

Brainware API

API 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 (RTS).

All data is sent and received as JSON.

Overview

Authentication		
Method	Endpoint	Description
POST	/api/v1/Authentication	Authenticates credentials and grants access token

ExternalBatch		
Method	Endpoint	Description
GET	/api/v1/ExternalBatch	Returns a list of external batches
GET	/api/v1/ExternalBatch/{ExternalBatchRef}/Status	Returns the status of an external batch
POST	/api/v1/ExternalBatch	Creates an external batch within an import group
PUT	/api/v1/ExternalBatch/{ExternalBatchRef}/Status/{BatchStatus}	Sets the status of an external batch
PUT	/api/v1/ExternalBatch/{ExternalBatchRef}/Status/MarkReadyForImport	Sets an external batch to "Ready for Import" status
DELETE	/api/v1/ExternalBatch/{ExternalBatchRef}	Deletes an external batch

ExternalDocument		
Method	Endpoint	Description
GET	/api/v1/ExternalDocument/	Returns external document

ExternalDocument		
Method	Endpoint	Description
	{ExternalDocumentRef}	details and external document bytes
GET	/api/v1/ExternalBatch/{ExternalBatchRef}/ExternalDocument	Returns a list of external documents in an external batch
GET	/api/v1/ExternalBatch/{ExternalBatchRef}/ExternalDocument/{ExternalDocumentRef}	Returns external document details and external document bytes
POST	/api/v1/ExternalBatch/{ExternalBatchRef}/ExternalDocument	Adds a document to an external batch
DELETE	/api/v1/ExternalBatch/{ExternalBatchRef}/ExternalDocument/{ExternalDocumentRef}	Deletes a document from an external batch

ImportGroup		
Method	Endpoint	Description
GET	/api/v1/ImportGroup	Gets import group list
POST	/api/v1/ImportGroup	Creates an import group
DELETE	/api/v1/ImportGroup	Deletes an import group

Upload External Documents

To upload external documents, complete the following steps.

1. [Authenticate](#) with a valid user that has **AEB** or **ADM** role.
2. [Create an import group](#).
3. [Create an external batch within the import group](#).
4. [Add one or more documents to the external batch](#).
5. [Set the external batch to Ready for Import status](#).

Authentication

Authenticate Credentials and Grant Access Token

POST /api/v1/Authentication

Implementation Notes

To gain access to Brainware API, the user must be authenticated. The user must be a valid user that has AEB or ADM role.

Upon successful validation of credentials, a bearer token is returned which can then be used to authenticate subsequent calls to Brainware API.

By default, a bearer token is valid for 60 minutes.

Request Endpoint

/api/v1/Authentication

Sample Curl

```
curl -X POST --header 'Content-Type: application/x-www-form-urlencoded' --header 'Accept: application/json' --header 'Pragma: no-cache' --header 'Cache-Control: no-cache' -d 'userName=UserName&password=Password&grant_type=password' 'http://localhost/BrainwareAPI/api/v1/Authentication'
```

Sample Request

POST /Authentication

userName=brainware&password=brainware&grant_type=password

Parameters

Parameter	Description	Type	Required
userName	User name	string	Required
password	Password	string	Required
grant_type	Grant type	string	Required

Sample Response

```
{
  "access_token":
  "fH9Km8cf36YDry5AJvgk1WfmZmor7IN4Ep8WCxzbqgDRmZ833E2sGI1aVDbXUmeNokiw3LI3ufCZ
  0x49R-r8hNHtcQf9eT8OmD-ukVFd6_U3lr1W2T4MqdDmQ0gJZ-Csc3pR0Bf4grJJqyoW0w-
```

```
PzBJmFfRMkNbNKzwMWCOX0JvUKQnK2Mz1kJeiJh73CoJN9vXb_W-zc5yLsMyTdDRX4w",
  "token_type": "bearer",
  "expires_in": 3599
}
```

Response Codes

Code	Description
200	Authentication successful, access token generated.
400	Invalid request parameters.

ExternalBatch

Return a List of External Batches

GET /api/v1/ExternalBatch

This request returns the list of external batches optionally filtered by an import group and / or one or more status values.

