
Product Advertising API

Developer Guide

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Product Advertising API: Developer Guide

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Welcome

Topics

- [Audience \(p. 1\)](#)
- [How This Guide Is Organized \(p. 1\)](#)
- [Product Advertising API Resources \(p. 2\)](#)

This is the *Product Advertising API Developer Guide*. This section describes who should read this guide, how the guide is organized, and other resources related to the Product Advertising API.

Audience

This guide is intended for developers who want to build an e-commerce storefront that sells items listed on www.amazon.com, or an application that helps others build e-commerce storefronts.

Required Knowledge and Skills

Use of this guide assumes you are familiar with the following:

- XML (For an overview, go to the [W3 Schools XML Tutorial](#))
- Basic understanding of web services (For an overview, go to the [W3 Schools Web Services Tutorial](#))

If you are an Amazon Associate and are looking for more general information, go to [Amazon Associates Tools for Every Site](#).

How This Guide Is Organized

This guide is organized into several major sections described in the following table.

Information	Relevant Sections
General information about the Product Advertising API	Introduction to Product Advertising API (p. 4)

Information	Relevant Sections
Conceptual information about the Product Advertising API	Terminology and Basic Concepts (p. 21)
Programming Reference—Provides task-oriented descriptions of how to use and implement Product Advertising API operations.	Programming Reference (p. 6)
API Reference—A reference that describes Product Advertising API operations, response groups, locales, and parameter constraints.	API Reference (p. 192)
Describes the changes in this document since its last publication.	Document History (p. 515)

Product Advertising API Resources

The following table lists related resources that you'll find useful as you work with this service.

Resource	Description
Product Advertising API Getting Started Guide	The Getting Started Guide provides a quick introduction to getting set up and generating requests to the Product Advertising API.
Product Advertising API Developer Resource Center	A central starting point find documentation, code samples, release notes, and other information to help you build innovative applications with the Product Advertising API.
Discussion Forums	A community-based forum for developers to discuss technical questions related to Amazon Web Services.
Contact Us	A central contact point for inquiries concerning AWS billing, account, events, abuse, etc.
Conditions of Use	Detailed information about the copyright and trademark usage at Amazon.com and other topics.

Other resources are the locales' primary web pages for information about Product Advertising API:

Resource	Description
Product Advertising API information for CA	The primary CA web page for information about Product Advertising API.
Product Advertising API information for CN	The primary CN web page for information about Product Advertising API.
Product Advertising API information for DE	The primary DE web page for information about Product Advertising API.
Product Advertising API information for ES	The primary ES web page for information about Product Advertising API.

Resource	Description
Product Advertising API information for FR	The primary FR web page for information about Product Advertising API.
Product Advertising API information for IT	The primary IT web page for information about Product Advertising API.
Product Advertising API information for JP	The primary JP web page for information about Product Advertising API.
Product Advertising API information for UK	The primary UK web page for information about Product Advertising API.
Product Advertising API information for US	The primary US web page for information about Product Advertising API.

Introduction to the Product Advertising API

Topics

- [Overview of Product Advertising API \(p. 4\)](#)
- [Architectural Overview of Product Advertising API \(p. 5\)](#)

This introduction to Product Advertising API gives you a detailed summary of this web service. After reading this section, you should have a good idea of what it offers and how it can fit in with your business.

Overview of Product Advertising API

Amazon has spent over ten years and hundreds of millions of dollars developing a world-class web service that millions of customers use every day. As a developer, you can build Product Advertising API applications that leverage this robust, scalable, and reliable technology. You get access to much of the data that is used by Amazon, including the items for sale, customer reviews, seller reviews, as well as most of the functionality that you see on www.amazon.com, such as finding items, finding similar items, displaying customer reviews, and product promotions. In short, Product Advertising API operations open the doors to Amazon's databases so that you can take advantage of Amazon's sophisticated e-commerce data and functionality. Build your own web store to sell Amazon items or your own items.

Best of all, Product Advertising API is free. By signing up to become a Product Advertising API developer, you join the tens of thousands of developers who are already realizing financial gains by creating Product Advertising API-driven applications and web stores. In 2006, Product Advertising API developers sold well over \$600 million worth of items. Would you like a percentage of that revenue?

Business Model

E-commerce is the practice of conducting business over the Internet. This guide explains in detail how you can use Product Advertising API operations to create storefronts in which you enable Internet customers to search for your items, see pictures of them, find related items, get customer reviews, and purchase items.

With e-commerce, the barrier of distance between the shopper and the store goes away: the local video store must compete with stores across the country. E-commerce levels the playing field: the web site of

an individual seller can appear as sophisticated and intoxicating as that of a major retailer. Product Advertising API is your opportunity to enter the world market where patronage is not limited by the size of your storefront, foot traffic or locality. Welcome to the world of Product Advertising API e-commerce.

Architectural Overview of Product Advertising API

How Product Advertising API works

1	Your application uses the Product Advertising API to supply item descriptions and images, and customer and seller reviews, which you present to your customers.
2	Customers shop on your web site.
3	When the customer is ready to purchase the items in their e-commerce shopping cart, your application sends an HTML form to Product Advertising API and Amazon completes the purchase by getting purchase information, such as payment method and shipping address, and then Amazon fulfills the order by shipping the items.



Programming Guide

The Programming Guide provides task-oriented descriptions of how to use and implement Product Advertising API operations. For a complete description of these operations, refer to the [API Reference \(p. 192\)](#).

The following table describes the sections in the programming guide.

Section	Description
Getting Set Up (p. 7)	Describes the tasks you must complete before using Product Advertising API.
E-Commerce and Web Services (p. 10)	Introduces technologies central to Product Advertising API, such as e-commerce, WSDL, and schemas.
Product Advertising API Terminology and Basic Concepts (p. 21)	Introduces terms and concepts central to Product Advertising API.
Visual Introduction to Product Advertising API (p. 27)	Introduces Product Advertising API functionality by visually comparing it to functionality seen on Amazon's retail web site.
Organization of Items for Sale on Amazon (p. 30)	Describes how items are organized in Amazon databases.
Requests (p. 44)	Introduces you to making Product Advertising API requests and processing Product Advertising API responses.
Finding Items to Buy (p. 83)	Describes the operations and response groups required to find items to buy.
Motivating Customers to Buy (p. 135)	Describes the operations and response groups required to motivate customers to buy. Topics include displaying images, customer review, and seller reviews.
Returning Price And Availability Information (p. 154)	Describes the operations and response groups required to get pricing and availability information of the items for sale.
Working With Remote Shopping Carts (p. 163)	Describes the operations and response groups required to create a shopping cart, add items to it, and modify the number of items in the cart.

Section	Description
Purchasing the Items in a Remote Shopping Cart (p. 176)	Describes the operations and response groups required to purchase the items in a shopping cart.
Handling Errors and Troubleshooting Applications (p. 178)	Describes errors returned by Product Advertising API.
Best Programming Practices (p. 187)	Provides programming tips to maximize your Product Advertising API application's functionality.
Locale Considerations (p. 189)	Addresses locale-specific issues.

Getting Set Up

Topics

- [Becoming a Product Advertising API Developer \(p. 7\)](#)
- [Becoming an Associate \(p. 8\)](#)
- [Reading the Licensing Agreement \(p. 9\)](#)

To make money using the Product Advertising API to advertise Amazon products in conjunction with the Amazon Associates program, you need to register to become a Product Advertising API developer and join the Amazon Associates Program.

Note

For instructions on how to register to become a Product Advertising API developer and join the Amazon Associates Program, go to the [Product Advertising API Getting Started Guide](#). The remaining tasks that you complete are described in this section.

Becoming a Product Advertising API Developer

The Product Advertising API allows developers to advertise products from all Amazon sites:

- <http://www.amazon.com>
- <http://www.amazon.com.br>
- <http://www.amazon.ca>
- <http://www.amazon.cn>
- <http://www.amazon.co.uk/>
- <http://www.amazon.de>
- <http://www.amazon.es>
- <http://www.amazon.fr>
- <http://www.amazon.in/>
- <http://www.amazon.it>
- <http://www.amazon.co.jp>

To become a Product Advertising API developer, sign up at the page for your locale:

Locale	Developer Sign-up URL
Brazil	http://associados.amazon.com.br/gp/associates/apply/main.html
Canada	https://associates.amazon.ca/gp/flex/advertising/api/sign-in.html
China	https://associates.amazon.cn/gp/advertising/api/detail/main.html
France	https://partenaires.amazon.fr/gp/flex/advertising/api/sign-in.html
Germany	https://partner.net.amazon.de/gp/flex/advertising/api/sign-in.html
India	http://affiliate-program.amazon.in/gp/associates/apply/main.html
Italy	https://programma-affiliazione.amazon.it/gp/advertising/api/detail/main.html
Japan	https://affiliate-program.amazon.com/gp/flex/advertising/api/sign-in-jp.html
Spain	https://afiliados.amazon.es/gp/flex/advertising/api/sign-in.html
United Kingdom	https://affiliate-program.amazon.co.uk/gp/flex/advertising/api/sign-in.html
United States	https://affiliate-program.amazon.com/gp/flex/advertising/api/sign-in.html

When you sign up, you create a Amazon customer account in the appropriate locale, then provide your account information and review and accept the license agreement.

Becoming an Associate

One of the requirements for becoming an Associate is that you furnish the URL of your site. If your site is not yet public but you want to test against the API, you still need to supply a URL as part of registration.

To create an access key

1. Go to the Amazon Associates main page for your locale. For more information, see the table below.
2. Open the **Access Keys** section.
3. Click **Create New Access Key**. AWS generates a new access key ID and a secret access key.
4. Save the access key information in a safe place.

To create an X.509 certificate

1. Go to the Amazon Associates main page for your locale. For more information, see the table below.
2. Open the **X.509 certificates** section.
3. Click **Create New Certificate**. AWS issues a private key and a certificate.
4. Download the .pem files for the private key and the certificate and store them in a safe place. Note: Never share your private key with anyone.

Locale	URL
Brazil	https://associados.amazon.com.br/
Canada	https://associates.amazon.ca/
China	https://associates.amazon.cn/gp/advertising/api/detail/main.html
France	https://partenaires.amazon.fr/

Locale	URL
Germany	http://partner.net.amazon.de
India	https://affiliate-program.amazon.in/
Italy	https://programma-affiliazione.amazon.it/gp/advertising/api/detail/main.html
Japan	https://affiliate.amazon.co.jp/
Spain	https://afiliados.amazon.es
United Kingdom	https://affiliate-program.amazon.co.uk
United States	http://affiliate-program.amazon.com/

Getting Your Associate Tag

When you register as an Amazon Associate, an Associate tag is sent to you by return email. An Associate tag, also known as an Associate ID, is an automatically generated unique identifier that you will need to make requests through the Product Advertising API. When you log in to the Amazon Associates website for your locale, the page that you are directed to includes a message that says "Signed in as" followed by your Associate tag.

Getting Your Security Credentials

You need security credentials to call the Product Advertising API, authenticate requests, and identify yourself as the sender of a request. Two types of credentials are available:

- AWS security credentials (access key ID and secret access key)
- X.509 certificates

Note

IAM roles are not currently supported. You must use the root account credentials or certificates.

To generate and manage your credentials, go to the [AWS Security Credentials Console](#).

After you have obtained your key pair, you can make calls to the Product Advertising API.

Reading the Licensing Agreement

You will need to review and accept the terms and conditions of the license agreement to become a Product Advertising API developer. To read the Product Advertising API's licensing agreement, go to the license agreement link for your locale:

Locale	License Agreement URL
Brazil	https://associados.amazon.com.br/gp/associates/agreement/
Canada	https://associates.amazon.ca/gp/advertising/api/detail/agreement.html
China	https://associates.amazon.cn/gp/advertising/api/detail/agreement.html
France	http://partenaires.amazon.fr/gp/advertising/api/detail/agreement.html
Germany	https://partner.net.amazon.de/gp/advertising/api/detail/agreement.html

Locale	License Agreement URL
India	http://affiliate-program.amazon.in/gp/advertising/api/detail/agreement.html
Italy	https://programma-affiliazione.amazon.it/gp/advertising/api/detail/agreement.html
Japan	https://affiliate.amazon.co.jp/gp/advertising/api/detail/agreement.html
Spain	https://afiliados.amazon.es/gp/advertising/api/detail/agreement.html
United Kingdom	https://affiliate-program.amazon.co.uk/gp/advertising/api/detail/agreement.html
United States	https://affiliate-program.amazon.com/gp/advertising/api/detail/agreement.html

Note

If you plan to use the Product Advertising API to advertise Amazon products from a locale other than the one you signed up in, please be sure to review the license agreement for that locale. The terms and conditions for each locale apply to any use of the Product Advertising API in that locale.

Please review the [Application Best Practices Guide](#) to make sure your application is compliant, scalable, and efficient.

Important

In addition to the Product Advertising API License Agreement, be sure to read your locale's Associates Program Operating Agreement for more details on usage guidelines, policies, and requirements.

E-Commerce and Web Services

Topics

- [What is E-Commerce? \(p. 10\)](#)
- [What is a Web Service? \(p. 11\)](#)
- [What is XML? \(p. 11\)](#)
- [What is a WSDL? \(p. 13\)](#)
- [What is a Schema? \(p. 20\)](#)

This chapter is for readers who are new to the concepts of e-commerce and web services. If you are familiar with these topics, proceed to the next chapter.

This chapter provides an overview of e-commerce, web services and associated technologies.

What is E-Commerce?

E-commerce (Electronic Commerce) is the practice of using computers to buy, sell, and market goods and services across a network, such as the Internet.

This book assumes that you have at least some familiarity with buying or selling items over the Internet. If this is not the case for you, go to www.amazon.com, find an item to buy and proceed a few steps into the purchase procedure. For a basic understanding of e-commerce, go to www.amazon.com.

In Product Advertising API, e-commerce is facilitated by web services.

What is a Web Service?

This book assumes that you are familiar with the notion of using your computer (the client) to request that some other computer (the server's) perform some task and respond over the Internet. The work a server does is called a service. The service might be returning a weather forecast, or, in the case of Product Advertising API, returning information about items for sale on Amazon. Some of these request and response interactions over the Internet are considered web services provided by a web server.

A web service is any piece of software that uses REST and/or a standardized XML messaging system, described by a WSDL (Web Service Definition Language) (pronounced "wiz-dal"), to exchange data between applications or systems. A web service must have some simple mechanism for interested parties to locate the service and its public interface using standard network protocols, such as, but not limited to, SOAP over HTTP. Software applications written in various programming languages and running on various platforms can use web services transparently to exchange data over computer networks, like the Internet, because the WSDL serves as the definition of the language used by the computers.

In Product Advertising API:

- Requests and responses occur across the Internet
- Client and server use REST, SOAP, or XML as the means of communication
- Client and server agree on the grammar and syntax used in the requests and responses by specifying a WSDL
- Requests and responses are not tied to a single operating system or programming language.

A simple example of a Product Advertising API request is one that uses the `ItemSearch` operation. This request asks Amazon's web servers to find descriptions of items in its data bases. The web servers carry out their service by finding the item descriptions and then sending those back to the requester.

All Product Advertising API requests are based on REST or SOAP and all of the responses are based on XML.

Note

For more information about REST, see [Anatomy Of a REST Request \(p. 45\)](#).

What is XML?

XML (Extensible Markup Language) is a standard defined by the World Wide Web Consortium (W3C). XML uses tags (identifiers enclosed in brackets, for example, `<para>`) to label content in text documents. These tags, collectively called the "markup," can be read by humans and computers. XML tags, like SGML tags, encode not only the meaning of the content but also its structure.

XML looks like HTML but XML has nothing to do with the display of the content, which is the central focus of HTML. The following XML tags label the content they enclose as a paragraph.

```
<para>This is a paragraph.</para>
```

The `<para>` tag has nothing to do with the display of the sentence. The tag, for example, does not take attributes such as font, size, or style.

Unlike HTML, there is not a single set of tags used in all XML documents. XML enables designers to create their own set of tags that are appropriate to their business. For example, Product Advertising API encodes its APIs using an XML document called a WSDL. Other companies create their own XML tags to define their APIs. The tags in these two WSDLs most likely would be completely different. The syntax and rules by which the XML elements are defined in the WSDL, however, are the same. Because a web

server handles multiple requests that implement multiple WSDLs, each request must specify the WSDL it is using..

XML Syntax

XML tools enforce XML syntax. XML syntax is very similar to HTML syntax, except, like XHTML, the syntax is strictly enforced. The syntax is:

- Tags are enclosed within angle brackets, for example, <para>
- Opening tags must be paired with closing tags, for example, <para>Sentence</para>
- Opening and closing tags must be nested correctly, for example, the following example is well formed

```
<note><para>Sentence</para></note>
```

The following example is not well formed

```
<note><para>Sentence</note></para>
```

If these syntax rules are followed, the XML document is said to be well formed. That does not mean, however, that the tags in the XML document are necessarily the ones defined in the associated WSDL. If, for example, the WSDL defines <para>, an XML document that uses <Para> would cause an error because "Para" is not defined in the WSDL. When an XML document is well formed and the tags it uses conform to tags defined in the WSDL, the document is said to be valid. Product Advertising API responses always contain valid XML.

