

User Guide:

AIS CSV to FileGeodatabase (FGDB) Tool (for ArcGIS Pro)

The CSV to FileGeodatabase (FGDB) Tool is designed to take ASCII comma separated value (CSV) format AIS data and convert it to a point feature class within an ESRI FileGeodatabase. This tool has been designed as an ArcGIS Python Toolbox tool that is utilized within ArcGIS Pro (version 2.1.x or later). The user can specify the input CSV file and the output feature class name and location, and the tool will run the conversion process. The tool is designed to work with a specific CSV format only. All fields from the CSV file will be brought in to the point feature class.

This document outlines:

- System/Software requirements
- How to access the tool within ArcGIS Pro
- Usage instructions
- Required input CSV and output Point Feature Class Formats


Software Requirements

ArcGIS Pro	Version 2.1.x or later <ul style="list-style-type: none">• Designed in version 2.1.3
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How to access the tool within ArcGIS Pro

No special installation is required to use this Python Toolbox. The toolbox files should be extracted with the AIS_Uilities_2018_Pro ZIP file, and the toolbox can be accessed directly from the ArcGIS Pro Catalog:

1. Browse the directory containing the Python Toolbox files.
2. The **AIS_Uilities_2018_Pro** Python Toolbox should appear with this location:

 AIS_Uilities_2018_Pro.pyt	GP	7/3/2018 4:07 PM
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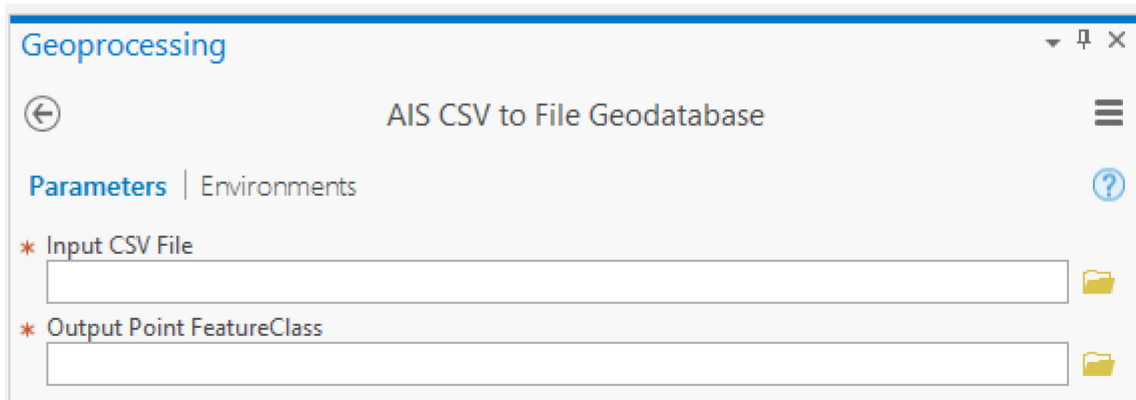
3. Double click the toolbox to access the AIS **CSV to File Geodatabase Tool**:

