

UNITED STATES
PATENT AND TRADEMARK OFFICE

Bulk Data Storage System Services User Manual

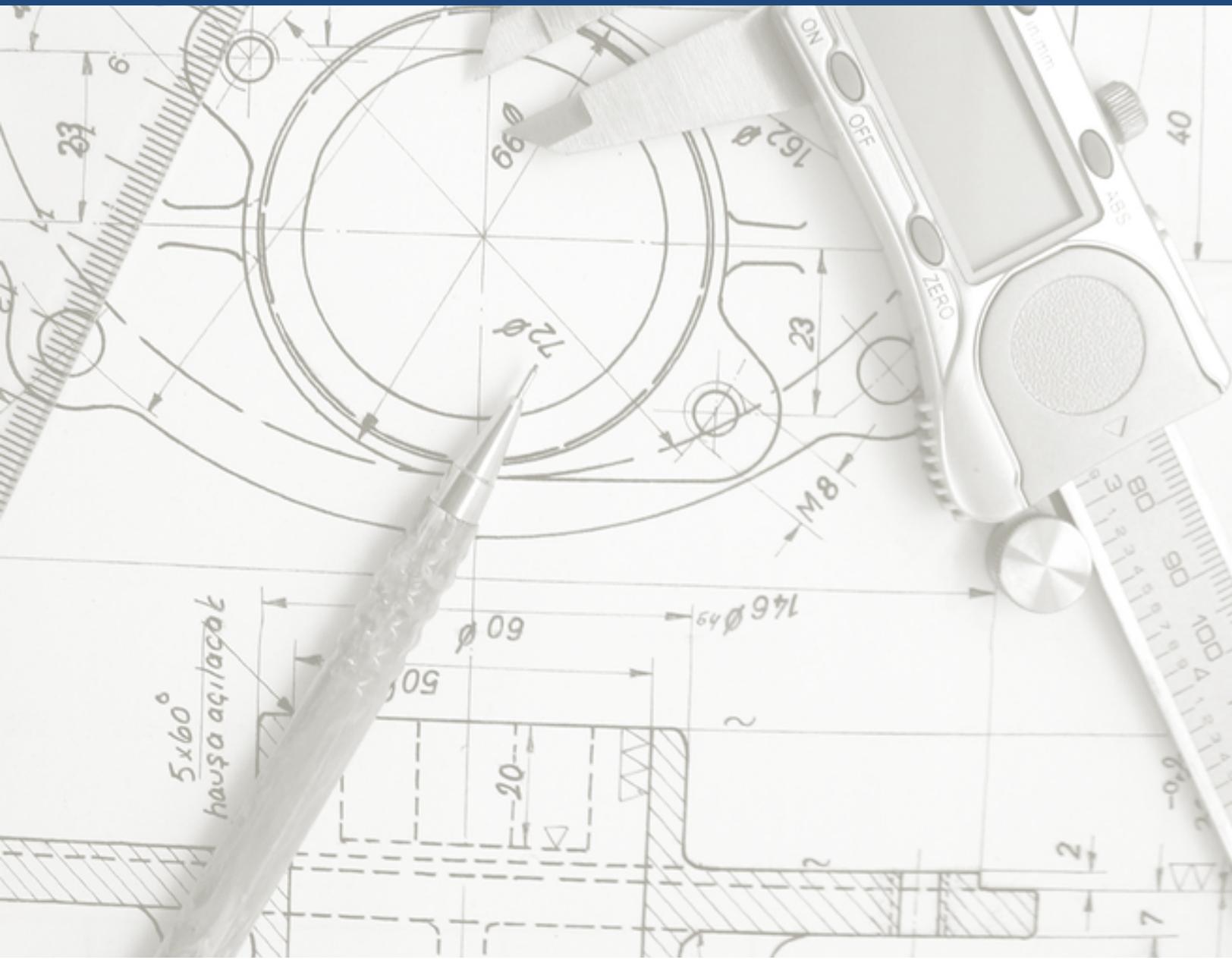


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BDSS SERVICES OVERVIEW

BACKGROUND

The United States Patent and Trademark Office (USPTO) provides a publicly accessible website for downloading patent and trademark bulk data at <https://bulkdata.uspto.gov>. This website contains all public patent and trademark bulk data products and associated documentation that are on the USPTO central storage repository system known as Bulk Data Storage System (BDSS).

The BDSS Services is a RESTful API supporting full-text and field-specific searches related to bulk data products. BDSS Services provides the public with alternative methods for accessing the USPTO bulk data products on <https://bulkdata.uspto.gov>.

WHO IS BDSS SERVICES FOR?

