Brainware API

Installation Guide

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About the Brainware RESTful API

The Brainware RESTful API provides methods to upload and manage external documents. The uploaded documents are further processed by Runtime Server.

About the user role

The Brainware API user must be a valid Brainware Intelligent Capture (BIC) user and have AEB or ADM role.

For more information, see "Users, groups, and roles" in the *Brainware Intelligent Capture Designer Help*.

Prerequisites

Internet Information Services

Brainware API requires that you have installed Internet Information Services (IIS) on your server or workstation. Before you install the Brainware API, verify that the following features are enabled in IIS.

- .NET Extensibility
- ASP.NET 4.5
- Windows Authentication

.NET Framework

Brainware API requires that you have installed .NET Framework 4.6 or later on your server or workstation.

About Brainware API installation

The Brainware API installation files are included in the Brainware Intelligent Capture setup package.

Install Brainware API

To install the Brainware API, complete the following steps.

> **Note:**
> You need to run the installation from a local directory.

1. Navigate to the *[Brainware Intelligent Capture setup directory]***BrainwareAPI** directory.
2. Optional. Copy the *[Brainware Intelligent Capture setup directory]***BrainwareAPI** directory to the workstation or server on which you want to install Brainware API.
3. Open **BrainwareApi_Installer.bat** with a text editor.
4. Search for the `InstallDir`, `AppPoolName`, `BrainwareApiAppName`, and `ServerApiPath` attributes and verify that the values correspond to your needs.
5. Save and close the file.
6. Run **BrainwareApi_Installer.bat** as an administrator.
7. Review the **Command Prompt** window for success or error messages.

> **Note:**
>
> If an error occurred, you can rerun **BrainwareApi_Installer.bat** as often as required.

8. Modify the database connection string.

Modify the database connection string

To modify the database connection string, complete the following steps.

1. From the *[Installation path]\BrainwareApiServer* directory, open **Web.config** in a text editor.
2. Search for the `<connectionStrings>` element.
3. For a SQL Server database, modify the following values.
   - Set **Data Source**.
   - Set **Initial Catalog** to the SQL Server database catalog.
   - Set **User ID** to the service account user ID.
   - Set **Password** to the service account password.

Example

```
<connectionStrings> <add name="Entities"
connectionString="metadata=res://*/Entity.Entities.csdl|res://*/Entity
.Entities.ssdl|r es://*/Entity.Entities.msl;
provider=System.Data.SqlClient;provider connection string=&quot;Data
Source=<DataSource>;Initial
Catalog=<SQLServerDatabaseCatalog>;Integrated Security=false;User
ID=<UserId>;Password=<UserPassword>;MultipleActiveResultSets=True&quo
t;" providerName="System.Data.EntityClient" /> </connectionStrings>
```

> **Note:** To copy the connections string example as a single line, open this document in Acrobat Reader and copy and paste the string from there.

4. For an ORACLE database, modify the following values.
   - Set **Data Source**.
   - Set **User ID** to the service account user ID.
   - Set **Password** to the service account password.

Example

```
<connectionStrings> <add name="Entities"
connectionString="metadata=res://*/Entity.ORAEntities.csdl|res://*/Ent
ity.ORAEntities. ssdl|res://*/Entity.ORAEntities.msl;
provider=EFOracleProvider; Provider Connection String='Data
Source=<OracleServerName\InstanceName>;User
ID=<UserID>;Password=<UserPassword>'"
providerName="System.Data.EntityClient" /> </connectionStrings>
```

> **Note:** To copy the connections string example as a single line, open this document in Acrobat Reader and copy and paste the string from there.

5. Optional. Encrypt the password for a database connection string.
6. Save and close the file.

Encrypt a password for a database connection string

Password encryption in CONFIG files is optional, but highly recommended. To provide an encrypted password for the database connection in a configuration file, complete the following steps.

1. In the *[Installation path]***Brainware Intelligent Capture\\bin** directory, create a new batch file and give it a meaningful name, such as **CreateEncryptedPassword.bat**.
2. Copy one of the following options to the batch file, replacing `MyPassword` with the password you want to encrypt.

> **Note:**
>
> The maximum character length for a password to encrypt using **RSA-1024** is 30.
>
> The maximum character length for a password to encrypt using **RSA-3072** is 280.

- To encrypt the password using the internal RSA-3072 key, use the following option.

  ```
  DstCrypt.exe /text "MyPassword" >> EncryptedPW_InternalKeys3072.txt
  ```

- To encrypt the password using the internal RSA-1024 key, use the following option.

  ```
  DstCrypt.exe /text "MyPassword" /keysize "1024" >> EncryptedPW_
  InternalKeys1024.txt
  ```

3. Save and close the file.
4. In **Windows Explorer**, double-click the batch file.
5. From *[Installation path]***Brainware Intelligent Capture\\bin**, open **EncryptedPassword.txt** in a text editor and copy the encrypted password to the clipboard.
6. Open the required configuration file in a text editor.
7. Search for the `<connectionStrings>` element.
8. In the `<add name>` element, set password as an asterisk.

