eWarp 2.0 Specification

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Introduction

This document describes the eWarp 2.0 API that can be used by our clients to integrate with our systems.

The eWarp communication allows our clients and partners to access reference details and assets as well as perform operations like ordering and uploading of raw materials.

The intended audience for this document are developers and architects designing integrations with esoft systems.

API updates disclaimer

IMPORTANT

<u>Please note that new fields might be added to the returned data structures over time, so systems integrating with eWarp 2.0 should ignore fields they do not know or need.</u>

```
image :{
  width: 100,
  height: 100
}
```

we might modify it over time to return more information:

```
image :{
  width: 100,
  height: 100,
  dpi: 72,
  quality: 100
}
```

Systems integrating with eWarp 2.0 must be made so that the above change will not affect their functionality.

Endpoints

There are three available endpoints for development, testing and production.

Please note that data are not synchronised back from production to test and development so different dataset will be available on the three environments.

Environment	Endpoint
Development	https://dev-m2.esoftsystems.com/ewarp/
Test	https://test-m2.esoftsystems.com/ewarp/
Production	https://m2.esoftsystems.com/ewarp/

JSON-RPC 2.0

JSON-RPC version 2.0 is used for the communication, see <u>ison rpc 2.0 specification</u> for more details.

Example of JSON-RPC 2.0 request

```
{
  "id" : 694664211,
  "method" : "methodNameToCall",
  "jsonrpc" : "2.0",
  "params" : {
    ...
}
```

Example of JSON-RPC 2.0 response

Please note: the **result** can be a string, an object, an array of objects depending on the method called.

Specific method documentation describes what value or objects is returned as result for that method.

```
"id": 17475107,
"jsonrpc": "2.0",
"result": {...}
```

Error handling

eWarp 2.0 uses the standard <u>json rpc 2.0 error object</u> for sending information on errors back. All methods will return a meaningfull message and error code back. The data part is omitted.

Example of error response

```
{
    "jsonrpc": "2.0",
    "id": 57733179,
    "error": {
        "code": -32600,
        "message": "Sellers cannot be null."
    }
}
```

Common error codes for the eWarp 2.0 methods

ERROR	Code	DESCRIPTION
Parse error	-32700	JSON parse error
Invalid request	-32600	Invalid JSON-RPC 2.0 Request
Method not found	-32601	eWarp 2.0 method not found
Invalid parameters	-32602	Invalid parameters for the method
Internal error	-32603	Unhandled internal error
Unauthorized	-32001	specified eWarp 2.0 user name and password not allowed, or EWS http header not valid
Forbidden	-32003	specified eWarp 2.0 user does not have access to the method or the client/reference/batch
Not found	-32004	part of the specified input could not be found
Not allowed	-32005	HTTP post was not used
Unsupported media type	-32015	HTTP content-type and accept must include application/json
External communication problem	-32018	eWarp 2.0 had internal problems communicating with another system
External error	-32019	eWarp 2.0 encountered an error return from another system
Maintenance mode	-32800	Part of our system is currently down for maintenance. Please try again later.

Authentication

HTTPS is used as the transport layer (TCP - transport protocol) and we will be using the HTTP Authorization request-header field with all the requests.

The Authorization field value is calculated on the base of your eWarp user name and password.

If you do not have an eWarp user name and password, please contact esoft systems at it@esoftsystems.com asking for an login by specifying "eWarp user name and password" request in the subject field.

An example of a typical header with authentication is shown here:

```
POST /ewarp/ HTTP/1.1
Host: dev.m2.esoftsystems.com
Authorization: EWS username:dGg8sDjxAjklsVzdA==
Accept: application/json
Content-Type: application/json
```

The Authorization header has EWS as the realm and the credentials are username:password where password is a base64 encoded version of the password you have received.

Frequently Seen Problems

This is a list of the most frequent issues we have seen when (eWarp) users are implementing HTTPS for eStinger receivers and material upload (the order does *not* imply frequency):

- 1. The certificate has been issued to another domain than the one using it. Please check whether any of the following can be an issue:
 - 1. If a certificate has been issued to a specific host, then it must be used there. If the certificate has been issued to 'myhost.somedomain.com', then it must be used on 'myhost'
 - 2. If a certificate has been issued to a wildcard domain, ensure that the server using it is actually a part of that wildcard. If the certificate has been issued to '*.somedomain.com', then it can be used on 'myhost.somedomain.com', but 'mysub.myhost.somedomain.com' is not a part of that domain.
- 2. The issuer of the certificate is not a trusted provider. If the certificate is self-issued, then this *will* be a problem.
- 3. The certificate is no longer valid

Please check against this list if you are experiencing issues with implementing HTTPS.