XML Structures

Some data in XML documents are one dimensional, for example, <para>Sentence</para>. Some data, however, is structured, as shown in the following XML snippet.

```
<SubTotal>
  <Amount>2998</Amount>
  <CurrencyCode>USD</CurrencyCode>
  <FormattedPrice>$29.98</FormattedPrice>
</SubTotal>
```

This example shows that the subtotal is comprised of three pieces of data: *Amount*, *CurrencyCode*, and *FormattedPrice*. The example also shows that there can be a hierarchy of tags. In this example, *Amount* is a child tag of *Subtotal*. These structures represent arrays of values.

Using XML

So, what do you do with the XML response? The good news is that the Product Advertising API returns a well-defined set of tags for each kind of request. That means that you can use parsing mechanisms to pull out of the XML responses the data that you would like to submit in a second request, or, display on a web page. For instance, in the preceding example, you might parse the XML document to find *FormattedPrice* so that you could display the \$29.98 on a web page that shows an item for sale.

XML is not only used to create requests and responses, it is also used to create a WSDL, which defines the XML tags.

What is a WSDL?

Topics

- [Restricted Parts of the WSDL \(p. 13\)](#)
- [Anatomy of a WSDL \(p. 13\)](#)
- [WSDL Location \(p. 19\)](#)

The goal of this section is to give you enough information so that you can read and use the Product Advertising API WSDL. You typically read a WSDL to understand value types, operation definitions, and request and response formats.

A WSDL (Web Service Description Language) is an XML document that defines the operations, parameters, requests, and responses used in web service interactions. You can think of a WSDL as the contract that defines the language and grammar used by web service clients and servers. When you look at the Product Advertising API WSDL, for example, you find in it all of the Product Advertising API operation names, parameters, request and response structures.

There is not a single WSDL. Product Advertising API, for example, has many different versions of its WSDL—the latest one and all of its previous versions. Not only can one company use different versions of a WSDL, every company can use its own WSDL based on its own APIs or business metrics. For that reason, web service requests must identify the WSDL they use so the web servers know how to interpret the requests.

In practice, Product Advertising API developers use the same version of the Product Advertising API WSDL in every request in a session. Over time, they might send requests to the latest Product Advertising API WSDL. The Product Advertising API WSDL is upgraded regularly.

Restricted Parts of the WSDL

The WSDL defines all Product Advertising API operation requests and responses. The majority of the WSDL is generic. There are, however, some small portions of the WSDL that are partner specific. That is, the use of some Product Advertising API operations is restricted to specific Amazon partners. Those operations are marked as restricted by a notation similar to the following.

```
<xs:element name="RestrictedOperation" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:appinfo>
      <aws-se:restricted>
        <aws-se:excludeFrom>public</aws-se:excludeFrom>
        <aws-se:excludeFrom>partner</aws-se:excludeFrom>
      </aws-se:restricted>
    </xs:appinfo>
```

If you try to use a restricted operation and you are not the Amazon partner, Product Advertising API returns an error message.

Anatomy of a WSDL

Topics

- [Definitions \(p. 14\)](#)
- [Request Definitions \(p. 15\)](#)
- [Response Definitions \(p. 16\)](#)
- [Binding \(p. 18\)](#)

- [Service \(p. 19\)](#)

Typically, the Binding and Service segments do not change from one WSDL release to the next. In the Definitions segment, only the WSDL version changes. For that reason, when you read a WSDL, you will typically spend most of your time reading the Request and Response Definitions segments.

Definitions

Topics

- [Namespaces \(p. 14\)](#)
- [Versioning \(p. 15\)](#)

The Definitions section of the WSDL defines the namespaces used throughout the WSDL, and the name of the service, as shown in the following snippet of the Product Advertising API WSDL.

```
<?xml version="1.0" encoding="UTF-8" ?>
<definitions
    xmlns="http://schemas.xmlsoap.org/wsdl/"
    xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
    xmlns:xs="http://www.w3.org/2001/XMLSchema"
    xmlns:tns="http://webservices.amazon.com/
AWSECommerceService/2013-08-01"
    targetNamespace="http://webservices.amazon.com/
AWSECommerceService/2013-08-01">
```

This example shows that the:

- Default namespace is `xmlns="http://schemas.xmlsoap.org/wsdl/"`
- SOAP namespace used is `xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"`
- Schema used is `xmlns:xs="http://www.w3.org/2001/XMLSchema"`
- Product Advertising API WSDL namespace is
`"http://webservices.amazon.com/AWSECommerceService/2013-08-01"`
The date at the end is the version number. It is the date the WSDL became public.
- TargetNamespace is `"http://webservices.amazon.com/AWSECommerceService/2013-08-01"`
The TargetNamespace is an XML schema convention that enables the WSDL to refer to itself (as the target). The TargetNamespace value is the Product Advertising API WSDL namespace

Namespaces

Namespaces are collections of parameters and operations in which their names are unique. The advantage of using namespaces is that the WSDL can define terms, like string, just by referring it its namespace, xs. Also, prepending the namespace to a parameter ensures that there is no danger of name collisions.

Each namespace declaration starts with "xmlns:" (XML namespace:) and is followed by the abbreviation for the namespace. For example, in the following namespace declaration, xs becomes the abbreviation for the URL of the schema.

```
xmlns:xs="http://www.w3.org/2001/XMLSchema"
```

Throughout the remainder of the WSDL you will see parameters defined in terms of namespace abbreviations, for example:

```
type="xs:string"
ref="tns:HTTPHeaders"
```

These abbreviations provide the namespace in which the parameters are defined.

Versioning

Product Advertising API enables you to specify the version of the WSDL you want to use. This functionality ensures that future enhancements and changes to Product Advertising API WSDLs will not be intrusive to your applications. For example, when Product Advertising API adds new elements to its WSDL, applications that validate against an older Product Advertising API WSDLs will not be affected.

Product Advertising API WSDL version names are based on the date that they become active. The version of the WSDL is specified in the Product Advertising API WSDL namespace declaration. In the preceding example, the version of the WSDL is 2013-08-01.

```
xmlns:tns="http://webservices.amazon.com/
AWSECommerceService/2013-08-01"
```

In reality, the date, here, is the WSDL's file name.

The *AWSECommerceService* directory contains all of the Product Advertising API WSDL versions. You use the *Version* parameter in REST requests to specify the version of the WSDL you want to use. The default version is 2011-08-01. If you want to use a different WSDL version, including the latest, you must specify it in each request, for example, in REST.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService
&AWSAccessKeyId=[AWS Access Key ID]
&Operation=ItemSearch&
SearchIndex=Books&
Author=Steve%20Davenport&
Version=2013-08-01
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

Note

This version of the *Product Advertising API Developer Guide* describes all of the functionality of the WSDL as of the guide's publication date. To read about older WSDLs, including the default WSDL, refer to the older versions of this guide listed in the AWS Resource Center. Go to <http://aws.amazon.com/resources>.

SOAP requests always specify a namespace, which includes the WSDL version. To avoid problems due to future WSDL changes, be sure to specify a WSDL version in your SOAP application.

Request Definitions

The Request Definitions segment of the WSDL defines Product Advertising API operation requests, as shown in the following WSDL snippet.

```
<xs:complexType name="ItemSearchRequest">
<xs:sequence>
<xs:element name="Actor" type="xs:string" minOccurs="0" />
<xs:element name="Artist" type="xs:string" minOccurs="0" />
<xs:element name="Availability" minOccurs="0">
```

```
<xs:simpleType>
  <xs:restriction base="xs:string">
    <xss:enumeration value="Available" />
  </xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element ref="tns:AudienceRating" minOccurs="0" maxOccurs="unbounded" />
```

This snippet shows some of `ItemSearch`'s input parameters, including `Actor`, `Artist`, `Availability`, and `AudienceRating`. The element declarations specify that these parameters are valid in an `ItemSearch` request. Most of the parameters in this example are strings. The type of one, however, `Availability`, is a variation on the base class, `string`. In this case, the variation puts a restriction on the strings that can be valid values for `Availability`. For that reason, the `restriction` keyword is used. The restriction is that the valid values for `Availability` are defined by an enumeration. The enumeration, however, has only one valid value, "Available," which means that the parameter, `Availability` can be set to only one value.

`minOccurs` refers to the minimum number of times the parameter must appear in an `ItemSearch` request. If the value is zero, the associated parameter is optional. If the value is 1, the associated parameter is required to be included once in every request involving that operation. The default value is 1, that is, if `minOccurs` is not included in an element declaration, `minOccurs` is 1.

`maxOccurs` defines the maximum number of times the parameter can appear in a request. The default is 1, that is, if `maxOccurs` is not included in an element declaration, `maxOccurs` is 1 and the parameter can only appear once in a request. In the preceding example, `maxOccurs` is "unbounded," which means that the `AudienceRating` parameter can appear any number of times in an `ItemSearch` request.

In the preceding example, the parameter types are declared to be simpleTypes. A simple type cannot have child elements or attributes. Complex types can. In practice, any parameter that can take multiple values, such as an array, must be defined as a complex type.

The following snippet shows an example of a complex type.

```
<xs:element name="ItemSearch">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="MarketplaceDomain" type="xs:string" minOccurs="0" />
      <xs:element name="AWSAccessKeyId" type="xs:string" minOccurs="0" />
      <xs:element name="SubscriptionId" type="xs:string" minOccurs="0" />
```

This definition snippet shows three of the parameters that can be part of an `ItemSearch` request.

Response Definitions

The response section defines the responses returned by default by each operation. The following snippet shows some of the specifications of an `ItemSearch` response.

```
<xs:element name="ItemSearchResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="tns:OperationRequest" minOccurs="0" />
      <xs:element ref="tns:Items" minOccurs="0" maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

The response section shows that an `ItemSearch` response contains two optional (`minOccurs=0`) elements, `OperationRequest` and `Items`. Both of these elements are references (`ref=`), which means that they are defined further down in the WSDL.

Further down in the WSDL, `OperationRequest` is defined, as follows.

```
<xs:element name="OperationRequest">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="tns:HTTPHeaders" minOccurs="0" />
      <xs:element name="RequestId" type="xs:string" minOccurs="0" />
      <xs:element ref="tns:Arguments" minOccurs="0" />
      <xs:element ref="tns:Errors" minOccurs="0" />
      <xs:element name="RequestProcessingTime" type="xs:float" minOccurs="0"
maxOccurs="1" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

This definition also contains several references. One is `Arguments`, which is defined further down in the WSDL. To fully understand the definition of the parts of a request, you keep digging down through the layers of refs. You know that you have reached the end of the definition hierarchy when you no longer have "ref" in the element's definition. Instead, the element definition will have a "name," the name of the element, and "type," which specifies the element's type. The type will be a base type, such as, `string`, which is defined in the schema (`xs:`), as shown.

```
<xs:element name="RequestId" type="xs:string" minOccurs="0" />
```

This line defines `RequestId` to be of type `string`, which is defined by the W3C schema.

When you look at a sample response, shown in the following example, you can see how the definition of `RequestId` is carried out.

```
<ItemSearchResponse xmlns="http://webservices.amazon.com/AWSECommerceService/2013-08-01">
...
<OperationRequest>
...
<RequestId>OVFY0HFBRTJGRE6KES74</RequestId>
```

First, you see that the value for `RequestId` is `string`. Secondly, the name of the element is `RequestId`. Third, you can see, in the XML hierarchy, how the definition of `RequestId` is nested inside the `OperationRequest` element, which is nested inside of `ItemSearchResponse`. Remember, it was the "ref" keyword that created the nesting in the WSDL.

Response Group Definitions

Response groups, except in the case of a request error, always form part of a response. Each response group is defined in the WSDL. The following snippet from the WSDL shows the definition of the [Images response group \(p. 47\)](#).

```
<xs:complexType name="Image">
  <xs:sequence>
    <xs:element name="URL" type="xs:string" />
    <xs:element name="Height" type="tns:DecimalWithUnits" />
```

```
<xs:element name="Width" type="tns:DecimalWithUnits" />
<xs:element name="IsVerified" type="xs:string" minOccurs="0" />
</xs:sequence>
</xs:complexType>
```

As you can see, the Image response group returns the elements *URL*, *Height* (height of the image), *width*, and *IsVerified*. All are required in the response except *IsVerified*, which is optional (*minOccurs*=0). You can see how these elements are displayed in a response.

```
<MediumImage>
<URL>http://ec1.images-amazon.com/images/P/
B00005TNFV.01._SCMZZZZZZ_.jpg</URL>
<Height Units="pixels">140</Height>
<Width Units="pixels">99</Width>
```

This example shows how *URL*, *Height*, and *width* are child elements.

PortType

The association between operation names and their request and response definitions is created by the *PortType* element in the WSDL, for example:

```
<portType name="AWSECommerceServicePortType">
...
<operation name="ItemSearch">
  <input message="tns:ItemSearchRequestMsg" />
  <output message="tns:ItemSearchResponseMsg" />
</operation>
```

In this example, the operation, *ItemSearch*, is associated with its request and response definitions, *ItemSearchRequestMsg* and *ItemSearchResponseMsg*. The keywords, *input* and *output*, identify the operation's request and response definitions, respectively.

Binding

The binding segment of the WSDL specifies how operation requests and responses, defined in *PortType*, are actually transmitted over the wire using underlying transport protocols. While this is an interesting portion of the WSDL, it is a section that rarely changes so you need not pay much attention to it.

Binding values include HTTP GET, HTTP POST, and SOAP. SOAP is not tied to a specific transport. SMTP, FTP, HTTP are just some of the options that can transport a SOAP request. HTTP, however, is most commonly used. While both HTTP GET and HTTP POST are allowed, HTTP POST is preferred because many servers place character limits on HTTP GET requests.

Product Advertising API uses SOAP, as shown in the following Product Advertising API WSDL snippet.

```
<binding name="AWSECommerceServiceBinding"
  type="tns:AWSECommerceServicePortType">
...
<operation name="ItemSearch">
  <soap:operation soapAction="http://soap.amazon.com" />
  <input>
    <soap:body use="literal" />
  </input>
  <output>
```

```
<soap:body use="literal" />
</output>
</operation>
```

This binding shows that Product Advertising API uses two SOAP extensions: soap:operation and soap:body.

The soap:operation element specifies that the Product Advertising API operation, ItemSearch , in this case, is bound to a specific SOAP implementation. The soapAction attribute specifies that the SOAPAction HTTP header is used to identify the Product Advertising API service, which is the URI value of soapAction, <http://soap.amazon.com>.. soapAction enables Amazon web servers to determine the intent of the SOAP request without having to examine the message portion of the SOAP payload. Specifying this URI is required to access Product Advertising API web servers.

The soap:body element specifies the input and output details. The value in the Product Advertising API WSDL is "literal," which means that instead of encoding the input and output as a SOAP struct, a literal XML document is used. You have seen that Product Advertising API responses are XML documents.

Service

The Service segment of the WSDL specifies the web service used, which, in this case, is Product Advertising API, as shown in the following WSDL snippet:

```
<service name="AWSECommerceService">
  <port name="AWSECommerceServicePort"
    binding="tns:AWSECommerceServiceBinding">
    <soap:address location= "http://soap.amazon.com/onca/soap?Service=
AWSECommerceService" />
  </port>
</service>
```

This information changes very rarely and so you need not pay much attention to it.

Every Product Advertising API request includes this service declaration, as shown in the following example.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
Operation=ItemSearch&
SearchIndex=Books&
Keywords=Saving%20Miss%20Oliver's
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

WSDL Location

Product Advertising API publishes its API through a WSDL. The default WSDL is located at <http://webservices.amazon.com/AWSECommerceService/AWSECommerceService.wsdl>. Note that the default WSDL and the latest WSDL may not be the same version. You can access a particular WSDL version by adding the version date in the URL, as in the following example:

```
http://webservices.amazon.com/AWSECommerceService/[VERSION]/AWSECommerceService.wsdl
```

For example, the 2013-08-01 WSDL can be found at <http://webservices.amazon.com/AWSECommerceService/2013-08-01/AWSECommerceService.wsdl>

The WSDL contains all the API endpoints. To select the required endpoint, see your SOAP framework.

What is a Schema?

A schema is similar to a WSDL in that both are XML documents. Whereas the WSDL defines the web service language used by computers to converse, the schema defines the data types used in the WSDL.

You do not have to create schemas to use Product Advertising API. Those have already been created. It is helpful, however, to understand schemas so that you can determine the data types returned in responses.

The W3C defines the base data types, which include, for example, int, string, and float. While these data types are useful, they are not very descriptive. For example, defining every occurrence of text in an XML document as being of type string hides the differences between text that is, for example, a paragraph and a note. In such an application where paragraphs and notes are used, a schema would contain an extension of the string base class so that paragraph (`<para>`) and note (`<note>`) could be used as tags in XML documents.

Schemas enable you to create your own data types for the purpose of identifying the content in an XML document. All data types that you create must be based on the base data types defined by the W3C. This is the schema namespace defined in the WSDL example.

```
xmlns:xs="http://www.w3.org/2001/XMLSchema"
```

The data types that can be created are either simple or complex. Complex types can have sub elements and attributes; simple types cannot.