Use the limit parameter to control the number of batches returned.

Request Endpoint

/api/v1/ExternalBatch

Sample Curl

```
curl -X GET --header 'Accept: application/json' --header 'Pragma: no-cache' -
-header 'Cache-Control: no-cache'
'http://localhost/BrainwareAPI/api/v1/ExternalBatch?group=ImportGroup&status=
20&limit=100'
```

Sample Request

GET /ExternalBatch

Query Parameters

Parameter	Description	Type	Required
group	Import group name	string	Optional
status	List of external batch status values	Array [string]	Optional

Parameter	Description	Type	Required
limit	Number of external batches to return	string	Optional

Response Parameters

Element	Description	Type
batchCountUnlimited	Total number of external batches in the system for the request	integer
importGroups	List of import groups	Array
name	Import group name	string
extBatches	List of external batches that belong to the import group	Array
reference	External batch reference	string
name	External batch name	string
status	External batch status	integer
docCount	Number of external documents in the batch	integer

Sample Response

```
{
  "batchCountUnlimited": 0,
  "importGroups": [
    {
      "name": "string",
      "extBatches": [
        {
          "reference": "string",
          "name": "string",
          "status": 0,
          "docCount": 0
        }
      ]
    }
  ]
}
```

Response Codes

Code	Description
200	External batch list returned
204	No external batches found.

Return the Status of an External Batch

GET /api/v1/ExternalBatch/{ExternalBatchRef}/Status

This request returns the status of an external batch.

Request Endpoint

/api/v1/ExternalBatch/{ExternalBatchRef}/Status

Sample Curl

```
curl -X GET --header 'Accept: application/json' --header 'Pragma: no-cache' -
-header 'Cache-Control: no-cache'
'http://localhost/BrainwareAPI/api/v1/ExternalBatch/BWB0000000001/Status'
```

Sample Request

GET /ExternalBatch/BWB0000000001/Status

Parameters

Parameter	Description	Type	Required
ExternalBatchRef	External batch reference	string	required

Response

Element	Description	Type	Possible Values
status	External batch status	integer	10: Documents can be added or removed from a batch. 15: The batch has been processed by RTS, the import of one or more documents failed. 20: The batch has been marked 'ready for import' and documents can no longer be added or removed. The batch is ready to

Element	Description	Type	Possible Values
			be processed by RTS. 100: All documents from the batch have been processed by RTS.

Sample Response

```
{
  "status": 0
}
```

Response Codes

Code	Description
200	External batch status returned.
404	External batch does not exist.
422	Invalid external batch reference.

Create an External Batch Within an Import Group

POST /api/v1/ExternalBatch

This request creates an external batch within an import group.

Notes

- External batches are sets of one or more documents which are to be imported.
- The external batch is created inside an import group.
- If the indicated import group does not yet exist, it will be created.
- Optionally, names can be assigned to each batch.
- When an external batch is created, it is empty and has a status value of 10 indicating that documents can be added.

Request Endpoint

/api/v1/ExternalBatch

Sample Curl

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Pragma: no-cache' --header 'Cache-Control: no-
```

```
cache' -d 'ExternalBatchName'
'http://localhost/BrainwareAPI/api/v1/ExternalBatch'
```

Sample Request

```
POST 'BWB0000000001' 'http://localhost/BrainwareAPI/api/v1/ExternalBatch'
POST /ExternalBatch
{
  "name": "ExternalBatchName",
  "importGroupName": "ImportGroupName"
}
```

Response

Element	Description	Type
reference	External batch reference	string

Sample Response

```
{
  "reference": "string"
}
```

Response Codes

Code	Description
200	Returns a unique reference to the created external batch.
400	Request is invalid.
409	External batch name exists.
422	External batch name and/or import group name is invalid.

Set the Status of an External Batch

PUT /api/v1/ExternalBatch/{ExternalBatchRef}/Status/{BatchStatus}

This request sets the status of an external batch.

Provided that the external batch has not been locked for processing, the status can be set to any value between 10 and 999.

Note:

Only a batch at status less than 20 can be set to **Ready for Import** (status 20).

Request Endpoint

