Guidelines for Uploading Your Electromagnetic Side-Channel Analysis (EM-SCA) Plug-in to EMvidence

Summary

Before uploading your plug-in to the EMvidence platform, ensure that you have the following files ready:

1. **Plug-in Icon:**
   a. Format: PNG only
   b. Maximum Size: 2 MB
2. **Python Dependencies File:**
   a. Format: TXT only
   b. Maximum Size: 1 MB
   c. Each dependency must be separated by a new line
3. **Plug-in File:**
   a. Format: PY only
   b. Maximum Size: 10 MB
4. **Machine Learning (ML) Model File:**
   a. Format: H5 only
   b. Maximum Size: 100 MB

Steps

Ensure that your EM-SCA plug-in is properly structured and ready for distribution. (**Click here** to download the sample plug-in)

1. **Plug-in Name and Release Version:**
   ○ Ensure you have a stable release version before uploading your plug-in. This helps users understand the stability and features of the plug-in they're using.
2. **Center Frequency:**
   ○ Specify the center frequency supported by this plug-in. Currently, these plug-ins are tailored for specific device center frequencies and sampling rates.
3. **Device Name:**
   ○ Select the device supported by this plug-in. Users need to understand which devices are compatible. Currently, these plug-ins are tailored for specific device center frequencies and sampling rates.
4. **Plug-in Description:**
   ○ Craft a comprehensive description of your EM-SCA plug-in. Highlight its purpose, key features, supported devices, target center frequency, and any unique aspects that differentiate it. Consider including information about performance, scalability, ease of use, and compatibility with existing

preprocessing steps in the EMvidence platform. Ensure clarity, conciseness, and informativeness to help users understand the value proposition.

5. **Sampling Rate:**
   ○ Specify the sampling rate supported by this plug-in. Users need to understand which sampling rates are compatible. Currently, these plug-ins are tailored for specific device center frequencies and sampling rates.

6. **Sample Electromagnetic (EM) Data File:**
   ○ Upload a sample EM data file for plug-in verification. Before uploading the plug-in, this file must be uploaded into EMvidence. Select the file from the drop-down menu during the upload process.

7. **Plug-in Icon:**
   ○ Upload a .png file for the plug-in icon. Ensure the file size is less than 2 MB.

8. **Dependency List:**
   ○ Upload a .txt file listing dependencies. Ensure the file size is less than 1 MB, and each dependency is separated by a new line.

9. **Plug-in File:**
   ○ Upload the plug-in file. It must be a .py file, and the maximum size must be 10 MB.

10. **ML Model:**
   ○ Upload the ML model. It must be an .h5 file, and the maximum size must be 100 MB.