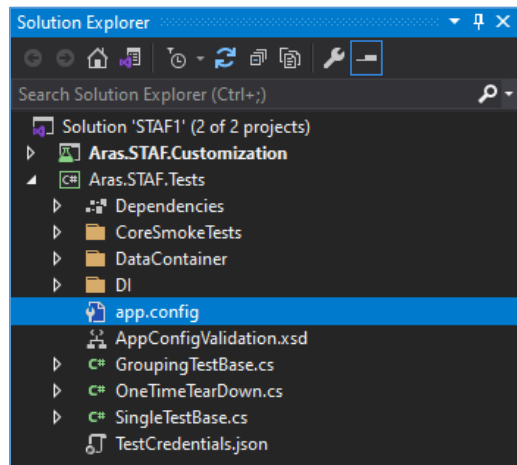


Figure 11. The **app.config** file

4. In the `InnovatorApp` tag, set the following attributes to the values appropriate for your test environment:
 - a. `ClientUrl`: a URL for logging in with a browser, for example:
 - `http://server/web_alias/Client`
 - b. `ServerUrl`: a URL for sending AML requests, for example:
 - `http://server/web_alias`
 - c. `Database`: a name of your test database.
 - d. `Version`: a major release and service pack of your Aras Innovator instance, for example:
 - `12.0 SP6`
 - e. `BuildNumber`: a build number of your Aras Innovator instance, optional.
5. In the `Browser` tag, set the `Name` attribute to the name of a browser you want to use for your web UI tests. The default value is `Chrome`.
6. Save your changes.

For details on the optional **app.config** settings, refer to the *Aras Test Automation Framework - User Guide* in the **Documentation** folder in the TAF package.

7.3 Configuring AML Integration Test Solutions

1. In the Visual Studio Solution Explorer, expand the **Aras.ProjectName.Tests** project and double-click the **App.config** file to open it.

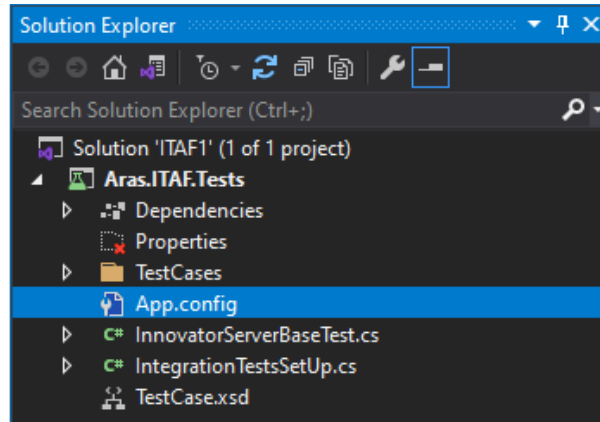


Figure 12. The **App.config** file

2. Set the following the `setting` tags to the values appropriate for your test environment:
 - a. `admin_login_name`: a login name of your database admin user. The default value is `admin`.
 - b. `admin_pwd`: a password for your database admin user. The default value is `innovator`.
 - c. `innovator_server_url`: a URL of your Aras Innovator server, for example:
 - `http://server/web_alias/Server/InnovatorServer.aspx`
 - d. `oauth_server_url`: a URL of your OAuth server, for example:
 - `http://server/web_alias/OAuthServer/`
 - e. `database`: an id of your test database.
 - f. `database_name`: a name of your test database.
3. Save your changes.

For details on the optional **App.config** settings, refer to the *Aras Test Automation Framework - User Guide* in the **Documentation** folder in the TAF package.

7.4 Writing TAF Tests

For details on writing automated tests with the Aras TAF APIs for Selenium web UI and AML integration tests, refer to the *Aras Test Automation Framework - User Guide* in the **Documentation** folder in the TAF package.