

Solutions Business Manager JSON API Guide

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Overview

This document describes how to use the SBM JSON API. SBM is a Web-architected change request and process management solution that empowers application development teams to improve communication and development processes across the enterprise.

The SBM JSON API provides a set of RESTful services that enable you to perform CRUD (create, read, update, and delete) operations against SBM items via GET and POST calls.

For example:

- You can send a JSON API POST call from JavaScript on a custom form to update an item.
- You can create a REST data source in Composer and initiate a GET call against a separate SBM instance to return external items and populate a Kanban board in SBM Work Center.
- You can work with SBM items by invoking GET and POST calls from any external application that is capable of sending RESTful calls.

Audience and Scope

This document is intended for experienced developers interested in integrating their products with SBM.



Important: Support for development efforts writing REST Web services is provided by Professional Services. Questions regarding use of API functions as documented in the following sections are handled by customer support.

Access and Authentication

This section describes how to access all of the JSON API functions.

To access the API directly, use the following format:

http://AEserverName/jsonapi/getitem/1000/2

Alternatively, start with any of the following addresses:

```
http://AEserverName/tmtrack/tmtrack.dll?
http://AEserverName/workcenter/tmtrack.dll?
http://AEserverName/workcenter/tmtrack.dll?shell=swc&
```

and append the function call (JSON Func=) and any required parameters (JSON P1=, JSON P2=):

JSONPage&command=jsonapi&JSON Func=getitem&JSON P1=1000&JSON P2=2

Note that the order of the parameters on the URL is important. For example, the GetItem call fails if you have the table ID parameter value in the item ID parameter and vice versa.



Tip: If you are calling a function via JavaScript on a custom form, begin the URL with tmtrack.dll?JSONPage&command=. This ensures the call will succeed in both the classic interface and in Work Center.

Every JSON API call contains a result in the response. For every call that is successfully authenticated, the result contains a type of either OK or ERROR. Every ERROR result has an English message after msg and may also contain a localizable message in msgLoc.

```
"result":{"type":"OK","msg":""}
"result":{"type":"ERROR","msg":"Could not read specified record by ID"}
"result":{"type":"ERROR","msg":"Could not read specified record by ID",
→"msgLoc":"The item could not be found."}
```

All functions are accessible from the browser using existing authentication methods such as Windows Authentication or Single Sign-On (SSO). You can use the TokenService call to acquire and send an SSO token in the HTTP header for SBM server configurations that use SSO. For details, refer to Requesting a Security Token [page 6].

If authentication fails, or the required SSO token is not found, the authentication type is returned with the message Authentication failed:

```
{
"request": {
"url": "http://AE/tmtrack/tmtrack.dll?JSONPage&command=jsonapi&JSON_Func=getVersion&"
}
"error": {
"type": "authentication"
"msg": "Authentication failed"
}
"sso": {
"idp": "http://SSOserverName:8085/idp/services/Trust"
"msg": ""
"code": ""
}
}
```

All functions provided by the JSON API honor SBM user privileges; additional privileges are not required to access the API functions.

Requesting a Security Token

For SBM systems that are configured to use Single Sign-On (SSO), you must provide a security token in the HTTP header with the JSON call. Upon successful authentication, the TokenService call returns a valid SSO SAML token that you can pass in subsequent JSON API calls, SOAP-based calls via the SBM Application Engine Web Services API, or other SBM interfaces that require a valid SAML token.

To request a security token:

1. Invoke the TokenService POST call using the following URL (with your SSO server's host name):

```
2. Pass the following header information:
```

- **Content-Type:** application/json; charset=UTF-8
- Accept: application/json
- 3. Include authentication credentials in the payload:

```
{"credentials": { "username" : "bill", "password":"mypassword"}}
     For example:
Content-Type: application/json;charset=UTF-8
Accept: application/json
Content-Length: 56
Source message
POST /idp/services/rest/TokenService/ HTTP/1.1
HOST: SSOHostName: 8085
content-type: application/json;charset=UTF-8
accept: application/json
content-length: 56
 {"credentials": { "username" : "bill", "password":"mypassword"}}
     If authentication succeeds, a response message is returned:
"status": "OK"
"lifetime": {
"created": "2019-04-17T10:32:11.224Z",
"expires": "2019-04-17T18:32:11.224Z"
"token": {
"tokenType": "SSO"
"encoding": "base64"
"value": "PHNhbWw6QXNzZXJ0...pBc3NlcnRpb24+"
"tokenProperties": {
"ticketType": "TGT",
"nativeTokenType": "saml:SAML",
"nativeTokenVersion": "1.1",
"tokenId": "urn:uuid:6DE440D4ADF151C6CF1555522331340",
"issuer": "https://localhost/idp/services/Trust",
"subjectName": "bill",
"subjectNamespace": "00000",
"issueInstant": "2019-04-17T10:32:11.224Z",
"notBefore": "2019-04-17T10:32:11.224Z",
"notOnOrAfter": "2019-04-17T18:32:11.224Z",
"identiyStoreType": "AE",
"identityStoreURI": "http://SSOHostName/gsoap/gsoap ssl.dll?sbminternalservices72"
}
```

}

The token information is in the base64-encoded <code>value</code> string. You now have a valid security token that you can pass with <code>ALFSSOAuthNToken</code> in the HTTP header in subsequent JSON API calls or as part of the WS-trust envelope for SOAP-based calls made via the SBM Application Engine Web Services API.

The following example shows how to pass the token in ALFSSOAuthNToken with the GetVersion call:

```
GET /jsonapi/GetVersion HTTP/1.1
HOST: SSOHostName
alfssoauthntoken: PHNhbWw6QX...<base64 encoded string>...dGlvbj4=
cookie: authrequired=
```

An alternative option is to use the _GetSSOToken() function that exists on custom forms. This function attempts to retrieve your current SSO token, or ping a new one (synchronously) if needed. It is defined in custom forms' shared aeplugin script, and used elsewhere throughout such as in the relational grid widget or REST service wrappers.

Refer to the headers example below to see a generic jQuery post() call to the JSON API with GetSSOToken():

```
jQuerySBM.ajax({
          async: true,
          url: dburl,
          headers: { alfssoauthntoken: _GetSSOToken() },
          dataType: "json",
          data: data,
          type: "POST",
          contentType: "application/json; charset=utf-8",
          ...
```

Related Topics

- GET Functions [page 8]
- POST Functions [page 35]

Reference

The functions described in this section are divided into the following categories:

- GET Functions [page 8]
- POST Functions [page 35]

GET Functions

- GetFileAttachments [page 9]
- GetFileField [page 11]
- GetURLField [page 14]

- GetItem [page 16]
- GetItemChangeHistory [page 18]
- GetItemsByInternalID [page 20]
- GetItemsByItemID [page 23]
- GetItemsByListingReport [page 26]
- GetItemsByReportFilter [page 30]
- GetItemTransitions [page 33]
- GetVersion [page 35]

GetFileAttachments

Gets file attachments on a primary or auxiliary item.

Parameters

Name	me Type Description	
GetFileAttachments	Function	Returns file attachments from an item.
table	ID (integer)UUID (string)dbname (string)name (string)	The primary or auxiliary table identifier.
item	ID (integer)UUID (string)	The item identifier.

Post Data

You can optionally use the GetFileAttachments function in an HTTP POST and include one or more of the following objects:

Name Type	Description	
-----------	-------------	--

includeFile (optional)	boolean	Use includeFile to return the base64-encoded contents of the file. Default is true. Note: If one or more files are included in the response, the cumulative total of all files that are returned is limited to 50 MB in size. If the total size of the included files is greater than 50 MB in size, you will only receive the meta data about the file attachments in the response. To change the size limit for all files in the response, see solution \$142607.
fileAttachFilter (optional)	Array of identifiers ID (integer or string) FILENAME (string) TITLE (string)	Include fileAttachFilter to filter the attachments that are returned. Otherwise, all file attachments are returned by default. Note that you can pass any type of identifier in the array, or a combination of them in order to return the desired attachments.

Example

URL:

http://AEserverName/jsonapi/GetFileAttachments/1000/141

"data": "iVBORw...Jggg=="

```
Post data:
```

```
"includeFile":true, "fileAttachFilter": [46, "another screenshot" ]}

Response:

{
    "fileattachments": {
        "files": [{
            "id": 46,
            "title": "screenshot of issue",
            "fileName": "screenshot.png",
            "fileSize": 14998,
            "showAsImage": false,
            "modificationDateTime": 1532020749,
            "accessType": "ATTACHACCESS-RESTRICTED",
            "url": "http://AEserverName...AttachmentPage&AttachmentID=46/screenshot.png",
            "contentsBase64": {
```

```
}
 }, {
 "id": 47,
 "title": "another screenshot",
  "fileName": "screenshot2.png",
  "fileSize": 138157,
 "showAsImage": false,
  "modificationDateTime": 1532020874,
  "accessType": "ATTACHACCESS-RESTRICTED",
  "url": "http://AEserverName...AttachmentPage&AttachmentID=47/screenshot2.png",
  "contentsBase64": {
  "data": "iVBO...EQICI="
 }
} ]
"result": {
 "type": "OK",
 "msg": ""
}
```

Because the TS_ID is subject to change in a promotion context, you may need to update the table and item parameters with the TS_ID from the target environment after the promote is finished.