   Example

   ```
   <add name="Entities" Password=*>
   ```

9. In the `<appSettings>` element, add a line with your encrypted password according to the following example.

   Example

   ```
   <appSettings> <add key="EncrPwd" value="The_encrypted_Password"/>
   </appSettings>
   ```

10. Save and close the file.

Specify the maximum document file size

The maximum file size which can be uploaded is 256MB. To specify a smaller maximum file size complete the following steps.

1. From the *[Installation path]\BrainwareApiServer* directory, open **Web.config** in a text editor.

2. Search for the following line.
```
<add key="MaxFileUploadLimit" value="262144" />
```

3. Set the `value` parameter to the required value in KB.

Enable method logging

To enable method logging, complete the following steps.

> **Note:** Enable method logging for debugging purposes only, as this may affect performance.

1. From the *[Installation path]\BrainwareApiServer* directory, open **Web.config** in a text editor.

2. Search for the following line.
```
<add key="EnableMethodLog" value="false" />
```

3. Set the `value` parameter to `true`.

4. In the *[Installation path]\BrainwareApiServer* directory, review the **trace.log** file.

Specify the token expiry time

To specify the token expiry time, complete the following steps.

1. From the *[Installation path]\BrainwareApiServer* directory, open **Web.config** in a text editor.

2. Search for the following line.
```
<add key="TokenExpireTime" value="60" />
```

3. Set the `value` parameter to the required value in minutes.

Specify the batch list limit

To specify the maximum number of batches returned by the `GET ExternalBatch` method, complete the following steps.

> **Note:**
> The `GET ExternalBatch` method uses the `BatchListLimit` value as default if the optional `limit` parameter is not specified before executing the method.

1. From the *[Installation path]\BrainwareApiServer* directory, open **Web.config** in a text editor.

2. Search for the following line.
```
<add key="BatchListLimit" value="1000" />
```

3. Set the `value` parameter to the required number.

Configure IIS

The Brainware API installer performs the initial IIS configuration. To verify or modify this configuration, complete the following steps.

1. In IIS, under **Default Web Site**, select **BrainwareAPI**.
2. In the left pane, right-click **BrainwareAPI** and then click **Edit Permissions**.
3. In the **Properties** dialog box, on the **Security** tab, review the permissions and then click **OK**.
4. In the middle pane, double-click **Authentication**.
5. In the **Authentication** pane, verify that **Windows Authentication** is enabled.
6. Right-click **Windows Authentication** and then click **Providers**.
7. In the **Providers** dialog box, verify or add the required providers.
8. In the left pane, click **Application Pools**.
9. In the middle pane, right-click **BrainwareAPIAppPool** and then click **Advanced Settings**.
10. In the **Advanced Settings** dialog box, verify the following settings and then click **OK**.

   - **Identity = NetworkService**.

     Note:

     The chosen identity needs permissions to access and read files from the *[Installation path]\BrainwareApiServer* directory and its subdirectories.

   - **Enable 32-bit Applications = True**.

Configure component logging

To configure the location of the component log files, complete one of the following steps.

- To save component log files to the default location, in the *C:\Windows\SysWOW64\inetsrv* directory, create a directory named *Log*.
- To save component log files to a custom location, see "Create the registry key ErrorTraceDir " in the *Brainware Intelligent Capture Installation Guide*.

  Note:

  If BIC is installed on the same server, this registry key will also direct all BIC component log files to this custom location.

About BrainwareApi.CommandLine.Client

BrainwareApi.CommandLine.Client is an example application which uses Brainware API to upload sets of documents as external batches. Both the source code and compiled application are provided.

For more information, see "Readme.txt" in the *[InstallationPath]\BrainwareAPI\Brainware.CommandLine.Client* directory.

Display the API documentation

The Brainware API installation creates a shortcut to the documentation. To display the documentation, complete the following step.

- In the *[Installation path]\BrainwareApi* directory, double-click **BrainwareAPI_Documentation**.

  The Brainware API documentation displays in your browser.

  > **Note:**
  > For testing purposes, the documentation provides a Try it out! button for each method.

Update Brainware API

The Brainware API installer does not provide an update procedure. If you need to update to a newer version, complete the following steps to retain your unique customizations and back up your settings.

1. Copy the *[Installation path]\BrainwareAPI* directory to a backup directory.
2. If you modified the settings for the BrainwareAPI application in IIS, note your settings.
3. Complete the steps in Install Brainware Intelligent Capture API.
4. Compare all customized settings in the backed up CONFIG files with the CONFIG files in *[Installation path]\BrainwareAPI* and modify the values if required.
5. In IIS, compare the settings for the BrainwareAPI application with your previous settings and modify the settings if required.