In the WSDL section of this chapter, you saw that complex types are declared as `complexType`. In the following example, the element, `SearchBinSet`, is defined as having two child elements, `Bin` and `NarrowBy`.

```
<xs:element name="SearchBinSet">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="tns:Bin" minOccurs="0" maxOccurs="unbounded" />
    </xs:sequence>
    <xs:attribute name="NarrowBy" type="xs:string" use="required" />
  </xs:complexType>
</xs:element>
```

The `NarrowBy` attribute is defined in terms of a base type, `string`. The `Bin` parameter, however, is not. That means that `Bin` is defined elsewhere in the schema. Schema syntax, like WSDL syntax, calls for using the keyword "ref" if the element is defined elsewhere in a schema.

The next step in understanding `Bin` would be to see its definition in the schema. It might be that all of `Bin`'s sub elements are defined by base types. In that case, the research would be over; you would have the full definition of `SearchBinSet` and its child elements. If, however, `Bin` contains more "ref's," you would repeat the search for the child elements until you reached element type definitions that used base types, as shown in the following example.

```
name="BinItemCount" type="xs:string"
```

Schema Location

Product Advertising API provides schemas for validating the XML in SOAP requests and for specifying item attribute types in responses. You can find the latest Product Advertising API XML schema at <http://webservices.amazon.com/AWSECommerceService/AWSECommerceService.xsd>.

Product Advertising API Terminology and Basic Concepts

Topics

- [The Marketplace \(p. 21\)](#)
- [What Is the Product Advertising API? \(p. 21\)](#)
- [How Do I Make Money Using the Product Advertising API? \(p. 22\)](#)
- [International Locales \(p. 22\)](#)
- [Items for Sale \(p. 23\)](#)
- [Summary of Product Advertising API Operations \(p. 26\)](#)
- [Product Advertising API Developer Community \(p. 27\)](#)

This chapter introduces you to Product Advertising API terminology and concepts. Many of the concepts introduced in this chapter are explored in greater depth in later chapters. The concepts are briefly presented here so that you have a broad understanding of Product Advertising API and have a context in which you can place the specifics that are presented in later chapters.

The Marketplace

Sellers come together to sell their items on www.amazon.com, in what is called the "marketplace."



Individual sellers cannot have their own storefront in the marketplace. Pro Merchant Sellers and Merchant@ vendors can. Individual sellers can, however, set up their own storefronts outside of the marketplace. These storefronts can be accessed through www.amazon.com. Amazon refers to these stores as zShops.

Product Advertising API requests cannot access zShops. This usually has little impact on product searches because zShop owners can also list their items for sale in the Amazon marketplace.

What Is the Product Advertising API?

The Product Advertising API gives you much of the functionality that you see in action on Amazon's retail web site, <http://www.amazon.com>. That functionality includes:

- Finding items to buy.

These items are for sale by Amazon or other merchants.

- Finding information about those items.

This item information includes such things as the titles of tracks on a CD, the rating of a movie, the kind of metal used in a piece of jewelry, accessories that go with an item, the author of a book, or the composer of a piece of music.

- Getting customer reviews of items.

Show customers what others think about the items on sale.

- Create a fully-functional shopping cart.

Add items that are immediately available or ones that will become available in the future, such as in a pre-sale of a book.

- Adding, removing, and otherwise modifying the items in the shopping cart.

Have full control over the contents of their shopping cart.

- Getting information about the company selling the item.

Show customers what others think about the merchant selling the item.

- Finding similar items for sale.

Generate additional sales by suggesting other items similar to the ones the customers are buying.

- Purchasing the items in the shopping cart.

Once the customer decides to buy the contents in their shopping cart, Amazon takes care of the shipping, payment, and order fulfillment, or notifies you to take care of the same.

Product Advertising API offers you the tools to create a complete, rich online shopping experience for customers.

How Do I Make Money Using the Product Advertising API?

Use the Product Advertising API to advertise Amazon products in conjunction with the Amazon Associates Program and earn referral fees when the users you refer to Amazon sites buy qualifying products.

You need to get an Amazon Associates account and ensure that you include your associate tag in API requests. That way the URLs returned by the API contain your Associate tag. When a user visits an Amazon site through a tagged link and buys a product, you earn referral fees. For more information about getting an Amazon Associates account, see [Becoming an Associate \(p. 8\)](#).

International Locales

Product Advertising API hosts multiple locales so that developers around the world can take advantage of Amazon's multi-language support. Each locale uses the language, customs, and formats, such as date, time, and money formats, particular to that locale. You can see how this plays out by viewing the homepages for Amazon's different locales:

- Brazil—www.amazon.com.br
- Canada—www.amazon.ca
- China—www.amazon.cn
- Germany—www.amazon.de

- France—www.amazon.fr
- India—www.amazon.in
- Italy—www.amazon.it
- Japan—www.amazon.co.jp
- Spain—www.amazon.es
- UK—www.amazon.co.uk
- US—www.amazon.com

Items for Sale

www.amazon.com lists hundreds of thousands of items for sale. Most of these items are warehoused and sold by Amazon or other large merchants, such as Nordstrom. All of these items are part of the Amazon marketplace.

In addition to large merchants selling items, individuals and companies also sell items that can be found using www.amazon.com. Some of these sellers have their own storefront on Amazon and their items can only be found in their store. Most sellers, however, list their items in the Amazon marketplace as well as in their stores.

Product Advertising API operations only enable you to retrieve items that are stored by Amazon. Product Advertising API does not enable you to add items for sale to Amazon. Sellers, such as Amazon Advantage sellers, who do add items to Amazon's catalog do so under a separate agreement. For more information, see [Amazon Marketplace Web Services \(Amazon MWS\)](#).

Item Identifiers

All items for sale on www.amazon.com have identifiers. There are two major kinds. The first identifies items regardless of whether or not they can be purchased:

- **ASIN**—Amazon Standard Item Number

An alphanumeric token that uniquely identifies items in the Amazon marketplace.

All items in the marketplace have an ASIN. This is by far the most common identifier. ASINs are used by the majority of Product Advertising API operations.

The second identifies items that can actually be purchased:

- **OfferListingId**—An alphanumeric token that uniquely identifies items in the Amazon marketplace that can be purchased

All items in the marketplace that can be purchased have an OfferListingId. This is by far the most common identifier for items that can be purchased.

Other Item Identifiers

Amazon has other item identifiers but these are rarer and they can be used in fewer Product Advertising API operations:

- **UPC**—Universal Product Code

A 12-digit item identifier used in the US and CA locales. The UPC is the identifier used in barcodes.

- **EAN**—European Article Number

A 13-digit equivalent of the UPC that is used in Europe for products and barcodes.

- **JAN**—Japanese Article Number

The equivalent of the EAN that is used in Japan for products and barcodes.

- **ISBN**—International Standard Book Number

An alphanumeric token that uniquely identifies a book. To use ISBN-13, use the EAN *IdType*.

- **SKU**—Stock Keeping Unit

A merchant-specific identifier for a purchasable good, like a shirt or chair. Amazon's version of the SKU is the ASIN.

Amazon assigns items with SKUs an ASIN. If you had to search by SKU only, you would have to search each merchant's items independently because SKUs are not unique across all merchants. Several Product Advertising API operations enable you to search by SKU but the merchant must also be identified in the same request.

- **EISBN**—Electronic International Standard Book Number

A token that uniquely identifies a digital book.

All items in the Amazon marketplace have an ASIN even if they also have one of the preceding identifiers. Only a few Product Advertising API operations can use these identifiers. That functionality is presented as a convenience function. You would typically only use one of these identifiers if you knew it but did not know the item's ASIN.

The validity of these identifiers varies by search index, as shown in the following table.

Search Index	UPC	EAN	SKU
Apparel	Y	Y	Y
Automotive	Y	Y	Y
Automotive	Y	Y	Y
Baby	Y	Y	Y
Beauty	Y	Y	Y
Books	Y	Y	Y
Classical	Y	Y	Y
DigitalMusic	Y	N	N
DVD	Y	Y	Y
Electronics	Y	Y	Y
HealthPersonalCare	Y	Y	Y
HomeGarden	Y	Y	Y
Industrial	Y	Y	Y
Jewelry	Y	Y	Y
Kitchen	Y	Y	Y
Magazines	N	Y	Y

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Items for Sale

Search Index	UPC	EAN	SKU
Miscellaneous	Y	Y	Y
Music	Y	Y	Y
MusicInstruments	Y	Y	Y
MusicTracks	N	N	N
OfficeProducts	Y	Y	Y
OutdoorLiving	Y	Y	Y
PCHardware	Y	Y	Y
PetSupplies	Y	Y	Y
Photo	Y	Y	Y
Software	Y	Y	Y
Tools	Y	Y	Y
Toys	Y	Y	Y
VHS	Y	Y	Y
Video	Y	Y	Y
Watches	Y	Y	Y

The following table shows the valid identifiers by locale.

Locale	Valid Item Identifiers
CA	ASIN, EAN, ISBN, SKU
CN	ASIN, EAN, ISBN, SKU, UPC
DE	ASIN, EAN, ISBN, SKU
ES	ASIN, EAN, ISBN, SKU, UPC
FR	ASIN, EAN, ISBN, SKU, UPC
IN	ASIN, EAN, ISBN, SKU, UPC
IT	ASIN, EAN, ISBN, SKU, UPC
JP	ASIN, EAN, ISBN, JAN, SKU
UK	ASIN, EAN, ISBN, SKU, UPC
US	ASIN, EAN, ISBN, ISBN, SKU, UPC

The default value of *IdType* is ASIN. For non-ASIN searches, including searches by ISBN, JAN, SKU, UPC, EAN, and ISBN, a variety of additional parameters become mandatory, including a value for *IdType*. To use ISBN-13, use the EAN *IdType*.

Summary of Product Advertising API Operations

Topics

- [Find Items \(p. 26\)](#)
- [Find Out More About Specific Items \(p. 26\)](#)
- [Shopping Cart \(p. 26\)](#)
- [Other Operations \(p. 27\)](#)

In Product Advertising API, the term "operation" is synonymous with the terms function and method. Product Advertising API operations are included in every request and they cause Product Advertising API web servers to take some action, for example, to find items in Amazon's databases or to find similar items. Think of each Product Advertising API operation as a different means of querying Amazon's databases for information. Product Advertising API does not offer any operations that place information on Amazon databases.

The following sections provide an overview of Product Advertising API operations.

Find Items

Use the following Product Advertising API operations to return a list of items that satisfy your search criteria.

Product Advertising API Operation	Description
ItemSearch (p. 223)	Find items that are sold on www.amazon.com by merchants and most sellers.
SimilarityLookup (p. 233)	Find items that are similar to ones you've already found.

Find Out More About Specific Items

Once you use the Product Advertising API operations in the previous section to get a list of items that match your search criteria, you can use the following Product Advertising API operations to return additional information about specific items.

Product Advertising API Operation	Description
ItemLookup (p. 217)	Returns descriptions of specified items.

Shopping Cart

Once customers find items they want to purchase, they put them in a shopping cart. The following Product Advertising API operations enable you to implement a fully-featured e-commerce shopping cart.

Product Advertising API Operation	Description
CartCreate (p. 203)	Create a shopping cart and add an item(s).

Product Advertising API Operation	Description
CartAdd (p. 196)	Add items to the shopping cart
CartModify (p. 213)	Add to or remove items that are already in a shopping cart.
CartClear (p. 201)	Remove all of the items from a shopping cart
CartGet (p. 209)	Retrieve the contents of a shopping cart with updated price and availability information.

Other Operations

The remaining operations cover a variety of functions.

Product Advertising API Operation	Description
BrowseNodeLookup (p. 193)	Amazon uses browse nodes as a means of organizing the millions of items in their inventory. One browse node, for example, might be "Carving Knives." All items associated with this browse node would have something to do with carving knives. This browse node might be the child of a more general browse node, "Cutlery." BrowseNodeLookup enables you to find a browse node, its ancestors and progeny.

Product Advertising API Developer Community

There are many people developing applications using the Product Advertising API. That means that there is a wealth of knowledgeable people who can help you with questions you might have. To connect with other Product Advertising API developers, go to the Product Advertising API Developer Forum at <http://developer.amazonwebservices.com/connect/forum.jspa?forumID=9>.

Visual Introduction to Product Advertising API

Topics

- [Tools to Find Items \(p. 28\)](#)
- [Tools to Find Out More About an Item \(p. 29\)](#)
- [Tools to Implement a Shopping Cart \(p. 30\)](#)

The previous chapter gave an overview of all Product Advertising API operations. Sometimes it is helpful to see them in action. Product Advertising API functionality is implemented on www.amazon.com. This chapter provides a series of screenshots from www.amazon.com. The parts of the web pages that demonstrate Product Advertising API functionality are labeled.

The labels show three kinds of implementations:

- Operations

- Response groups
- Elements in the response

Product Advertising API only provides data; it does not provide HTML. We show one way of displaying Product Advertising API on our retail web site, www.amazon.com. You might find a better way.

Tools to Find Items

Typically, the first task a customer undertakes is searching for an item. The following web page from www.amazon.com shows the implementation of this task using, in particular, ItemSearch and ItemLookup requests.

The screenshot shows the Amazon.com search results for the keyword "Saving Miss Oliver's". The search bar at the top contains the query. Below the search bar, there are several navigation links and filters. A dropdown menu is open under the "Books" category, showing options like "Expand Search", "Browse Subjects", "Bestsellers", "See All 35 Product Categories", and "The New York Times Best Sellers". To the right of the search bar, there are links for "Your Account", "Cart", "Your Lists", "Help", and "Web Search". Below the search bar, a "Sort by" dropdown is set to "Relevance". The main content area displays 12 search results for books. Each result includes the book title, author, price, and availability status (e.g., "Buy new: \$13.95 In Stock"). On the right side of the results, there is a sidebar titled "Listmania!" which features a list of items and a link to "Create a Listmania list". At the bottom left, there is a "So You'd Like to..." section with a "STUART WOODS" link.

❶	ItemSearch SearchIndex parameter	❹	Images response group
❷	ItemSearch Keywords parameter	❺	CustomerReviews response group
❸	BrowseNodeLookup	❻	Availability element returned by ItemSearch Availability parameter
❹	ItemLookup	❻	SearchBins response group
❺	Author ItemSearch parameter	❻	ItemSearch Title parameter
❻	Offers response group	❻	ItemSearch Condition parameter
❻	ItemSearch Sort parameter		
❻	Child Browsenodes		

The top entry fields show a drop down menu equal to search indices, and a text entry box for a keyword. Both of these parameter values are required for an ItemSearch request. The result, shown in this page, displays many of the elements returned by the ItemAttributes response group.

The following figure shows the functionality not supported by Product Advertising API.



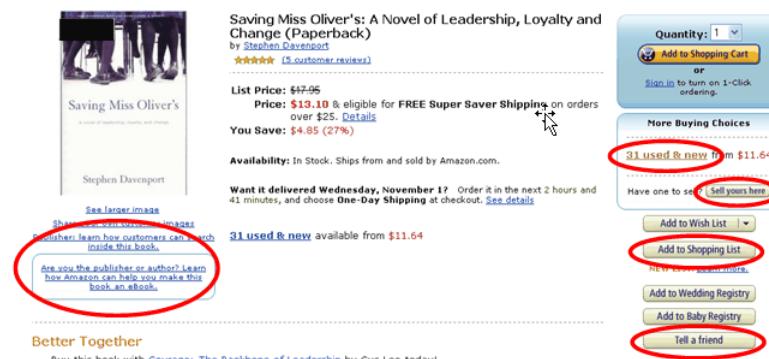
Tools to Find Out More About an Item

If the customer clicks on the first image in the previous screenshot, the equivalent of a Product Advertising API `ItemLookup` request is sent. The following page shows the elements returned by such a request and some of the functionality implemented to move the customer to the next stage, such as getting seller information and adding the item to a Product Advertising API remote shopping cart.



1	MediumImage element	6	Availability element
2	Title element	7	ItemLookup with Images response group
3	Author element	8	TotalItems element
4	FormattedPrice element	9	SmallImage element
5	CartAdd operation	10	SimilarityLookup

The following figure shows the functionality not supported by Product Advertising API.



Tools to Implement a Shopping Cart

If the customer clicked the "Add to Cart" button in the previous screenshot, their cart would be displayed, as shown in the following figure. Most of the functionality on this page deals with modifying (CartModify) the items in the cart.



1	CartModify, Action=SaveForLater	4	PurchaseURL
2	CartModify, Quantity=0	5	CartModify, Quantity=1
3	CartModify		

The following figure shows the functionality not supported by Product Advertising API.



Organization of Items for Sale on Amazon

For a vast majority of customers, their first task when coming to an e-commerce web site is finding something to buy. They might want to buy a camera, a book, or a piece of jewelry. If you were to walk into a store with relatively few items for sale, the task of finding what you want might be easy. If, however, the store you walk into has thousands of shelves and hundreds of thousands of items for sale, finding what you want presents its own challenge. In such a store, a good store owner would arrange items in a way that would help customers quickly find the items they want to buy. Such is the case with Amazon.

