

Learning the basics of Python in Power BI

INTRODUCTION TO PYTHON IN POWER BI



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Prerequisite knowledge

Power BI

Introduction to DAX in Power BI

Python

Introduction to Data Visualization with
Seaborn

What we will be learning

Power BI

- Importing and joining data with Power Query
- Finding missing data with Power Query
- Calculating Correlation Coefficient with Quick Measures

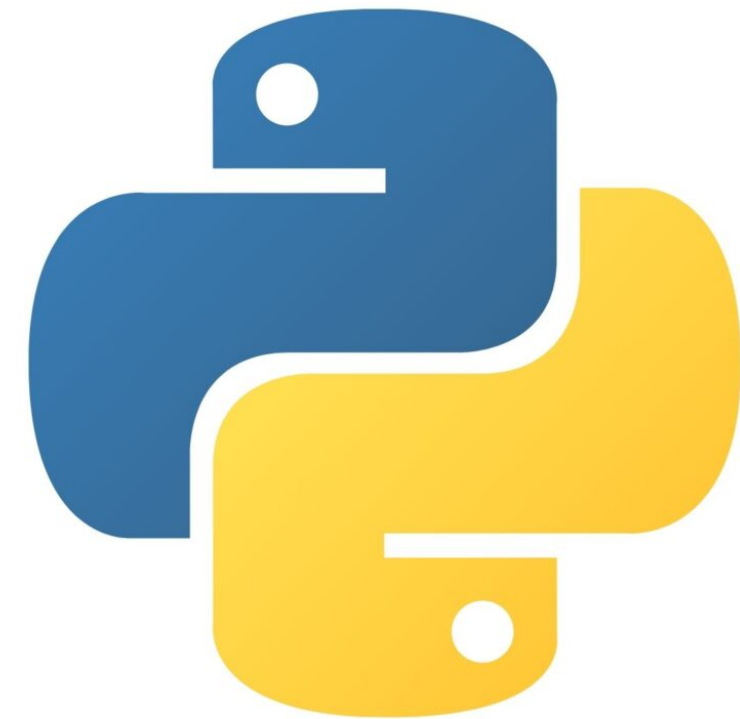
Python

- Importing and joining data with pandas
- Finding missing data and imputation
- Creating visualizations with Seaborn