GetFileField

Gets one or more files from a File field on a specified item.

Name	Туре	Description
GetFileField	Function	Returns <i>File</i> field contents on a primary or auxiliary item.
table	 ID (integer) UUID (string) dbname (string) name (string) 	The primary or auxiliary table identifier.

item	• ID (integer) • UUID (string)	The item identifier.
field	ID (integer)UUID (string)dbname (string)name (string)	The <i>File</i> field identifier.

Post Data

You can optionally use the GetItem function in an HTTP POST and include one or more of the following objects:

Name	Туре	Description
includeFile (optional)	boolean	Use includeFile to return the base64-encoded contents of the file. Default is true. Note: If one or more files are included in the response, the cumulative total of all files that are returned is limited to 50 MB in size. If the total size of the included files is greater than 50 MB in size, you will only receive the meta data about the file attachments in the response. To change the size limit for all files in the response, see solution S142607.
fileObjFilter (optional)	Array of identifiers ID (integer or string) UUID (string) FILENAME (string) NAME (string)	Include fileObjFilter to filter the File field entries that are returned. Otherwise, all files are returned by default. Note that you can pass any type of identifier in the array, or a combination of them in order to return the desired files.

Example

URL:

```
http://AEserverName/GetFileField/1000/141/FILEFIELD
```

```
Post data:
{"includeFile":true, "fileObjFilter": [ "myFileOne.txt", 3 ]}
     Response:
          "fieldFileObj": {
           "id": 189,
           "uuid": "0efe57ae-eda4-4f46-b3af-3370a7097545",
           "name": "FileField",
           "dbname": "FILEFIELD",
           "fldtype": 132,
           "fldtypelabel": "file",
           "fileObjList": [{
             "id": 1,
             "uuid": "31e7a4fb-f688-4482-8780-be3a013039ce",
             "name": "notes about issue",
             "filename": "myFileOne.txt",
             "filesize": 16,
             "fileurl": "http://AEserverName...FileObjectPage&FileObjId=1/myFileOne.txt",
             "contentsBase64": {
              "data": "dGhpcyBpcyBmaWxlIG9uZQ=="
            },
                 "id": 3,
             "uuid": "379c4c0d-34b4-4554-be37-316c6f368369",
             "name": "additional notes",
             "filename": "myFileTwo.txt",
             "filesize": 16,
             "fileurl": "http://AEserverName...FileObjectPage&FileObjId=3/myFileTwo.txt",
             "contentsBase64": {
              "data": "dGhpcyBpcyBmaWxlIHR3bw=="
             }
            }
           1,
           "fileObjCount": 2
          "result": {
           "type": "OK",
           "msq": ""
          }
```

Because the TS_ID is subject to change in a promotion context, you may need to update the table and item parameters with the TS_ID from the target environment after the promote is finished.

GetURLField

Gets one or more URLs from a URL field on a specified item.

Parameters

Name	Туре	Description
GetURLField	Function	Returns <i>URL</i> field contents on a primary or auxiliary item.
table	ID (integer)UUID (string)dbname (string)name (string)	The primary or auxiliary table identifier.
item	ID (integer)UUID (string)	The item identifier.
field	ID (integer)UUID (string)dbname (string)name (string)	The URL field identifier.

Post Data

You can optionally use the GetURLField function in an HTTP POST and include one or more of the following objects:

Name Ty	ype Description	
---------	-----------------	--

fileObjFilter Array of Include fileObjFilter to filter the URL field entries identifiers that are returned. Otherwise, all entries are returned (optional) by default. • ID Note that you can pass any type of identifier in the (integer array, or a combination of them in order to return the or desired URLs. string) • UUID (string) • URL (string) • NAME (string)

Example

URL:

http://AEserverName/GetURLField/1000/141/URLFIELD

```
Post data:
```

```
{"fileObjFilter": [ "public site", "http://intranet.acme.com" ]}
     Response:
          "fieldFileObj": {
           "id": 190,
           "uuid": "0647fcef-ac15-40e1-9329-acd244a938ff",
           "name": "URLField",
           "dbname": "URLFIELD",
           "fldtype": 133,
           "fldtypelabel": "url",
           "fileObjList": [{
             "id": 2,
             "uuid": "397e95a6-be6e-458d-955a-b47f0759d62f",
             "name": "intranet site",
             "contents": "http://intranet.acme.com"
            },
             "id": 4,
             "uuid": "0282aa7d-d0b6-4ce7-833f-a09b5047e7b6",
             "name": "public site",
             "contents": "http://acme.com"
           "fileObjCount": 2
          },
          "result": {
```

```
"type": "OK",
    "msg": ""
}
```

Because the TS_ID is subject to change in a promotion context, you may need to update the table and item parameters with the TS_ID from the target environment after the promote is finished.

GetItem

Gets a primary or auxiliary item.

Parameters

Name	Туре	Description
GetItem	Function	Returns a primary or auxiliary item.
table	ID (integer)UUID (string)dbname (string)name (string)	The primary or auxiliary table identifier.
item	ID (integer)UUID (string)	The item identifier.

Post Data

You can optionally use the GetItem function in an HTTP POST and include one or more of the following objects:

Name	Туре	Description
itemOptions (optional)	ItemOptions [page 69]	Use itemOptions to limit the response data. When itemOptions are included, only the specified fields, plus fields required by the transition, are sent in the response.

getTransitions	boolean	Include getTransitions to return a list of
(optional)		transitions that are currently available for this item.

Example

URL:

```
http://AEserverName/jsonapi/GetItem/1000/109
```

```
Post data:
{fixedFields: false, includeNotes: true,
→fields: [{dbname:"TITLE"}, {dbname: "FUNCTIONAL AREA"}]}
      Response:
  "item": {
    "id": {
      "id": 109,
      "uuid": "cle62a05-5dd1-46e7-9cdc-b91518893b23",
      "itemIdPrefixed": "BUG000173",
      "itemId": "000173",
      "url": "http://AEserverName:80/tmtrack/tmtrack.dll?...&TableId=1000"
    },
    "table": {
      "id": 1000,
      "uuid": "dc8cd329-b430-436f-bb75-bf90008e6a50",
      "name": "Issues",
      "dbName": "UBG ISSUES"
    },
    "fieldMetadata": [
        "id": 54,
        "name": "Title",
        "dbname": "TITLE",
        "syscode": 4,
        "type": "text",
        "renderHtml": false,
        "password": false,
        "maxLength": 80
      },
        "id": 75,
        "name": "Functional Area",
        "dbname": "FUNCTIONAL AREA",
        "syscode": 0,
        "type": "selection",
        "renderHtml": false,
        "isMultiSelect": false
    ],
```

```
"fields": {
    "TITLE": {
        "value": "Image Builder crashes my system."
    },
    "FUNCTIONAL_AREA": {
        "id": 30,
        "name": "User Interface"
    }
    },
    "notes": []
},
    "result": {
        "type": "OK",
        "msg": ""
}
```

Because the TS_ID is subject to change in a promotion context, you may need to update the table and item parameters with the TS_ID from the target environment after the promote is finished.

GetItemChangeHistory

Gets the change history for a primary or auxiliary item.

Name	Туре	Description
GetItemChangeHistory	Function	Returns change history for a primary or auxiliary item.
table	• ID (integer) • UUID (string) • dbname (string) • name (string)	The primary or auxiliary table identifier.

item	• ID (integer)	The item identifier.
	• UUID (string)	

Post Data

You can optionally use the GetItemChangeHistory function in an HTTP POST and include the following object:

Name	Туре	Description
<pre>itemChangeHistoryOptions (optional)</pre>	ItemChangeHistoryOptions [page 67]	Use itemChangeHistoryOptions to limit the response data. When itemOptions are included, only the specified fields, plus fields required by the transition, are sent in the response.

Example

URL:

```
http://AEserverName/jsonapi/GetItemChangeHistory/1000/109
```

Post data:

{

```
fetchSize: 2, newestFirst: true,
      {startIndex: 0,
      →fixedFields : false, fields: [{dbname:'OWNER'}]}
  Response:
"itemhistory":
      "timeStamp": 1530804913,
      "date": "07/05/2018 09:35:13 AM",
      "changer":
         "id": 8,
         "name": "Administrator"
      },
      "actionId": "104130 link",
      "actionName": "Attch Added",
      "changes": [{"newValue": "this is a note header"}]
   },
```

```
"newState": "Returned",
         "timeStamp": 1448981535,
         "date": "12/01/2015 07:52:15 AM",
         "changer":
            "id": 8,
            "name": "Administrator"
         },
         "newOwner":
            "id": 18,
            "name": "Jan Lvl 2 Support"
         "actionId": "96569 link",
         "actionName": "Updated",
         "changes": [
            "fieldId": 86,
            "fieldName": "New Owner",
            "newValue": "Jan Lvl 2 Support"
         } ]
      }
   ],
   "statistics":
      "totalSize": 10,
      "startIndex": 0,
      "fetchSize": 2
   "result":
      "type": "OK",
      "msq": ""
   }
}
```

Because the TS_ID is subject to change in a promotion context, you may need to update the table and item parameters with the TS_ID from the target environment after the promote is finished.

The GetItemChangeHistory function complements the GetItem function by providing more historical information for an item. Both methods have the same input parameters and share common field filtering options.

GetItemsByInternalID

Gets multiple items matching one or more internal IDs (TS_IDs).