Amazon has literally hundreds of thousands of items for sale. Product Advertising API operations and response groups give you the tools you need to find the items in the store that you want quickly. Before understanding the search mechanisms that Product Advertising API operations provide and the filtering mechanisms that Product Advertising API response groups provide, it is important to first understand the way in which Amazon groups items for sale.

Topics

- [Browse Nodes \(p. 31\)](#)
- [Search Indices \(p. 37\)](#)
- [Variations \(p. 38\)](#)
- [Accessories \(p. 43\)](#)
- [Related Items \(p. 44\)](#)

Note

You will sometimes see in responses another organizing tool called `ProductGroup`. This is an older concept in Amazon's database design and it has been superseded by browse nodes and search indices. None of the Product Advertising API operations use `ProductGroup` as an input parameter.

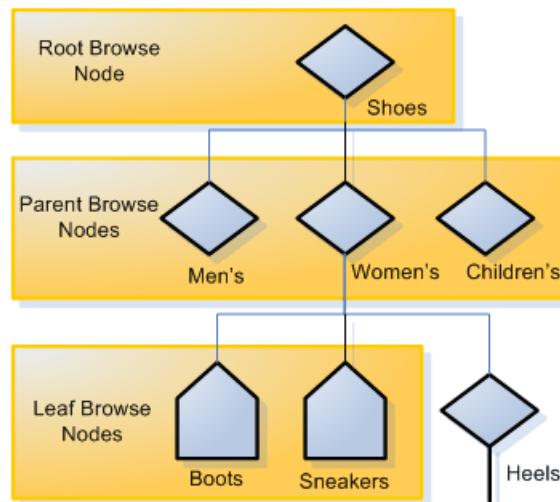
Browse Nodes

Topics

- [Browse Node Properties \(p. 32\)](#)
- [Browse Nodes and Items \(p. 32\)](#)
- [Browse Node IDs \(p. 34\)](#)
- [Browse Nodes and Search Indices \(p. 34\)](#)
- [Finding Browse Nodes \(p. 35\)](#)

Amazon uses a hierarchy of nodes to organize its items for sale. Each node represents a collection of items for sale, such as Harry Potter books, not the items themselves. Product Advertising API calls the nodes, browse nodes because the customer can browse through the nodes to find the collection of items that interests them. For example, the customer might be interested in the browse nodes Literature & Fiction, Medicine, Mystery & Thrillers:, Nonfiction:, or Outdoors & Nature.

Browse nodes are related in a hierarchical structure; each browse node can be a leaf node or a parent node. A leaf node has no children nodes, a parent node does, as shown in the following figure.



Note

The figure is representational in nature and should not be construed to be the real browse node hierarchy used by Amazon.

As you can see in this example, the different levels of the hierarchical tree of nodes provides an organizational principle that is used to catalog and find items. The nodes progress from general to specific. For example, a top level browse node might be "Shoes." Its child browse nodes might be "Men's Shoes," "Women's Shoes," and "Children's Shoes." Child browse nodes are subsets of the parent's product category. Navigating down the tree refines the search for items from the general to the specific. Going up the tree generalizes the search from the child browse node toward the root node.

Browse Node Properties

Browse nodes properties include:

- **Name**—Describes the items associated with the browse node, such as "Mystery & Thrillers"
- **ID**—A positive integer, for example, Literature & Fiction: (17), Medicine: (13996), Mystery & Thrillers: (18), Nonfiction: (53), Outdoors & Nature (290060)
- **Child nodes**—Nodes that are subsets of the current node
- **Parent nodes**—Nodes that are supersets of the current node

For example, the following XML response shows a browse node whose ID is 163357 and name is "Comedy."

```
<BrowseNode>
  <BrowseNodeId>163357</BrowseNodeId>
  <Name>Comedy</Name>
  <Children>
    <BrowseNode>
      <BrowseNodeId>599826</BrowseNodeId>
      <Name>Boxed Sets</Name>
    </BrowseNode>
    <BrowseNode>
      <BrowseNodeId>538712</BrowseNodeId>
      <Name>African American Comedy</Name>
    </BrowseNode>
  </Children>
  <Item>
    <Ancestors>
      <BrowseNode>
        <BrowseNodeId>549726</BrowseNodeId>
        <Name>Performing Arts</Name>
      </BrowseNode>
    </Ancestors>
  </Item>
```

In this example, the Comedy browse node has two child browse nodes, "Boxed Sets" and "African American Comedy," and one parent node, "Performing Arts."

Root Category

Search results can return with items listed under multiple browse nodes. Some nodes, however, are more relevant than others. The *IsCategoryRoot* response tag identifies which browse node is the most relevant for an item in a specific marketplace. This functionality helps vendors classify items for sale.

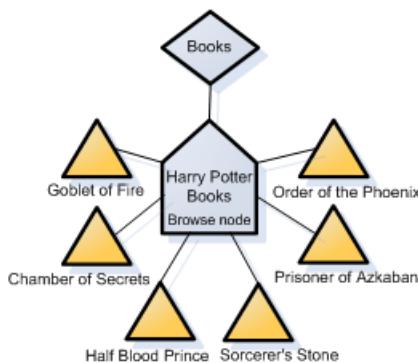
The element applies to the marketplace specified in the request. So, it is possible for the *IsCategoryRoot* value to be different across marketplaces.

Note

The *IsCategoryRoot* value is not useful in the Books search index.

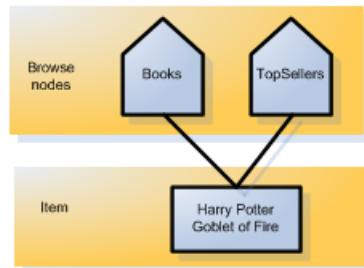
Browse Nodes and Items

Browse nodes are categories into which items for sale are organized. A single node might have many items associated with it, as shown in the following figure.



In this example, six items (Harry Potter book titles) are associated with the browse node: Harry Potter Books. This node is a leaf node and a child of the Books parent node. As the figure shows, many items can be associated with a single browse node. What all of the items have in common is described by the name of the browse node.

On the other hand, a single item can belong to more than one browse node, for example, a book might belong to the Books and TopSellers browse nodes.



At a later time, when the book comes off of the top sellers list, the book will be removed from its association with the TopSellers browse node. In this way, you can see that the association between items and browse nodes is dynamic.

Browse nodes are created and deleted according to item demand. When, for example, a new toy or group of books starts selling briskly, a node would be created for it. For example, when pet rocks were popular, a node would have been created for pet rock items. When the sales of pet rocks declined significantly, the node would have been deleted. As you can see, some nodes are volatile by nature. For example, the items associated with the browse node, "Top Sellers," change frequently according to sales figures. Other browse nodes, such as Pet Rocks, exist only for a brief time.

Some browse nodes, however, are much longer lived. Top level nodes, for example, "Books" and "Apparel," have remained unchanged for years. So are the browse nodes associated with cities, as shown in the following table.

City	Browse Node
Boston	917982
Chicago	917984
New York	917976
San Francisco	917980
Seattle	917978

City	Browse Node
Washington, D.C.	917986

Browse Node IDs

Browse node IDs are positive integers that uniquely identify product sets, for example, Literature & Fiction: (17), Medicine: (13996), Mystery & Thrillers: (18), Nonfiction: (53), Outdoors & Nature: (290060). Amazon uses over 120,000 browse node IDs in the US locale alone.

While top level browse node values tend to remain the same, the values of others change often. Browse nodes are created and eliminated without notification. For that reason, it is advisable not to hard code browse node IDs into applications.

Browse node IDs are unique in one locale only, that is, the same browse node ID might be used in two locales but the names and purposes of those browse nodes might be unrelated.

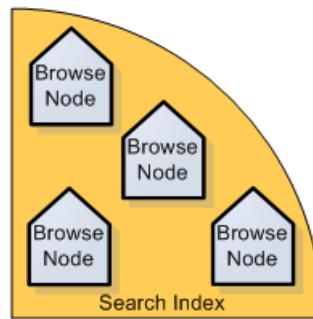
Browse node IDs are assigned internally by Amazon. There are no general rules for number assignments. You cannot assume, for example, that all IDs in the 2000s are related in any way.

If you have a browse node ID, you can find the name of the browse node by putting the ID into one of the following URLs, depending on the locale:

- [http://www.amazon.com/exec/obidos/tg/browse/-/\[Browse Node ID\]](http://www.amazon.com/exec/obidos/tg/browse/-/[Browse Node ID])
- [http://www.amazon.com.br/exec/obidos/tg/browse/-/\[Browse Node ID\]](http://www.amazon.com.br/exec/obidos/tg/browse/-/[Browse Node ID])
- [http://www.amazon.ca/exec/obidos/tg/browse/-/\[Browse Node ID\]](http://www.amazon.ca/exec/obidos/tg/browse/-/[Browse Node ID])
- [http://www.amazon.cn/exec/obidos/tg/browse/-/\[Browse Node ID\]](http://www.amazon.cn/exec/obidos/tg/browse/-/[Browse Node ID])
- [http://www.amazon.de/exec/obidos/tg/browse/-/\[Browse Node ID\]](http://www.amazon.de/exec/obidos/tg/browse/-/[Browse Node ID])
- [http://www.amazon.es/exec/obidos/tg/browse/-/\[Browse Node ID\]](http://www.amazon.es/exec/obidos/tg/browse/-/[Browse Node ID])
- [http://www.amazon.fr/exec/obidos/tg/browse/-/\[Browse Node ID\]](http://www.amazon.fr/exec/obidos/tg/browse/-/[Browse Node ID])
- [http://www.amazon.in/exec/obidos/tg/browse/-/\[Browse Node ID\]](http://www.amazon.in/exec/obidos/tg/browse/-/[Browse Node ID])
- [http://www.amazon.it/exec/obidos/tg/browse/-/\[Browse Node ID\]](http://www.amazon.it/exec/obidos/tg/browse/-/[Browse Node ID])
- [http://www.amazon.co.jp/exec/obidos/tg/browse/-/\[Browse Node ID\]](http://www.amazon.co.jp/exec/obidos/tg/browse/-/[Browse Node ID])
- [http://www.amazon.co.uk/exec/obidos/tg/browse/-/\[Browse Node ID\]](http://www.amazon.co.uk/exec/obidos/tg/browse/-/[Browse Node ID])

Browse Nodes and Search Indices

A search index is a more general classification than a browse node. For example, one search index is Books; a browse node within that search index might be Harry Potter Books.



As you can imagine, there can be many browse nodes within each search index. Some Product Advertising API search operations require a search index to limit the scope of the search. Specifying a browse node in addition to a search index returns more targeted search results. For example, a search operation, ItemSearch, that looked in the Books search index for book titles and descriptions that contained the word "dragon," would return thousands of titles. The same ItemSearch request with the Harry Potter browse node specified would return only those Harry Potter books that had dragons in them.

Finding Browse Nodes

Product Advertising API offers several means of finding browse node IDs:

- **BrowseNodes** response group
 - Used with the ItemLookup, ItemSearch, and SimilarityLookup operations.
- **BrowseNodeInfo** response group
 - Used with the BrowseNodeLookup operation.

The **BrowseNodes** response group returns the browse node that an item belongs to as well as the ancestry of that browse node. The following response shows the ancestral browse nodes of High School. As you read down the response, the browse nodes ascend the browse node hierarchy. The last browse node, Books, in the response is the root browse node.

```
<Item>
  <ASIN>0976925524</ASIN>
  <BrowseNodes>
    <BrowseNode>
      <BrowseNodeId>69825</BrowseNodeId>
      <Name>High School</Name>
      <Ancestors>
        <BrowseNode>
          <BrowseNodeId>10605</BrowseNodeId>
          <Name>Education</Name>
          <Ancestors>
            <BrowseNode>
              <BrowseNodeId>53</BrowseNodeId>
              <Name>Nonfiction</Name>
            <Ancestors>
              <BrowseNode>
                <BrowseNodeId>1000</BrowseNodeId>
                <Name>Subjects</Name>
              <Ancestors>
                <BrowseNode>
                  <BrowseNodeId>283155</BrowseNodeId>
                  <Name>Books</Name>
                
```

There is, however, one caveat. When a node has more than one parent node, the **BrowseNodes** response group only returns one of the parents. There is no logic that determines which of the parent nodes it follows up the ancestral tree. Running the request multiple times, therefore might return a different set of ancestors for a node.

The **BrowseNodeInfo** response group returns browse node names, IDs, children and parent browse nodes, as shown in the following response snippet.

```
<BrowseNodeId>11232</BrowseNodeId>
<Name> Social Sciences</Name>
```

```
<Ancestors>
  <BrowseNode>
    <BrowseNodeId>53</BrowseNodeId>
    <Name>Nonfiction</Name>
    <Ancestors>
      <BrowseNode>
        <BrowseNodeId>1000</BrowseNodeId>
        <Name>Subjects</Name>
        <Ancestors>
          <BrowseNode>
            <BrowseNodeId>283155</BrowseNodeId>
            <Name>Books</Name>
          </BrowseNode>
        </Ancestors>
      </BrowseNode>
    </Ancestors>
  </BrowseNode>
</Ancestors>
<Children>
  <BrowseNode>
    <BrowseNodeId>11233</BrowseNodeId>
    <Name>Anthropology</Name>
  </BrowseNode>
  <BrowseNode>
    <BrowseNodeId>11242</BrowseNodeId>
    <Name>Archaeology</Name>
  </BrowseNode>
  <BrowseNode>
    <BrowseNodeId>3048861</BrowseNodeId>
    <Name>Children's Studies</Name>
  </BrowseNode>
</Children>
```

This response shows that the Social Sciences browse node has three child browse nodes: Anthropology, Archaeology, and Children's Studies, and an ancestry that starts with the parent node, Nonfiction and ends with the root browse node, Books.

Use `BrowseNodeLookup` to navigate the browse node tree. With every response, you use the browse node IDs returned to refine your search until you reach the desired browse node. You might, for example, navigate down the tree to refine a search or retrieve the root browse node to return, for example, the top sellers in the product category. To do that, you would use the ID of the root browse node found in the `BrowseNodeInfo` response as the value for the `BrowseNode` parameter in an `ItemSearch` request. That request would include the `TopSellers` response group so that the top sellers of the product category are returned.

Note

If a browse node has multiple ancestors, only one of them is returned in the response.

In contrast, `BrowseNodeLookup` only returns child browse nodes that are the direct descendant of the browse node in the request. You could use any of the browse node IDs to either find additional, related browse nodes by using another `BrowseNodeLookup` request, or to focus an `ItemSearch` request.

Use `ItemSearch` and `ItemLookup` and specify the `BrowseNodes` response group.

Find a browse node ID that is similar to the one you want and use `BrowseNodeLookup` to investigate its child and ancestor browse nodes.

Related Topics

- [BrowseNodes Response Group \(p. 244\)](#)

Search Indices

Topics

- [Search Indices and Locales \(p. 37\)](#)
- [Combined Search Indices \(p. 38\)](#)

One of the reasons that customers enjoy shopping on Amazon is that Amazon has hundreds of thousands of items for sale—far more than any one store could contain. On Amazon, you can find just about anything—from a book to a \$100,000 piece of jewelry. Ironically, the job of finding the items you want to buy is made more difficult by having so many items for sale. Returning too many items in a response is almost as bad as returning no items at all. Amazon addresses this difficulty by placing every item it sells into a product category, called a search index.

You can think of search indices as dividing into groups everything for sale on Amazon, as shown in the following figure.



By selecting one slice in a request, you avoid returning items in all of the other slices. This functionality makes requests more targeted and reduces search times. For example, when looking for a specific book, it is best to specify the Books search index in the request.

```
SearchIndex=Books
```

Titles and keywords used to find items often occur in multiple search indices. For example, if you were searching using "Harry%20Potter" as your keyword, you would get results in many search indices, including Books, DVD, Video, and Music. By specifying the search index you are interested in, your request becomes much better targeted.

Specifying the wrong search index leads to no results or results that do not meet the customer's search criteria. For example, if your keyword was carburetor and the search index was Kitchen, you might not get any items that match the search criteria. Change the search index to Automotive and you'd get many matches. For a complete list of search indices that are valid per locale, see [Locale Reference \(p. 336\)](#).

Search Indices and Locales

Some search indices work in all locales; some search indices do not. Supported search indices in a locale often changes over time. For example, a search index, such as Automotive, that works in the US locale can be added to the JP locale.

Support for search indices varies by locale often because of the data that Amazon does or does not have. For example, the search index, Grocery, is currently supported in the US locale only because grocers in other countries have not yet teamed up with Amazon to provide grocery items for sale. As the data grows over time, more and more search indices will be supported in all locales.

When you specify a search index in a request, make sure it is supported in the locale of interest. For a list of the search indices supported in different locales, see [Locale Reference \(p. 336\)](#).