Formats

Currency

Currency must follow ISO 4217 like "EUR" for Euro, "DKK" for danish kroner and "VND" for Vietnamese dong.

Country

Country names must follow ISO 3166-1 alpha-2 code which are two-letter names of countries, like "ES" for Spain and "VN" for Vietnam.

Dates

Dates are given as an integral number of seconds that have elapsed since 00:00:00 <u>Coordinated Universal Time</u> (UTC), Thursday, 1 January 1970.

See https://en.wikipedia.org/wiki/Unix_time for more details.

Please note that some programming libraries use milliseconds when converting time to number by default (e.g. default Java Date) and you might need to convert value in milliseconds to seconds whenever you send dates to eWarp 2.0.

eStinger (Notifications for Step 3 – Notify on materials added & Step 5 – Notify on delivery ready)

Description

eStinger is a notification service that informs client systems about changes on references.

This happens whenever data related to a reference has been updated. It is then up to the receiver of the call to investigate what needs to be updated and how.

Typically eStinger is used for notifying about updated contents to websites and external systems that uses the references and produced assets once they are ready or changed.

Types of Notifications include:

- DELIVERY when we deliver assets (content) for the first time or due to a correction being done (after receiving and storing callback information eWarp 2.0 method: getAssets to refresh asset data)
- MATERIALS_ADDING_ERROR when materials have not been added because of an error (applies only for callbacks related to <u>eWarp 2.0 eStinger</u>)

eWarp 2.0 sends notification via HTTP callback: eStinger sends a simple GET request to a specified external URL.

The URL to which the callback is sent must respond quickly with a 200 HTTP Status.

eStinger HTTP callback

eStinger HTTP callback is a simple GET request to a specified external URL.

The call cannot take more than 10 seconds, after that time we'll consider the call as timed out.

eStinger do not support header based authentication methods.

Redirects support

eStinger callbacks provides limited support for up to 10 redirects, all of which cannot take more than 10 seconds in total to follow and execute.

eStinger will only follow the redirect using Location header returned by the client system: no parameters nor headers will be added or modified.

The client system must attach all relevant parameters from the original URI, and potentially rewrite them if needed to match the system it is redirecting to: e.g. if a redirect occurs due to a version change and parameter names have changed.

eStinger do not support header based authentication methods, so if any token or credentials are to be used they must be part of the parameter list specified by client system in the Location header returned during redirect.

Template URL formatting

The url used by eStinger is configured inside esoft systems. It is possible for the receiver to construct a url template that can take up to 5 parameters that will be replaced with appropriate values depending on the callback type.

Parameter	Description	Example values
clientId	The AX ID of the client/customer/company that the order belongs to.	10033224
reference	The reference number from the order. Reference usually is the same as case number when talking real estate orders.	HF345
batchIds	Comma separated list of batchIds. The batch ID can be linked to a specific production batch (needed if only parts of the order should be delivered). The batchIds param cannot be part of the URL path, it can only be included in the query string. Please note that the batchIds will only be sent for the following types of callbacks:	98765,98766 10002
	DELIVERYMATERIALS_ADDEDMATERIALS_ADDING_ERROR	

	The type of the callback.	
type	This value will be always added to the callback even it it is not specified in the url template	DELIVERY MATERIALS_ADDED MATERIALS_ADDING_ERROR
	e.g. <u>&type=DELIVERY</u>	

Template examples:

- http://www.example.org/updateCase.asp?clientId={clientId}&reference={reference}&batchIds={batchIds}
- http://www.example.org/updateCase.asp?clientId={clientId}&reference={reference}&batchIds={batchIds}&type={type}&error={error}
- http://www.example.org/updateCase.asp?c={clientId}&r={reference}&batchId={batchIds}&t={type}&e={error}
- $\verb| http://www.example.org/updateCase.asp?companyId=\{clientId\}\&reference=\{reference\}\&batchId=\{batchIds\} \\$
- http://www.example.org/updateCase.asp/{clientId}/reference/{reference}?batchIds={batchIds}
- http://www.example.org/updateCase.asp/{type}/client/{clientId}/reference/{reference}?batchIds={batch Ids}

Callback examples

- http://www.example.org/updateCase1.asp?clientId=123456&reference=HF345&batchIds=98766,98765&type=DELIVERY
- http://www.example.org/updateCase1.asp?clientId=123456&reference=HF345&batchIds=98766&type=MATERIALS_ADDED
- http://www.example.org/updateCase1.asp?clientId=123456&reference=HF345&batchIds=98766&type=MATERIALS_ADDING_ERROR&error=001-Material%20was%20not%20found%20in%20the%20specified%20http%20location

Notify on materials added success

Once materials are copied by eWarp to its private store, eWarp will try to notify about this. The notification url is the one specified as the callbackUrl in the request eWarp 2.0 method: addMaterialsForBatch.