 AIS CSV to File Geodatabase	script
 AIS TrackBuilder	script

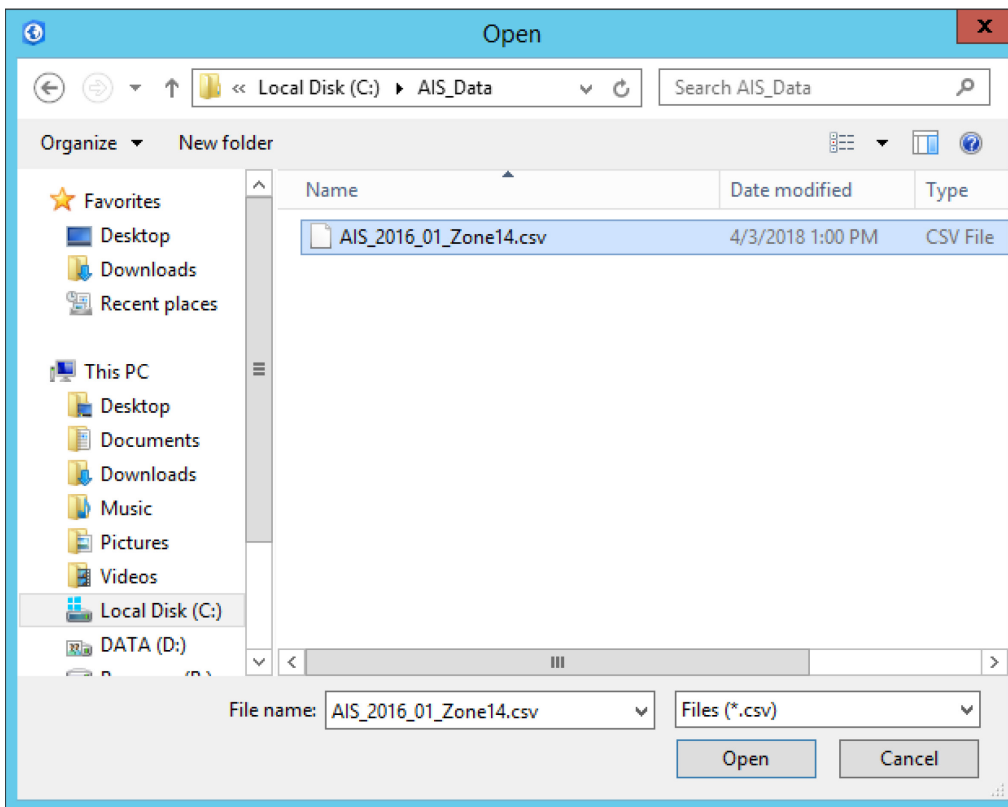
4. Double click on tool to load the dialog and run the tool.

Usage instructions

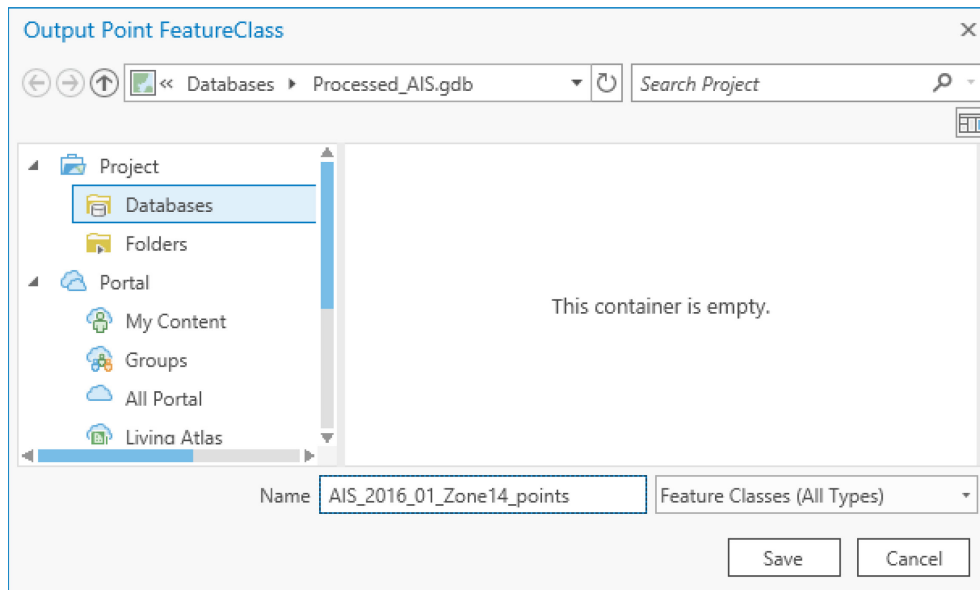
1. Open the **CSV to FileGeodatabase Tool** from ArcGIS Pro