Combined Search Indices

Topics

- [All Search Index \(p. 38\)](#)

As a convenience, some of the search indices are combinations of other search indices, for example:

- **All**—Searches through all search indices. Only five pages of items can be returned where each page contains up to five items
- **Blended**—Combines the following search indices: DVD, Electronics, Toys, VideoGames, PCHardware, Tools, SportingGoods, Books, Software, Music, GourmetFood, Kitchen, and Apparel search indices
- **Music**—Combines Classical, DigitalMusic, and MusicTracks search indices
- **Video**—Combines DVD and VHS search indices

These search index combinations are helpful when you are not sure which search index to specify. The downside of using one of these combined search indices is that they might return quite a few items in the response.

More commonly, you will specify individual search indices in requests, for example,

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
Condition=All&  
ResponseGroup=Images&  
SearchIndex=Books&  
Title=Harry%20Potter  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

All Search Index

You can use the All search index to do an ItemSearch search through all search indices. There are, however, a number of restrictions placed on this request. The only parameter that you can use in the request is *Keywords*. You cannot, for example, sort results. Results are restricted to the first five pages of results. Each page can have up to five results.

Note

The list of all available search indexes by locale can be found on the search indexes page.

Variations

Topics

- [Variation Parents \(p. 39\)](#)
- [Returning Variations \(p. 40\)](#)

- Variation Dimensions (p. 42)

Often, an item comes in a variety of sizes and colors. A shirt, for example, might come in four different sizes and six different colors.



Each color and size combination is called a variation. Each variation, such as a medium, blue shirt, is an item that a customer can buy. For that reason, each variation has its own ASIN. For example, if a shirt came in four sizes and six colors, there would be twenty-four variations and twenty-four corresponding ASINs.

Variation Parents

The abstraction of the variations is called the variation parent. The title element of the variation parent names the variations, for example, "Long Sleeve Classic Pocket Tee." Because the parent ASIN is an abstraction, it cannot be purchased, that is, it is not associated with an offer. The following request uses the Offers response group in an ItemLookup of a parent variation.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=B00006XYAB&  
IdType=ASIN&  
Condition=All  
ResponseGroup=ItemAttributes,Offers  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

As you can see in the following response snippet, no offers are returned.

```
<Item>  
<ASIN>B00006XYAB</ASIN>  
<ItemAttributes>  
<Binding>Apparel</Binding>  
<Brand>Eddie Bauer</Brand>  
<Department>mens</Department>  
<FabricType>leather</FabricType>  
<Feature>Cotton.</Feature>  
<Feature>Single chest pocket.</Feature>  
<Feature>Side seamed to prevent twisting.</Feature>  
<Feature>Coverstitched seams add strength.</Feature>  
<ProductGroup>Apparel</ProductGroup>  
<Title>LongSleeve Classic Pocket Tee</Title>  
</ItemAttributes>  
<OfferSummary>  
<TotalNew>0</TotalNew>
```

```
<TotalUsed>0</TotalUsed>
<TotalCollectible>0</TotalCollectible>
<TotalRefurbished>0</TotalRefurbished>
</OfferSummary>
<Offers>
  <TotalOffers>0</TotalOffers>
  <TotalOfferPages>0</TotalOfferPages>
</Offers>
</Item>
```

Returning Variations

By default, ItemSearch only returns parent variations.

To return the associated variations and their images

- Include in the request the Variations and VariationImages response groups.

For example, when you add Variations to the preceding request, the response includes, in addition to what is shown, variations and their offers, as shown in the following response snippet.

```
<Offer>
  ...
  <OfferListing>
    <OfferListingId>4L2h0ymPZs3lDap8fU9Kw8hmKiPs5qVknFiifrvixAkRDZivZpZsSfTe0YM
    Ltbo6MVWHTCzyKjT9UZI%2BpvF8Ax%2BFeSG29QGqQ4eF6ZspRD5fdxj8zmRp%2Bw%3D%3D</Offer
    ListingId>
  ...
</Offer>
<Offer>
  ...
  <OfferListing>      <OfferListingId>PCOIjALkrkCts8UYi3pqf%2BqBaH5xbmJfiko
  aB5fNhlf7yRMeh19NJxBEBBNz9GDFMMYtH0EI06Y1Vbar7raOf6ieUnzzST94RN8wwiXpEn2jaW
  mZ%2F%2BYc7Q%3D%3D</OfferListingId>
```

Each of these offers is associated with an Item element and each of these items is a variation. The following snippet, which comes from the same response, shows how each variation is differentiated by size.

```
<Item>
  <ItemAttributes>
    <Brand>Eddie Bauer</Brand>
    ...
  </ItemAttributes>
  <VariationAttributes>
    <VariationAttribute>
      <Name>ClothingSize</Name>
      <Value>Small Regular</Value>
    </VariationAttribute>
    <VariationAttribute>
      <Name>ClothingSize</Name>
      <Value>Medium Regular</Value>
    </VariationAttribute>
    <VariationAttribute>
      <Name>ClothingSize</Name>
```

```
<Value>Large Regular</Value>
</VariationAttribute>
<VariationAttribute>
<Name>ClothingSize</Name>
<Value>X-Large Regular</Value>
</VariationAttribute>
</VariationAttributes>
...
</Item>
```

Returning Variation Dimension Information Only

The Variations and VariationSummary response groups return a great deal of information about each item in the response.

To see the values of the variation dimensions

- Use the VariationMatrix response group in an ItemSearch request.

```
<Item>
<ASIN>B0008G23PQ</ASIN>
<Variations>
<VariationDimensions>
<VariationDimension>ClothingSize</VariationDimension>
<VariationDimension>Color</VariationDimension>
</VariationDimensions>
<Item>
<ASIN>B0008EOA9U</ASIN>
<VariationAttributes>
<VariationAttribute>
<Name>Color</Name>
<Value>Grey</Value>
</VariationAttribute>
<VariationAttribute>
<Name>ClothingSize</Name>
<Value>29W x 30L</Value>
</VariationAttribute>
</VariationAttributes>
</Item>
<Item>
<ASIN>B0008EO9J6</ASIN>
<VariationAttributes>
<VariationAttribute>
<Name>Color</Name>
<Value>Navy</Value>
</VariationAttribute>
<VariationAttribute>
<Name>ClothingSize</Name>
<Value>29W x 30L</Value>
</VariationAttribute>
</VariationAttributes>
</Item>
</Item>
```

This response snippet shows that the VariationMatrix response group returns the names of the dimensions along with their values for each returned item. For more information, see [VariationMatrix Response Group \(p. 310\)](#).

Related Topics

- [Variations Response Group \(p. 305\)](#)
- [VariationSummary Response Group \(p. 315\)](#)
- [VariationMatrix Response Group \(p. 310\)](#)

Variation Images

Each variation has its own set of images and those images are returned by the VariationImages response group, for example:

```
<SmallImage>
  <URL> http://images.amazon.com/images/P/B9999999A.01._SCTHUMBZZ_.jpg
  </URL>
  <Height Units="pixels">60</Height>
  <Width Units="pixels">60</Width>
</SmallImage>

<MediumImage>
  <URL> http://images.amazon.com/images/P/B9999999A.01._SCMZZZZZZ_.jpg
  </URL>
  <Height Units="pixels">140</Height>
  <Width Units="pixels">140</Width>
</MediumImage>
```

These images are small and medium size images of the same child variation. For more information about image sets and variation images, see [Motivating Customers to Buy \(p. 135\)](#).

Variation Dimensions

Variations can differ from one another in a variety of ways. Size and color are common ways for apparel variations to differ. The ways in which variations differ are called dimensions. Parent variations relay that information with the following response elements:

- [VariationDimensions](#)
- [VariationDimension](#)

The values encapsulated by these elements in the parent variation response specify the variation dimensions for the child variations, for example:

```
<VariationDimensions>
  <VariationDimension>ClothingSize</VariationDimension>
  <VariationDimension>Color</VariationDimension>
</VariationDimensions>
```

The following response snippet from one of the associated child variations shows that the dimensions specified in the parent variation are used as variation attributes in the child variation.

```
<Item>
...
<VariationAttributes>
  <VariationAttribute>
    <Name>Color</Name>
    <Value>Grey</Value>
  </VariationAttribute>
  <VariationAttribute>
    <Name>ClothingSize</Name>
    <Value>29W x 30L</Value>
  </VariationAttribute>
</VariationAttributes>
</Item>
```

Accessories

Some items for sale have associated accessories. For example, a camera might have, as accessories, a camera case, flash card, and battery, as shown in the following figure.



Each of these accessories has an item ID, such as an ASIN, as shown in the following response snippet. In this example, the main item, B00008OE6I, the camera, returned in the response comes with two accessories, B00003G1RG, a compact flash card, and B00004WCCT, a leather camera case.

```
<Item>
<ASIN>B00008OE6I</ASIN>
<Accessories>
  <Accessory>
    <ASIN>B00003G1RG</ASIN>
    <Title>Viking 128 MB CompactFlash Card (CF128M)</Title>
  </Accessory>
  <Accessory>
    <ASIN>B00004WCCT</ASIN>
    <Title>Canon Soft Leather Case for Canon Digital ELPH Camer
as(Black)</Title>
  </Accessory>
```

The following figure shows those items.



As you can see in this example, Amazon groups accessories with the main item for sale. Product Advertising API makes it easy to retrieve all of the accessories associated with a main item by using the Accessories response group in an [ItemLookup](#) or [ItemSearch](#) request. As you can see in the previous response snippet, each accessory listed in the response includes the accessory's title and item identifier, such as an ASIN.

Note

When you have the item ID of the main item, the Accessories response group returns the item's accessories. The reverse, however, is not true, that is, if you have the item ID of an accessory, you cannot use the Accessories response group to return the main item or the other accessories associated with the main item.

Related Items

The *RelatedItems* response group returns information about items related to the one specified in an ItemLookup request. The item is specified in an ItemLookup request. Digital items include downloadable music (search index: MP3Downloads), downloadable video (search index: UnboxVideo), and digital books (search index: KindleStore). A related item could be, for example, all of the shows in a TV series that are available separately, or, for example, all of the songs on a CD.

The basis upon which the item(s) are related is specified by the *RelationshipType* parameter. The *RelatedItems* response group requires that you include in the ItemLookup request the *RelationshipType* parameter. Sample values include Episode, Season, Tracks, and Variation. For a complete list of values, see [ItemLookup](#). (p. 217)

Each ItemLookup request can return, at most, ten related items. To return additional items, use the *RelateditemPage* parameter. A value of 2, for example, returns the second set of ten related items. For more information, go to the [ItemLookup](#) page.

Requests

Topics

- [Anatomy of a REST Request](#) (p. 45)
- [Request Limitations](#) (p. 48)
- [REST Syntax](#) (p. 48)
- [SOAP Requests](#) (p. 50)
- [Request Authentication](#) (p. 52)
- [Batch Requests](#) (p. 71)
- [Parameters Common to All Product Advertising API Requests](#) (p. 73)
- [Responses](#) (p. 75)

- [Paging and Sorting Through Responses \(p. 80\)](#)

The Product Advertising API web service supports REST requests for remotely calling Product Advertising API operations hosted by Amazon servers. REST requests are simple HTTP requests, using either the GET method with parameters in the URL, or the POST method with parameters in the POST body. The response is an XML document that conforms to a schema.

You might use REST requests because they are more intuitive than their SOAP counterpart or because a SOAP toolkit is not available for your platform. The example requests used throughout this guide are in REST.

Anatomy of a REST Request

Product Advertising API REST requests are URLs, as shown in the following example.

```
http://webservices.amazon.com/onca/xml?Service=AWSECommerceService&Operation=ItemSearch&AWSAccessKeyId=[Access Key ID]&AssociateTag=[ID]&SearchIndex=Apparel&Keywords=Shirt&Timestamp=[YYYY-MM-DDThh:mm:ssZ]&Signature=[Request Signature]
```

If you substituted real IDs in this request and put the entire example in a browser, you would be sending Product Advertising API a request.

Although the preceding example is in the form you would enter in a browser, it is difficult to read. For this reason, this guide presents the same request as follows.

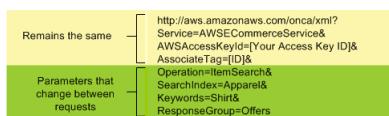
```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
Operation=ItemSearch&  
AWSAccessKeyId=[Access Key ID]&  
AssociateTag=[ID]&  
SearchIndex=Apparel&  
Keywords=Shirt  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

For more information about `Timestamp` and `Signature`, see [Authentication Parameters \(p. 54\)](#).

For information about signing a request using sample AWS access identifiers, see [Example REST Requests \(p. 60\)](#).

General Request Format

Part of every Product Advertising API request is always the same. The other part of the request varies according to the parameters used in the request, as shown in the following figure.



Request Terms that Remain the Same

The first two lines in the preceding example contain the endpoint, `http://webservices.amazon.com/onca/xml`, and the service name, AWSECommerceService.

Amazon hosts many web services in addition to Product Advertising API, including Amazon Mechanical Turk and Amazon Simple Storage Service (Amazon S3). The service name in the request specifies that the request should be sent by the web servers to Product Advertising API. This line is always the same in every Product Advertising API request, regardless of locale.

```
Service=AWSECommerceService&
```

The endpoint value varies by locale, but there are only two endpoints per locale. One endpoint in a locale is the secure version of the other endpoint. The following table lists the endpoints to use in Product Advertising API requests.

Locale	Endpoint
BR	http://webservices.amazon.com.br/onca/xml https://webservices.amazon.com.br/onca/xml
CA	http://webservices.amazon.ca/onca/xml https://webservices.amazon.ca/onca/xml
CN	http://webservices.amazon.cn/onca/xml https://webservices.amazon.cn/onca/xml
DE	http://webservices.amazon.de/onca/xml https://webservices.amazon.de/onca/xml
ES	http://webservices.amazon.es/onca/xml https://webservices.amazon.es/onca/xml
FR	http://webservices.amazon.fr/onca/xml https://webservices.amazon.fr/onca/xml
IN	http://webservices.amazon.in/onca/xml https://webservices.amazon.in/onca/xml
IT	http://webservices.amazon.it/onca/xml https://webservices.amazon.it/onca/xml
JP	http://webservices.amazon.co.jp/onca/xml https://webservices.amazon.co.jp/onca/xml
UK	http://webservices.amazon.co.uk/onca/xml https://webservices.amazon.co.uk/onca/xml
US	http://webservices.amazon.com/onca/xml https://webservices.amazon.com/onca/xml

The endpoint remains the same for all Product Advertising API requests, as shown in the following example.

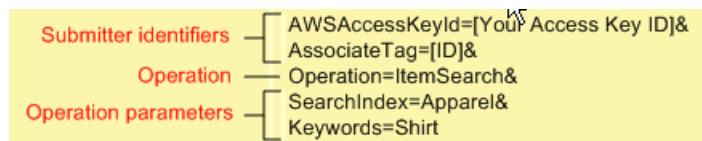
```
http://webservices.amazon.com/onca/xml
```

The third and fourth lines identify the request submitter. The AWSAccessKeyId is required; it helps identify the request submitter. You receive an AWS Access Key ID when you sign up with Product Advertising API.

The other identifier, *AssociateTag*, is required. It is an ID for an Associate. If you are an Associate, you must include your Associate tag in each request to be eligible to receive a referral fee for a customer's purchase.

Request Terms that Change

The remaining terms in the request vary significantly according to the operation chosen. The terms, however, follow a pattern, as shown in the next figure.



The *Operation* parameter is required. Its value is one of the Product Advertising API operations. These operations are described throughout this guide.

The last lines, operation parameters, are representative of parameters that the operation requires, and optional parameters that the operation can use. Requests can contain zero or more operation (up to ten) parameters. These parameters are described in the discussion of each operation in the *Product Advertising API Reference Guide*.

Response Groups

A special parameter that is optional for all Product Advertising API operations is *ResponseGroup*. Response groups control the kind of information returned by the request. For example, the Large response group returns a great deal of information about the items included in a response, whereas the Medium and Small response groups return less.

Besides these generic response groups, there are specific ones. For example, if you want to return images of the items included in a response, you would include the Image response group in the request. If you wanted pricing information, you would include the Offer response group in the request. To get browse node information, you'd include the BrowseNode response group. The specificity of the response groups enables you to return only the information you want.

Each Product Advertising API operation can work with only a subset of all Product Advertising API response groups. The valid response groups that each Product Advertising API operation can use are listed in the *Product Advertising API Reference Guide*.

All Product Advertising API operations use some response group by default. So specifying additional response groups is optional. Every Product Advertising API operation uses the Request response group, which echoes the operation name and the input parameters sent in the request. The other response groups used by default vary by operation. For example, CartCreate, CartAdd, and CartModify use, by default, the Cart response group, which provides detailed information about the items in a cart. The API Reference lists the default response groups used by each operation.

Now, when you read requests in this guide, your eye should jump to the *operation* parameter and all of the required and optional parameters associated with the specified Product Advertising API operation.

Request Limitations

Some Product Advertising API operations have many parameters and, as you will learn in a future section, you can combine multiple single requests in one, longer batch request. The upper limit is bounded by the maximum number of characters that can be in a request. The maximum number differs by browser. For example, the limit for a URL in Microsoft Internet Explorer is a little more than 2000 characters. It would be unusual to have a request that approached this upper boundary.

REST Syntax

Topics

- [Spaces in Requests \(p. 48\)](#)
- [Separator Characters \(p. 48\)](#)
- [Setting Parameter Values \(p. 48\)](#)

One of the values of using REST is that its syntax is simple, which makes REST requests easy to read. This section summarizes all of the REST syntax rules that you must keep in mind when creating a REST request.

Spaces in Requests

Because a REST request is a URL, there can be no spaces between the parts of a request. A browser will stop reading when it runs across the first space. For example, if the last parameter read, `Keywords=Blue Shirts`, the request would end on "Blue." "Shirts" would never be read. If you have key words, such as names, that do have spaces in them, you must URL-encode the space using %20. For the preceding example to work, you would include a URL-encoded space, as follows.