BDSS Services allows developers to take advantage of custom search syntax to develop their own applications. USPTO encourages innovators and entrepreneurs worldwide to publish their inventions for worldwide use and adoption. It has opened BDSS API to third party developers inside and outside of government, so that they can directly benefit from this data, by making and using their own apps. There is no registration process or API keys required to use this service.

This document provides an overview of the features of BDSS API and how it can be used to access patent and trademark bulk data products.

GETTING STARTED

WHAT IS SWAGGER GET METHOD?

GET is an HTTP request method that reads and retrieves data. Multiple requests will have the same result as a single request. This means that GET cannot modify any USPTO bulk data products.

BDSS Services has seven GETs as defined below. These GETs are from the BDSS API Swagger documentation at <https://bulkdata.uspto.gov/BDSS-API-SWAGGER/>.

Bulk Data Storage System Services

Bulk Data Storage System (BDSS) allows the public to discover, search, and download patent and trademark data in bulk form.

products List Operations | Expand Operations

GET	/products/all/latest	Returns all products with Latest Files.
GET	/products/byname/{productName}	Returns files associated with products (of level PRODUCT) based on their full or partial names.
GET	/products/popular	Returns popular products along with latest files.
GET	/products/tree	Returns products' hierarchical tree.
GET	/products/tree/{shortName}	Returns products' hierarchical subtree.
GET	/products/{shortName}	Returns products along with their associated files by short names.
GET	/products/{shortName}/latest	Returns products along with their latest files by short names.

FIGURE 0-1 BDSS API SWAGGER DOCUMENTATION

SWAGGER GET INSTRUCTIONS

First, click *GET* button to view *Implementation Notes*. This will allow you to search and retrieve bulk data products. Second, enter value input into *parameter* field if applicable. Third, click *Try it Out* button for a return response. Below are the GETs with value input fields:

- /products/byname/{productName},
- /products/tree/{shortName},
- /products/{shortName},
- /products/{shortName}/latest

RESPONSE FORMAT

All API inputs and outputs are in JavaScript Object Notation (JSON) format. JSON is an open standard format that uses human-readable text to transmit data objects consisting of attribute–value pairs.

HTTP RETURN CODES

- 200 - The API call was successful.
- 404 - The API call had an error in the parameters. The error will be encoded in the body of the response.
- 500 - The API call was unsuccessful due to internal server error. Try again later.

GET INPUT PARAMETERS AND RESPONSE MAPPING

The table below includes the available input parameters fields with descriptions and examples for BDSS API. Note that the string data type includes various words or characters.

INPUT PARAMETERS TABLE

Parameter	Required /Optional	Data Type	Example	Description
productName	Required	String	Patents	Name of the product.
shortName	Required	String	PPACL2	Abbreviated name of the product.
fromYear	Optional	Integer – 4 integer limit	1999	Year to when product files are needed.

Parameter	Required /Optional	Data Type	Example	Description
toYear	Optional	Integer – 4 integer limit	2000	Year from when product files are needed.
fromMonth	Optional	Integer - 2 integer limit	01	Month from when product files are needed.
toMonth	Optional	Integer – 2 integer limit	12	Month to when product files are needed.
fromDay	Optional	Integer – 2 integer limit	01	Day from when product files are needed.
toDay	Optional	Integer – 2 integer limit	31	Day to when product files are needed
hierarchy	Optional	String	True or False	Boolean flag indicates if product hierarchy needs to return in response. By default hierarchy does not return in response.
maxFiles	Optional	Integer – No limit	20 – default value	Defines maximum of file items to retrieve per product. Set value to -1 to get all files.

The table below includes the available output responses fields with descriptions and examples for BDSS API.

RESPONSE MAPPING TABLE

Name	Data Type	Description	Example
productLinkPath	String	It is the system generated unique URL that represents the path of the product.	/v1/BDSS-API/products/MCFPTSEQ

Name	Data Type	Description	Example
productIdentifier	Integer – 11 integer limit	It is the system generated key that represents Product Identifier.	1540
productShortName	String	Abbreviated name of the product.	MCFPTSEQ
productDesc	String – 1000 character limit	Description of the product. It can contains a patent number, title, inventor name, assignee, application number, filing date, prior publication date, foreign application priority data (if applicable), classification information, references cited, examiner and attorney information, abstract, specification, claims, and drawings	Current U.S. classification information for all patent grants issued by the USPTO from 1790 to present.
productTitle	String – 200 character limit	Title of the product.	MCF patent grant (patent grant sequence)
productFrequency (Frequency)	String – 10 character limit	Product release schedule.	WEEKLY
productLevel	Integer – 11 integer limit	It holds the level number like 1,2,3,4,5	PRODUCT
productFromDate		This field has no value because it's a parent not a product.	Null
productToDate		This field has no value because it's a parent not a product.	Null

