

# Baseline 7 | Installation Manual

Valid for Baseline 7.1.2 (and higher)

April 2026



## 1 Introduction

Baseline 7 is a combination of an ArcGIS Pro add-in and a geographical database. The application is meant for storage, editing and presenting geo-referenced data of watersystems like rivers, lakes and seas. In addition Baseline can be used to convert data to input files for modelsystems like D-HYDRO Suite, specifically D-Flow Flexible Mesh (D-Flow FM).

The ArcGIS add-in and (file geo) database are suitable for use with ArcGIS Pro 3.2 or higher with an ArcGIS-Advanced license and 3D Analyst extension. For the conversion of elevation data to a gridcell-averaged elevation model for use in D-HYDRO Suite or SWAN the Spatial Analyst extension is required.

The geographical database and extension are developed on behalf of Rijkswaterstaat. However, Baseline can be used whenever a structured storage of river data and/or a link of flow models with a GIS environment is desired.

Although Baseline has been developed as an ArcGIS Pro add-in, the application is primarily aimed at users of hydrodynamic models. They will need basic knowledge of ArcGIS Pro.

The purpose of this document is to guide the user in installing Baseline 7. The user is referred to the Baseline\_Help and Baseline\_DataProtocol for guidance in using Baseline 7 and the differences with Baseline 6.

This is the Installation Manual for Baseline 7.1.2 (and higher versions).

## 2 Installation

### 2.1 Requirements

- ArcGIS Pro 3.0 up to 3.4.2 – preferred<sup>1</sup>
  - License: Advanced, with extensions:
    - 3D Analyst
    - Spatial Analyst (only for 'conversion to D-Flow FM' using the option 'elevation interpolation') and for Subgrid'
  - System requirements: <https://pro.arcgis.com/en/pro-app/latest/get-started/arcgis-pro-system-requirements.htm>
- Shapely 2.0.4+

### 2.2 Setup

Make sure that ArcGIS Pro 3.2+ is installed on your computer and any previously installed Baseline (7+) version is removed.

#### 2.2.1 Check the correct version of Shapely

Baseline 7 requires an additional Python package. To install this package, follow the following steps.

1. Clone the default Python environment of ArcGIS Pro by following the steps described in this article: <https://pro.arcgis.com/en/pro-app/latest/arcpy/get-started/clone-an-environment.htm>, you can also use an already existing environment outside of the default environment.
2. In the Package Manager, activate the new environment and click on 'Add packages' (see figure 2).
3. Click on install (if not installed already).

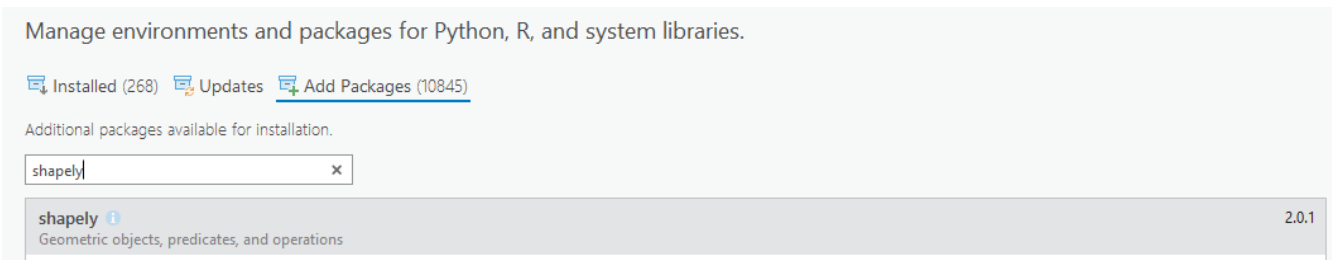


Figure 1 Shapely in the package manager

#### 2.2.2 If necessary: install Shapely using the command prompt

In the situation that Shapely is not listed in the package manager or ArcGIS Pro installs the wrong version (<= 2.0.1) of Shapely, you have to install it through the command prompt:

1. You still need to make a clone the python environment. To do this, follow the step 1 of 3.2.1.
2. In your file explorer, navigate to the folder: "C:\Users\<<USER>\AppData\Local\ESRI\conda\envs\<<the cloned environment>" (the location of your cloned environment, you can see this location when you press the settings button in the package manager).
3. Open the command prompt in this folder (right click -> 'Open in terminal').
4. Run the following command: **python.exe -m pip install shapely==2.0.5**
5. Shapely is now installed. If you do not have permission to do this, or the installation fails, contact your system administrator.

<sup>1</sup> Mark that ArcGIS Pro 3.4.3 and higher have a bug in the 'Interpolate shape' geoprocessing tool. When using these ArcGIS Pro versions an alternate function is activated (automatically). The cost is a significant longer processing time.



### 2.2.3 Baseline setup

Close ArcGIS Pro and run the installer for Baseline 7. The installer will install the (Baseline 7) add-in, the python toolbox and the variant and measure templates in the installation folder. The add-in is automatically added to your ArcGIS Pro application. Baseline can be installed per user (2.2.3.1), or per computer (2.2.3.2).

#### 2.2.3.1 User installation

Run the installer and follow the steps. Choose the option 'Alleen uzelf'. The required files are installed in the user's appdata folder (C:/Users/<User>/AppData/Local/Baseline7), finish the process to install Baseline on this location.

#### 2.2.3.2 Computer installation

The installer is required to run as an admin. Open the command prompt as administrator and run the installer through this command prompt (use the path to the installer as a command). Follow the installation steps and choose the option 'Iedereen' to install Baseline at the program folder (C:/Program Files/Baseline7). Finish the process to install Baseline on this location. The Add-in is now installed as a 'shared' Add-in across all users.

Note: The user's appdata folder is still used for localized data (the python toolbox, templates and settings). Those files are automatically copied to the user's appdata folder (C:/Users/<User>/AppData/Local/Baseline7) when the user opens the Baseline7 add-in in ArcGIS Pro for the first time.

Note: The installation path is stored in the variable: BASELINEDIR and INSTALLUSER stores the type of installation (0=Local user, 1=Machine)

## 2.3 Check the installation

Navigate to the installation folder at the following location(s):

- (User) C:/Users/<user>/AppData/Local/Baseline7
- (Computer) C:/Program Files/Baseline7

The installation folder should contain the following items:

- BaselineTools (Folder)
- Executables (Folder)
- Help (Folder)
- TemplateDefault (Folder)
- Baseline.AddIn.esriAddinX

Additionally, when Baseline is used for the first time, the following content should be present in the User folder:

- Template
- Settings.settings

If any folder is missing, delete the installation folder and rerun the setup (make sure to close ArcGIS Pro beforehand).

*If you have changed the 'BaselineTools' or the 'TemplateDefault' folder you are able to rerun the setup (with the repair option) to reinstall the original version delivered with the setup. Make sure to remove and back-up (if required) the folders before running the setup.*

*If Baseline is installed on the computer level, the user is free to delete any of the items in the user's appdata folder, those will be automatically copied from the installation folder if missing (in the original state).*