Name	Туре	Description	
------	------	-------------	--

GetItemsByInternalId	Function	Gets multiple items matching the internal IDs that are passed. Item IDs are not unique, so this query returns an array of results. Unlike the report-based calls, you cannot request a second page of results with this query. Results are sorted by the Item ID field.
table	• ID (integer) • UUID (string) • dbname (string) • name (string)	The primary or auxiliary table identifier. Note that name is case sensitive and can be changed in SBM Composer and deployed.
internalId	• ID (string)	A comma-separated list of TS_IDs. For example: 1,2,3,4,5. Note that this parameter is optional in POST calls if the requestedItems option (described below) is provided in the POST data. If you include the internalId parameter on a POST call, it takes precedence over the requestedItems data if it is also included. This means only the integers on the URL will be included in the result.

Usage

In the direct access URL, you can specify the items by TS_ID:

http://AEserverName/jsonapi/getitemsbyinternalid/Issues/1,2,3,4?pagesize=2

Longer URL format example:

JSONPage&command=jsonapi&JSON_Func=getitemsbyinternalid&JSON_P1=1000&JSON_P2=11,12,13

Post Data

You can optionally use the GetItemsByItnternalID function in an HTTP POST and include one or more of the following objects:

Name Ty	ype Description	
---------	-----------------	--

requestedItems (optional)	string	A comma-separated list of TS_IDs (integers).
itemOptions (optional)	ItemOptions [page 69]	Use itemOptions to limit the response data. When itemOptions are included, only the specified fields are sent in the response.
pagesize (optional)	integer	Add &pagesize=100 to the URL to override the user's page size preference. For example, &pagesize=1 ensures that only the first item found is returned.

Example

URL:

```
http://AEserverName/jsonapi/GetItemsByInternalID/Issues/1,2,3?pagesize=1
```

Post data:

```
{fixedFields: false, fields: [{dbname:"TITLE"}, {dbname: "FUNCTIONAL AREA"}]}
```

Response:

```
"searchResults": {
"totalItems": 2,
"pageSize": 1
},
"table": {
"id": 1000,
"uuid": "dc8cd329-b430-436f-bb75-bf90008e6a50",
"name": "Issues",
"dbName": "UBG ISSUES"
"fieldMetadata": [
 {
"id": 54,
"name": "Title",
"dbname": "TITLE",
"syscode": 4,
"type": "text",
"renderHtml": false,
"password": false,
"maxLength": 80
},
"id": 75,
"name": "Functional Area",
"dbname": "FUNCTIONAL AREA",
```

```
"syscode": 0,
"type": "selection",
"renderHtml": false,
"isMultiSelect": false
],
"items": [
"id": {
"id": 2,
"uuid": "46ad4b77-4c8e-445d-b6d8-e84b71cfb8ab",
"itemIdPrefixed": "BUG000002",
"itemId": "000002",
"url": "http://AEserverName:80/tmtrack/tmtrack.dll?
IssuePage&RecordId=2&Template=view&TableId=1000"
"fields": {
"TITLE": {
"value": "Upgrade from 4.0 does not work correctly"
"FUNCTIONAL AREA": {
"id": 0,
"name": "(None)"
"result": {
"type": "OK",
"msg": ""
```

Because the TS_ID is subject to change in a promotion context, you may need to update the table parameter with the TS_ID from the target environment after the promote is finished.

GetItemsByItemID

Gets multiple items matching the specified prefix and ID.

Name	Туре	Description
------	------	-------------

GetItemsByItemId	Function	Gets multiple items matching the prefix and ID that are passed. Item IDs are not unique, so this query returns an array of results. Unlike the report-based calls, you cannot request a second page of results with this query. Results are sorted by the Item ID field.
table	• ID	The primary or auxiliary table identifier.
	(integer)	Note that name is case sensitive and can be changed in SBM Composer and deployed.
	• UUID (string)	Changea in 3DM Composer and deployed.
	• dbname (string)	
	• name	
	(string)	
itemId	• ID (string)	The item ID. For example: BUG2, ENH000079, *, %, BUG, BUG*, BUG*2, BUG*2*.
	(String)	

Usage

In the direct access URL, you can specify the item ID as BUG2 or BUG000002:

http://AEserverName/jsonapi/getitemsbyitemid/Issues/BUG2?pagesize=2

Note that you cannot use * or % in the path part of the URL. However, in the longer URL format, you can specify either wildcard.

For example:

JSONPage&command=jsonapi&JSON Func=getitemsbyitemid&JSON P1=1000&JSON P2=BUG*2

Post Data

You can optionally use the GetItemsByItemID function in an HTTP POST and include one or more of the following objects:

Name	Туре	Description
itemOptions (optional)	ItemOptions [page 69]	Use itemOptions to limit the response data. When itemOptions are included, only the specified fields are sent in the response.

pagesize	integer	Add &pagesize=100 to the URL to override the user's
(optional)		page size preference. For example, <code>&pagesize=1</code> ensures that only the first item found is returned.

Example

URL:

```
http://AEserverName/jsonapi/GetItemsByItemID/Issues/BUG?pagesize=2
```

```
Post data:
{fixedFields: false, fields: [{dbname: "TITLE"}, {dbname: "FUNCTIONAL AREA"}]}
     Response:
  "searchResults": {
    "totalItems": 69,
    "pageSize": 2
  "table": {
    "id": 1000,
    "uuid": "dc8cd329-b430-436f-bb75-bf90008e6a50",
    "name": "Issues",
    "dbName": "UBG ISSUES"
  } ,
  "fieldMetadata": [
      "id": 54,
      "name": "Title",
      "dbname": "TITLE",
      "syscode": 4,
      "type": "text",
      "renderHtml": false,
      "password": false,
      "maxLength": 80
    },
      "id": 75,
      "name": "Functional Area",
      "dbname": "FUNCTIONAL_AREA",
      "syscode": 0,
      "type": "selection",
      "renderHtml": false,
      "isMultiSelect": false
    }
  ],
  "items": [
      "id": {
        "uuid": "46ad4b77-4c8e-445d-b6d8-e84b71cfb8ab",
```

```
"itemIdPrefixed": "BUG000002",
        "itemId": "000002",
        "url": "http://AEserverName:80/tmtrack/tmtrack.dll?...Template=view&TableId=1000"
      "fields": {
        "TITLE": {
          "value": "Upgrade from 4.0 does not work correctly"
        "FUNCTIONAL AREA": {
          "id": 0,
          "name": "(None)"
      }
    },
      "id": {
        "id": 13,
        "uuid": "9506eb9c-0822-4944-b023-5142696c64d1",
        "itemIdPrefixed": "BUG000028",
        "itemId": "000028",
        "url": "http://AEserverName:80/tmtrack/tmtrack.dll?...Template=view&TableId=1000"
      },
      "fields": {
        "TITLE": {
          "value": "404 page not found error"
        "FUNCTIONAL AREA": {
          "id": 0,
          "name": "(None)"
        }
      }
    }
  "result": {
    "type": "OK",
    "msq": ""
}
```

Because the TS_ID is subject to change in a promotion context, you may need to update the table parameter with the TS_ID from the target environment after the promote is finished.

GetItemsByListingReport

Gets primary or auxiliary items from a listing report.

Parameters

There are two ways to specify the report. Parameters differ depending on the option you use.

Option 1 (report):

Name	Туре	Description
GetitemsByListingReport	Function	Returns primary or auxiliary items from a specified listing report.
report	• ID (integer) • UUID (string)	The listing report identifier.

Option 2 (table and reportReferenceName):

Name	Туре	Description
GetitemsByListingReport	Function	Returns a primary or auxiliary item.
table	• ID (integer) • UUID (string) • dbname (string) • name (string)	The table identifier. For example: UBG_ISSUES
reportReferenceName	string	The reference name for the report, used in combination with the table identifier. For example: IDM_all_active_crs

Post Data

You can optionally use the GetItemsByListingReport function in an HTTP POST and include one or more of the following objects:

Name Type	Description
-----------	-------------

<pre>itemOptions (optional)</pre>	ItemOptions [page 69]	Use itemOptions to limit the response data. When itemOptions are included, only the specified fields, plus fields required by the transition, are sent in the response.
hasruntimeparams (optional)	integer	Use hasruntimeparams with query-at-runtime reports to fill in the blanks in the report filter. For example: example: &hasruntimeparams=1&f80v1=0
pagesize (optional)	integer	Report results honor the user's page size preferences. You can override this setting using pagesize, but the results will still be limited to the maximum that is set in the system setting "MaxItemsPerPage". For example: &pagesize=5000
rptkey and recno (both optional)	integer	Reports cache the result set under the key value rptkey. A second page of report results can be requested by repeating the report call and appending rptkey and the desired starting index (0-based) to the URL. For example: @rptkey=1312321@recno=20

