Time Series Analyst Deployment Guide: IIS

How to deploy the Time Series Analyst on an IIS server with Helicon Zoo.

1) Install the Helicon Zoo module on IIS. If the module is already installed, skip to step 2.

In this step we install the Helicon Zoo module. This module has the required management tools and the template to install a django application on IIS.

-In the IIS Manager, open Web Platform Installer under the Management category.
-Click on Options, which is next to the Install and Exit buttons.
-Under Custom Feeds, enter the url for the Helizon Zoo module: http://www.helicontech.com/zoo/feed.xml as a feed, then click on Add Feed. After adding the feed click on OK to confirm the addition of the new feed.

When the Helicon Zoo feed is added, a new tab on the Web Platform Installer appears with the name “Zoo”. In this tab we can see all the Helicon Zoo packages, modules, engines, and templates we can install.
This also install the Helicon Zoo Manager, a tool to configure all the Helicon Zoo applications. This tool can be used inside IIS (it appears under the IIS category on the IIS Manager,) or as a separate application in the start menu.

2) Adding the new Project.

Here we install the template with the required functional initial configuration.

-In Web Platform Installer, click on the new Zoo tab.
-Click on the Templates category on the left, and look for the Python project Template.
-Click on the Add button to add the Python project template to the list of items to install, then click on the Install button.
-An installation wizard will open. Accept the licence terms to start the configuration process.
-In the configuration step, select the IIS Web Site in which you want to install the application, then enter a name and click on Continue.
-Click on Launch Python Project after it is done installing, then click Finish and close the Web Platform Installer. A web page will open on the browser and it will automatically deploy a default application that we will change in the next step.

3) Clone the Github Project
Here we setup the Time Series Analyst that is on Github. The cloning of the project can be done in the command line interface (cmd), with a git graphical interface, or manually downloading the project from github.

-Install Git from https://git-scm.com/downloads.
-Navigate to the folder where the newly created project is, by default this folder is C:\inetpub\wwwroot\{name of the project we installed on the previous step}
-If doing manually: copy the WEBTSA folder here.
-If using git on the command line, execute: git clone https://github.com/UCHIC/WEBTSA.git

Now the WEBTSA folder should be under the Helicon Zoo project directory (alongside the console and venv folders.)

4) Project Configuration
Here we configure the installed Helicon Zoo project to serve our Django application.

-Open Helicon Zoo Manager standalone program (should be in the start menu) and navigate to the newly added Helicon Zoo project in the IIS Web Site you specified in the installation. This opens the configuration for that project with a list of Applications.
-In the applications list, select the one with the name 'python.project' (this should be the only application in the list,) and click on the Edit button.

In the edit window, we can see the project properties and a list of environment variables.
-Click on the Rename button and enter a more related name for the application (tsa or webtsa.)
-Select the Python 2.7 fastCGI engine.
-Double click the PYTHONPATH environment variable in the list to edit it to add the TSA source files. In the value field, go to the end and change %APPL_PHYSICAL_PATH%\project to %APPL_PHYSICAL_PATH%\WEBTSA\src
-Click on the New button to add a new environment variable. In the name field enter DJANGO_SETTINGS_MODULE, and in the value field enter WEBTSA.settings.production, then click on Apply to save the changes made to the environment variables.
-After clicking on the Apply button, click on the Apply button on the project window.
-Now, on the left navigation, expand the project folder and select the folder named 'static'. This will present the exact same options as for the project folder, but now just for the static folder.
-Click on the Disable button and navigate back to the project folder. This will tell Helicon Zoo not to handle the static file requests.

5) Install Required python libraries and deal with the Static Files
We need to install all required python libraries in the Helicon Zoo project's virtual environment.

-Now that we are back to the project folder in the Helicon Zoo Manager, click on the Start Web Console button. This will open a command line tool in the project directory and with the project virtual environment.

To install the python libraries:
-Navigate to the folder we cloned on step 3 (execute the command: cd WEBTSA.)
-Execute the command: pip install -r requirements.txt. This will install all the required libraries.

To copy the static files to the correct folder:
-Navigate to the src folder inside the WEBTSA directory (execute: cd src)
-Execute the command: python manage.py collectstatic, then type yes and press Enter. This will copy all the static files to the correct static folder that is ready to serve those files.

6) WEBTSA settings and databases
In this final step, we need to setup the databases and create a setting file with the specific server information.

-Generate the TSA Catalog database in a Sql Server Database. The file is inside the TSACatalogGeneration folder.
-Create another Database for the django internal configuration (it can have any name.)
-Go to the project's settings folder and rename the file settings_template.json to settings.json
-Fill in the specific server information required.