SDK Integrated Platform

Purpose

This guide provides step-by-step instructions for using the Forge platform, along with the DocInsights SDK and Agents-Skill SDK. It is designed to be user-friendly while enhancing readability and structure. The goal is to help developers seamlessly integrate AI-powered agents and document management capabilities into their applications by utilizing Forge's managed environment.

SDK Integrated Platform Overview with DocInsights and Agents-Skill SDKs:

SDK Integrated Platform is a managed development environment designed for data scientists and AI engineers, offering a seamless experience for building and deploying AI workflows. It provides the flexibility to work across cloud-based, hybrid, and on-premises infrastructures, adapting to various organizational needs. The platform simplifies the development process by providing pre-built Docker images that come with all the necessary packages and configurations, enabling users to focus on building custom workflows.

- **Pre-built Docker Images**: Forge comes with pre-configured Docker images that provide all required dependencies for building AI workflows, saving users time on setup.
- **Custom Workflow Building:** Users can build workflows using SDK Integrated Platform's base images, allowing them to tailor solutions for specific needs.
- **Flexible Environment Support**: SDK Integrated Platform supports deployment in cloud, hybrid, or on-premises environments, making it versatile for different infrastructure setups.

- Ensure you have a client ID and client secret.

> If you do not have these credentials, in order to get them, you can create a trial account. Trial account is free of cost for first 30 days.

1. **Installation Via Github Repo:**
    - pip install git+https://github.com/pfizer/vox-sdk.git@sdk/agents-skills – Installs the latest version.
    - pip install git+https://github.com/pfizer/vox-sdk.git@sdk/agents-skills&subdirectory=dist/skillsdk-<version_no>-py3-none-any.whl – Installs the versioned package.

OR

1. Generate a **Personalized Access Token (PAT)** on GitHub to access the vox-sdk repository.
2. For **DocInsights SDK**, go to vox-sdk -> actions -> latest workflow run on the **main** branch and retrieve the artifact ID.
3. For **Agents-Skill SDK**, go to vox-sdk -> actions -> latest workflow run on the **sdk/agents-skills** branch and retrieve the artifact ID.
4. Install the package using:

```
curl -L -o artifacts.zip -H "Authorization: Token PAT_TOKEN" "https://api.github.com/repos/pfizer/vox-sdk
/actions/artifacts/ARTIFACT_ID/zip"

unzip artifacts.zip  # Extracts .whl files

pip install WHEEL_FILE.whl --force-reinstall
```

SDK Integrated Platform integrates seamlessly with the DocInsights SDK and Agents-Skill SDK, enabling developers to enhance their workflows with advanced AI-powered document management and agent capabilities.

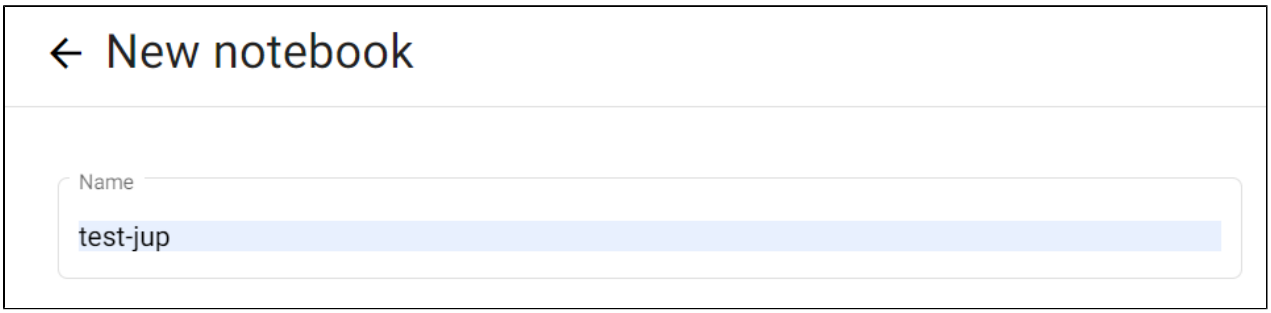
DocInsights SDK: This Python library facilitates document management tasks, including file ingestion, document search, comparison, and summarization. It abstracts the underlying API interactions and authentication, making it easier to incorporate document processing features into applications.