Example

URL:

```
http://AEserverName/jsonapi/getitemsbylistingreport/106?pagesize=2
```

```
Post data:
```

```
"comment": "",
    "url": "tmtrack.dll?ReportPage&Template=reports%2Flist&ReportId=106",
    "refURL": "tmtrack.dll?ReportPage&template=reports%2Flist&ReportUUID=
\rightarrow 8949036c-c217-480b-9214-f831fda3155f\&embedded"
  },
  "reportResults": {
    "totalItems": 6,
    "pageSize": 2,
    "firstRecordIndex": 0,
    "rptkey": 1846002703
  "table": {
    "id": 1000,
    "uuid": "dc8cd329-b430-436f-bb75-bf90008e6a50",
    "name": "Issues",
    "dbName": "UBG ISSUES"
  } ,
  "fieldMetadata": [
    {
      "id": 54,
      "name": "Title",
      "dbname": "TITLE",
      "syscode": 4,
      "type": "text",
      "renderHtml": false,
      "password": false,
      "maxLength": 80
    },
      "id": 75,
      "name": "Functional Area",
      "dbname": "FUNCTIONAL AREA",
      "syscode": 0,
      "type": "selection",
      "renderHtml": false,
      "isMultiSelect": false
    }
  ],
  "items": [
      "id": {
        "id": 109,
        "uuid": "",
        "itemIdPrefixed": "BUG000173",
        "itemId": "000173",
        "url": "http://AEserverName:80/tmtrack/tmtrack.dll?...view&TableId=1000"
      },
      "fields": {
        "TITLE": {
          "value": "Image Builder crashes my system."
        },
        "FUNCTIONAL AREA": {
          "id": 30,
          "name": "User Interface"
        }
```

```
},
      "id": {
        "id": 47,
        "uuid": "",
        "itemIdPrefixed": "BUG000084",
        "itemId": "000084",
        "url": "http://AEserverName:80/tmtrack/tmtrack.dll?...view&TableId=1000"
      },
      "fields": {
        "TITLE": {
          "value": "Program shuts down"
        "FUNCTIONAL AREA": {
          "id": 30,
          "name": "User Interface"
      }
  ],
  "result": {
    "type": "OK",
    "msq": ""
}
```

Because the TS_ID is subject to change in a promotion context, you may need to update the report and table parameters with the TS_ID from the target environment after the promote is finished.

GetItemsByReportFilter

Gets multiple items using a report filter.

Name	Туре	Description
GetitemsByReportFilter	Function	Gets multiple items using a report filter to identify which items to return.

reportFilter	• ID (integer)	The report filter identifier.
	• UUID (string)	
	• name (string)	

Post Data

You can optionally use the GetItemsByReportFilter function in an HTTP POST and include one or more of the following objects:

Name	Туре	Description
itemOptions (optional)	ItemOptions [page 69]	Use itemOptions to limit the response data. When itemOptions are included, only the specified fields are sent in the response.

Example

URL:

http://AEserverName/jsonapi/getitemsbyreportfilter/1?pagesize=2

Post data:

```
{fixedFields: false, includeNotes: true,
→fields: [{dbname:"TITLE"}, {dbname: "FUNCTIONAL AREA"}]}
     Response:
  "reportFilter": {
    "id": 1,
    "uuid": "ac956c79-3784-4c92-bdaf-d0f6a98f1ba8",
    "name": "IDM report filter"
  "reportResults": {
    "totalItems": 60,
    "pageSize": 2,
    "firstRecordIndex": 0,
    "rptkey": 284626196
  "table": {
    "id": 1000,
    "uuid": "dc8cd329-b430-436f-bb75-bf90008e6a50",
    "name": "Issues",
```

```
"dbName": "UBG ISSUES"
},
"fieldMetadata": [
    "id": 54,
    "name": "Title",
    "dbname": "TITLE",
    "syscode": 4,
    "type": "text",
    "renderHtml": false,
    "password": false,
    "maxLength": 80
  },
    "id": 75,
    "name": "Functional Area",
    "dbname": "FUNCTIONAL_AREA",
    "syscode": 0,
    "type": "selection",
    "renderHtml": false,
    "isMultiSelect": false
  }
],
"items": [
  {
    "id": {
     "id": 2,
      "uuid": "",
      "itemIdPrefixed": "BUG000002",
      "itemId": "000002",
      "url": "http://AEserverName:80/tmtrack/tmtrack.dll?...Template=view&TableId=1000"
    "fields": {
      "TITLE": {
        "value": "Upgrade from 4.0 does not work correctly"
      "FUNCTIONAL AREA": {
        "id": 0,
        "name": "(None)"
    }
  },
    "id": {
     "id": 3,
      "uuid": "",
      "itemIdPrefixed": "ENH000005",
      "itemId": "000005",
      "url": "http://AEserverName:80/tmtrack/tmtrack.dll?...Template=view&TableId=1000"
    "fields": {
        "value": "Change icons to more modern look"
      },
      "FUNCTIONAL AREA": {
```

```
"id": 0,
          "name": "(None)"
      }
  ],
  "result": {
    "type": "OK",
    "msg": ""
}
```

Because the TS_ID is subject to change in a promotion context, you may need to update the reportFilter parameter with the TS_ID from the target environment after the promote is finished.

GetItemTransitions

Gets available transitions for a primary item.

Name	Туре	Description
Getitemtransitions	Function	Returns a list of available transitions for an item. The calling user's privileges are considered when returning the list of transitions. Use GetItemTransitions to identify transitions for use with other calls.
table	• ID (integer) • UUID (string) • dbname (string) • name (string)	The primary table identifier.

item	• ID (integer)	The item identifier.
	• UUID (string)	

Post Data

None.

Example

URL:

http://AEserverName/jsonapi/getitemtransitions/1000/2

Response:

```
"transitions": [
      "id": 18,
      "name": "Re-Open",
      "uuid": "e44d9bfe-6d54-426e-a1ac-4711a09b6243",
      "type": "regular",
      "isQuick": false
    },
      "id": 1,
      "name": "Update",
      "uuid": "update",
      "internalName": "UPDATE",
      "type": "update",
      "isQuick": false
    },
      "id": 2,
      "name": "Delete",
      "uuid": "delete",
      "internalName": "DELETE",
      "type": "delete",
      "isQuick": false
  ],
  "result": {
    "type": "OK",
    "msg": ""
}
```

Because the TS ID is subject to change in a promotion context, you may need to update the table and item parameters with the TS ID from the target environment after the promote is finished.

GetVersion

Gets the current Application Engine version.

Parameters

Name	Туре	Description
GetVersion	Function	Returns the version of the target Application Engine.

Post Data

None.

Example

URL:

http://AEserverName/jsonapi/getversion

```
Response:
```

```
"version": "Version 11.01.00.00.354",
"result": {
  "type": "OK",
  "msq": ""
```

Comments

None.

POST Functions

- FinishTransition [page 36]
- StartSubmitToAux [page 38]
- StartSubmitToProject [page 40]
- StartTransition [page 43]
- SubmitToAux [page 46]
- SubmitToProject [page 49]
- UpdateFileAttachments [page 51]

- UpdateFileField [page 53]
- UpdateURLField [page 57]

FinishTransition

Completes a transition on an item.

The specified item will get a recordlock if the table uses record-locking. This record-lock is passed to the FinishTransition call.

Name	Туре	Description
FinishTransition	Function	Completes a transition on an item. You can send new field values with the post data using the transition object.
table	• ID (integer) • UUID (string) • dbname (string) • name (string)	The table identifier.
item	• ID (integer) • UUID (string)	The item identifier.
transition	• ID (integer) • UUID (string) • internal name (string)	The transition identifier to use. If 0, a valid Update transition is used (if found). Tip: Run GetItemTransitions first to determine the transition identifier that you will specify. Not all transitions have an internal name. Those that do return the internal name as dbname in the GetItemTransitions response.

record-lock ID	ID (integer)	Use one of the following:The ID value from the StartTransition response
		 0 if the table does not use record locking -1 if you did not invoke StartTransition and you want to run the transition without first getting the current field values of the item.

Post Data

Name	Туре	Description
itemOptions (optional)	ItemOptions [page 69]	Used to define the item's values that will be included in the response if the transition succeeds. When itemOptions are included, only the specified fields are sent in the response.
breakLock (optional)	boolean	Allows the JSON API to steal the record lock from any user who might have one on this item, so that this call should not fail due to a user having the record locked. However, this causes any user who has a transition form open on this item to get an error when he or she tries to commit the transition.
transition (optional)	object	Use the transition object to provide new field values for the transition. Only provide values for fields you want to change.

Example

URL:

```
http://AEserverName/jsonapi/finishTransition/1000/3/18/-1
```

Post data:

```
{fixedFields: false, fields: [{dbname: "STATUS LOG"}, {dbname: "TESTER"}],
→transition: {"STATUS_LOG": "Reopen issue", "TESTER": "7"}}
      Response:
  "item": {
    "id": {
      "id": 3,
```

```
"uuid": "c2379ef5-6f2d-4e21-924f-5c2aa2a0382e",
      "itemIdPrefixed": "ENH000005",
      "itemId": "000005",
      "url": "http://AEserverName:80/tmtrack/tmtrack.dll?...Template=view&TableId=1000"
    },
    "table": {
      "id": 1000,
      "uuid": "dc8cd329-b430-436f-bb75-bf90008e6a50",
      "name": "Issues",
      "dbName": "UBG ISSUES"
    "fieldMetadata": [
        "id": 65,
        "name": "Status Log",
        "dbname": "STATUS LOG",
        "syscode": 0,
        "type": "journal",
        "renderHtml": false,
        "appendOnly": true,
        "sortNewestFirst": false
      },
        "id": 63,
        "name": "Tester",
        "dbname": "TESTER",
        "syscode": 0,
        "type": "user",
        "renderHtml": false,
        "isMultiSelect": false
      }
    ],
    "fields": {
      "STATUS LOG": {
        "value": "07/13/2016 03:49:48 PM - Bill Admin:\r\n\nReopen issue\r\n"
      "TESTER": {
        "id": 3,
        "name": "Chris Tester"
    }
  },
  "result": {
    "type": "OK",
    "msq": ""
}
```

None.