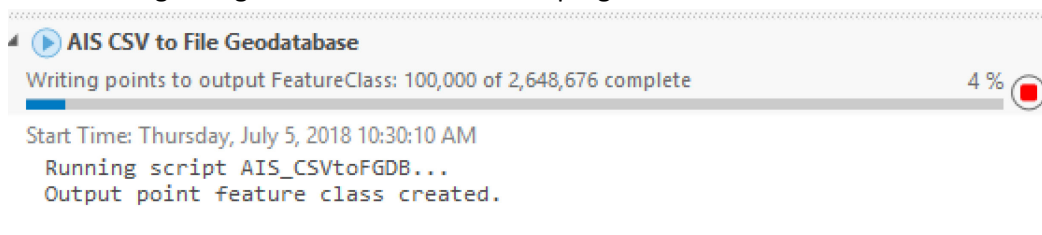
2. Browse the AIS CSV file to be converted



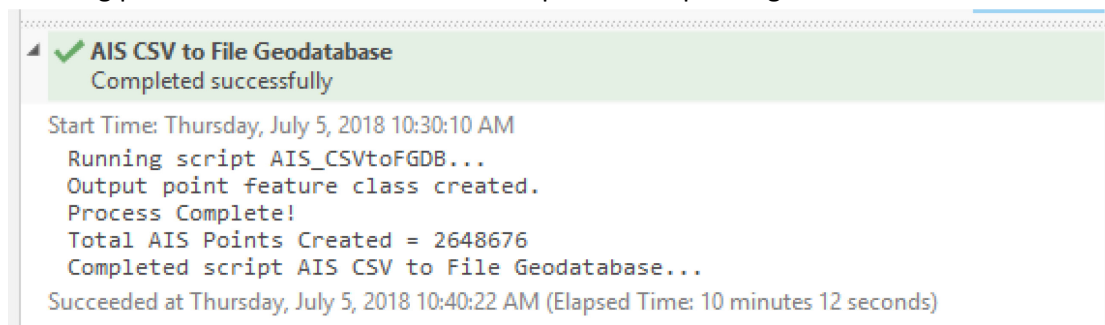
3. Browse to the existing filegeodatabase where the new point feature class will be created, enter the desired name of the new point feature class, and click Save



4. Click Run button to run the tool
5. The following dialog will show the conversion progress



6. When the tool has completed, it will provide the total number of points created, and the resulting point feature class will exist in the specified output filegeodatabase



Required ASCII CSV and Output Point Feature Class Format

This tool is designed to work with AIS ASCII CSV files that are distributed by Marine Cadastre. These files will be available by month and UTM zone. The point feature class created with this tool will mimic the format of the input CSV (except that the Latitude and Longitude fields are consolidated into the “shape” geometry field. The following table describes the formatting:

Field Order	Field Name	Description	Units	Type
1	MMSI	Maritime Mobile Service Identity value		Long
2	BaseDateTime	Full UTC date and time		DateTime
3	LAT	Latitude	decimal degrees	Geometry
4	LON	Longitude	decimal degrees	Geometry
5	SOG	Speed over Ground	knots	Double
6	COG	Course over Ground	degrees	Double
7	Heading	True Heading Angle	degrees	Double
8	VesselName	Name as shown on the station radio license		Text
9	IMO	International Maritime Organization Vessel Number		Text
10	CallSign	Call sign as assigned by FCC		Text
11	VesselType	Vessel type code		Long
12	Status	Navigation status as defined by the COLREGS		Text
13	Length	Vessel length as defined in NAIS specifications	meters	Double
14	Width	Vessel width as defined in NAIS specifications	meters	Double
15	Draft	Voyage draft as defined in NAIS specifications	meters	Double
16	Cargo	Voyage cargo as defined in NAIS specifications		Long