```
Keywords=Blue%20Shirts
```

The same problem occurs if you put spaces between the parameters in a request, as shown in the following example.

```
SearchIndex=Apparel& Keywords=Shirt
```

In this example, the request would end with "Apparel&." Often, this kind of mistake returns an error because parameters required by the operation are not read. So, make sure to remove all spaces within a request.

Separator Characters

The question mark (?) and ampersand (&) separate the terms in a REST request. The first term in the request must always be the endpoint, which, in the preceding example, is `http://webservices.amazon.com/onca/xml`. A question mark always follows the endpoint. The question mark tells the Product Advertising API web servers to start parsing the request for parameters.

Ampersands separate all of the other parameter name-value pairs in the request. The order of the parameter name-value pairs is inconsequential, as long as they all occur after the question mark.

Setting Parameter Values

Topics

- [Parameter Names and Values are Case Sensitive \(p. 49\)](#)

- [Compound Parameters \(p. 49\)](#)

Request parameter values are set using the format.

```
ParameterName=value
```

The following example is a parameter/value pair.

```
Operation=ItemSearch
```

Parameter values must be URL-encoded. There are some characters, such as an asterisk or space, that cannot go into a URL. There are equivalents of these characters that you use in requests instead. For example, the URL encoded equivalent of a space is %20. So, instead of writing Name=John Smith you would write Name=John%20Smith.

Parameter Names and Values are Case Sensitive

Parameter names and values are case sensitive. For example, the following declaration is fine.

```
SearchIndex=Apparel
```

The following examples return errors because the capitalization is incorrect.

```
Searchindex=Apparel  
SearchIndex=apparel
```

As you can see in these examples, parameter names and values start with capitals. If the name or value is a compound word, the beginning of each new word is capitalized, for example, in the parameter name, SearchIndex, the "I" is capitalized.

Compound Parameters

The vast majority of parameters can be specified in a REST request using just the name of the parameter and an appropriate value, with the value URL-encoded to make the request a valid URL, as shown in the following example.

```
Author=Steve%20Davenport
```

Some parameters, however, can be repeated in a request. In that case, the parameter names are differentiated by adding a period (.) after the parameter name and then a sequence number, as shown in the following example.

```
Item.1=1234&  
Item.2=2345
```

Other parameters can be repeated but, in addition, have associated parameters. These parameters extend the preceding example by adding another period and the associated parameter name, as shown in the following example.

```
Item.1.ASIN=3456789123&  
Item.1.Quantity=2
```

In this example, the item being added to a shopping cart has an identifier, the ASIN, and a quantity value. The equivalent expression in an XML document is, as shown in the following example.

```
<Item>
  <ASIN>3456789123</ASIN>
  <Quantity>2</Quantity>
</Item>
```

The sequence number associates the identifier and its quantity value. The following example shows two compound parameters.

```
Item.1.ASIN=3456789123&
Item.1.Quantity=2&
Item.2.ASIN=123456&
Item.2.Quantity=1
```

The sequence numbers associate the ASIN and quantity values. This means that the compound parameters can be written in a different order without causing a problem.

```
Item.1.ASIN=3456789123&
Item.2.ASIN=123456&
Item.1.Quantity=2&
Item.2.Quantity=1
```

SOAP Requests

Product Advertising API supports the SOAP message protocol for calling Product Advertising API operations over an HTTP connection. The easiest way to use the SOAP interface with your application is to use a SOAP toolkit appropriate for your platform. SOAP toolkits are available for most popular programming languages and platforms.

The service's Web Services Definition Language (WSDL) file describes the operations and the format and data types of their requests and responses. Your SOAP toolkit interprets the WSDL file to provide your application access to the operations. For most toolkits, your application calls a service operation using routines and classes provided or generated by the toolkit. For more information, see [WSDL Locations \(p. 19\)](#).

This section describes the structure of a SOAP request. For information about authenticating a SOAP request, see [Authenticating SOAP Requests \(p. 65\)](#).

The Structure of a SOAP Request

A SOAP request is an XML data structure generated by a SOAP toolkit that is sent to a web service. The root element of this structure is named after the operation and contains the values for the operation's parameters.

The root element of every request must contain:

- A value for AWSAccessKeyId to authenticate the request
For more information, see [Your AWS Identifiers \(p. 53\)](#)
- An endpoint, which is the destination for the request
For more information, see [Request Terms That Remain the Same \(p. 45\)](#)
- A request element, which contains the values for the operation's parameters

The API Reference describes all of the Product Advertising API operations and their parameters. The Product Advertising API WSDL shows how the operation parameters appear in the XML request generated by your toolkit.

SOAP Endpoints

SOAP requests use endpoints in their requests. The endpoint value varies by locale, but there are only two endpoints per locale. One endpoint in a locale is the secure version of the other endpoint. The following table lists the endpoints to use in Product Advertising API SOAP requests.

Locale	Endpoint
BR	http://webservices.amazon.br/onca/soap https://webservices.amazon.br/onca/soap
CA	http://webservices.amazon.ca/onca/soap https://webservices.amazon.ca/onca/soap
CN	http://webservices.amazon.cn/onca/soap https://webservices.amazon.cn/onca/soap
DE	http://webservices.amazon.de/onca/soap https://webservices.amazon.de/onca/soap
ES	http://webservices.amazon.es/onca/soap https://webservices.amazon.es/onca/soap
FR	http://webservices.amazon.fr/onca/soap https://webservices.amazon.fr/onca/soap
IN	http://webservices.amazon.in/onca/soap https://webservices.amazon.in/onca/soap
IT	http://webservices.amazon.it/onca/soap https://webservices.amazon.it/onca/soap
JP	http://webservices.amazon.co.jp/onca/soap https://webservices.amazon.co.jp/onca/soap
UK	http://webservices.amazon.co.uk/onca/soap https://webservices.amazon.co.uk/onca/soap
US	http://webservices.amazon.com/onca/soap https://webservices.amazon.com/onca/soap

The XML Message for an ItemSearch SOAP Request

The following example is the XML for a SOAP message that calls the `ItemSearch` operation. While you will probably not be building the SOAP message for a service request manually, it is useful to see what

your SOAP toolkit produces when provided with the appropriate values. Many SOAP toolkits require that you build a request data structure similar to the XML to make a request.

The *ItemSearch* element contains the parameters common to all requests. The *Request* element contains the *ItemSearch* parameters, *SearchIndex* and *Keywords*.

```
<?xml version="1.0" encoding="UTF-8" ?>
<soapenv:Envelope
    xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <soapenv:Body>
        <ItemSearch
            xmlns="http://webservices.amazon.com/AWSECSCCom
merce/onca/soap">
            <AWSAccessKeyId>AKIAIOSFODNN7EXAMPLE</AWSAccessKeyId>
            <Request>
                <SearchIndex>Books</SearchIndex>
                <Keywords>Harry%20Potter</Keywords>
            </Request>
        </ItemSearch>
    </soapenv:Body>
</soapenv:Envelope>
```

For information about signatures and how to authenticate SOAP requests—with or without WS-Security—see [Authenticating SOAP Requests \(p. 65\)](#).

Request Authentication

Topics

- [What Is Authentication? \(p. 52\)](#)
- [Your Product Advertising API Account \(p. 53\)](#)
- [Your AWS Identifiers \(p. 53\)](#)
- [Viewing Your AWS Identifiers \(p. 54\)](#)
- [HMAC-SHA Signatures for REST Requests \(p. 54\)](#)
- [Authenticating REST Requests \(p. 56\)](#)
- [Authenticating SOAP Requests \(p. 65\)](#)

The topics in this section describe how the Product Advertising API authenticates your requests. In this section, you can learn about the basics of authentication, how your AWS account and identifiers are used to support authentication, and how to create an HMAC-SHA1 signature. This section also covers the request authentication requirements for Query and SOAP requests.

Important

Any messages sent to the Product Advertising API that are not authenticated will be denied.

What Is Authentication?

Authentication is a process for identifying and verifying who is sending a request. The following table shows a simplified version of an authentication process.

General Process of Authentication

1	The sender obtains the necessary credential.
---	--

2	The sender sends a request with the credential to the recipient.
3	The recipient uses the credential to verify the sender truly sent the request.
4	If yes, the recipient processes the request. If no, the recipient rejects the request and responds accordingly.

During authentication, Product Advertising API verifies the identity of the sender.

For further discussion of authentication, go to the TechEncyclopedia.com entry for [authentication](#). For definitions of common industry terms related to authentication, go to the [RSA Laboratories Glossary](#).

The subsequent sections describe how the Product Advertising API implements authentication to protect your data.

Your Product Advertising API Account

To access the Product Advertising API, you must first create an account at <http://aws.amazon.com>. An AWS account is simply an Amazon.com account that is enabled to use AWS products; you can use an existing Amazon.com account login and password when creating the AWS account.

Alternately, you could create a new AWS-enabled Amazon.com account by using a new Amazon.com login and password. The e-mail address you provide as the account login must be valid. You'll be asked to provide a credit card or other payment method to cover the charges for any AWS products you use.

From your AWS account you can view your AWS account activity, view usage reports, and manage your AWS account access identifiers.

Your AWS Identifiers

When you create an AWS account, AWS assigns you a pair of related identifiers:

- Access Key ID (a 20-character, alphanumeric sequence)
For example: AKIAIOSFODNN7EXAMPLE
- Secret Access Key (a 40-character sequence)
For example: wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY

These are your *AWS access key identifiers*. If you don't remember your identifiers, you can view them at any time. For more information, see [Viewing Your AWS Identifiers \(p. 54\)](#).

Caution

Your Secret Access Key is a secret and only you and AWS should know it. It is important to keep it confidential to protect your account. Never include it in your requests to AWS, and never e-mail it to anyone. Do not share it outside your organization, even if an inquiry appears to come from AWS or Amazon.com. No one who legitimately represents Amazon will ever ask you for your Secret Access Key.

The Access Key ID is associated with your AWS account. You include it in AWS service requests to identify yourself as the sender of the request.

The Access Key ID is not a secret, and anyone could use your Access Key ID in requests to AWS. To provide proof that you truly are the sender of the request, you must also include a digital signature. For all requests except those using SOAP with WS-Security, you calculate the signature using your Secret Access Key. AWS uses the Access Key ID in the request to look up your Secret Access Key and then calculates a digital signature with the key. If the signature AWS calculates matches the signature you sent, the request is considered authentic. Otherwise, the request fails authentication and is not processed.

Related Topics

- [HMAC-SHA Signatures for REST Requests \(p. 54\)](#)
- [Authenticating REST Requests \(p. 56\)](#)

Viewing Your AWS Identifiers

Your Access Key ID and Secret Access Key are displayed to you when you create your AWS account. They are not e-mailed to you. If you need to see them again, you can view them at any time from your AWS account.

To view your AWS access identifiers

1. Go to the Amazon Web Services web site at <http://aws.amazon.com>.
2. Click **Account**.
3. Under **Your Account**, click **Security Credentials**.
4. In the spaces provided, type your user name and password, and then click **Sign in using our secure server**.
5. Under **Access Credentials**, on the **Access Keys** tab, your access key ID is displayed. To view your secret key, under **Secret Access Key**, click **Show**.

Related Topics

- [Your Product Advertising API Account \(p. 53\)](#)
- [Your AWS Identifiers \(p. 53\)](#)

HMAC-SHA Signatures for REST Requests

Topics

- [Authentication Parameters \(p. 54\)](#)
- [Basic Authentication Process \(p. 55\)](#)

The topics in this section describe how Product Advertising API uses HMAC-SHA signatures to authenticate REST requests.

Authentication Parameters

The following parameters are used by Product Advertising API for REST authentication:

- **Signature**—Required. There is no default value. A signature is created by using the request type, domain, the URI, and a sorted string of every parameter in the request (except the Signature parameter itself) with the following format <parameter>=<value>&. Once properly formatted, you create a base64-encoded HMAC_SHA256 signature using your AWS secret key. For a detailed example of this process, see [Example REST Requests \(p. 60\)](#).
- **Timestamp**—Required. There is no default value. The time stamp you use in the request must be a `dateTime` object, with the complete date plus hours, minutes, and seconds (for more information, go to <http://www.w3.org/TR/NODE-datetime>). This is a fixed -length subset of the format defined by ISO 8601, represented in Universal Time (GMT): `YYYY-MM-DDThh:mm:ssZ` (where T and Z are literals).

Important

If you are using .NET you must not send overly specific time stamps, due to different interpretations of how extra time precision should be dropped. To avoid overly specific time stamps, manually construct `dateTime` objects with no more than millisecond precision.

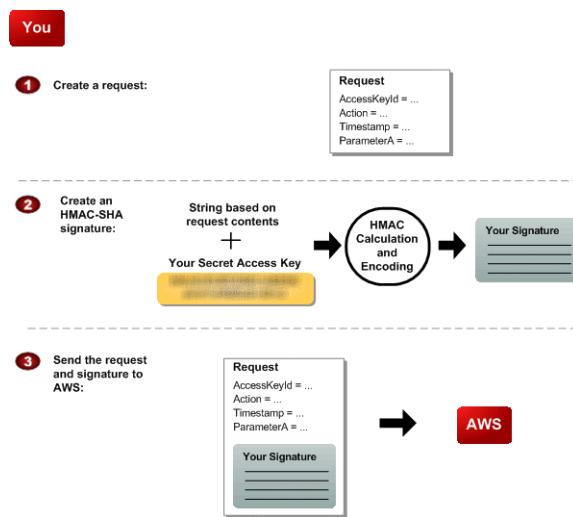
Related Topics

- Your AWS Identifiers (p. 53)

Basic Authentication Process

The following figures and text describe the series of tasks required to authenticate requests to AWS using an HMAC-SHA request signature. It is assumed you have already created an AWS account and received an access key ID and secret access key. For more information about those, see [Your Product Advertising API Account \(p. 53\)](#) and [Your AWS Identifiers \(p. 53\)](#).

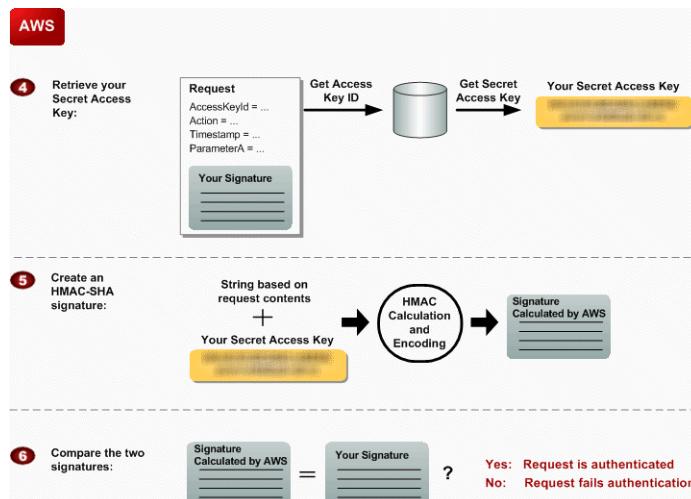
You perform the first three tasks.



Process for Authentication: Tasks You Perform

1	You construct a request to AWS.
2	You calculate a keyed-hash message authentication code (HMAC-SHA) signature using your secret access key (for information about HMAC, go to http://www.faqs.org/rfcs/rfc2104.html)
3	You include the signature and your access key ID in the request, and then send the request to AWS.

AWS performs the next three tasks.



Process for Authentication: Tasks AWS Performs

<input checked="" type="checkbox"/>	Product Advertising API uses the access key ID to look up your secret access key.
<input checked="" type="checkbox"/>	Product Advertising API generates a signature from the request data and the secret access key using the same algorithm you used to calculate the signature you sent in the request.
<input checked="" type="checkbox"/>	If the signature generated by AWS matches the one you sent in the request, the request is considered authentic. If the comparison fails, the request is discarded, and AWS returns an error response.

Authenticating REST Requests

This section describes how to create a signature. The Product Advertising API only supports Signature Version 2.

To create the signature

1. Create the canonicalized query string that you need later in this procedure:
 - a. Sort the UTF-8 query string components by parameter name with natural byte ordering. The parameters can come from the GET URI or from the POST body (when Content-Type is application/x-www-form-urlencoded).
 - b. URL encode the parameter name and values according to the following rules:
 - Do not URL encode any of the unreserved characters that RFC 3986 defines. These unreserved characters are A-Z, a-z, 0-9, hyphen (-), underscore (_), period (.), and tilde (~).
 - Percent encode extended UTF-8 characters in the form %XY%ZA....
 - Percent encode the space character as %20 (and not +, as common encoding schemes do).
 - Percent encode all other characters with %XY, where X and Y are hex characters 0-9 and uppercase A-F.

Perl Note:

The commonly used URI::Escape CPAN module uses RFC 2396. This has five additional reserved characters: asterisk (*), left and right parenthesis ((and)), single quote (') and exclamation (!). To follow RFC 3986 use:

```
URI::Escape::uri_escape( $parameter_value, "^A-Za-z0-9\-\_\~" )
```

Java Note:

URLEncoder uses + for space, and won't encode asterisk (*), and encodes tilde (~) when not necessary. To follow RFC 3986 use:

```
URLEncoder.encode(value, UTF_8_Encoding).replace("+", "%20").replace("*", "%2A").replace("%7E", "~");
```

C# Note:

Use uppercase hex characters.

Tip

Currently all Product Advertising API service parameter names use unreserved characters, so you don't need to encode them. However, you might want to include code to handle parameter names that use reserved characters, for possible future use.

- c. Separate the encoded parameter names from their encoded values with the equals sign (=) (ASCII character 61), even if the parameter value is empty.
- d. Separate the name-value pairs with an ampersand (&) (ASCII code 38).
2. Create the string to sign according to the following pseudo-grammar (the "\n" represents an ASCII newline).