```
/api/v1/ExternalBatch/{ExternalBatchRef}/Status/{BatchStatus}
```

Sample Curl

```
curl -X PUT --header 'Accept: application/json' --header 'Pragma: no-cache' -  
-header 'Cache-Control: no-cache'  
'http://localhost/BrainwareAPI/api/v1/ExternalBatch/BWB0000000001/Status/20'
```

Sample Request

```
PUT  
'http://localhost/BrainwareAPI/api/v1/ExternalBatch/BWB0000000001/Status/20'  
  
PUT /ExternalBatch/BWB0000000001/Status/20
```

Parameters

Parameter	Description	Type	Required
ExternalBatchRef	External batch reference	string	Required
BatchStatus	External batch status	string	Required

Sample Response

```
{ }
```

Response Codes

Code	Description
204	External batch status updated.
404	External batch does not exist.
422	External batch reference and/or batch status is invalid.
423	External batch is ready for import or locked for RTS processing.

Set an External Batch to "Ready for Import" Status

PUT /api/v1/ExternalBatch/{ExternalBatchRef}/Status/MarkReadyForImport

This request sets an external batch to "Ready for Import" status

The status of the external batch will be set to 20, indicating that the batch is 'ready for import' by RTS.

A batch at this status can no longer have documents added or removed.

This method is only applicable to batches at a status less than 20.

Request Endpoint

/api/v1/ExternalBatch/{ExternalBatchRef}/Status/MarkReadyForImport

Sample Curl

```
curl -X PUT --header 'Accept: application/json' --header 'Pragma: no-cache' -  
-header 'Cache-Control: no-cache'  
'http://localhost/BrainwareAPI/api/v1/ExternalBatch/BWB0000000001/Status/Mark  
ReadyForImport'
```

Sample Request

PUT /ExternalBatch/BWB0000000001/Status/MarkReadyForImport

Parameters

Parameter	Description	Type	Required
ExternalBatchRef	External batch reference	string	Required

Sample Response

```
{}
```

Response Codes

Code	Description
204	External batch marked as "Ready for Import".
404	External batch does not exist.
422	External batch reference is invalid.
423	External batch is processed by RTS.

Delete an External Batch

DELETE /api/v1/ExternalBatch/{ExternalBatchRef}

This request deletes an external batch.

An external batch can be deleted provided that RTS processing has not yet started.

Deleting an external batch also deletes any documents contained within the external batch.

Request Endpoint

/api/v1/ExternalBatch/{ExternalBatchRef}

Sample Curl

```
curl -X DELETE --header 'Accept: application/json' --header 'Pragma: no-cache' --header 'Cache-Control: no-cache'
'http://localhost/BrainwareAPI/api/v1/ExternalBatch/BWB0000000001'
```

Sample Request

```
DELETE /ExternalBatch/BWB0000000001
```

Parameters

Parameter	Description	Type	Required
ExternalBatchRef	External batch reference	string	Required

Sample Response

```
{ }
```

Response Codes

Code	Description
204	External batch deleted.
404	External batch does not exist.
422	External batch reference is invalid.
423	RTS processing has already started.

ExternalDocument

Return External Document Details and External Document Bytes

GET /api/v1/ExternalDocument/{ExternalDocumentRef}

This request returns external document details, such as file name, index, and upload time, as well as external document content.

Request Endpoint

/api/v1/ExternalDocument/{ExternalDocumentRef}

Sample Curl

```
curl -X GET --header 'Accept: application/json' --header 'Pragma: no-cache' --header 'Cache-Control: no-cache' -  
'http://localhost/BrainwareAPI/api/v1/ExternalDocument/BWD0000000001'
```

Sample Request

GET /ExternalDocument/BWD0000000001

Parameters

Parameter	Description	Type	Required
ExternalDocumentRef	External document reference	string	Required

Response

Multi-part response contains document details and document content.

Sample Response