Name	Data Type	Description	Example
numberOfFiles	Integer – No limit	Number of files existing for a product. If no files exist, it will be zero.	200
parentProduct		This field has no value because it's a parent not a product.	Null
productFiles		File products contain the following: <ul style="list-style-type: none"> • fileLinkPath • fileIdentifier • fileName • fileSize • fileDownloadURL • fileFromTime • fileToTime • fileType • fileReleaseDate 	
fileLinkPath	String	Unique URL	/v1/BDSS-API/productFiles/123783
fileIdentifier	Integer	Unique identifier	123783
filename	String	Unique file name	mcflsandmcfpat.docx
fileSize	Integer	Size of file	95
fileDownloadUrl	String	Downloadable link	https://data.uspto.gov/data2/patent/classification/mcflsandmcfpat.docx
fileFromTime	Integer	Time from when products are needed.	2015-12-13
fileToTime	Integer	Time to when products are needed.	2015-12-13
fileType	String	File category	"Document"
fileReleaseDate	Integer	Product release date.	2015-12-13

GET DEFINITIONS

RETRIEVE RECENT BULK DATA - GET /PRODUCTS/ALL/LATEST

Use this GET to retrieve latest released bulk data products. Note that there is one file per product. The response includes product fields such as title, description, frequency, and level (Level 5).



The screenshot displays a REST client interface. The 'Request URL' field contains the endpoint `http://edh-api.fqt.uspto.gov:80/edhapi/v1/products/all/latest`. The 'Response Body' field shows a JSON array with one object representing a product. The object contains the following fields: `productLinkPath`, `productIdentifier`, `productShortName`, `productDesc`, `productTitle`, `productFrequency`, `productLevel`, `productFromDate`, `productToDate`, `parentProduct`, and `productFiles`. The `productFiles` array contains one object with `fileLinkPath` and `fileIdentifier`.

```
{
  {
    "productLinkPath": "/edhapi/v1/products/PTABYR",
    "productIdentifier": 1012,
    "productShortName": "PTABYR",
    "productDesc": "Contains (backfile) Patent Trial and Appeal Board (PTAB) publicly available records (July 2, 1997 - Februa",
    "productTitle": "PTAB and/or PRPS annual",
    "productFrequency": "YEARLY",
    "productLevel": "PRODUCT",
    "productFromDate": null,
    "productToDate": null,
    "parentProduct": null,
    "productFiles": [
      {
        "fileLinkPath": "/edhapi/v1/productFiles/450236",
        "fileIdentifier": 450236,
```

FIGURE 0-1 GET - LATEST PRODUCTS RESPONSE BODY

Below figure illustrates the hierarchy of Levels 1-5.

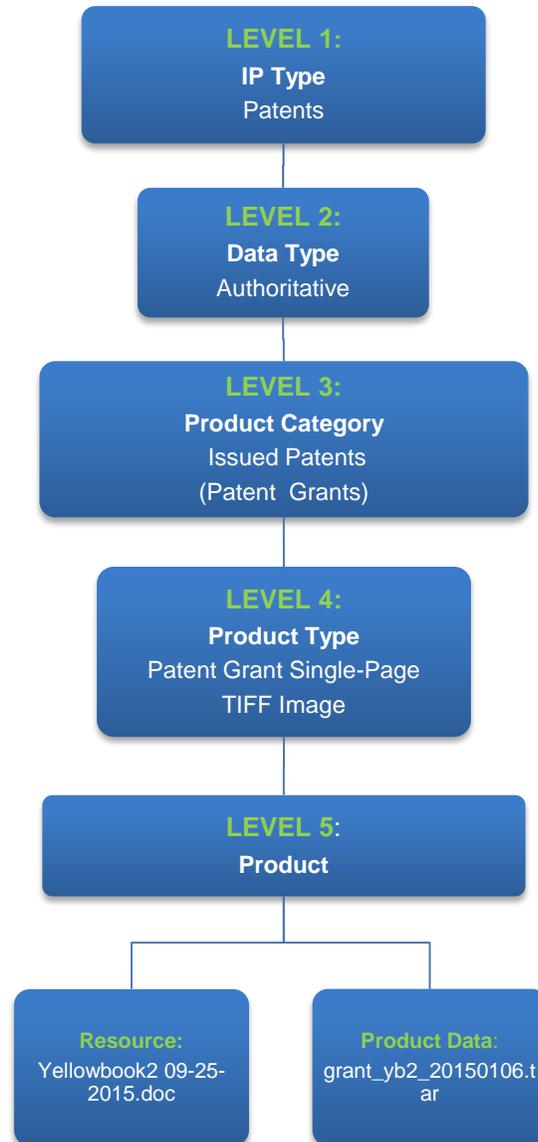


FIGURE 0-2 PRODUCT LEVELS 1 - 5

PRODUCT NAMES WITH PARAMETERS – GET /PRODUCTS/BYNAME/{PRODUCTNAME}

Use this GET to search for bulk data services by product name or description. Full or partial names can be entered for existing products. Note that product name is not case sensitive. An error message will be returned if the product cannot be found.