StartSubmitToAux

Starts a submit to a specified auxiliary table.

Parameters

Name	Туре	Description
startsubmittoaux	Function	Starts a submit to a specified auxiliary table. The main purpose of this function is to get the item's current field values, as well as information about which fields are required or read-only.
table	ID (integer)UUID (string)	The table identifier.
	internalname (string)name (string)	

Post Data

Name	Туре	Description
itemOptions (optional)	ItemOptions [page 69]	Use itemOptions to limit the response data. When itemOptions are not included, all fields are sent in the response. When itemOptions are included, only the specified fields, plus fields required by the transition, are sent in the response.

Example

URL:

```
http://AEserverName/jsonapi/startsubmittoaux/UBG IDM CONFIGURATIONS
     Post data:
{fixedFields: false, fields: [{dbname:"TITLE"}, {dbname: "FIELD_NAME"}]}
     Response:
  "startSubmitToAux": {
    "item": {
      "table": {
        "id": 1004,
        "uuid": "dcfead12-5fa4-471d-af37-7f9a36dee2c3",
        "name": "IDM Configurations",
```

```
"dbName": "UBG IDM CONFIGURATIONS"
      },
      "fieldMetadata": [
          "id": 152,
          "name": "Application",
          "dbname": "TITLE",
          "syscode": 4,
          "type": "text",
          "required": true,
          "readonly": false,
          "renderHtml": false,
          "sectionId": 1,
          "helpText": "Name of the application the configuration record pertains to",
          "password": false,
          "maxLength": 80
        },
          "id": 153,
          "name": "Field Name",
          "dbname": "FIELD NAME",
          "syscode": 0,
          "type": "text",
          "required": true,
          "readonly": false,
          "renderHtml": false,
          "sectionId": 1,
          "helpText": "The field name of the configuration data",
          "password": false,
          "maxLength": 80
        }
      ],
      "fields": {
        "TITLE": {
          "value": ""
        "FIELD NAME": {
          "value": ""
        }
    }
  },
  "result": {
    "type": "OK",
    "msq": ""
}
```

None.

StartSubmitToProject

Starts a submit to a specified project.

Parameters

Name	Туре	Description
startsubmittoproject	Function	Starts a submit to a specified project. The main purpose of this function is to get the item's current field values, as well as information about which fields are required or read-only.
project	ID (integer)UUID (string)internalname (string)	The project identifier.

Post Data

Name	Туре	Description
itemOptions (optional)	ItemOptions [page 69]	Use itemOptions to limit the response data. When itemOptions are not included, all fields are sent in the response. When itemOptions are included, only the specified fields, plus fields required by the transition, are sent in the response.

Example

URL:

http://AEserverName/jsonapi/startsubmittoproject/UBG ISSUES.ANIMATION PRO

Post data:

```
{fixedFields: false, includeNotes: true,
→fields: [{dbname:"TITLE"}, {dbname: "REPRODUCIBLE "}]}
     Response:
  "startSubmitToProject": {
    "transition": {
      "id": 3,
      "name": "Submit",
      "uuid": "a78f0a30-1305-46c2-b661-df8219c105b2",
      "type": "regular",
      "isQuick": false,
```

```
"noteRequired": false,
  "urlRequired": false,
  "fileRequired": false,
  "itemRequired": false
},
"item": {
  "table": {
    "id": 1000,
    "uuid": "dc8cd329-b430-436f-bb75-bf90008e6a50",
    "name": "Issues",
    "dbName": "UBG ISSUES"
  },
  "fieldMetadata": [
   {
      "id": 54,
      "name": "Title",
      "dbname": "TITLE",
      "syscode": 4,
      "type": "text",
      "required": true,
      "readonly": false,
      "renderHtml": false,
      "sectionId": 1,
      "helpText": "",
      "password": false,
      "maxLength": 80
    },
      "id": 70,
      "name": "Reproducible",
      "dbname": "REPRODUCIBLE ",
      "syscode": 0,
      "type": "binary",
      "required": false,
      "readonly": false,
      "renderHtml": false,
      "sectionId": 2,
      "helpText": "",
      "selections": [
          "id": 0,
          "name": "No"
        },
        {
          "id": 1,
          "name": "Yes"
      ]
    }
  "fields": {
    "TITLE": {
      "value": ""
    },
    "REPRODUCIBLE ": {
```

```
"id": 0,
            "name": "No"
         }
       },
       "notes": []
  },
  "result": {
    "type": "OK",
"msg": ""
}
```

None.

StartTransition

Starts a transition on an item.

The specified item will get a recordlock if the table uses record-locking. This record-lock is passed to the FinishTransition call.

Parameters

Name	Туре	Description
StartTransition	Function	Starts a transition on an item. Use this function to lock the item and get current field values, as well as information about which fields are required or read-only in the transition.
table	• ID (integer) • UUID (string) • dbname (string) • name (string)	The table identifier.

item	• ID (integer) • UUID (string)	The item identifier.
transition	• ID (integer) • UUID (string) • internal name (string)	The transition to start. If 0, a valid Update transition is used (if found). Tip: Run GetItemTransitions first to determine the transition identifier that you will specify. Not all transitions have an internal name. Those that do return the internal name as dbname in the GetItemTransitions response.

Post Data

Name	Туре	Description
<pre>itemOptions (optional)</pre>	ItemOptions [page 69]	Use itemOptions to limit the response data. When itemOptions are not included, all fields are sent in the response. When itemOptions are included, only the specified fields, plus fields required by the transition, are sent in the response.
breakLock (optional)	boolean	Allows the JSON API to steal the record lock from any user who might have one on this item, so that this call should not fail due to a user having the record locked. However, this causes any user who has a transition form open on this item to get an error when he or she tries to commit the transition.

Example

URL:

http://AEserverName/jsonapi/startTransition/1000/2/18

Post data:

{fixedFields: false, fields: [{dbname: "FUNCTIONAL_AREA"}], breaklock: true}



Note: In this example, only Functional Area is returned to illustrate the response structure. You will typically want to return all fields to determine which fields are required for the transition.

Response:

```
"startTransition": {
  "transition": {
    "id": 18,
    "name": "Re-Open",
    "uuid": "e44d9bfe-6d54-426e-a1ac-4711a09b6243",
    "type": "regular",
    "isQuick": false,
    "noteRequired": false,
    "urlRequired": false,
    "fileRequired": false,
    "itemRequired": false
  },
  "item": {
    "id": {
      "id": 2,
      "uuid": "46ad4b77-4c8e-445d-b6d8-e84b71cfb8ab",
      "itemIdPrefixed": "BUG000002",
      "itemId": "000002",
      "url": "http://AEserverName:80/tmtrack/tmtrack.dll?...Template=view&TableId=1000",
      "itemLockId": 1719
    },
    "table": {
      "id": 1000,
      "uuid": "dc8cd329-b430-436f-bb75-bf90008e6a50",
      "name": "Issues",
      "dbName": "UBG ISSUES"
    "fieldMetadata": [
        "id": 75,
        "name": "Functional Area",
        "dbname": "FUNCTIONAL AREA",
        "syscode": 0,
        "type": "selection",
        "required": false,
        "readonly": false,
        "renderHtml": false,
        "sectionId": 2,
        "helpText": "",
        "isMultiSelect": false,
        "isSearchable": false,
        "selections": [
            "id": 0,
            "name": "(None)"
          },
            "uuid": "18f578a6-4953-4008-9c96-bdae21e615cb",
            "name": "Administrator"
          },
          {
```

```
"id": 28,
            "uuid": "a95673f2-5375-4eac-8070-4b4cd7391e7f",
            "name": "Help"
          },
            "id": 29,
            "uuid": "fbb29892-a25e-4b4c-9fc2-54b89d697dc2",
            "name": "Setup"
          },
            "id": 30,
            "uuid": "844cfc6d-64c3-45c4-94be-46dea304baf5",
            "name": "User Interface"
          },
            "id": 64,
            "uuid": "ce247e8c-e9d6-44b4-8020-41c9e1ec9177",
            "name": "Compiled Modules"
        ]
      }
    "fields": {
      "FUNCTIONAL AREA": {
        "id": 0,
        "name": "(None)"
      }
  }
},
"result": {
 "type": "OK",
  "msg": ""
```

None.

}

SubmitToAux

Submits a new item into a specified auxiliary table.

Parameters

Name	Туре	Description
submittoaux	Function	Submits a new item into an auxiliary table. Call StartSubmitToAux first to get an item's field names or IDs.

table	• ID (integer)	The table identifier.
	• UUID (string)	
	• internalname (string)	
	• name (string)	

Post Data

Name	Туре	Description
itemOptions (optional)	ItemOptions [page 69]	Use itemOptions to limit the response data. When itemOptions are included, only the specified fields, plus fields required by the transition, are sent in the response.
transition	Transition [page 72]	Use transition to provide new field values. Only provide values for fields that you want to change. Note that you must provide values for any required fields in the transition you are calling.

