Documentation for Trade-Storage

Architecture Overview

The entire process is based on MVC architecture, which contains an Access Database (Model) “TradeStorage.accdb”, a Python script (Control) “TradeStorage.py” and an Excel (View) “TradeStorage.xlsm”.

1. The Control layer “TradeStorage.py” get hourly data from Bloomberg through python API and write to the Model layer “TradeStorage.accdb”.
2. The View layer “TradeStorage.xlsm” stores the list of Tickers and the Directory of the Model “TradeStorage.accdb” and links to the Control layer to update Database

The Model Layer

The Model Layer contains one MS Access Database “TradeStorage”

Each Table in Database stores historical intraday hourly high, low, close price and weekday of that date for a single Ticker.

The Control Layer

The Control Layer consists of

1. TradeStorage.py: This script contains one function “AutoRun” that loops through all Tickers, extracts hourly intraday bar data from Bloomberg and writes data to database
2. BLPApi: BLPApi is a python class that contains method to get intraday bar data from Bloomberg through API and format data into a dataframe
3. DataBaseConnection: DatabaseConnection is a python class that contains methods such as “write2DB”, “read2DB”.

* “Write2DB”: a method that writes a dictionary of dataframes to an DataBase
* “Read2DB” a method that read tables from a Database into a dictionary of dataframes

The View Layer

The View Layer contains

1. TradeStorage.xlsm: This file has 1 sheet and 1 macro

* “TickerSummary” sheet: Stores list of tickers and the directory of Database
* Macro “Download”: Call UDF function “AutoRun” and Pass function attributes to the UDF.