Getting started - downloading Python

<https://powerbi.microsoft.com/downloads/>

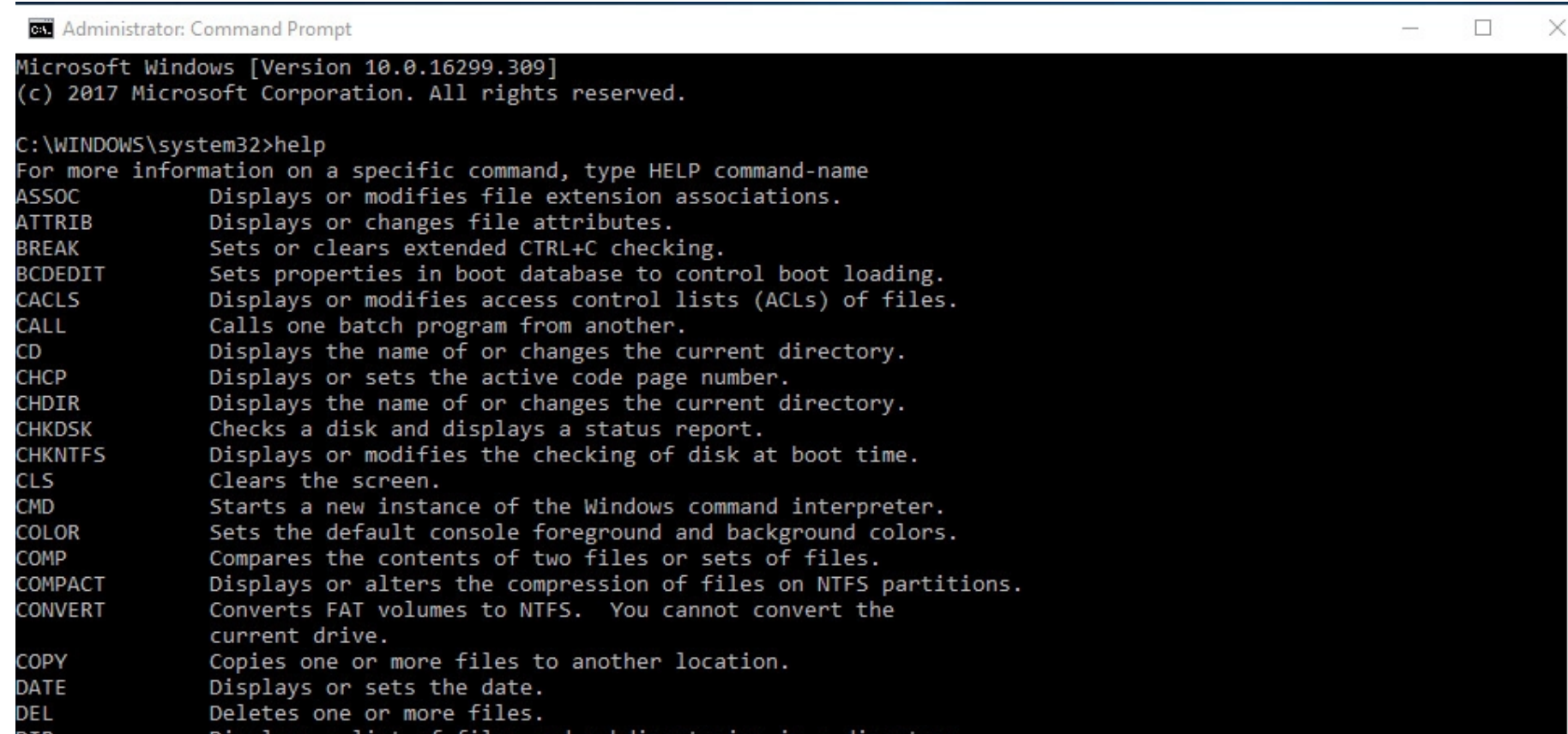
<https://www.python.org/downloads/>



Getting started - installing packages

The two required Python packages are:

- pandas
- matplotlib



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.16299.309]
(c) 2017 Microsoft Corporation. All rights reserved.