The response body does not include a *productname* field. The reason is response results are pulled from *productDesc*, *productTitle*, and *productLevel* fields. Default values for field names are as follows:

- If both years are not defined, then *toYear* field will default to current year. The *fromYear* field will default to previous year.
- If *fromYear* field is defined, then *toYear* will default to *fromYear*+1
- If *fromMonth* is not defined, then current month will be default value
- If *toMonth* is not defined, then field will default to *fromMonth*
- If *fromDay* is not defined, then the field will default to current day (i.e. today)
- If *toDay* is not defined, then the field will default to last day of *toMonth* and *toYear*
- If *maxFiles* is not defined, then the field will default to 20 files.

Parameter	Value
productName	Trademarks
fromYear	1999
toYear	2000
fromMonth	01
toMonth	12
fromDay	01
toDay	31
hierarchy	false
maxFiles	20

FIGURE 0-3 GET – PRODUCT NAME INPUT PARAMETERS

In the example below product name ABCD is entered. The return response indicates that the product cannot be found.

productName	ABCD
fromYear	1999
toYear	2000
fromMonth	01
toMonth	12
fromDay	01
toDay	31
hierarchy	false

Response Body

```
can't parse JSON. Raw result:  
Product with the name "ABCD" not found
```

FIGURE 0-4 GET - PRODUCT NOT FOUND EXAMPLE

RETRIEVE POPULAR PRODUCTS – GET /PRODUCTS/POPULAR

Use this GET to retrieve these bulk data files by their popularity. The response includes product fields such as title, description, frequency, and level.

Popular Bulk Products

- Patent application data/XML,
- Patent grant full text data/XML
- Patent grant data/XML

RETRIEVE PRODUCTS BY SOURCE TREES – GET /PRODUCTS/TREE

Use this GET to retrieve short name and parent/child relationships for bulk data products. Short

names are unique IDs of the Products and should be used in other GETs where *{shortName}* parameter is required.

The parent and child relationship is illustrated in below figure.



```
Request URL
http://edh-api-1.fqt.uspto.gov:8080/BDSS-API/products/tree

Response Body
[
  {
    "productLinkPath": "/BDSS-API/products/PTNT",
    "productShortName": "PTNT",
    "productTitle": "Patent 2",
    "productChildren": [
      {
        "productLinkPath": "/BDSS-API/products/PTAUTH",
        "productShortName": "PTAUTH",
        "productTitle": "Patent Authoritative",
        "productChildren": [
          {
            "productLinkPath": "/BDSS-API/products/PRSCHST",
            "productShortName": "PRSCHST",
            "productTitle": "Prosecution History Files",
            "productChildren": [