```
StringToSign = HTTPVerb + "\n" +
    ValueOfHostHeaderInLowercase + "\n" +
    HTTPRequestURI + "\n" +
    CanonicalizedQueryString <from the preceding step>
```

The HTTPRequestURI component is the HTTP absolute path component of the URI up to, but not including, the query string. If the HTTPRequestURI is empty, use a forward slash (/).

Note

HTTPRequestURI is always "/onca/xml" for Product Advertising API. HTTPVerb is either GET or POST.

3. Calculate an RFC 2104-compliant HMAC with the string you just created, your Secret Access Key as the key, and SHA256 as the hash algorithm.
For more information, go to <http://tools.ietf.org/html/rfc2104>.
4. Convert the resulting value to base64.
5. Use the resulting value as the value of the *signature* request parameter.

Important

The final signature you send in the request must be URL encoded as specified in RFC 3986 (for more information, go to <http://tools.ietf.org/html/rfc3986>). If your toolkit URL encodes your final request, then it handles the required URL encoding of the signature. If your toolkit doesn't URL encode the final request, then make sure to URL encode the signature before you include it in the request. Most importantly, make sure the signature is URL encoded *only once*. A common

mistake is to URL encode it manually during signature formation, and then again when the toolkit URL encodes the entire request.

For examples of signed requests, see [Example REST Requests \(p. 60\)](#)

Java Sample Code for Calculating Signature Version 2 Signatures

The following Java code sample shows how to calculate a signature (version 2). This sample has code for creating the canonical string, for base64 encoding, and for HMAC encoding for generating the signature.

```
package com.amazon.associates.sample;

import java.io.UnsupportedEncodingException;

import java.net.URLDecoder;
import java.net.URLEncoder;

import java.security.InvalidKeyException;
import java.security.NoSuchAlgorithmException;

import java.text.DateFormat;
import java.text.SimpleDateFormat;

import java.util.Calendar;
import java.util.HashMap;
import java.util.Iterator;
import java.util.Map;
import java.util.SortedMap;
import java.util.TimeZone;
import java.util.TreeMap;

import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;

import org.apache.commons.codec.binary.Base64;

public class SignedRequestsHelper {
    private static final String UTF8_CHARSET = "UTF-8";
    private static final String HMAC_SHA256_ALGORITHM = "HmacSHA256";
    private static final String REQUEST_URI = "/onca/xml";
    private static final String REQUEST_METHOD = "GET";

    private String endpoint = "webservices.amazon.com"; // must be lowercase
    private String awsAccessKeyId = "YOUR AWS ACCESS KEY";
    private String awsSecretKey = "YOUR AWS SECRET KEY";

    private SecretKeySpec secretKeySpec = null;
    private Mac mac = null;

    public SignedRequestsHelper() {
        byte[] secretKeyBytes = awsSecretKey.getBytes(UTF8_CHARSET);
        secretKeySpec =
            new SecretKeySpec(secretKeyBytes, HMAC_SHA256_ALGORITHM);
        mac = Mac.getInstance(HMAC_SHA256_ALGORITHM);
        mac.init(secretKeySpec);
    }

    public String sign(Map<String, String> params) {
```

```
params.put("AWSAccessKeyId", awsAccessKeyId);
params.put("Timestamp", timestamp());

SortedMap<String, String> sortedParamMap =
    new TreeMap<String, String>(params);
String canonicalQS = canonicalize(sortedParamMap);
String toSign =
    REQUEST_METHOD + "\n"
    + endpoint + "\n"
    + REQUEST_URI + "\n"
    + canonicalQS;

String hmac = hmac(toSign);
String sig = percentEncodeRfc3986(hmac);
String url = "http://" + endpoint + REQUEST_URI + "?" +
canonicalQS + "&Signature=" + sig;

return url;
}

private String hmac(String stringToSign) {
    String signature = null;
    byte[] data;
    byte[] rawHmac;
    try {
        data = stringToSign.getBytes(UTF8_CHARSET);
        rawHmac = mac.doFinal(data);
        Base64 encoder = new Base64();
        signature = new String(encoder.encode(rawHmac));
    } catch (UnsupportedEncodingException e) {
        throw new RuntimeException(UTF8_CHARSET + " is unsupported!", e);
    }
    return signature;
}

private String timestamp() {
    String timestamp = null;
    Calendar cal = Calendar.getInstance();
    DateFormat dfm = new SimpleDateFormat("yyyy-MM-dd'T'HH:mm:ss'Z'");
    dfm.setTimeZone(TimeZone.getTimeZone("GMT"));
    timestamp = dfm.format(cal.getTime());
    return timestamp;
}

private String canonicalize(SortedMap<String, String> sortedParamMap)
{
    if (sortedParamMap.isEmpty()) {
        return "";
    }

    StringBuffer buffer = new StringBuffer();
    Iterator<Map.Entry<String, String>> iter =
        sortedParamMap.entrySet().iterator();

    while (iter.hasNext()) {
        Map.Entry<String, String> kvpair = iter.next();
        buffer.append(percentEncodeRfc3986(kvpair.getKey()));
        buffer.append("=");
        buffer.append(kvpair.getValue());
        buffer.append("&Signature=" + sig);
    }
}
```

```
        buffer.append(percentEncodeRfc3986(kvpair.getValue()));
        if (iter.hasNext()) {
            buffer.append("&");
        }
    }
    String canonical = buffer.toString();
    return canonical;
}

private String percentEncodeRfc3986(String s) {
    String out;
    try {
        out = URLEncoder.encode(s, UTF8_CHARSET)
            .replace("+", "%20")
            .replace("*", "%2A")
            .replace("%7E", "~");
    } catch (UnsupportedEncodingException e) {
        out = s;
    }
    return out;
}
}
```

Example REST Requests

This section shows the steps to sign a request, using sample AWS access identifiers.

If you follow these steps using these identifiers, you will generate the same signature strings in the examples. Although this can help verify your request generation code, you cannot make actual requests with these example requests.

Tip

If you aren't familiar with REST requests, read [Anatomy of a REST Request \(p. 45\)](#) before continuing with this example.

The following is an example of an [ItemLookup \(p. 217\)](#) request:

```
http://webservices.amazon.com/onca/xml?Service=AWSECommerceService&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&Operation=ItemLookup&ItemId=0679722769&ResponseGroup=ItemAttributes,Offers,Images,Reviews&Version=2009-01-06
```

Steps to Sign the Example Request

1. Enter the time stamp. For this example, we'll use the UTC time **2014-08-18T12:00:00Z**

```
http://webservices.amazon.com/onca/xml?Service=AWSECommerceService&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&AssociateTag=mytag-20&Operation=ItemLookup&ItemId=0679722769&ResponseGroup=Images,ItemAttributes,Offers,Reviews&Version=2013-08-01&Timestamp=2014-08-18T12:00:00Z
```

2. URL encode the request's comma (,) and colon (:) characters, so that they don't get misinterpreted. For more information about converting to RFC 3986 specifications, see documentation and code samples for your programming language.

```
http://webservices.amazon.com/onca/xml?Service=AWSECommerceService&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&AssociateTag=mytag-20&Operation=ItemLookup&ItemId=0679722769&ResponseGroup=Images%2CItemAttributes%2COffers%2CReviews&Version=2013-08-01&Timestamp=2014-08-18T12%3A00%3A00Z
```

Important

Be sure that you do not double-escape any characters.

3. Split the parameter/value pairs and delete the ampersand characters (&). The linebreaks used in the following example follow Unix convention (ASCII 0A, "line feed" character).

```
Service=AWSECommerceService
AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
AssociateTag=mytag-20
Operation=ItemLookup
ItemId=0679722769
ResponseGroup= Images%2CItemAttributes%2COffers%2CReviews
Version=2013-08-01
Timestamp= 2014-08-18T12%3A00%3A00Z
```

4. Sort your parameter/value pairs by byte value (not alphabetically, lowercase parameters will be listed after uppercase ones).

```
AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
AssociateTag=mytag-20
ItemId=0679722769
Operation=ItemLookup
ResponseGroup=Images%2CItemAttributes%2COffers%2CReviews
Service=AWSECommerceService
Timestamp= 2014-08-18T12%3A00%3A00Z
Version=2013-08-01
```

5. Rejoin the sorted parameter/value list with ampersands. The result is the canonical string that we'll sign:

```
AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&AssociateTag=mytag-20&ItemId=0679722769&Operation=ItemLookup&ResponseGroup=Images%2CItemAttributes%2COffers%2CReviews&Service=AWSECommerceService&Timestamp=2014-08-18T12%3A00%3A00Z&Version=2013-08-01
```

6. Prepend the following three lines (with line breaks) before the canonical string:

```
GET
webservices.amazon.com
/onca/xml
```

7. The string to sign:

```
GET
webservices.amazon.com
/onca/xml
AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&AssociateTag=mytag-
```

```
20&ItemId=0679722769&Operation=ItemLookup&ResponseGroup=Images%2CItemAttributes%2COffers%2CReviews&Service=AWSECommerceService&Timestamp=2014-08-18T12%3A00%3A00Z&Version=2013-08-01
```

8. Calculate an RFC 2104-compliant HMAC with the SHA256 hash algorithm using the string above with our "dummy" Secret Access Key: **1234567890**. For more information about this step, see documentation and code samples for your programming language.

```
j7bZM0LXZ9eXeZruTqWm2DivDYVUU3wxPPpp+iXxzQc=
```

9. URL encode the plus (+) and equal (=) characters in the signature:

```
j7bZM0LXZ9eXeZruTqWm2DivDYVUU3wxPPpp%2BiXxzQc%3D
```

10. Add the URL encoded signature to your request, and the result is a properly-formatted signed request:

```
http://webservices.amazon.com/onca/xml?AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&AssociateTag=mytag-20&ItemId=0679722769&Operation=ItemLookup&ResponseGroup=Images%2CItemAttributes%2COffers%2CReviews&Service=AWSECommerceService&Timestamp=2014-08-18T12%3A00%3A00Z&Version=2013-08-01&Signature=j7bZM0LXZ9eXeZruTqWm2DivDYVUU3wxPPpp%2BiXxzQc%3D
```

Examples of Other Signed Requests

The previous section went through a detailed process for signing an ItemLookup request. This section presents examples of unsigned requests, the string to sign generated from them, and the final signed request. These examples can make excellent test cases for your software. All examples use the "dummy" AWS secret key "1234567890" used earlier in the [Steps to Sign the Example Request \(p. 60\)](#).

ItemSearch Examples

The following examples show the [ItemSearch \(p. 223\)](#) request without a signature, with the string to sign, and the signed request.

Original Unsigned Request

```
http://webservices.amazon.co.uk/onca/xml?Service=AWSECommerceService&Operation=ItemSearch&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&Operation=ItemSearch&Actor=Johnny%20Depp&ResponseGroup=ItemAttributes,Offers,Images,Reviews,Variations&Version=2013-08-01&SearchIndex=DVD&Sort=salesrank&AssociateTag=mytag-20
```

String to Sign

```
GET  
webservices.amazon.co.uk  
/onca/xml  
AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&Actor=Johnny%20Depp&AssociateTag=mytag-20&Operation=ItemSearch&Operation=ItemSearch&ResponseGroup=ItemAttributes%2COffers%2CImages%2CReviews%2CVariations&SearchIndex=DVD&Service=AWSECommerceService&Sort=salesrank&Timestamp=2014-08-18T17%3A34%3A34.000Z&Version=2013-08-01
```

Signed Request

```
http://webservices.amazon.co.uk/onca/xml?AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&Action=ItemSearch&AssociateTag=mytag-20&Operation=ItemSearch&ResponseGroup=ItemAttributes%2COffers%2CImages%2CReviews%2CVariations&SearchIndex=DVD&Service=AWSECommerceService&Sort=salesrank&Timestamp=2014-08-18T17%3A34%3A34.000Z&Version=2013-08-01&Signature=Gv4kWyAAD3xgSGI86I4qZ1zIjAhZYs2H7CRTpeHLD1o%3D
```

CartCreate Examples

The following examples show the [CartCreate](#) (p. 203) request without a signature, with the string to sign, and the signed request.

Original Unsigned Request

```
http://webservices.amazon.com/onca/xml?Service=AWSECommerceService&Operation=ItemSearch&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&Operation=CartCreate&Version=2013-08-01&Item.1.OfferListingId=j8ejq9wxDFSYWF2OCp6XQGDsVrWhl08GSQ9m5j%2Be8MS449BN1XGUC3DFU5Zw4nt%2FFBt87cspLow1QXzfvZpvzg%3D%3D&Item.1.Quantity=3&AssociateTag=mytag-20
```

String to Sign

```
GET  
webservices.amazon.com  
/onca/xml  
AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&AssociateTag=mytag-20&Item.1.OfferListingId=j8ejq9wxDFSYWF2OCp6XQGDsVrWhl08GSQ9m5j%2Be8MS449BN1XGUC3DFU5Zw4nt%2FFBt87cspLow1QXzfvZpvzg%3D%3D&Item.1.Quantity=3&Operation=CartCreate&Operation=ItemSearch&Service=AWSECommerceService&Timestamp=2014-08-18T17%3A36%3A55.000Z&Version=2013-08-01
```

Signed Request

```
http://webservices.amazon.com/onca/xml?AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&AssociateTag=mytag-20&Item.1.OfferListingId=j8ejq9wxDFSYWF2OCp6XQGDsVrWhl08GSQ9m5j%2Be8MS449BN1XGUC3DFU5Zw4nt%2FFBt87cspLow1QXzfvZpvzg%3D%3D&Item.1.Quantity=3&Operation=CartCreate&Operation=ItemSearch&Service=AWSECommerceService&Timestamp=2014-08-18T17%3A36%3A55.000Z&Version=2013-08-01&Signature=LpEUnc9tT4WGneeUwH0LvwxxLLfbMEXgmjGX5GXQ1MEQ%3D
```

BrowseNodeLookup Examples

The following examples show the [BrowseNodeLookup](#) (p. 193) request without a signature, with the string to sign, and the signed request.

Original Unsigned Request

```
http://webservices.amazon.com/onca/xml?Service=AWSECommerceService&Operation=ItemSearch&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&Operation=BrowseNodeLookup&Version=2013-08-01&BrowseNodeId=465600&AssociateTag=mytag-20&ResponseGroup=BrowseNodeInfo,TopSellers,NewReleases,MostWishedFor,MostGifted
```

String to Sign

```
GET  
webservices.amazon.com  
/onca/xml  
AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&AssociateTag=mytag-20&BrowseNodeId=465600&Operation=BrowseNodeLookup&Operation=ItemSearch&ResponseGroup=BrowseNodeInfo%2CTopSellers%2CNewReleases%2CMostWishedFor%2CMostGifted&Service=AWSECommerceService&Timestamp=2014-08-18T17%3A38%3A12.000Z&Version=2013-08-01
```

Signed Request

```
http://webservices.amazon.com/onca/xml?AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&AssociateTag=mytag-20&BrowseNodeId=465600&Operation=BrowseNodeLookup&Operation=ItemSearch&ResponseGroup=BrowseNodeInfo%2CTopSellers%2CNewReleases%2CMostWishedFor%2CMostGifted&Service=AWSECommerceService&Timestamp=2014-08-18T17%3A38%3A12.000Z&Version=2013-08-01&Signature=t48XyuQKLcYROCm7w%2FNqo3mihqB%2FQF2B9b9SX3FIOnU%3D
```

SimilarityLookup Examples

The following examples show the [SimilarityLookup \(p. 233\)](#) request without a signature, with the string to sign, and the signed request.

Original Unsigned Request

```
http://webservices.amazon.com/onca/xml?Service=AWSECommerceService&Operation=ItemSearch&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&Operation=SimilarityLookup&ItemId=B0011ZK6PC,B000NK8EWI&Version=2013-08-01&AssociateTag=mytag-20&ResponseGroup=Offers,ItemAttributes&SimilarityType=Intersection&Condition>New&Merchant=Amazon
```

String to Sign