Agents-Skill SDK: Also, a Python library, the Agents-Skill SDK allows for easy configuration and invocation of AI agents and skills. It simplifies the integration of AI agents into applications, enabling powerful automation and decision-making capabilities.

By leveraging these SDKs within integrated platform, users can build robust, intelligent workflows that incorporate both document processing and AI agent functionalities. For more details see SDKs.
Notebook and Volume Management

Creating a Notebook

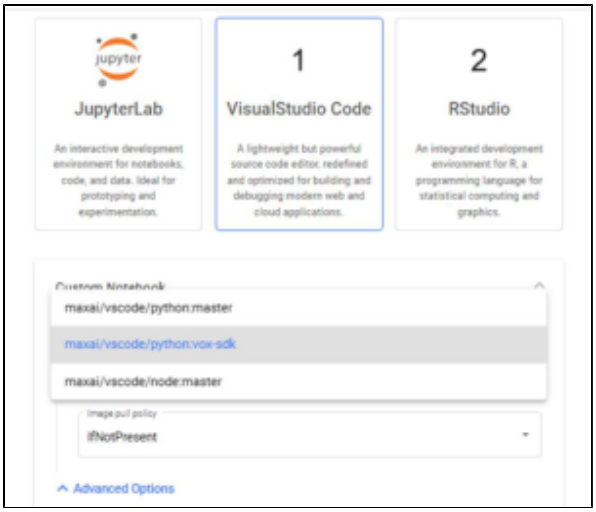
- Login to Max.AI SDK Integrated Platform using SSO.
- Click on Notebooks in the left menu to access the dashboard.
- Click on New Notebook (top-right corner).
- Enter a Notebook Name (must be lowercase alphanumeric or '-').



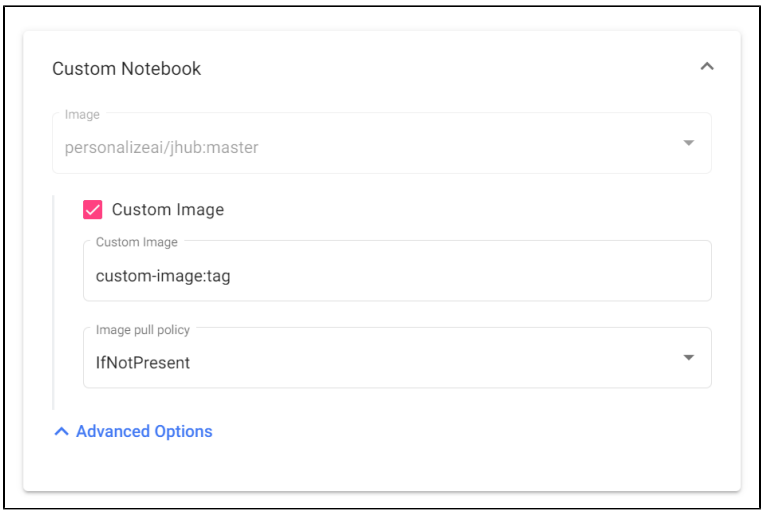
- Select the Notebook Type:

    1. JupyterLab
    2. Visual Studio Code
    3. RStudio

- Choose a Docker Image (default recommended). For custom images, go to **Advanced** Options.