Example

URL:

```
http://AEserverName/jsonapi/submittoaux/UBG IDM CONFIGURATIONS
```

```
Post data:
```

```
{fixedFields: false, transition: {"TITLE": "This is the title", "FIELD NAME": "My Field"}}}
     Response:
  "item": {
   "id": {
     "uuid": "6deb6fdc-aa6d-4844-a78a-4e3b8cce11be",
     "itemIdPrefixed": "",
      "itemId": "",
     "url": "http://AEserverName:80/tmtrack/tmtrack.dll?...Template=view&TableId=1004"
    },
    "table": {
     "id": 1004,
      "uuid": "dcfead12-5fa4-471d-af37-7f9a36dee2c3",
      "name": "IDM Configurations",
```

```
"dbName": "UBG IDM CONFIGURATIONS"
},
"fieldMetadata": [
    "id": 152,
    "name": "Application",
    "dbname": "TITLE",
    "syscode": 4,
    "type": "text",
    "renderHtml": false,
    "password": false,
    "maxLength": 80
  },
    "id": 153,
    "name": "Field Name",
    "dbname": "FIELD NAME",
    "syscode": 0,
    "type": "text",
    "renderHtml": false,
    "password": false,
    "maxLength": 80
  },
    "id": 154,
    "name": "Clear Value",
    "dbname": "CLEAR VALUE",
    "syscode": 0,
    "type": "text",
    "renderHtml": false,
    "password": false,
    "maxLength": 255
  },
    "id": 155,
    "name": "Hidden Value",
    "dbname": "HIDDEN VALUE",
    "syscode": 0,
    "type": "text",
    "renderHtml": false,
    "password": true,
    "maxLength": 127
],
"fields": {
  "TITLE": {
    "value": "This is the title"
  "FIELD NAME": {
    "value": "My Field"
  "CLEAR VALUE": {
    "value": ""
  "HIDDEN_VALUE": {
```

```
"value": ""
},
"result": {
 "type": "OK",
  "msg": ""
```

None.

SubmitToProject

Submits a new item into a specified project.

Parameters

Name	Туре	Description
submittoproject	Function	Submits a new item into a project. Call StartSubmitToProject first to get an item's field names or IDs.
project	ID (integer)UUID (string)internal name (string)	The project identifier.

Post Data

Name	Туре	Description
itemOptions (optional)	ItemOptions [page 69]	Use itemOptions to limit the response data. When itemOptions are included, only the specified fields, plus fields required by the transition, are sent in the response.
transition	Transition [page 72]	Use transition to provide new field values. Only provide values for fields that you want to change. Note that you must provide values for any required fields in the transition you are calling.

Example

URL:

```
http://AEserverName/jsonapi/submittoproject/UBG ISSUES.ANIMATION PRO
     Post data:
{transition:{"TITLE":"Browser hangs"}, fixedFields: false, fields: [{dbname:"TITLE"}]}
     Response:
  "item": {
    "id": {
      "id": 142,
      "uuid": "e3e94173-92e8-4c98-bd07-33277f58dd62",
      "itemIdPrefixed": "000196",
      "itemId": "000196",
      "url": "http://AEserverName:80/tmtrack/tmtrack.dll?...Template=view&TableId=1000"
    "table": {
      "id": 1000,
      "uuid": "dc8cd329-b430-436f-bb75-bf90008e6a50",
      "name": "Issues",
      "dbName": "UBG ISSUES"
    "fieldMetadata": [
        "id": 54,
        "name": "Title",
        "dbname": "TITLE",
        "syscode": 4,
        "type": "text",
        "renderHtml": false,
        "password": false,
        "maxLength": 80
      }
    ],
    "fields": {
      "TITLE": {
        "value": "Browser hangs"
    }
  "result": {
    "type": "OK",
    "msg": ""
}
```

Comments

None.

UpdateFileAttachments

Adds, updates, or deletes file attachments on an item.

A POST JSON body is required.

Parameters

Name	Туре	Description
UpdateFileAttachments	Function	Adds, updates, or deletes file attachments on an item.
table	• ID (integer) • UUID (string) • dbname (string) • name (string)	The table identifier.
item	• ID (integer) • UUID (string)	The item identifier.

Post Data

Name	Туре	Description
includeFile (optional)	boolean	Use includeFile to return the base64-encoded contents of the file. Default is false. Note: If one or more files are included in the response, the cumulative total of all files that are returned is limited to 50 MB in size. If the total size of the included files is greater than 50 MB in size, you will only receive the meta data about the file attachments in the response. To change the size limit for all files in the response, see solution S142607.

deleteAll (optional)	boolean	Deletes all file attachments on the specified item. Default is false.
fileAttachFilter (optional)	Array of identifiers ID (integer or string) FILENAME (string) TITLE (string)	Include fileAttachFilter to filter the attachments that are returned. Otherwise, all file attachments are returned by default. Note that you can pass any type of identifier in the array, or a combination of them in order to return the desired attachments.
fileAttachList (required)	FileAttachList [page 60]	Array of file attachments that you want to add, update, or delete.

Example

URL:

http://AEserverName/jsonapi/UpdateFileAttachments/1000/140

Post data:

```
"deleteAll":false,
"includeFile":false,
"fileAttachFilter": [ "" ],
"fileAttachList": [ {
  "action": "DELETE-FILE",
  "id":0,
  "title": "log file",
  "filename": "logfile.txt",
  "accessType":"",
  "showAsImage":""
},
 "action": "NEW-ONLY",
 "id":46,
  "title": "abc",
  "filename": "abc.txt",
  "contentsbase64": {
    "data":"QUFB...MzMzMw=="
  "accessType": "ATTACHACCESS-UNRESTRICTED",
  "showAsImage":"false"
```

```
Response:
"fileattachments": {
 "files": [{
 "id": 58,
  "title": "abc",
  "fileName": "abc.txt",
  "fileSize": 70,
  "showAsImage": false,
  "modificationDateTime": 1532450986,
  "accessType": "ATTACHACCESS-UNRESTRICTED",
  "url": "http://AEserverName:80...AttachmentPage&AttachmentID=58/abc.txt"
 }],
},
"result": {
 "type": "OK",
 "msq": ""
```



}

Note: The Maximum File Size setting in the Settings | Attachments tab in SBM System Administrator determines the size limit for file attachments that you can add to an item. The default maximum size is 500 MBs. However, use caution when adding or updating large files manually or in an automated manner, as this can negatively impact system performance.

UpdateFileField

Adds, updates, or deletes files in a File field on an item.

A POST JSON body is required.

Parameters

Name	Туре	Description
UpdateFileField	Function	Adds, updates, or deletes files in a File field.

table	• ID (integer) • UUID (string) • dbname (string) • name (string)	The table identifier.
item	• ID (integer) • UUID (string)	The item identifier.
field	• ID (integer) • UUID (string) • dbname (string) • name (string)	The File field identifier.
transition (optional)	• ID (integer) • UUID (string) • internal name (string) • name (string)	The transition identifier to use. If 0, a valid Update transition is used (if found). Tip: Run GetItemTransitions first to determine the transition identifier that you will specify. Not all transitions have an internal name. Those that do return the internal name as dbname in the GetItemTransitions response.

Post Data

Name	Туре	Description
<pre>includeFile (optional)</pre>	boolean	Use includeFile to return the base64-encoded contents of the file. Default is false.
		Note: If one or more files are included in the response, the cumulative total of all files that are returned is limited to 50 MB in size. If the total size of the included files is greater than 50 MB in size, you will only receive the meta data about the file attachments in the response. To change the size limit for all files in the response, see solution S142607.
deleteAll (optional)	boolean	Deletes all files in the <i>File</i> field on the specified item. Default is false.
breakLock (optional)	boolean	Allows the JSON API to steal the record lock from any user who might have one on this item, so that this call should not fail due to a user having the record locked. However, this causes any user who has a transition form open on this item to get an error when he or she tries to commit the transition. Default is true.
alwaysTrans (optional)	boolean	If set to true, this runs the transition even if the <i>File</i> field was not changed. Default is false.
fileObjFilter (optional)	Array of file identifiers	Include fileObjFilter to filter the files that are returned. Otherwise, all files are returned by default.
(optional)	• ID (integer or string)	Note that you can pass any type of identifier in the array, or a combination of them in order to return the desired files.
	• UUID (string)	
	• FILENAME (string)	
	• NAME (string)	

fileObjList [page 63] FileObjList array of files that you want to add, update, or delete in a File field.

Example

URL:

http://AEserverName/jsonapi/UpdateFileField/1000/140/FILEFIELD/0

```
Post data:
 "deleteAll": false,
 "includeFile": false,
 "breakLock": true,
 "alwaysTrans": false,
 "fileObjFilter": ["Details"],
 "fileObjList": [{
 "action": "DELETE",
  "id": 0,
  "name": "Issue Details",
  "filename": "details.txt"
  "action": "NEW-ONLY",
  "id": 0,
  "name": "Details",
  "filename": "new details.txt",
  "contentsbase64": {
  "data": "QUFBQUFB...MzMzMw=="
  }
 1
}
     Response:
 "fieldFileObj": {
  "id": 189,
  "uuid": "c24c3001-a999-40fa-9dd8-42b0fc728ea5",
  "name": "FileField",
  "dbname": "FILEFIELD",
  "fldtype": 132,
  "fldtypelabel": "file",
  "fileObjList": [{
  "id": 26,
   "uuid": "8560f131-78fe-481d-8800-56d596195f82",
  "name": "Details",
   "filename": "new details.txt",
   "filesize": 70,
   "fileurl": "http://AEserverName...FileObjectPage&FileObjId=26/new details.txt"
```

```
} ],
"fileObjCount": 1
"result": {
"type": "OK",
 "msg": "The item was successfully transitioned.",
 "msgLoc": "The item 1000:140 was successfully transitioned."
```



Note: The Maximum File Size setting in the Settings | Attachments tab in SBM System Administrator determines the size limit for file attachments that you can add to an item. The default maximum size is 500 MBs. However, use caution when adding or updating large files manually or in an automated manner, as this can negatively impact system performance.