On success MATERIALS_ADDED type will be sent without any error messages.

e.g. http://www.customer.com/materialsAdded/callback?clientId=123456&batchId=50000001234&type=MATERIALS_ADDED

Notify on materials adding error

On materials download failure (If errors happen in the copy to eWarp private storage), MATERIALS_ADDING_ERROR will be sent with error, errorCode and errorLogUrl.

 $e.g. \ \underline{http://www.customer.com/materialsAdded/callback?clientId=50100123\&batchId=50000001234\&type=MATERIALS_ADDING_ERROR\&errorent{addmonths}{ERROR\&errorent{addmonths}{ERROR}{Errorent{addmonths}{Errorent{addmonths}{ERROR}{Errorent{addmonths}{Errorent{addmo$

Note that

- The parameters error, errorCode and errorLogUrl will only be sent for the type of callback = MATERIALS_ADDING_ERROR
- These parameters and their corresponding values will be always added to the callback automatically.

Parameter	Description	Example values
	Error message describing what went wrong when adding materials. This parameter is formed as: error =error message summary.	Resource Not Found.
	e.g. &error=Material%20was%20not%20found%20in%20the%20specified%20http%20location	

errorCode	A technical code to show what was wrong with the action. Also see the section "Possible error codes on materials adding error". e.g. &errorCode=-32004	-32604
	The downloadable error log, this resource contain more details about the occurred error.	https://cdn- m2.esoftsystems.com/error
	e.g. <u>&errorLogUrl=https://cdn-m2.esoftsystems.com/error/50100123/50000001234/HHmmss-ddMMYYY.log</u>	/50100123/50000001234/HHmmss- ddMMYYY.log

Possible error codes on materials adding error

Error Code	Possible Error Message	Cause	Action
	Resource URI malformed.		
-32602	Specified file size is different than the content length on the src location.	Customer Fault	Customer to fix materials and then call eWarp 2.0 to add materials for batch
	Could not use HEAD to validate expected file size - got response {code} for url {url}		again.
-32603		Esoft - Unknown error	Customer to call either esoft customer service or IT administrator for help
-32004	Resource Not Found.	Customer Fault	Customer to fix materials and then call eWarp 2.0 to add materials for batch again.

Request

The request will be made to the URL(s) specified in the eWarp usage agreement.

If you want to add a new URL write an email to our customer service with the needed details and have the usage agreement updated.

When you receive the request, answer back with the correct response code right away (HTTP 200 OK) as the call will have a short time out (2-3s).

If you need to get updates from other services after receiving the eStinger request you must do so in the background (use queues or the like).

Do not attempt to get data from eWarp synchronously with an eStinger call!

Notification guarantee

eStinger expects to get back a HTTP 200 OK response for callback.

If eStinger does not get a successful response: it tries again up to 8 times (~ 9 hours) in various time intervals.

If eStinger does not get a successful response within those 8 tries, it will stop notification calls on that specific update.

eStinger would stop retrying immediately if it gets back HTTP 4xx from callbacks

STEP 1 - eWarp 2.0 method: createOrder

Description

This operation must be called to create an order. If the new order is created successful, the response will return the order id and the ordered order lines identifiers and the batch numbers to use for future reference.

Please note: If some of the order lines needs to have materials before processing can start, these must be added using the eWarp 2.0 method: addMaterialsForBatch

Also note that the production of any order line (also those without the need for materials) is not started before the eWarp 2.0 method: batchReadyForProduction is called.

Preconditions

eWarp user must have access to create orders for specified clientId.

Input Parameters

Path	Type	Description	Required
params.clientId	String	The client id	yes
params.reference	String	The reference id: max 128 characters	yes
params.receivingCompany	String	The esoft company id	yes
params.orderLines	Array	Array of order lines	yes
		The product id	
params.orderLines[].productId	Number	Please contact esoft to get the possible values that can be used for each client	yes
params.orderLines[].quantity	Number	The quantity of products to be ordered	yes
params.orderLines[].unit	String	The product unit Please contact esoft to get the possible values that can be used for each client	yes
params.orderLines[].variant1	String	The product variant Please contact esoft to get the possible values that can be used for each client	yes
params.orderLines[].comments	Array	Array of comments: string values	no