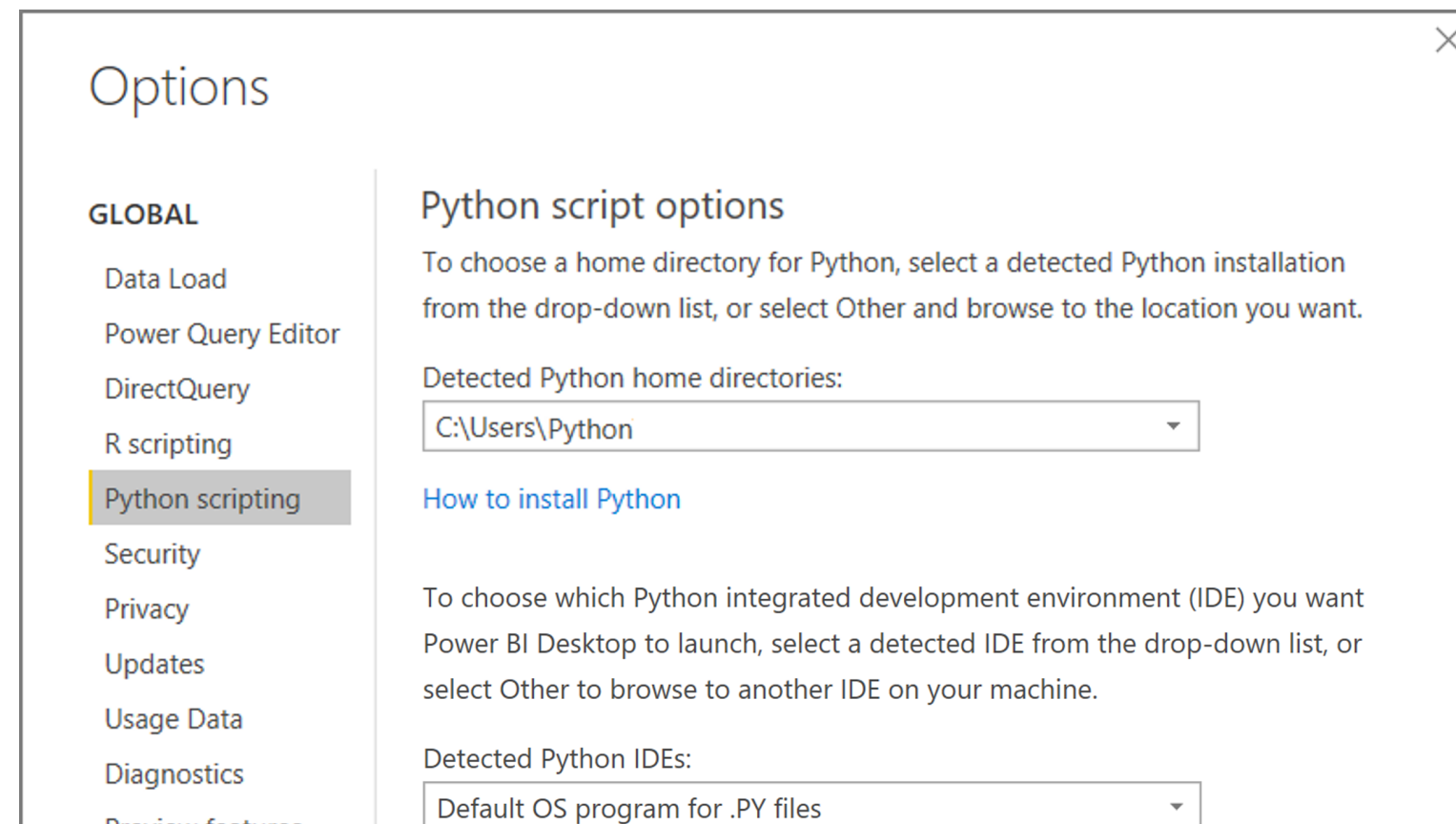
C:\WINDOWS\system32>help
For more information on a specific command, type HELP command-name
ASSOC          Displays or modifies file extension associations.
ATTRIB         Displays or changes file attributes.
BREAK          Sets or clears extended CTRL+C checking.
BCDEDIT        Sets properties in boot database to control boot loading.
CACLS          Displays or modifies access control lists (ACLs) of files.
CALL           Calls one batch program from another.
CD             Displays the name of or changes the current directory.
CHCP           Displays or sets the active code page number.
CHDIR          Displays the name of or changes the current directory.
CHKDSK         Checks a disk and displays a status report.
CHKNTFS        Displays or modifies the checking of disk at boot time.
CLS            Clears the screen.
CMD            Starts a new instance of the Windows command interpreter.