UpdateURLField

Adds, updates, or deletes URLs in a URL field on an item.

A POST JSON body is required.

Parameters

Name	Туре	Description
UpdateURLField	Function	Adds, updates, or deletes URLs in a <i>URL</i> field.
table	• ID (integer) • UUID (string) • dbname (string) • name (string)	The table identifier.
item	• ID (integer) • UUID (string)	The item identifier.

field	• ID (integer) • UUID (string) • dbname (string) • name (string)	The <i>File</i> field identifier.
transition (optional)	• ID (integer) • UUID (string) • internal name (string) • name (string)	The transition identifier to use. If 0, a valid Update transition is used (if found). Tip: Run GetItemTransitions first to determine the transition identifier that you will specify. Not all transitions have an internal name. Those that do return the internal name as dbname in the GetItemTransitions response.

Post Data

Name	Туре	Description
includeFile (optional)	boolean	Use includeFile to return the base64-encoded contents of the file. Default is false.
deleteAll (optional)	boolean	Deletes all files in the <i>File</i> field on the specified item. Default is false.
breakLock (optional)	boolean	Allows the JSON API to steal the record lock from any user who might have one on this item, so that this call should not fail due to a user having the record locked. However, this causes any user who has a transition form open on this item to get an error when he or she tries to commit the transition. Default is true.

alwaysTrans (optional)	boolean	If set to true, this runs the transition even if the <i>File</i> field was not changed. Default is false.
fileObjFilter (optional)	Array of file identifiers ID (integer or string) UUID (string) FILENAME (string) NAME (string)	Include fileObjFilter to filter the files that are returned. Otherwise, all files are returned by default. Note that you can pass any type of identifier in the array, or a combination of them in order to return the desired files.
fileObjList (required)	FileObjList [page 63]	Array of files that you want to add, update, or delete in a <i>File</i> field.

Example

URL:

http://AEserverName/jsonapi/UpdateURLField/1000/140/URLFIELD/0

```
Post data:
```

```
"deleteAll":false,
"includeFile":false,
"breakLock":true,
"alwaysTrans":false,
"fileObjFilter": [ "public site" ],
"fileObjList": [ {
 "action": "DELETE",
 "id":0,
 "uuid":"",
 "name":"intranet site",
 "contents": "http://intranet.company.com/"
},
 "action": "NEW-UPDATE",
 "id":0,
  "uuid":"",
 "name": "public site",
 "contents": "http://company.com/"
```

```
Response:
 "fieldFileObj": {
  "id": 190,
  "uuid": "434e87ba-244c-4577-9fde-9d7d4233db4d",
  "name": "URLField",
  "dbname": "URLFIELD",
  "fldtype": 133,
  "fldtypelabel": "url",
  "fileObjList": [{
  "id": 31,
  "uuid": "e8687396-246c-43f1-92ac-f2f266719b98",
  "name": "public site",
  "contents": "http://company.com/"
  "fileObjCount": 1
 "result": {
  "type": "OK",
  "msq": "The item was successfully transitioned.",
  "msgLoc": "The item 1000:137 was successfully transitioned."
}
```

None.

JSON API Options

Use the following options when working with items and transitions.

- FileAttachList [page 60]
- FileObjList [page 63]
- ItemChangeHistoryOptions [page 67]
- ItemOptions [page 69]
- Transition [page 72]

FileAttachList

Identifies a file and the action to perform against it.

Values

Name	Туре	Description	
action (optional)	 NEW-ONLY (string) UPDATE-ONLY (string) NEW-UPDATE (string) DELETE (string) 	The action to perform. The default is NEW-UPDATE.	
id (optional)	ID (integer)	The TS_ID of the attachment in the TS_ATTACHMENTS table. Only used for update or delete.	
title (optional)	TITLE (string)	Used to identify a file by the user- provided name (e.g. "My Screenshot"). If blank, defaults to filename attribute.	
filename (required for adding; optional for updating or deleting)	FILENAME (string)	Used to identify a file by the actual file name (e.g. myFile.txt).	
contentsbase64 (required for adding; optional for updating or deleting)	{data: ""}	The base64-encoded file.	
accessType (optional)	• ATTACHACCESS-DEFAULT (string) • ATTACHACCESS-RESTRICTED (string) • ATTACHACCESS-UNRESTRICTED (string)	Sets the attachment access level. The default is ATTACHACCESS-DEFAULT.	

showAsImage (optional)	boolean	Sets the flag to show the attachment as an image (if applicable) when viewing the item in the Web browser. Default is false.

Usage

The fileAttachList is an array of files that you want to add, update, or delete in an UpdateFileAttachments POST.

The following actions are available:

- NEW-ONLY Will only add an attachment if not already present.
- UPDATE-ONLY Will only update an attachment if present, but will NOT add.
- NEW-UPDATE If present will add an attachment; otherwise, it will update the existing entry.
- DELETE Flags an attachment to be deleted.

The following attachment access-types are available:

- ATTACHACCESS-DEFAULT System default for new attachments that makes the attachment only viewable by user privilege.
- ATTACHACCESS-RESTRICTED Explicitly restricts the attachment as specified by user privileges.
- ATTACHACCESS-UNRESTRICTED Makes the attachment visible to all users who can view the item.

Example

The following example shows fileAttachList in an UpdateFileAttachments call that deletes an attachment and adds a new attachment.

```
"fileAttachList": [ {
    "action": "DELETE",
    "id":0,
    "title":"log file",
    "filename": "logfile.txt",
    "accessType":"",
    "showAsImage":""
  },
    "action": "NEW-ONLY",
    "id":46,
    "title": "abc",
    "filename": "abc.txt",
    "contentsbase64": {
      "data":"QUFB...zMzMw=="
    },
    "accessType": "ATTACHACCESS-UNRESTRICTED",
```

```
"showAsImage": "false"
     }
    ]
Response:
    "fileattachments": {
     "files": [{
      "id": 58,
      "title": "abc",
      "fileName": "abc.txt",
      "fileSize": 70,
      "showAsImage": false,
      "modificationDateTime": 1532450986,
      "accessType": "ATTACHACCESS-UNRESTRICTED",
      "url": "http://AEserverName:80...AttachmentPage&AttachmentID=58/abc.txt"
              } ],
   },
    "result": {
     "type": "OK",
     "msg": ""
```

None.

FileObjList

Identifies a file in a File field or a URL in a URL field and the action to perform against it.

Values

Name Type Description		Name	Туре	Description	ı
-----------------------	--	------	------	-------------	---

action (optional)	• NEW- ONLY (string) • UPDATE- ONLY (string) • NEW- UPDATE (string) • DELETE (string)	The action to perform. The default is NEW-UPDATE.
id (optional)	ID (integer)	The TS_ID of the file or URL in the TS_FILEOBJS table. Only used for identification purposes on update or delete.
uuid (optional)	UUID (string)	Used to identify a file or URL by UUID. Only used for identification purposes on update or delete.
name (optional)	NAME (string)	Used to identify a file or URL by the user-provided name (e.g. "My Screenshot"). For File fields, if name is blank on update, the filename attribute is used. For URL fields, if name is blank on update, the contents attribute is used.
filename (required for adding files; optional when updating or deleting)	FILENAME (string)	Used to identify a file by the actual file name (e.g. myFile.txt). Used with the UpdateFileField call.
contentsbase64 (required for adding files; optional when updating or deleting)	{data: ""}	The base64-encoded file. Used with the UpdateFileField call.
contents (required for adding URLs; optional when updating or deleting)	CONTENTS (string)	The actual URL. Used with the UpdateURLField call.

Usage

The fileObjList is an array of files or URLs that you want to add, update, or delete in a POST.

The following actions are available:

- NEW-ONLY Will only add a file or URL if not already present.
- UPDATE-ONLY Will only update a file or URL if present, but will NOT add.
- NEW-UPDATE If present will add a file or URL; otherwise, it will update the existing entry.
- DELETE Flags a file or URL to be deleted.