Output Parameters

Path	Type	Description
result.clientId	String	The client id
result.reference	String	The reference id
result.receivingCompany	String	The esoft company id
result.placedDate	Number (Unix time)	The date of order creation
result.deliveredDate	Number (Unix time)	The date of order delivery
result.orderLines	Array	Array of order lines
result.orderLines[].productId	Number	The product id
result.orderLines[].quantity	Number	The quantity
result.orderLines[].unit	String	The product unit
result.orderLines[].variant1	String	The product variant
result.orderLines[].variant2	String	The product sub variant
result.orderLines[].batchId	Number	The batchId related to the created order line
result.orderLines[].comments	Array	Array of comments: string values
result.bookingAddress	Object	The booking address
result.bookingAddress.street	String	The booking address street
result.booking Address.building Number	String	The booking address building number
result.bookingAddress.buildingFloor	String	The booking address building floor
result.bookingAddress.cityArea	String	The booking address city area (district)
result.bookingAddress.town	String	The booking address town (city)
result.bookingAddress.postalCode	String	The booking address postal code
result.bookingAddress.country	String	The booking address country (currently can only be DK or SE)

JSON example

This is the a simple sample where there are just mandatory fields which need to be filled in and this could be used for the integration with the customer who has no need of booking address and order information in every single order.

```
{
  "id" : 194403908,
  "method" : "createOrder",
  "jsonrpc" : "2.0",
  "params" : {
     "clientId" : "clientId",
```

```
"reference" : "referenceNumber",
   "receivingCompany" : "esvn",
   "orderLines" : [ {
        "productId" : 12345678,
        "quantity" : 1,
        "unit" : "Pcs",
        "variant1" : "Basic"
      } ]
}
```

Response with the requested info

```
"id" : 194403908,
"jsonrpc" : "2.0",
"result" : {
    "clientId" : "clientId",
    "reference" : "referenceNumber",
    "receivingCompany" : "esvn",
    "placedDate" : 1372765119366,
    "orderLines" : [{
        "productId" : 12345678,
        "quantity" : 1,
        "unit" : "Pcs",
        "variant1" : "Basic"
        "batchId" : 12345678901
    } ]
}
```

Error Response

```
{
    "jsonrpc": "2.0",
    "id": 194403908,
    "error": {
        "code": -32018,
        "message": "AX_ERR: Warning: The value '10101234' in field 'Customer account' is not found in the related table 'Customers'."
    }
}
```

STEP 2 - eWarp 2.0 method: addMaterialsForBatch

Description

Most order lines for an order requires editing of materials provided by the client. In such cases once the order is successfully created, information of the materials to be edited for each order line needs to be added. There are two different ways of sending information about materials, which to use depends on where the materials are currently stored.

The actual copying of materials will happen asynchronously when resources in eWarp are available. This is usually done within a few minutes, but can take longer if the files to copy are big.

This method queues the materials for copying.

When eWarp has copied all files to its private storage, the specified callback url of the request will be used for notification. See eWarp 2.0 eStinger: MATERIALS_ADDED for more information.

If an error occurred during copy and our system cannot complete copying of the files (e.g. file was removed or is not accessible) than callbackUrl will be called with error message. See eWarp 2.0 eStinger: MATERIALS ADDING ERROR for more information.

- 1) If materials are already stored in Amazon S3, then the best solution is to send information using the bucket, the keys and the md5s of the files in the array of materials. If needed the bucket used can be protected. Then the requirements are that an eWarp AWS user have getObject access (using a bucket policy) and that the objects are available for copying when eWarp is ready to do so (read, do not delete the files until the materials added callback have been received).
- 2) If materials are located on servers and public accessible via http information about the files urls and sizes should be sent using the array of materialsHttp should be used. Files must not be deleted until the materials added callback have been received.

If materials already have been copied for a batch number, then invoking this method will **add** the specified files to the batch. If <u>eWarp 2.0 method: addMaterialsForBatch</u> have been called for this batch, then calling add materials will return an error.

Preconditions

eWarp user must have access to specified clientId resources.

Input Parameters

Path	Type	Description	Required
params.clientId	String	The client id	Yes
params.reference	String	Client's reference number for the order	Yes
params.callbackUrl	String	An http url to a server capable of receiving a http GET - used for notification of when files are copied to eWarps storage	Yes
params.batchId	Number	The batch id these files belongs to	Yes
params.materials Arr		A list of materials for this batch to be copied from amazon s3	Either materials, materialsHttp or both must be present and have content
params.materials[].bucket	String	The bucket the object is located in	Yes for every specified material

params.materials[].key	String	The key to the object within the bucket	Yes for every specified material
params.materials[].md5	String	The md5 sum of the objects content: hex-ecoded, lowercase md5 hash	Yes for every specified material
params.materials[].name	String	The presentation name of the file - usually the original file name	Yes for every specified material
params.materialsHttp	Array	A list of materials for this batch to be copied from http	Either materials, materialsHttp or both must be present and have content
params.materialsHttp[].url	String	The absolute url of the file: must be url encoded	Yes for every specified materialHttp
params.materialsHttp[].size	Number	The size of the file in bytes	Yes for every specified materialHttp
params.materialsHttp[].name	String	The presentation name of the file - usually the original file name	Yes for every specified materialHttp

Validations

General validations:

- Verify that batch ready for production has not been called yet.
- Verify that file names are not duplicated. The batch does not support the same file name twice.
- The callbackUrl must be RFC 2396 compliant.