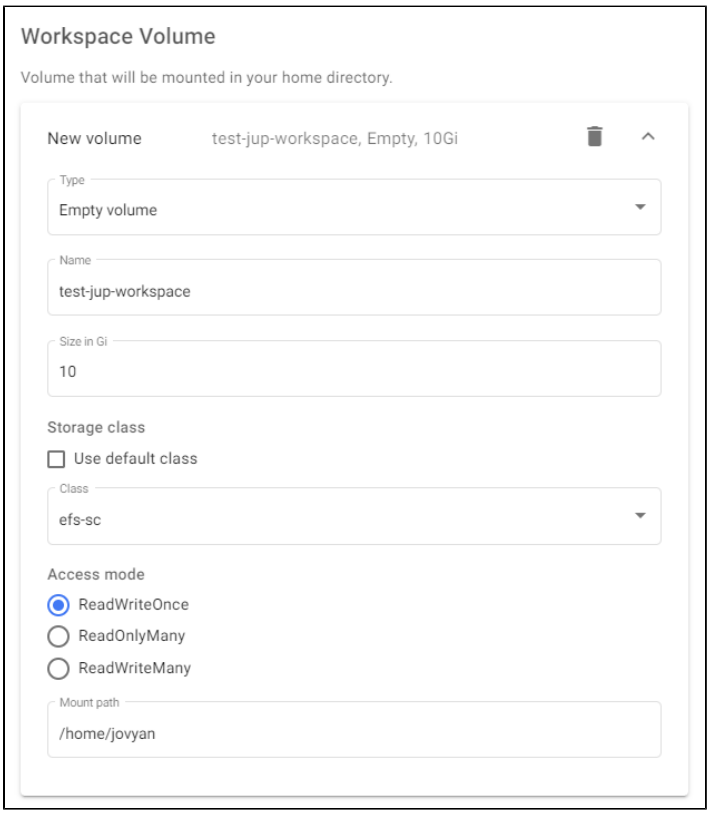


- (optional) To provide custom image, Click on **Advanced** Options, select custom image tick box and provide custom image name and tag. Select ImagePullPolicy as required.

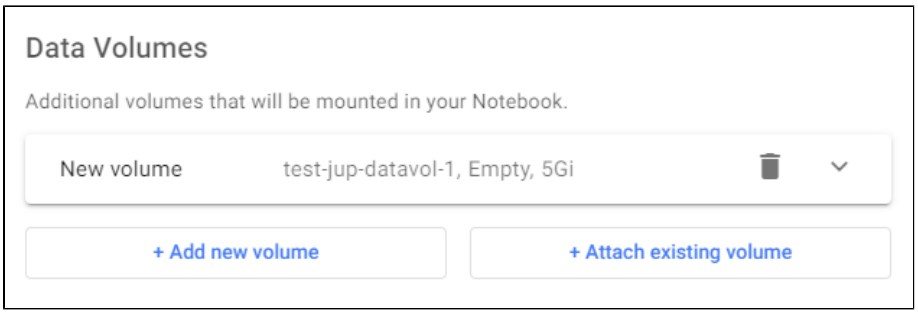


- Define CPU/RAM Resources (default: 0.5 CPU, 1Gi Memory; customizable as needed).

- Set up workspace volume (default values recommended).

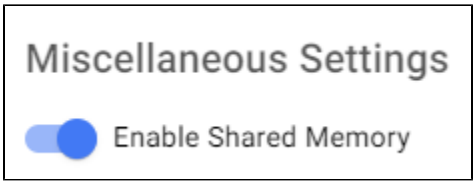


- (Optional) To provide additional data volumes for your notebook, you can either create new volume or attach existing volume.

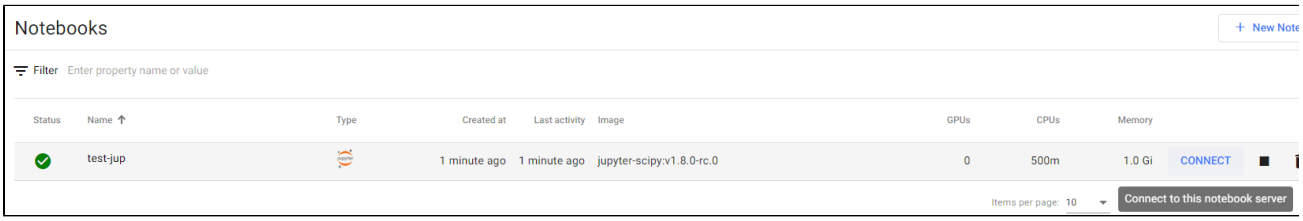


- Under **Advanced** options,
  - Configure Affinity & Tolerations.