```

FIGURE 0-5 GET – PRODUCTS BY SOURCE TREES

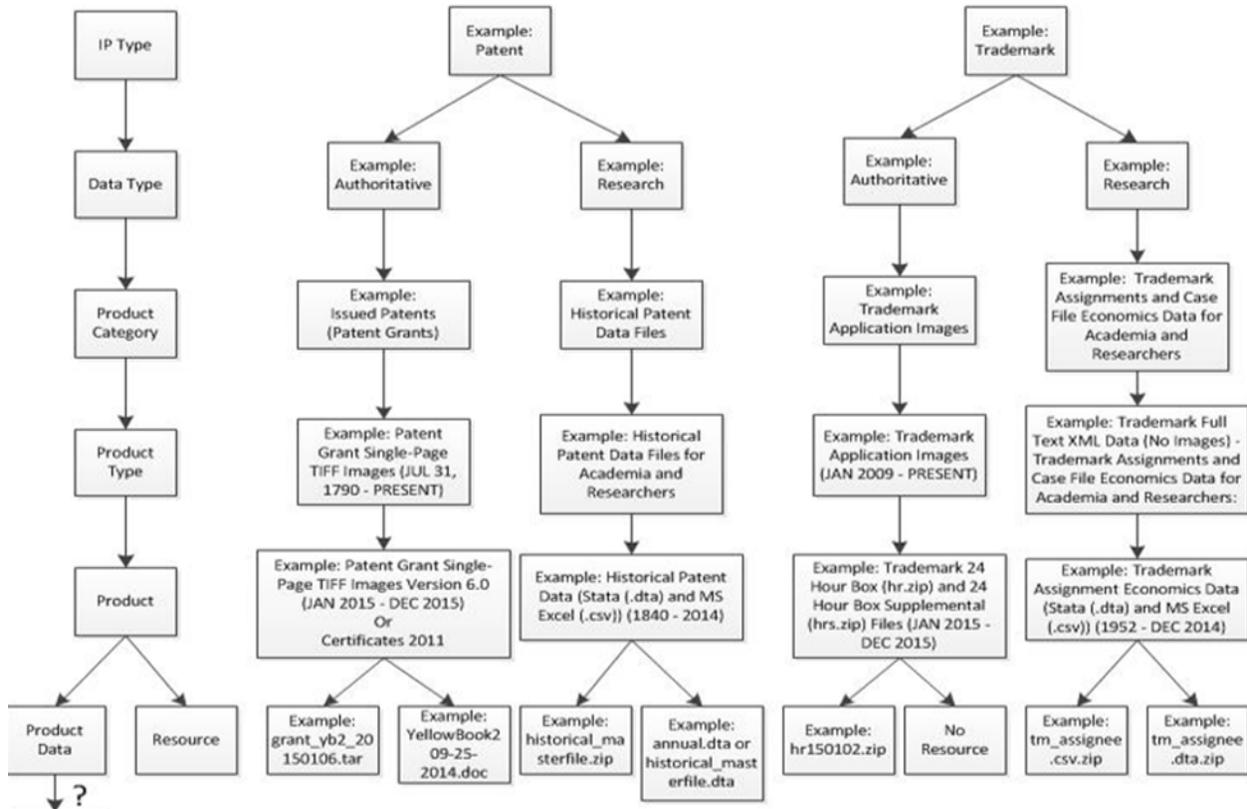


FIGURE 0-6 GET – PARENT AND CHILD RELATIONSHIP

SEARCH BY SHORT NAMES - GET/PRODUCTS/TREE/{SHORTNAME}

Use this GET to search for bulk data products by their short names. This works almost like products/tree GET, the difference is that it returns subtree data starting from a particular tree node (i.e. the GET returns all children if parent short name is entered). If a product cannot be found by its short name (has to be exact match and is not case sensitive), then an error message will appear in response body.

Parameters

Parameter	Value
shortName	PTISSD

Response Messages

HTTP Status Code	Reason
200	Successful operation.
404	Product not found.
500	Internal server error.

Try it out! [Hide Response](#)

Request URL

http://edh-api-1.fqt.uspto.gov:8080/BDSS-API/pr...

Response Body

```
{
  "productLinkPath": "/BDSS-API/products/PTISSD",
  "productShortName": "PTISSD",
  "productTitle": "Issued Patents (Patent Grant)",
  "productChildren": [
    {

```

FIGURE 0-7 GET – PRODUCTS BY SHORT NAME

SHORT NAMES WITH PARAMETERS – GET /PRODUCTS/{SHORTNAME}

Use this GET to search for bulk data products by their short names and description. Note that *From* and *To* dates can be inputted separately as year/month/day values. They can also be entered as a single date string in format YYYY-MM-DD.

Default values for field names:

- If both years are not defined, then *toYear* field will default to current year. The *fromYear* field will default to previous year
- If *fromYear* field is defined, then *toYear* will default to *fromYear*+1
- If *fromMonth* is not defined, then current month will be default value
- If *toMonth* is not defined, then field will default to *fromMonth*

- If *fromDay* is not defined, then the field will default to current day (i.e. today)
- If *toDay* is not defined, then the field will default to last day of *toMonth* and *toYear*

shortName	PTGRSP
fromYear	1999
toYear	2000
fromMonth	01
toMonth	12
fromDay	01
toDay	31
fromDate	1999-01-01
toDate	2001-12-31

FIGURE 0-8 SHORT NAME PARAMETERS EXAMPLE

SEARCH RECENT PRODUCTS BY SHORT NAMES – GET/PRODUCTS/{SHORTNAME}/LATEST

Use this GET to search for latest released bulk data products by their short names and release year. The return response will include the latest files within the year specified. An error message will be returned if product(s) cannot be found for the year specified.

Parameter	Value
shortName	<input type="text" value="(required)"/>
year	<input type="text"/>
hierarchy	<input type="text" value="false"/>

FIGURE 0-9 GET – LATEST PRODUCT BY SHORT NAME