Materials validations:

- If MD5 is in incorrect format this method will fail.
- If the specified MD5 does not match the MD5 of the file in AWS S3, an error callback will be made.

MaterialsHttp validations:

- If size is not specified this method will fail.
- If the copied file size does not match the specified size, an error callback will be made

Output Parameters

Path	Type	Description
		"materialsAdded" value if saving the request succeded.
result	String	Please note that this does not mean that we've copied the materials to our system.
		After the materials are copied the callbackUrl will be called.

Related error codes

Error code	Error Description	
-32600	Materials cannot be null or empty!	
-32600	Materials contain duplicate name [filename.jpg]	
-32600	Location/Name/Size cannot be null or empty Display (Object Very Md5 connect be pull or empty)	
	Bucket/ObjectKey/Md5 cannot be null or empty	
-32600	[Reference] contains unsupported characters (non BMP UTF-8)	
-32610	Batch ready for production was already called for batch id: [BatchId]	

JSON example

Response

```
"id": 904630500,
    "method": "addMaterialsForBatch",
"jsonrpc": "2.0",
    "params": {
        "clientId": "clientId",
        "reference": "referenceNumber",
        "callbackUrl":
"http://www.customer.com/?batchId=1234567890&copiedfilesFor=myUniqueIdentifier",
        "batchId": 1234567890,
        "materials": [
                "bucket": "myownbucket",
                 "key": "myfolder/and/file/at.aws",
                 "md5": "46c4c16590a61fb3629fb2db079e6f11",
                 "name": "img 0149.jpg"
            } ,
                 "bucket": "myownbucket",
                 "key": "myfolder with *special %chars/and -90+50/file with #special'
chars\" at AWS.mp4",
                "md5": "1777705650cf8948715dbc28e943e6e7",
                 "name": "file with #special' chars\" at AWS.mp4"
        "materialsHttp": [
            {
```

Response

```
"id" : 904630500,
"jsonrpc" : "2.0",
"result" : "materialsAdded"
}
```

Error Response

If errors happen when calling this method the normal error message will be returned as response:

```
{
  "id" : 904630500,
  "error": {
        "code": -32604,
        "message": "Batch id not found"
    }
}
```

Error duplicate file name

```
200 OK
{
    "jsonrpc": "2.0",
    "id": xxxxxxxx,
    "error": {
        "code": -32600,
        "message": "Materials cannot be null or empty!"
    }
}
```

STEP 4 - eWarp 2.0 method: batchReadyForProduction

Description

This operation must be used for all batches.

If a batch (order line) requires materials to be uploaded before the batch is ready for production, the <u>eWarp 2.0</u> <u>method: addMaterialsForBatch</u> must be used before batchReadyForProduction is called for the first time, and only after matching <u>eWarp 2.0 eStinger: MATERIALS_ADDED</u> notification is received.

When this operation is successfully done the batch will now be queued in esoft systems for production.

It is therefore necessary to let esoftsystems know which company this batch is ready for. Contact esoftsystems to get information on which company to use.

If this operation have been called once, calling it again will have no effect. If materials have been added and they are not yet copied, or the copying failed this operation will return an error and not have any effect.

Preconditions

eWarp user must have access to specified **clientId** resources.

Input Parameters

Path	Type	Description	Required
params.clientId	String	The client id	yes
params.batchId	Number	The batch id	yes
params.esoftsystemsCompany	String	The esoft systems company	yes

Output Parameters

Path	Type	Description
result	String	"OK" value if update went well

JSON example

Request

```
"id" : 75574333,
  "method" : "batchReadyForProduction",
  "jsonrpc" : "2.0",
  "params" : {
      "clientId" : "clientId",
      "batchId" : 1234567890,
      "esoftsystemsCompany" : "ESVN"
    }
}
```

Response with the requested info

```
"id" : 75574333,
"jsonrpc" : "2.0",
```

```
"result" : "OK"
```

STEP 6 - eWarp 2.0 method: getAssets

Description

This operation should be called to retrieve the details of the materials for the reference number (case) for the particular Client. All agreed configurations for the different processed assets are specified in the <u>eWarp Usage Agreement</u>. It is not allowed in any way to modify the returned URL's as they can change in both format and location over time (if they change an automatic notification through eStinger will occur).

ListOrder

Please note that the field "**listOrder**" will always be present (except for **links** - as links cannot be ordered). It contains the order of which the materials should be shown. If the value is 0 then the material should be considered as inactive and not be shown. If listOrder is greater than 0 then the materials should be shown in ascending order (listOrder 1 first).