  - Choose whether to enable shared memory or not.



- Click LAUNCH to start the notebook.
- Once running, click **CONNECT** to access the notebook.



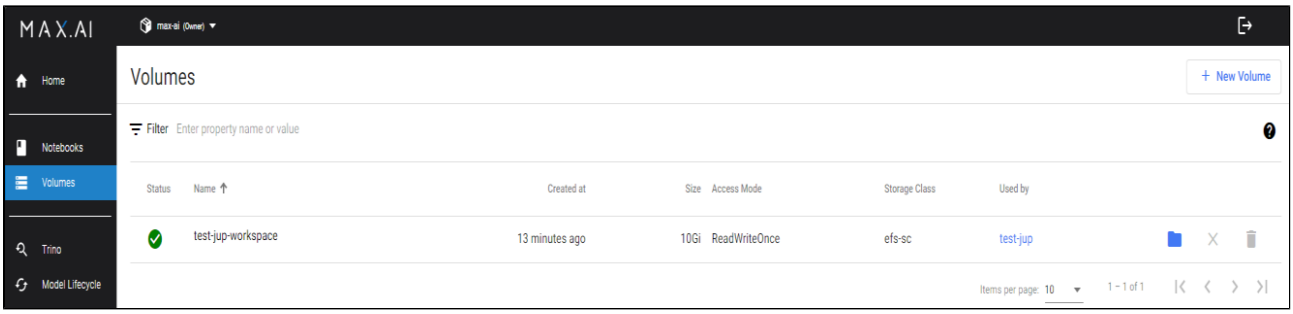
- Once the notebook interface is launched, you can start using it to create, edit, and run your notebooks.

> **Remember**
>
> Remember to save your work periodically as you progress. Once you're done with your work, save your notebook, close the notebook interface, and log out of Max.AI Forge if necessary.

> **Examples**
>
> - Agent-Skills - https://github.com/pfizer/vox-sdk/blob/sdk/agents-skills/agents-skills-demo.ipynb
> - Docinsights - https://github.com/pfizer/vox-sdk/blob/main/docinsights-demo.ipynb

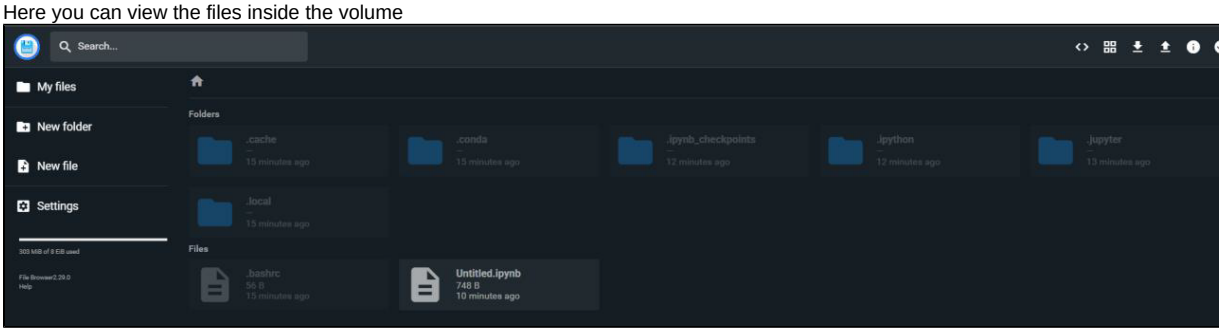
Managing Volumes

- On Max.AI, click on Volumes in the left menu.