```
{ }
```

Response Codes

Code	Description
200	Document details and document content returned.
404	External document does not exist.
422	External document reference is invalid.

Return a List of External Documents in an External Batch

GET /api/v1/ExternalBatch/{ExternalBatchRef}/ExternalDocument

This request returns a list of external documents in an external batch.

Request Endpoint

/api/v1/ExternalBatch/{ExternalBatchRef}/ExternalDocument

Sample Curl

```
curl -X GET --header 'Accept: application/json' --header 'Pragma: no-cache' -  
-header 'Cache-Control: no-cache'  
'http://localhost/BrainwareAPI/api/v1/ExternalBatch/BWB0000000001/ExternalDoc  
ument'
```

Sample Request

GET /ExternalBatch/BWB0000000001/ExternalDocument

Response

List of external document details for the external batch.

Element	Description	Type
reference	External document reference	string
fileName	External document file name	string
index	Index value	string
uploadingTime	Uploading time as string	string

Sample Response

```
[  
  {  
    "reference": "string",  
    "fileName": "string",  
    "index": 0,  
    "uploadingTime": "string"  
  }  
]
```

Response Codes

Code	Description
200	External document details returned.
204	List of external document details for the external batch.
404	External batch does not exist.
422	External batch reference is invalid.

Return External Document Details and External Document Bytes from an External Batch

GET /api/v1/ExternalBatch/{ExternalBatchRef}/ExternalDocument/{ExternalDocumentRef}

This request returns external document details and external document bytes from an external batch.

Request Endpoint

/api/v1/ExternalBatch/{ExternalBatchRef}/ExternalDocument/{ExternalDocumentRef}

Sample Curl

```
curl -X GET --header 'Accept: application/json' --header 'Pragma: no-cache' -
-header 'Cache-Control: no-cache'
'http://localhost/BrainwareAPI/api/v1/ExternalBatch/BWB0000000001/ExternalDoc
ument/BWD0000000001'
```

Sample Request

GET /ExternalBatch/BWB0000000001/ExternalDocument/BWD0000000001

Parameters

Parameter	Description	Type	Required
ExternalBatchRef	External batch reference	string	Required
ExternalDocumentRef	External document reference	string	Required

Response

Multi-part response contains document details and document content.

Sample Response

```
{ }
```

Response Codes

Code	Description
200	Document details and document content returned.
404	External batch and/or document does not exist, or document is not in this external batch.
422	External batch and/or document reference is invalid.

Add a Document to an External Batch

POST /api/v1/ExternalBatch/{ExternalBatchRef}/ExternalDocument

This request adds a document to an external batch.

External documents are files which are to be imported by RTS.

Each external document must be uploaded to an existing external batch and have a unique, valid filename within that batch.

Optionally, an index can be assigned to each document allowing for control over the order in which RTS will import the documents.

This method is only applicable to batches at a status less than 20.

The document information and content are uploaded as a multi-part form data request.

Request Endpoint

/api/v1/ExternalBatch/{ExternalBatchRef}/ExternalDocument

Sample Request

```
POST /api/v1/ExternalBatch/BWB0000000001/ExternalDocument
Header contains: 'Content-Type': 'multipart/form-data; boundary=boundary_
value', 'Authorization': 'bearer ...'
--boundary_value
Content-Disposition: form-data;
Content-Type:application/json
{
  "externalDocumentFileName": "00000473.tif",
  "index": 0
}
--boundary_value
Content-Disposition: form-data;
```

```
Content-Type: application/octet-stream
... Binary stream of file 00000473.tif...
--boundary_value--
```

Parameters

Parameter	Description	Type	Required
documentInformation	External document details	ExternalDocumentFile { externalDocumentFileName (string): External document file name , index (integer): External document index } Example value { "externalDocumentFileName": "string", "index": 0 }	Required
externalBatchRef	External batch reference	string	Required
fileContent	External document file content	file	Required

Response

Returns a unique reference to the uploaded external document.

Sample Response