Archival

Assets for a reference can be archived and no longer available. Archiving will be for all assets for a reference so in effect it will be the reference which is archived. This is visible in a parameter in the returned result.

Preconditions

eWarp user must have access to specified **clientId** reference.

Input Parameters

Path	Type	Description	Required
params.clientId	String	The client id	yes
params.reference	String	The reference id	yes
params.batchId	Long	The batchId	no

Output Parameters

When the reference state is not ACTIVE no assets will be returned.

An error is returned if the clientId and reference could not be found.

Path	Type	Description
		The state of assets
result.state	String	Can be one of the following ACTIVE ARCHIVING RESTORING ARCHIVED.
		The list of picture assets for the reference
result.pictures	Array	See Asset types: Picture for more details on the picture assets structure
		The list of animatedPicture assets for the reference
result.animatedPictures	Array	See Asset types: Animated picture for more details on the animatedPicture assets structure
		The list of floorPlan assets for the reference
result.floorPlans	Array	See Asset types: Floor plan for more details on the floorPlan assets structure
		The list of panoramaHtml5 assets for the reference
result.panoramaHtml5 Arra		See Asset types: Panorama Html5 for more details on the panoramaHtml5 assets structure
		The list of panoramaFlash assets for the reference
result.panoramaFlash	Array	See Asset types: Panorama Flash for more details on the panoramaFlash assets structure
		The list of panoramaJpeg assets for the reference
result.panoramaJpeg	Array	See Asset types: Panorama Jpeg for more details on the panoramaJpeg assets structure
magnit videos	A mmovy	The list of video assets for the reference
result.videos	Array	See Asset types: Video for more details on the video assets structure
		The list of slideShow assets for the reference
result.slideShows	Array	See Asset types: Slideshow for more details on the slideShow assets structure
racult links	Amer	The list of link assets for the reference
result.links	Array	See Asset types: Link for more details on the link assets structure
		The list of copywriteText assets for the reference
result.copywriteTexts	Array	See Asset types: Copywrite texts for more details on the copywriteText assets structure

Path	Type	Description	
		The list of QR code assets for the reference	
result.qrCodes @Deprecated	Array	See Asset types: QR Code for more details on the QR code assets structure	
		QR code is deprecated and will be removed in next releases	
result.beforeAfterPictures	Array	the list of beforeAfterPicture assets for given reference See Asset types: BeforeAfterPicture for more details	
result.beforeAfterPanoramas	Array	the list of beforeAfterPanoramas assets for given reference See Asset types: BeforeAfterPanorama for more details	
		The interactive floor plan asset	
result.interactivePresentation	Object	See Asset types: Interactive presentation for more details on the interactive floor plan asset structure	
		The points of interest asset	
result.poiPresentation	Object	See Asset types: POI presentation for more details on the points of interest asset structure	

JSON example

Request

```
{
  "id" : 694664211,
  "method" : "getAssets",
  "jsonrpc" : "2.0",
  "params" : {
      "clientId" : "clientId",
      "reference" : "referenceNumber",
      "batchId" : batchIdNumber
  }
}
```

Response

```
"jsonrpc":"2.0",
"id":113578333,
"result":{
    "state" : "ARCHIVED",
    "pictures":[],
    "animatedPictures":[],
    "floorPlans":[],
    "panoramasHtml5":[],
    "panoramasFlash":[],
    "panoramasJpeg":[],
    "videos":[],
    "slideShows":[],
```

```
"links":[],
   "copywriteTexts": [],
   "qrCodes": [],
   "interactivePresentation": null,
   "poiPresentation": null,
        "beforeAfterPictures" : [],
        "beforeAfterPanoramas" : []
}
```

Full sample can be downloaded here: <u>full sample can be downloaded here</u>

Error Response

```
{
    "jsonrpc": "2.0",
    "id": 694664211,
    "error": {
        "code": -32004,
        "message": "The reference was not found."
    }
}
```

Asset types

Note: in following section, we'll only describe Picture & Video asset types

- Picture
- Floor plan
- Animated picture
- Panorama Html5
- Panorama Flash
- Panorama Jpeg
- Video
- SlideShows
- QR Code
- Copywrite texts
- Links
- Interactive presentation
- POI presentation
- <u>BeforeAfterPicture</u>
- <u>BeforeAfterPanorama</u>
- Object types
 - AssetType
 - o <u>EmbedAssetType</u>
 - o **ProfileType**
- Enumeration types