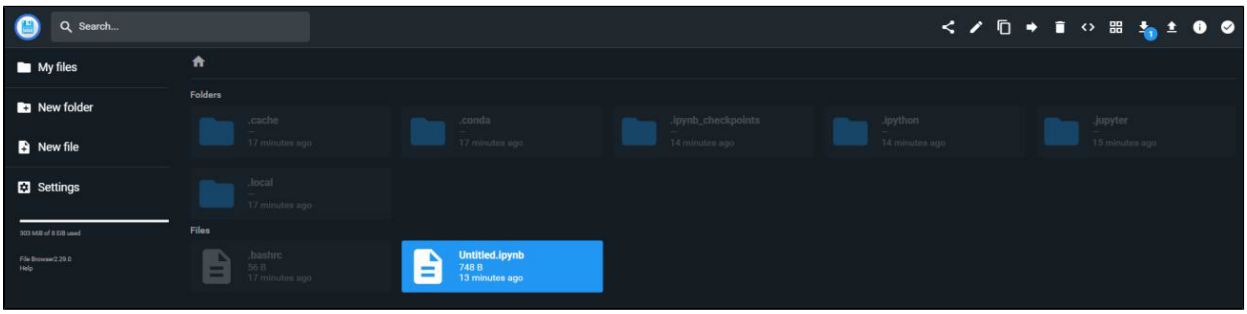


- On the **Volumes** dashboard, view existing volumes and its details such as name, size, access mode, attached notebook, etc.
- Click the folder icon to start the **PVC Viewer** and browse files.
- To view the contents of the volume
    - Click on the folder icon. This will start the **PVC Viewer**. It might take some time to launch.
    - Once PVC Viewer is started click on the folder icon again to open the PVC Viewer console.

      Here you can view the files inside the volume

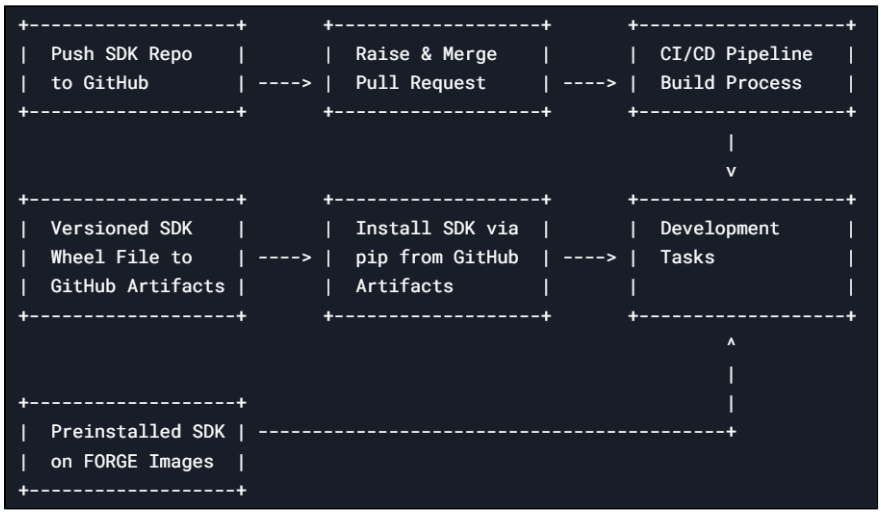


- Manage files within the volume (create, rename, move, etc.).



SDK Distribution

1. The SDK is pushed to GitHub, using Forge.
2. A pull request is merged into SDK branch, triggering CI/CD for the build.
3. A versioned SDK wheel file is pushed to GitHub Artifacts.
4. Users install the SDK via pip using a Personal Access Token (PAT).
5. Pre-installed SDKs are also available in Forge notebook images.


Push SDK Repo to GitHub
Raise & Merge Pull Request
CI/CD Pipeline Build Process
Versioned SDK Wheel File to GitHub Artifacts
Install SDK via pip from GitHub Artifacts
Development Tasks
Preinstalled SDK on FORGE Images