COLOR          Sets the default console foreground and background colors.
COMP           Compares the contents of two files or sets of files.
COMPACT        Displays or alters the compression of files on NTFS partitions.
CONVERT        Converts FAT volumes to NTFS.  You cannot convert the
               current drive.
COPY           Copies one or more files to another location.
DATE           Displays or sets the date.
DEL            Deletes one or more files.
DIR            Displays a list of files and subdirectories in a directory.
```

¹ <https://packaging.python.org/en/latest/tutorials/installing-packages/>

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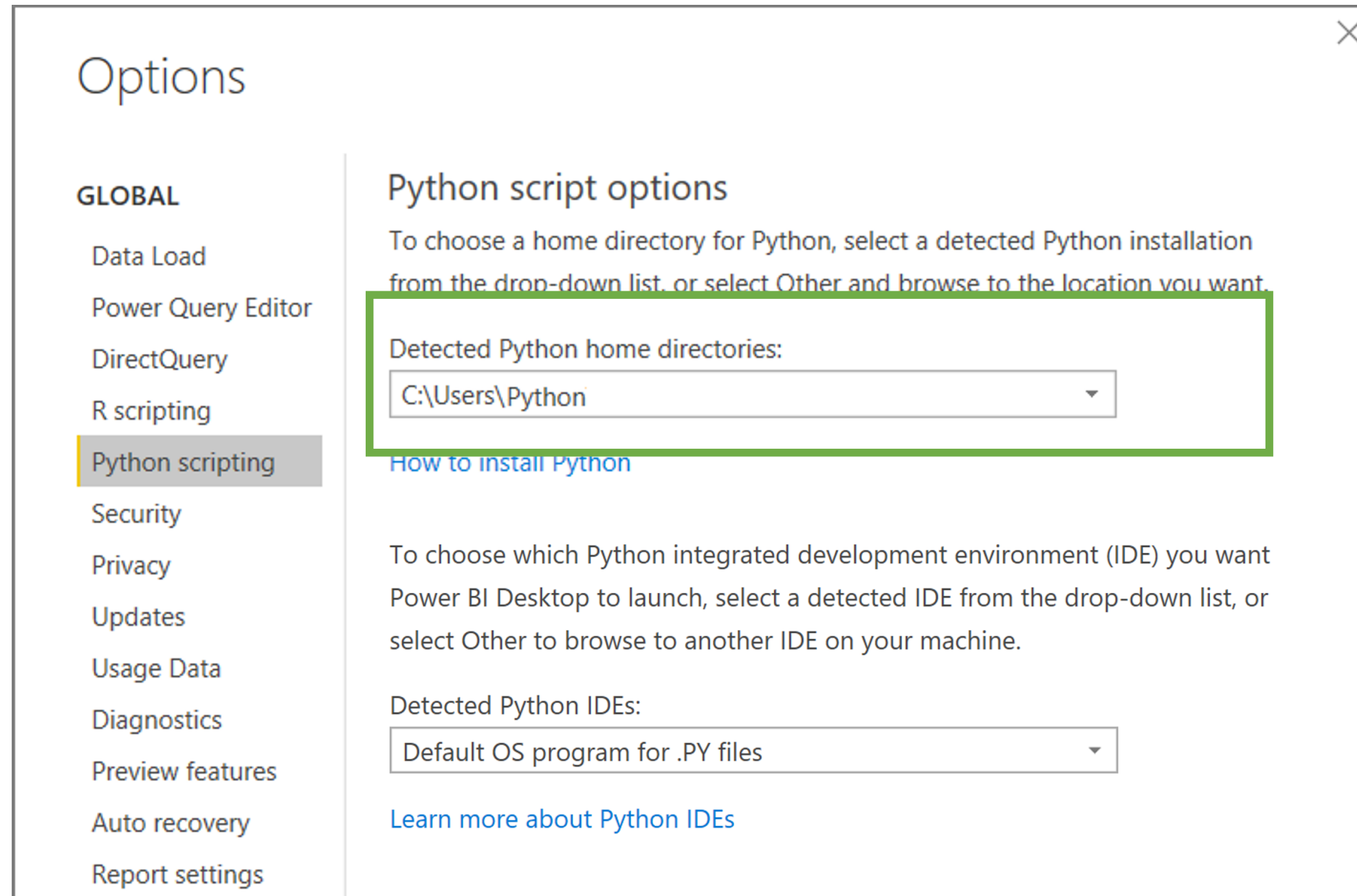
"File" > "Options and settings" > "Options" > "Python scripting"

- Home Directories
- Integrated Development Environments (IDE)



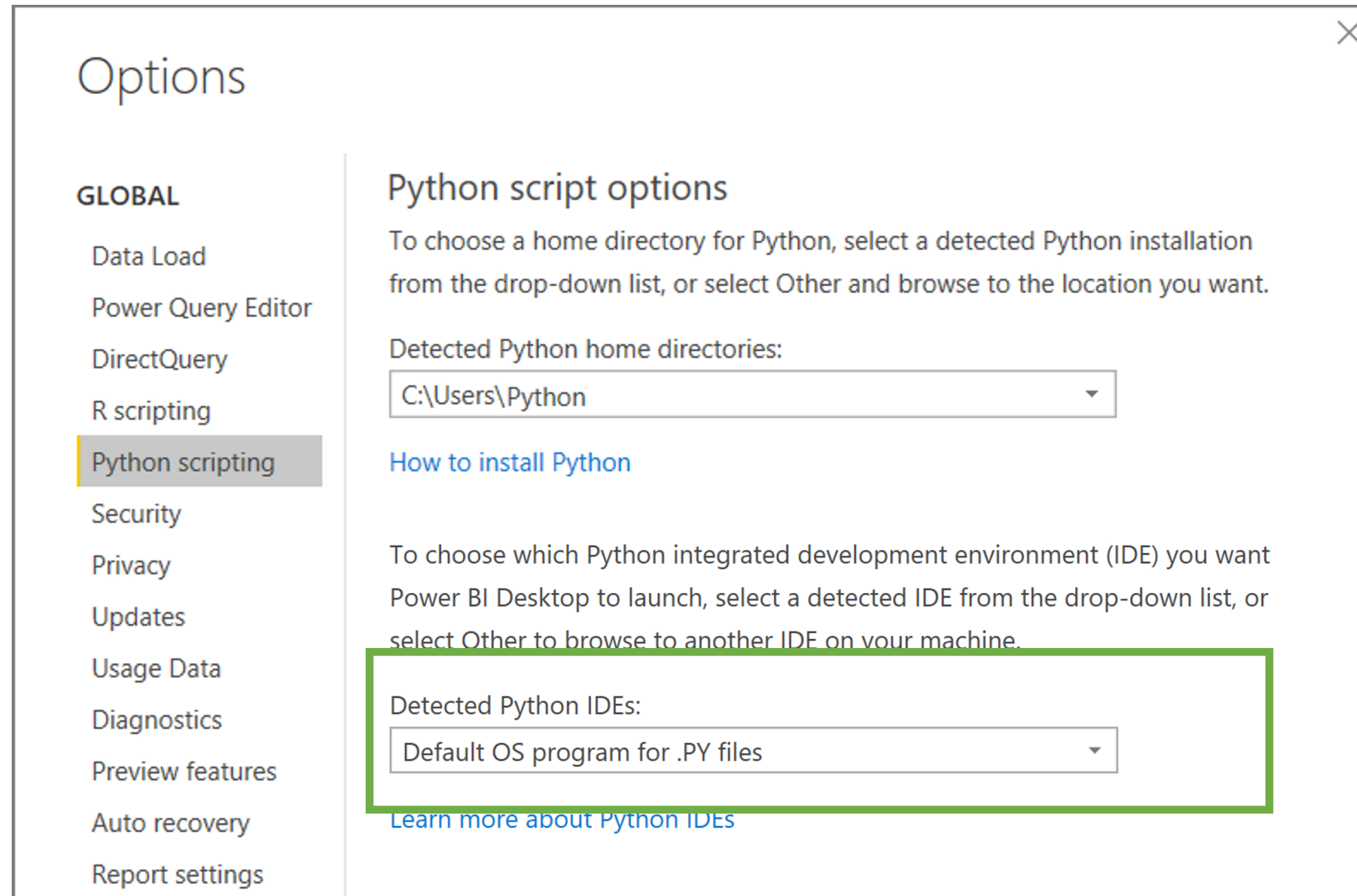
¹ <https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-python-scripts>

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Limitations

- DataFrames temporarily saved
- 150,000 rows used in visualizations
- Datasets less than 250 MB
- Datasets set to "Public"

Benefits and reasons to learn...

Python as a Power BI user

- Flexibility in data transformations
- Easier method for difficult calculations
- Build custom visualizations

Power BI as a Python user

- Faster data visualization
- Build quick reporting dashboards
- Easier sharing with others

Datasets

fished.csv

entity	year	fished
Australia	1990	153148
United States	1990	502923
Japan	1990	567895

farmed.csv

entity	year	farmed
Australia	1990	23567
United States	1990	436758
Japan	1990	534978

Let's practice!

INTRODUCTION TO PYTHON IN POWER BI

Set up, import, and transform data

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