Picture

Path	Type	description
result.pictures[].id	Number	Asset id

result.pictures[].batchId	Number	BatchId the asset belongs to
result.pictures[].updatedDate	Number (Unix time)	Asset updatedDate updatedDate is only updated when the file has changed due to correction
result.pictures[].listOrder	Number	Asset listOrder
result.pictures[].description	String	Asset description
result.pictures[].tags[]	String	List of asset tags
result.pictures[].name	String	Asset file name
result.pictures[].referenceType	String	See ReferenceEnum below for more details
result.pictures[].orientation	String	See OrientationEnum below for more details
result.pictures[].assets	Object	See AssetType below for more details

JSON example

Pictures Example

```
"pictures": [
  {
   "id": 153927002,
   "description": null,
   "updatedDate": 1625479068,
   "referenceType": "CASE",
   "hotspots": null,
   "batchId": 50000744943,
   "listOrder": 0,
   "tags": [
     "picture"
   ],
   "name": "DSC04945.JPG",
   "orientation": "HORIZONTAL",
   "assets": [
     {
      "url": "http://cdn-dev-
m2.esoftsystems.com/50100174/ESOFT+TEST+PHOTO+20210706/50000744943/ORIGINAL/DSC04945.JPG",
       "secureUrl": "https://cdn-dev-
m2.esoftsystems.com/50100174/ESOFT+TEST+PHOTO+20210706/50000744943/ORIGINAL/DSC04945.JPG",
       "md5": "a86bc9c72802be9dc3eb3b7eb6e812d4",
       "actualWidth": 3000,
       "actualHeight": 2004,
       "resizeRule": "ORIGINAL",
```

```
"format": "JPG"
                              },
                               {
                                     "url": "http://cdn-dev-
m2. esoft systems. com/50100174/ESOFT + TEST + PHOTO + 20210706/50000744943/WHITE\_FILL/170/113/DSC04945.jpg", and the complex of the comple
                                      "secureUrl": "https://cdn-dev-
m2.esoftsystems.com/50100174/ESOFT+TEST+PHOTO+20210706/50000744943/WHITE_FILL/170/113/DSC04945.jpg",
                                         "md5": "274e9079fc821f121f2ef32ea650987d",
                                         "actualWidth": 170,
                                        "actualHeight": 113,
                                         "resizeRule": "WHITE_FILL",
                                         "format": "JPG",
                                         "width": 170,
                                        "height": 113
                                 }
                       ]
                  }
```

Video

Path	Type	description
result.videos[].id	Number	Asset id
result.videos[].batchId	Number	BatchId the asset belongs to
result.videos[].updatedDate	Number (Unix time)	Asset updatedDate updatedDate is only updated when the file has changed due to correction
result.videos[].listOrder	Number	Asset listOrder
result.videos[].description	String	Asset description
result.videos[].tags[]	String	List of asset tags
result.videos[].posterUrl	String	Asset posterUrl (HTTP)
result.videos[].securePosterUrl	String	Asset securePosterUrl (HTTPS)
result.videos[].name	String	Asset name
result.videos[].referenceType	String	See ReferenceEnum below for more details
result.videos[].assets	Object	See AssetType below for more details
result.videos[].embedAssets	Object	See EmbedAssetType below for more details
result.videos[].profiles	Object	See ProfileType below for more details

		Duration of the video in milliseconds
result.videos[].duration	Number	This value will be null for: videos transcoded before October 2019 if only ORIGINAL profile is present

JSON example

Videos Example

```
"videos": [
{
  "id": 153927001,
  "description": "Video",
  "updatedDate": 1625572739,
  "referenceType": "CASE",
  "hotspots": null,
  "batchld": 50000744944,
  "listOrder": 0.
  "tags": [],
  "assets": [
    {
      "url": "http://cdn-dev-
      m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/thumbnails/170/113/500
      03563374.jpg",
      "secureUrl": "https://cdn-dev-
      m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/thumbnails/170/113/500
      03563374.jpg",
      "width": 170,
      "height": 113
    }
  ],
  "embedAssets": [
    {
      "width": "100%",
      "height": "100%",
      "url": "http://cdn-dev-
      m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/embed_codes/100%25/1
      00%25/50003563374_embed.html",
      "secureUrl": "https://cdn-dev-
      m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/embed_codes/100%25/1
      00%25/50003563374_embed.html",
```

```
"embedCode": "<script src=\"https://cdn-dev-m2.esoftsystems.com/video/esoftvideoplayer.js\"></script>\n<div
    id=\"esoft_video_1983938387\" style=\"width:100%;height:100%;\">\n Loading video player...<noscript>ERROR:<br/>br/>Javascript
    not activated</noscript>\n</div>\n<script type=\"text/javascript\">\n loadEsoftPlayer(\"esoft_video_1983938387\",\"https://cdn-
    dev-
    m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/poster/50003563374-
    00002.jpg\",[{file:\"https://cdn-dev-
    m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/esoft-
    1080p/50003563374-esoft-1080p.mp4\",label:\"1080p\"},{file:\"https://cdn-dev-
    m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/original/50003563374.m
    p4\",label:\"ORIGINAL\"}],\"100%\",\"100%\");</script>"
  }
1,
"name": "50003563374.mp4",
"posterUrl": "http://cdn-dev-
    m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/poster/50003563374-
    00002.jpg",
"posterSecureUrl": "https://cdn-dev-
    m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/poster/50003563374-
   00002.jpg",
"profiles": [
  {
    "url": "http://cdn-dev-
    m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/esoft-
    1080p/50003563374-esoft-1080p.mp4",
    "secureUrl": "https://cdn-dev-
    m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/esoft-
    1080p/50003563374-esoft-1080p.mp4",
    "md5": "1b8c53a57b25706c530166c0f99d30aa-13",
    "profile": "esoft-1080p"
  },
  {
    "url": "http://cdn-dev-
    m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/original/50003563374.m
    p4",
    "secureUrl": "https://cdn-dev-
    m2.esoftsystems.com/50100174/ESOFT+TEST+VIDEO+ORDER+20210706/50000744944/1983938387/original/50003563374.m
    p4".
    "md5": "433946a8c3b8275a3fc235a729ea0a64",
    "profile": "ORIGINAL"
  }
],
```

```
"duration": 90140
}
```