```
{  
  "reference": "string"  
}
```

Response Codes

Code	Description
200	Unique reference to the uploaded external document returned

Code	Description
404	External batch does not exist.
409	External document file name exists in this external batch.
422	External batch reference, document file name, and/or document index is invalid.
423	External batch is marked "Ready for Import" or RTS processing has already started.

Delete a Document from an External Batch

DELETE /api/v1/ExternalBatch/{ExternalBatchRef}/ExternalDocument/{ExternalDocumentRef}

This request deletes a document from an external batch.

An external document can be deleted from an external batch provided that the external batch is at a status less than 20.

Request Endpoint

/api/v1/ExternalBatch/{ExternalBatchRef}/ExternalDocument/{ExternalDocumentRef}

Sample Curl

```
curl -X DELETE --header 'Accept: application/json' --header 'Pragma: no-cache' --header 'Cache-Control: no-cache'
'http://localhost/BrainwareAPI/api/v1/ExternalBatch/BWB0000000001/ExternalDocument/BWD0000000001'
```

Sample Request

```
DELETE --header 'Accept: application/json' --header 'Pragma: no-cache' --header 'Cache-Control: no-cache'
'http://localhost/BrainwareAPI/api/v1/ExternalBatch/BWB0000000001/ExternalDocument/BWD0000000001'
```

```
DELETE /ExternalBatch/BWB0000000001/ExternalDocument/BWD0000000001
```

Parameters

Parameter	Description	Type	Required
ExternalBatchRef	External batch reference	string	Required
ExternalDocumentRef	External document reference	string	Required

Sample Response

```
{ }
```

Response Codes

Code	Description
204	External document deleted.
404	External batch and/or document does not exist, or document is not in this external batch.
422	External batch and/or document reference is invalid.
423	External batch is marked "Ready for Import" or RTS processing has already started.

ImportGroup

Get Import Group List

GET /api/v1/ImportGroup

This request returns the list of import groups.

Import groups identify a set of batches that will be processed by one or more RTS instances.

Request Endpoint

/api/v1/ImportGroup

Sample Curl

```
curl -X GET --header 'Accept: application/json' --header 'Pragma: no-cache' -
--header 'Cache-Control: no-cache'
'http://localhost/BrainwareAPI/api/v1/ImportGroup'
```

Sample Request

```
GET --header 'Accept: application/json' --header 'Pragma: no-cache' --header
```

```
'Cache-Control: no-cache' 'http://localhost/BrainwareAPI/api/v1/ImportGroup'
```

```
GET /ImportGroup
```

Response

Element	Description	Type
name	Import group name	string

Sample Response

```
[  
  {  
    "name": "string"  
  }  
]
```

Response Codes

Code	Description
200	Import group list returned.
204	No import group found.

Create an Import Group

```
POST /api/v1/ImportGroup
```

This request creates an import group.

Request Endpoint

```
/api/v1/ImportGroup
```

Sample Curl

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept:  
application/json' --header 'Pragma: no-cache' --header 'Cache-Control: no-  
cache' -d 'ImportGroupName'  
'http://localhost/BrainwareAPI/api/v1/ImportGroup'
```

Sample Request

```
POST /ImportGroup  
{  
  "name": "ImportGroupName"
```

```
}
```

Parameters

Parameter	Description	Type	Required
importGroupDetails	Import group name	string	Required

Sample Response

```
{}
```

Response Codes

Code	Description
204	Import group created.
400	Request is invalid.
409	Import group exists.
422	Import group name is invalid.

Delete an Import Group

DELETE /api/v1/ImportGroup

This request deletes the specified import group.

Request Endpoint

/api/v1/ImportGroup

Sample Curl

```
curl -X DELETE --header 'Accept: application/json' --header 'Pragma: no-cache' --header 'Cache-Control: no-cache'
'http://localhost/BrainwareAPI/api/v1/ImportGroup?name=ImportGroupName'
```

Sample Request

```
POST /ImportGroup
{
  "name": "ImportGroupName"
}
```

Parameters

Parameter	Description	Type	Required
name	Import group name	string	Required

Sample Response

```
{ }
```

Response Codes

Code	Description
204	Import group deleted
404	Import group does not exist.
422	Import group name is invalid.
423	Import group is already used in some external batch creation.