Example

The following example shows fileObjList an UpdateFileField call that deletes a file and adds a new file.

```
"deleteAll": false,
 "includeFile": false,
 "breakLock": true,
 "alwaysTrans": false,
 "fileObjFilter": ["Details"],
 "fileObjList": [{
  "action": "DELETE",
  "id": 0,
  "name": "Issue Details",
  "filename": "details.txt"
 },
  "action": "NEW-ONLY",
  "id": 0,
  "name": "Details",
  "filename": "new details.txt",
  "contentsbase64": {
  "data": "QUFBQUFB...MzMzMw=="
  }
 }
 1
}
     Response:
 "fieldFileObj": {
  "id": 189,
  "uuid": "c24c3001-a999-40fa-9dd8-42b0fc728ea5",
  "name": "FileField",
  "dbname": "FILEFIELD",
  "fldtype": 132,
  "fldtypelabel": "file",
```

```
"fileObjList": [{
  "id": 26,
  "uuid": "8560f131-78fe-481d-8800-56d596195f82",
  "name": "Details",
  "filename": "new details.txt",
   "filesize": 70,
  "fileurl": "http://AEserverName...FileObjectPage&FileObjId=26/new details.txt"
  "fileObjCount": 1
  } ,
  "result": {
   "type": "OK",
  "msg": "The item was successfully transitioned.",
   "msqLoc": "The item 1000:140 was successfully transitioned."
 }
}
     The following example shows fileObjList an UpdateURLField call that deletes a URL and
     adds a new URL.
  "deleteAll":false,
  "includeFile":false,
  "breakLock":true,
  "alwaysTrans":false,
  "fileObjFilter": [ "public site" ],
  "fileObjList": [ {
    "action": "DELETE",
    "id":0,
    "uuid":"",
    "name": "intranet site",
    "contents": "http://intranet.company.com/"
  },
    "action": "NEW-UPDATE",
    "id":0,
    "uuid":"",
    "name": "public site",
    "contents": "http://company.com/"
 ]
}
     Response:
 "fieldFileObj": {
  "id": 190,
  "uuid": "434e87ba-244c-4577-9fde-9d7d4233db4d",
  "name": "URLField",
  "dbname": "URLFIELD",
  "fldtype": 133,
  "fldtypelabel": "url",
  "fileObjList": [{
```

```
"id": 31,
  "uuid": "e8687396-246c-43f1-92ac-f2f266719b98",
  "name": "public site",
  "contents": "http://company.com/"
  } ],
  "fileObjCount": 1
 },
 "result": {
 "type": "OK",
 "msg": "The item was successfully transitioned.",
  "msgLoc": "The item 1000:137 was successfully transitioned."
}
```

None.

ItemChangeHistoryOptions

Limits the data that is returned with an item's change history; extends the ItemOptions option.

Parameters

Name	Туре	Description
fields	• ID (integer) • UUID (string) • dbname (string) • name (string)	An array of objects used to specify the fields to display. Empty by default. See the fields parameter in itemOptions.
fixedFields	boolean	Combines with the fields array to determine the outputted fields. True by default. See usage notes below. See the fixedFields parameter in itemOptions.

includeNotesAttachments	boolean	When true, the item's notes and attachments are included in the response. False by default.
		The user's note preferences are honored, including the sort order and the number of notes to display. If the user has selected None as the display option for notes, no notes are returned.
newestFirst	boolean	When true, the most recent changes are returned at the top of the list of changes. False by default.
startIndex	integer	The number of item change actions to skip before returning results back to caller. Zero by default.
fetchSize	integer	The number of change actions to be returned back to caller. Zero (by default) means the entire history of an item's changes are returned.
showPriorValues	boolean	When true, the prior value of each change along with new value are returned. False by default.

Usage

The ItemOptions parameters are used to query information about particular field changes. See ItemOptions [page 69]. ItemChangeHistoryOptions is an extension of ItemOptions for retrieving change history.

Note the following:

- The newestFirst parameter overrides the **Sort new first** user profile settings for viewing change history.
- The startIndex parameter is zero-based according to its description, as it is a number of history records to skip. This parameter is applied after sorting the output list according to the newestFirst optional parameter value.
- The fetchSize parameter is used for performance reasons to limit the number or change history records that are returned.

Example

Return the most recent item change and include prior values:

```
{ startIndex: 0, fetchSize: 1, newestFirst: true, showPriorValues: true }
```

Response:

```
"itemhistory": [
      "timeStamp": 1530804913,
      "date": "07/05/2018 09:35:13 AM",
      "changer":
                      {
         "id": 8,
         "name": "Administrator"
      "actionId": "104130 link",
      "actionName": "Attch Added",
      "changes":
            "newValue": "this is a note header",
            "priorValue": ""
         },
            "fieldId": 77,
            "fieldName": "Last Modified Date",
            "newValue": "07/05/2018 09:35:13 AM",
            "priorValue": "12/01/2015 07:52:15 AM"
      ]
   }],
   "statistics":
      "totalSize": 10,
      "startIndex": 0,
      "fetchSize": 1
   "result":
      "type": "OK",
      "msq": ""
}
```

Comments

- The totalSize number in statistics represents the total number of change history records for the requested item that would be returned without any output filtering (if zero is specified for the startIndex and fetchSize parameters).
- Because the TS_ID is subject to change when a process app is promoted, you may need to update the fields parameter with the TS_ID from the target environment after the promote is finished.
- If you specify the database name in fields, do not include the TS prefix.
- Avoid using the field name when specifying each field to return in fields; the field name can be changed in SBM Composer at any time.

ItemOptions

Limits the data that is returned with an item.

Parameters

Name	Туре	Description
fields	• ID (integer) • UUID (string) • dbname (string) • name (string)	An array of objects used to specify the fields to display. Empty by default.
fixedFields	boolean	Combines with the fields array to determine the outputted fields. True by default. See usage notes below.
includeNotes	boolean	When true, the item's notes are included in the response. False by default. The user's note preferences are honored, including the sort order and the number of notes to display. If the user has selected None as the display option for notes, no notes are returned.

Usage

The fixedFields parameter combines with the fields array to determine the outputted fields as follows:

- fixedFields = true and fields is empty:
 - System fields listed below are included in output.
- fixedFields = true and fields is populated:
 - System fields listed below and specified fields are included.
- fixedFields = false and fields is populated:
 - Specified fields are included.
- fixedFields = false and fields is empty:
 - All fields are included in output.
- fixedFields is unspecified and fields is populated:
 - Specified fields are included.

• fixedFields is unspecified and fields is empty: System fields are included.

When fixedFields = true, the following system fields are included:

- Issue Type
- Project
- Title
- Description
- Submitter
- Last Modifier
- Submit Date
- Last Modified Date
- Active/Inactive
- State
- Owner
- Secondary Owner

Example

Return all notes on the item, but only returns the "Title" and "Functional Area" fields:

```
{fixedFields: false, includeNotes: true, fields: [{id:"54"}, {id: "75"}]}
```

Response:

```
"fieldMetadata": [2]
0: {
"id": 54
"name": "Title"
"dbname": "TITLE"
"syscode": 4
"type": "text"
"renderHtml": false
"password": false
"maxLength": 80
1: {
"id": 75
"name": "Functional Area"
"dbname": "FUNCTIONAL AREA"
"syscode": 0
"type": "selection"
"renderHtml": false
"isMultiSelect": false
```

```
"fields": {
"TITLE": {
"value": "Image Builder crashes my system."
"FUNCTIONAL AREA": {
"id": 30
"name": "User Interface"
"notes": [1]
0: {
"title": "Please update this ticket"
"contents": "This ticket needs more details."
"author": {
"id": 8
"name": "Administrator"
"modificationDateTime": {
"svalue": "06/28/2016 02:48:23 PM"
"value": 1467146903
}
```

- Because the TS_ID is subject to change when a process app is promoted, you may need to update the fields parameter with the TS_ID from the target environment after the promote is finished.
- If you specify the database name in fields, do not include the TS_ prefix.
- Avoid using the field name when specifying each field to return in fields; the field name can be changed in SBM Composer at any time.

Transition

Defines values for fields that you want to change in a transition

Values

Name	Туре	Description
E- signature values	authUser (string)authPassword (string)	Provide these values if the transition requires an electronic signature. For details on electronic signatures, refer to the <i>SBM Composer Guide</i> .

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- Text, Numeric (string)
- Binary/Trinary, Project, Single-Relational, Single Selection, User (integer)
- *Numeric* (integer or double)
- Multi-Selection, Multi-Relational, Multi-Group, Multi-User (array of integers)

Specify fields by the database field name (without the TS prefix).

Usage

The transition object defines which fields you want to change as part of a transition.

When specifying values for each field, note the following:

- In Journal or append-only Journal fields, the string value is appended to the current value.
- In Binary/Trinary and selection fields, provide the value of the new selection. Refer to the StartTransition response data for available selections.
- In Numeric fields, send a integer for integer fields and a double for floating point or fixed precision fields. For string values, the new value will be parsed from the string.

Example

The following example provides values for the Status Log and Tester fields:

```
{transition: {"STATUS LOG": "Reopen issue", "TESTER": "7"}}
```

Response:

```
"fieldMetadata": [
   "id": 65,
    "name": "Status Log",
    "dbname": "STATUS LOG",
    "syscode": 0,
    "type": "journal",
    "renderHtml": false,
    "appendOnly": true,
    "sortNewestFirst": false
  },
    "id": 63,
```

```
"name": "Tester",
    "dbname": "TESTER",
    "syscode": 0,
    "type": "user",
    "renderHtml": false,
    "isMultiSelect": false
 }
],
"fields": {
  "STATUS LOG": {
    "value": "07/13/2016 03:49:48 PM - Bill Admin:\r\n\nReopen issue\r\n"
  },
  "TESTER": {
   "id": 3,
   "name": "Chris Tester"
}
```

Integer values for field selections will be different in different environments. When you deploy or promote a process app, UUIDs are kept in sync but not TS_IDs.