Object types

Assets

Path	Type	description
url	String	The file url (HTTP)
secureUrl	String	The file secureUrl (HTTPS)
md5	String	The file md5 (ommited under Videos, Slideshows, Panoramas)
resizeRule	String	The resize rule used for scaling the asset
		See ResizeRuleEnum (ommited under Videos, Slideshows, Panoramas)
format	String	The format used for scaling the asset (ommitted if none)
		See FormatEnum
width	Number	The asset width used for scaling the asset (ommited if resizeRule=ORIGINAL)
height	Number	The asset height used for scaling the asset (ommitted if resizeRule=ORIGINAL)
dpi	Number	The asset dpi used for scaling the asset (ommitted if none)
quality	Double	The asset quality used for scaling the asset (ommited if none)
actualWidth	Number	The actual width of the asset (ommited under Videos, Slideshows, Panoramas) - this value might differ from width if resizeRule is BEST_FIT
actualHeight	Number	The actual height of the asset (ommited under Videos, Slideshows, Panoramas) - this value might differ from height if resizeRule is BEST_FIT

JSON example

```
Asset - all fields example
```

```
"url": "http://cdn.dev.m2.esoftsystems.com/50100010/ref1/09.jpg",
    "secureUrl": "https://cdn.dev.m2.esoftsystems.com/50100010/ref1/09.jpg",
    "md5": "76bb4cfd7ade36452580ce48c0a6ff09",
    "resizeRule": "BEST_FIT",
    "format": "JPG",
    "width": 906,
    "height": 1360,
    "dpi": 72,
    "quality": 50.0,
    "actualWidth":906,
    "actualHeight":1220
```

Asset - minimum fields example

```
"url": "http://cdn.dev.m2.esoftsystems.com/50100010/ref1/09.tiff",
    "secureUrl": "https://cdn.dev.m2.esoftsystems.com/50100010/ref1/09.tiff",
    "md5": "76bb4cfd7ade36452580ce48c0a6ff09",
    "resizeRule": "ORIGINAL"
},
{
    "url":
"http://cdn.dev.m2.esoftsystems.com/examples/video/01/thumbnail/200/120/movie.png",
    "secureUrl":
"https://cdn.dev.m2.esoftsystems.com/examples/video/01/thumbnail/200/120/movie.png",
    "width": 200,
    "height": 120
}
```

EmbedAssetType

Path	Type	description
url	String	The embed code file url (HTTP)
secureUrl	String	The embed code file secureUrl (HTTPS)
embedCode	String	The embed code
width	String	The width of the embed content placeholder
height	String	The height of the embed content placeholder

JSON example

```
EmbedAssetType Example
```

Profiles

Path	Type	description
url	String	The embed code file url (HTTP)
secureUrl	String	The embed code file secureUrl (HTTPS)
md5	String	The md5 of the profile file
profile	String	The profile used for the file transcoding

JSON example

ProfileType Example

Enumeration types

Enum type	Enumeration values
OrientationEnum	HORIZONTAL, VERTICAL, SQUARE
ResizeRuleEnum	ORIGINAL, BEST_CROP, BEST_FIT, WHITE_FILL
ReferenceEnum	CASE, LOCATION, PORTRAIT, SHOP, GROUP, INTRO_OUTRO
FormatEnum	PNG, JPG, SVF, PDF or none (not present) for other formats. The url to the file will end with file extension matching the file format.