VS CODE CLOUD WORKSPACE
USER GUIDE

03/20/2025

VS CODE OVERVIEW

INNOVATIVE. ACCESSIBLE. SECURE.

The VS Code Cloud Workspace is a cloud-based development environment designed as an add-on to IVolatility's API, giving market professionals instant access to Visual Studio Code (VS Code), a powerful solution by Microsoft, in the IVolatility Cloud. With no local installation required, this solution allows users to develop, backtest, and deploy strategies efficiently—leveraging the full power of our API without additional infrastructure concerns.

KEY ADVANTAGES

CLOUD-BASED INFRASTRUCTURE – SIMPLIFY YOUR WORKFLOW

- No Local Installation Required: Access VS Code directly from your browser, eliminating the need for local setups.
- Cost-Effective Solutions: Reduce expenses on high-end hardware and IT maintenance; our cloud infrastructure handles it all.
- Extensive Data Access: Gain immediate access to historical market data without worrying about storage limitations.

ACCESSIBILITY & FLEXIBILITY – CODE ANYTIME, ANYWHERE

- Cross-Platform Compatibility: Whether you're on Windows, macOS, Linux, or mobile devices, your development environment is just a login away.
- Global Access: Work from any location with an internet connection, perfect for remote teams and on-the-go professionals.

SEAMLESS SETUP & MAINTENANCE – FOCUS ON WHAT MATTERS

- Seamless API Integration – Pre-configured to work with IVolatility's API, ensuring fast access to market data.
- Automatic Updates: Stay up-to-date with the latest tools and features without lifting a finger; our cloud services handle all maintenance.
- Built-in QuantLib Support: Utilize the powerful QuantLib library through Python for advanced financial and quantitative analysis.
- Multi-Language Support: Develop in Java, JavaScript, Julia, R, Groovy, C#, and Python—all fully compatible within the VS Code Cloud Workspace.

## PERFORMANCE & SCALABILITY — ADAPT TO YOUR NEEDS

- Up to 40% faster response compared to running our endpoints from a local machine.
- Dynamic Resource Allocation: Easily scale computing power up or down based on project requirements, ensuring optimal performance without unnecessary costs.
- High-Performance Computing: Leverage powerful cloud resources for tasks like backtesting, ensuring efficient and swift operations.

SECURITY & BACKUP — PROTECT YOUR VALUABLE CODE

- Automated Backups: Your work is continuously saved in the cloud, safeguarding against data loss.
- Enhanced Security Measures: Keep sensitive code off local devices, reducing potential security risks and ensuring compliance with best practices.

ACCESS & NAVIGATION

ACCESS
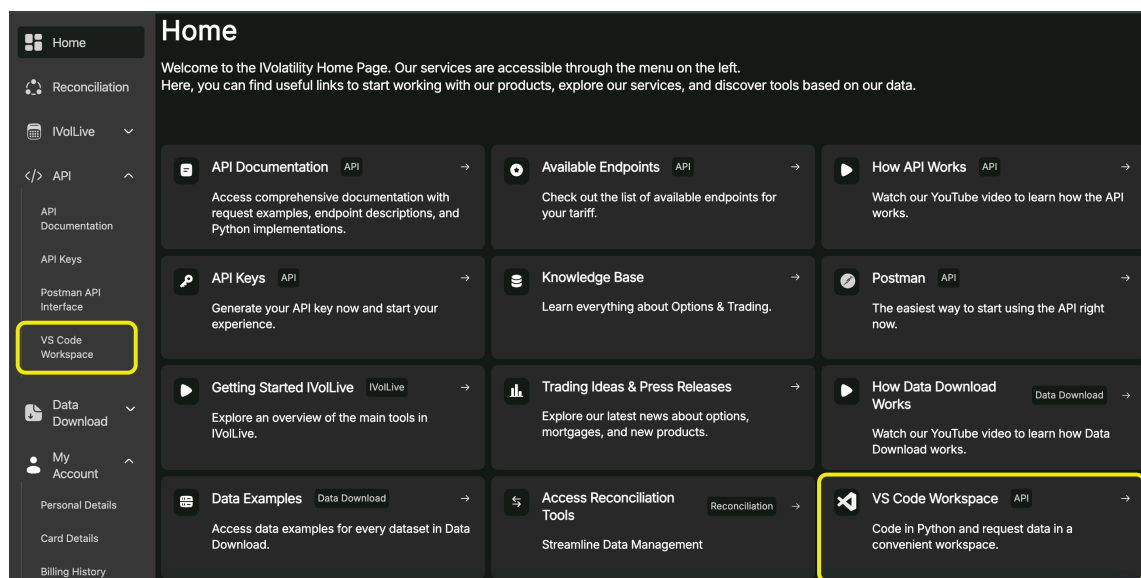
To get started, log in to ivolatility.com using your credentials (if you don't have them, please contact support@ivolatility.com). Then, click 'VS Code Workspace' in the left menu or on the homepage, as shown below.

You don't need to enter your credentials separately. Your API key will be taken into account automatically, allowing you to run scripts and requests immediately.

NAVIGATION

Once you are redirected to the main tool page, you can access various options from the special menu. The key sections are Flashpost and Explorer.

Flashpost allows you to view the list of available endpoints and run them.

Explorer enables you to write your own Python code to interact with our endpoints, as well as use a selection of prebuilt scripts. We plan to expand the list of prebuilt scripts in the future.
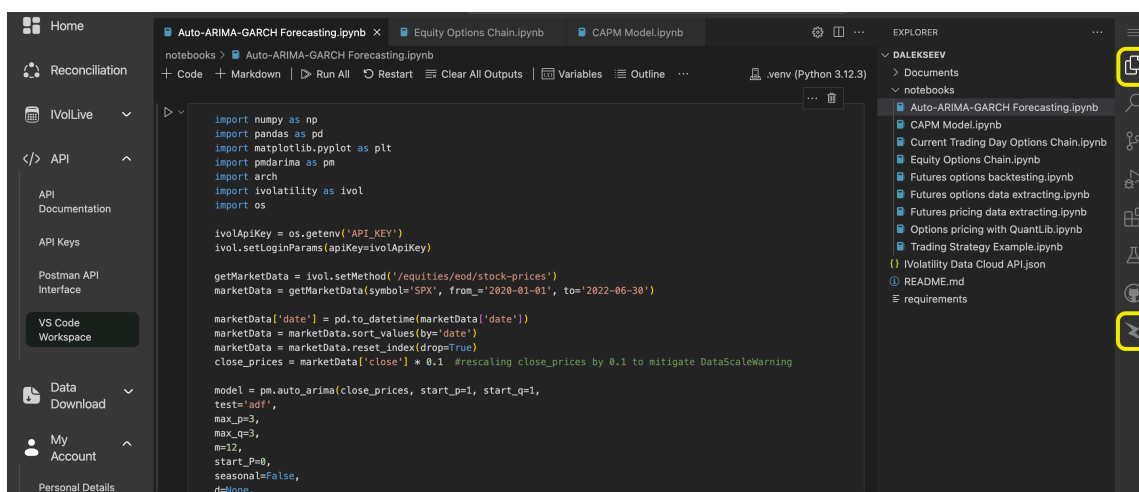
FLASHPOST

In this section of the VS Code Workspace, users can view the list of available endpoints, run them, and modify query parameters. Below is an example of running the EOD Equity Options Backtesting endpoint.
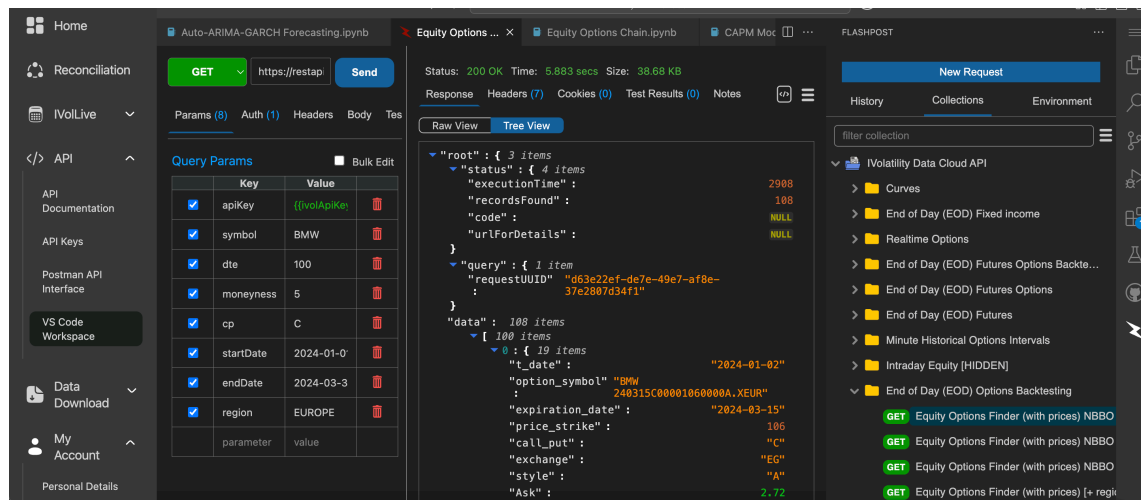
If you receive a result as a link, copy the link into the query line and send the request again.

PYTHON SCRIPT EXAMPLE

Let's go through an example of running Python code in this workspace using a script that retrieves an equity option chain for a specific ticker.

First, select the Explorer menu as described in the navigation section. Then, open the Notebooks folder and choose Equity Option Chain. Finally, click Run and select Python Environments.

You will see the results of this code in Jupyter Notebook shortly.

SECURITY MEASURES

HOW WE STORE YOUR DATA

Your data is securely isolated within a dedicated container, ensuring that no other users can access it without authorization.

Each user's container is authenticated through Keycloak, providing centralized access control and enhanced security.

SSH and root access are fully disabled, preventing any remote or unauthorized system modifications.

Additionally, the system is hosted within a DMZ (Demilitarized Zone), adding an extra layer of network security by isolating it from internal corporate networks and external threats.

These measures ensure a high level of data confidentiality and protection.