```
GET  
webservices.amazon.com  
/onca/xml  
AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&AssociateTag=mytag-20&Condition>New&ItemId=B0011ZK6PC%2CB000NK8EWI&Merchant=Amazon&Operation=ItemSearch&Operation=SimilarityLookup&ResponseGroup=Offers%2CItemAttributes&Service=AWSECommerceService&SimilarityType=Intersection&Timestamp=2014-08-18T17%3A39%3A22.000Z&Version=2013-08-01
```

Signed Request

```
http://webservices.amazon.com/onca/xml?AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&AssociateTag=mytag-20&Condition>New&ItemId=B0011ZK6PC%2CB000NK8EWI&Merchant=Amazon&Operation=ItemSearch&Operation=SimilarityLookup&ResponseGroup=Offers%2CItemAttributes&Service=AWSECommerceService&SimilarityType=Intersection&Timestamp=2014-08-18T17%3A39%3A22.000Z&Version=2013-08-01&Signature=nIlF7C6O1T3faoXIZgGVxYXd%2BD%2F39%2BFPSnwdfiQvy9g%3D
```

Authenticating SOAP Requests

Topics

- [Using SOAP with WS-Security \(p. 65\)](#)
- [Using SOAP without WS-Security \(p. 69\)](#)

The Product Advertising API accepts SOAP requests sent over an HTTPS connection only. We prefer that you use WS-Security because it is the most secure. However, if your SOAP toolkit does not support WS-Security, you can authenticate SOAP requests with your AWS secret key instead.

Using SOAP with WS-Security

WS-Security, which is officially called Web Services Security: SOAP Message Security, is an open standard published by OASIS that defines mechanisms for signing and encrypting SOAP messages. Product Advertising API supports version 1.0 of the WS-Security specification. For more information and a link to the WS-Security 1.0 specification, go to the [OASIS-Open web site for WS-Security](#).

Tip

The easiest way to comply with the WS-Security requirements is to use a SOAP toolkit that supports WS-Security 1.0 and X.509 certificates.

Caution

For the purposes of request security and integrity, you must send all SOAP requests over HTTPS.

X.509 Certificates

When using SOAP with WS-Security, you must use an X.509 certificate for authentication (as opposed to your AWS Secret Access Key). An X.509 certificate is a security token designed to carry a public key and bind that key to an identity. X.509 certificates are used in a public key infrastructure (PKI), which is a framework for allowing trusted third parties to vouch for a party's identity. PKIs are commonly used in situations that require authentication. For more information about PKIs and X.509 certificates, go to the [techencyclopedia.com](#) entries for [digital certificate](#) and [PKI](#).

Note

Product Advertising API does not implement a full public key infrastructure. The certificate information is used only to authenticate requests to Product Advertising API. Product Advertising API uses X.509 certificates only as carriers for public keys and does not trust or use in any way any identity binding that might be included in an X.509 certificate.

The WS-Security 1.0 specification requires you to sign the SOAP message with the private key associated with the X.509 certificate and include the X.509 certificate in the SOAP message header. Specifically, you must represent the X.509 certificate as a `BinarySecurityToken` as described in the WS-Security X.509 token profile (also available if you go to the [OASIS-Open web site](#)).

You can use your own X.509 certificate or one generated by AWS. Following are the procedures for uploading your own certificate to AWS and obtaining an AWS-generated certificate. To obtain an X.509 certificate generated by an external certificate authority, follow the instructions provided by that CA.

Using Your Own Certificate

If you have an X.509 certificate you want to use, you can upload the certificate to AWS (without the private key value). Uploading the certificate automatically associates it with your AWS account.

AWS accepts any syntactically and cryptographically valid X.509 certificate. Certificates can be self-signed or signed by any key. The certificate must be in Privacy Enhanced Mail (PEM) format and include a base64 encoded Distinguished Encoding Rules (DER) certificate body.

Important

When you upload the certificate, AWS checks the certificate's contents to confirm that the certificate has not expired. AWS doesn't check certificate revocation lists (CRLs) to determine if the certificate has been revoked, nor does AWS validate the certificate with a certificate authority (CA) or any trusted third parties.

To upload your own X.509 certificate

1. Go to the Amazon Web Services web site at <http://aws.amazon.com>.
2. Point to **Your Web Services Account** to display a list of options.
3. Click **View Access Key Identifiers** and log in to your AWS account.
The **AWS Access Key Identifiers** page is displayed.
4. Scroll down to the **X.509 Certificate** area of the page and click **Upload**.
5. Follow the instructions on the subsequent pages to upload your certificate.

Using a Certificate Generated by AWS

If you don't already have an X.509 certificate, or if you want a new certificate to use with AWS, you can have AWS generate one and automatically associate it with your AWS account. Certificates generated by AWS are signed by an AWS internal certificate authority.

To have AWS create an X.509 certificate for you

1. Go to the Amazon Web Services web site at <http://aws.amazon.com>.
2. Point to **Your Web Services Account** to display a list of options.
3. Click **View Access Key Identifiers** and log in to your AWS account.
The **AWS Access Key Identifiers** page is displayed.
4. Scroll down to the **X.509 Certificate** area of the page and click **Create New**.
The **Create a New Certificate** page is displayed.
5. Read the information on the page and click **Yes** to create your certificate.
The **Create Success** page is displayed.
6. Download your private key file and X.509 certificate file.

Important

Don't close the browser window before you download the certificate, otherwise you'll have to create a new certificate.

What Needs to Be Signed

Each SOAP request must be signed with the private key associated with the X.509 certificate. To create the signature, you sign the `Timestamp` element, and if you're using WS-Addressing, we recommend you also sign the `Action` header element. In addition, you can optionally sign the `Body` and the `To` header element.

Example Request to Use When Troubleshooting

The following example shows the initial portion of a SOAP request that uses WS-Security with an X.509 certificate. If you're using a SOAP toolkit that supports WS-Security and X.509 certificates, the toolkit constructs the request automatically for you, so you don't have to create a request like this yourself. The example is included here as a reference to use if you're troubleshooting authentication issues with your SOAP requests. Several requirements are listed following the example; the numbers highlight where in the example the requirements are satisfied.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
<SOAP-ENV:Header>
<wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-
wss-wssecurity-secext-1.0.xsd">

    <wsse:BinarySecurityToken
        xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecur
        ity-utility-1.0.xsd">
         EncodingType="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
        soap-message-security-1.0#Base64Binary"
         ValueType="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
        x509-token-profile-1.0#X509v3"
        wsu:Id="CertId-1064304">
             [Your base64 encoded X.509 certificate...]
    </wsse:BinarySecurityToken>

    <ds:Signature xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
        <ds:SignedInfo>
            <ds:CanonicalizationMethod  Algorithm="http://www.w3.org/2001/10/xml-exc-
            c14n#"></ds:CanonicalizationMethod>
            <ds:SignatureMethod  Algorithm="http://www.w3.org/2000/09/xmldsig#rsa-
            sha1"></ds:SignatureMethod>

            <ds:Reference URI="#id-17984263">
                <ds:Transforms>
                    <ds:Transform  Algorithm="http://www.w3.org/2001/10/xml-exc-
                    c14n#"></ds:Transform>
                    </ds:Transforms>
                    <ds:DigestMethod Algorithm="http://www.w3.org/2000/09/xmld
                    sig#sha1"></ds:DigestMethod>
                    <ds:DigestValue>0pjZ1+TvgPf6uG7o+Yp3l2YdGZ4=</ds:DigestValue>
                </ds:Reference>

                <ds:Reference URI="#id-15778003">
                    <ds:Transforms>
                        <ds:Transform  Algorithm="http://www.w3.org/2001/10/xml-exc-
                        c14n#"></ds:Transform>
                        </ds:Transforms>
                        <ds:DigestMethod  Algorithm="http://www.w3.org/2000/09/xmld
                        sig#sha1"></ds:DigestMethod>
                        <ds:DigestValue>HhRbxBBmc200348f8nLNZyo4AOM=</ds:DigestValue>
                    </ds:Reference>
                </ds:SignedInfo>
            <ds:SignatureValue>bmVx24Qom4kd9QQtclxWIlgLk4QsQBPaKESi79x479xgbO9PEStXMi
        
```

```
HZuBAi9luuKdNTcfQ8UE/d
    jjHKZKEQRCOLV0Dn5ZL1R1MHsv+OzJzzvIJFTq3LQKNrzJzsNe</ds:SignatureValue>

<ds:KeyInfo Id="KeyId-17007273">
     <wsse:SecurityTokenReference
        xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
        wssecurity-utility-1.0.xsd"
        wsu:Id="STRId-22438818">
        <wsse:Reference URI="#CertId-1064304"
           ValueType="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
            x509-token-profile-1.0#X509v3">
            </wsse:Reference>
        </wsse:SecurityTokenReference>
    </ds:KeyInfo>

</ds:Signature>

<wsu:Timestamp
    xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecu-
    rity-utility-1.0.xsd">
     <wsu:Id="id-17984263">
    <wsu:Created>2014-09-24T10:57:35Z</wsu:Created>
    <wsu:Expires>2014-09-24T11:02:35Z</wsu:Expires>
</wsu:Timestamp>

</wsse:Security>
</SOAP-ENV:Header>
```

Requirements for BinarySecurityToken and Signatures

The EncodingType attribute for the BinarySecurityToken element must be:

<http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-soap-message-security-1.0#Base64Binary>

The valueType attribute for the BinarySecurityToken element must be:

<http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-x509-token-profile-1.0#X509v3>

or:

<http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-x509-token-profile-1.0#X509PKIPathv1>

The BinarySecurityToken element must contain the base64 encoding of the leaf X.509 certificate if the valueType is #X509v3, or it must contain the base64 encoding of the full X.509 certificate chain if the ValueType is #X509PKIPathv1.

The Algorithm attribute of the CanonicalizationMethod element must be:

`http://www.w3.org/2001/10/xml-exc-c14n#`

The Algorithm attribute of the SignatureMethod element must be:

`http://www.w3.org/2000/09/xmldsig#rsa-sha1`

The Algorithm attribute of the Transform element for each Reference element must be either:

`http://www.w3.org/2001/10/xml-exc-c14n#`

or:

`http://www.w3.org/TR/2001/REC-xml-c14n-20010315`

The Algorithm attribute of the DigestMethod element for each Reference element must be:

`http://www.w3.org/2000/09/xmldsig#sha1`

The KeyInfo element must contain a SecurityTokenReference element. The SecurityTokenReference element must contain a Reference element with a URI attribute. The URI attribute must use a local particle reference to identify the BinarySecurityToken element that contains the X.509 certificate (for example: the URI attribute equals #CertId-1064304 in the preceding example request).

You must include a wsu:Id attribute in any message elements that you sign. You can sign any SOAP header and the entire SOAP Body. Do not sign any other elements (such as children of the Body element). AWS ignores those elements for the purposes of signature validation, even if you include a wsu:ID attribute in them. If you sign elements that shouldn't be signed, the signature validation will fail.

Using SOAP without WS-Security

This section describes how to authenticate SOAP requests without using WS-Security. The topics describe the basic requirements, the required authentication information, and where to place the information in the SOAP request.

General Requirements

If you plan to use SOAP without WS-Security:

- You can use either SOAP 1.1 or SOAP 1.2
- You must use HTTPS with your requests

Required Authentication Information

Authentication of SOAP requests without WS-Security uses your AWS identifiers and an HMAC-SHA256 signature. The request must include the parameters listed in the following table.

Parameter	Description
AWSAccessKeyId	Your AWS Access Key ID. For more information, see Your AWS Identifiers (p. 53) .

Parameter	Description
Timestamp	<p>This is a required parameter if you include the Signature parameter. Otherwise it is optional. There is no default value. The time stamp you use in the request must be a <code>dateTime</code> object, with the complete date plus hours, minutes, and seconds (for more information, go to http://www.w3.org/TR/NOTE-date-time). This is a fixed -length subset of the format defined by ISO 8601, represented in Universal Time (GMT): <code>YYYY-MM-DDThh:mm:ssZ</code> (where T and Z are literals).</p> <p>Important If you are using .NET you must not send overly specific time stamps, due to different interpretations of how extra time precision should be dropped. To avoid overly specific time stamps, manually construct <code>dateTime</code> objects with no more than millisecond precision.</p>
Signature	<p>The HMAC-SHA256 signature calculated from the concatenation of the <code>Action</code> and <code>Timestamp</code> parameters, using your AWS secret access key as the key (for information about authentication with HMAC signatures, see HMAC-SHA Signatures for REST Requests (p. 54)). For example, for a request to create a queue, the value of the <code>Signature</code> element would be the HMAC-SHA256 digest of a string like this: <code>ItemLookup2014-09-24T00:00:00Z</code></p>

To calculate the signature

1. Concatenate the values of the `Action` and `Timestamp` request parameters, in that order. The string you've just created is the string you'll use when generating the signature.
2. Calculate an RFC 2104-compliant HMAC-SHA256 signature, using the string you just created and your secret access key as the key.
3. Convert the resulting value to base64.
4. Pass this final value in the `signature` parameter of the SOAP request.

Location of Authentication Information in the Request

With version 2013-08-01, you must provide the authentication information as elements in the SOAP header (using the namespace `http://security.amazonaws.com/doc/2007-01-01/`), as in the following example.

```

<?xml version="1.0"?>
<soap:Envelope
    xmlns:soap="http://www.w3.org/2001/12/soap-envelope"
    soap:encodingStyle="http://www.w3.org/2001/12/soap-encoding">

    <soap:Header
        xmlns:aws="http://security.amazonaws.com/doc/2007-01-01/">
        <aws:AWSAccessKeyId>AKIAIOSFODNN7EXAMPLE</aws:AWSAccessKeyId>
        <aws:Timestamp>2008-02-10T23:59:59Z</aws:Timestamp>
        <aws:Signature>SZf1CHmQnrZbsrC13hCZS061ywsEXAMPLE</aws:Signature>
    </soap:Header>
    ...
</soap:Envelope>
```

Batch Requests

Topics

- [Batch Requests \(p. 71\)](#)

The requests presented so far contain only one operation. Product Advertising API enables you to improve performance by submitting more than one request at the same time. There are two ways to do this:

- **Batch request**—A request that uses one operation with up to two sets of parameters.
- **Multiple ItemIds**—In an `ItemLookup` request, you can include up to ten comma-separated values for `ItemId`.

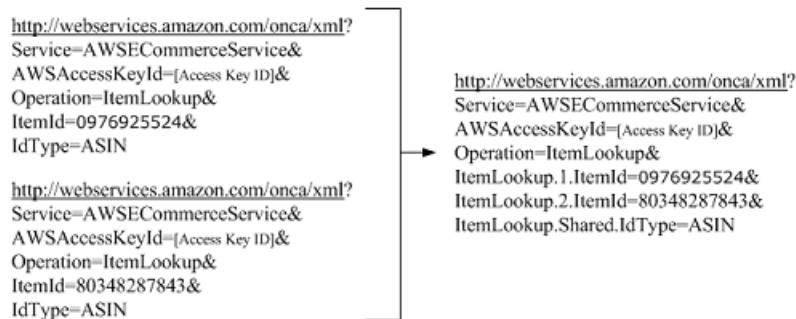
Batch Requests

Topics

- [Parameters That Differ \(p. 71\)](#)
- [Shared Parameters \(p. 72\)](#)
- [Performing Multiple ItemLookups in One Request \(p. 72\)](#)

There might be times when you want to use the same operation in two requests, each one using different input parameters. For example, you might want to run an `ItemLookup` request several times, each time looking up a different item. To accomplish this task, you can submit two requests or one batch request.

The following figure shows how two simple requests can be combined into one batch request.



The new syntax introduced in the batch request centers on the ways in which the operation parameters are defined. Either the parameter values are different or they are shared between the simple requests in the batch request.

Batch requests can contain up to two sets of parameters.

Note

The Product Advertising API supports `ItemLookup` batch requests only when the `ItemType` is an EAN (European Article Number), ISBN (International Standard Book Number), EISBN (Electronic International Standard Book Number), or ASIN (Amazon Standard Item Number).

Parameters That Differ

Parameters that differ between the simple requests in a batch request are identified by a reference number. The following parameter declaration syntax shows where the reference number goes.

```
OperationName.ReferenceNumber.Parameter=Value
```

The following request snippet shows an example of a reference number, 1.

```
ItemLookup.1.ItemId=0976925524
```

The *ReferenceNumber* is a positive integer that associates the parameters in the simple request. For example, the following parameters are part of the same simple request because they use the same reference number.

```
ItemLookup.1.ItemId=0976925524&  
ItemLookup.1.ResponseGroup=Images
```

These parameters might be different from a second simple request, which is part of the same batch request.

```
ItemLookup.2.ItemId=0485935524&  
ItemLookup.2.ResponseGroup=Collections
```

So, if the previous two request snippets were part of one batch request, the *ItemLookup* operation would be executed twice, each time with a different *ItemId* and *ResponseGroup*.

In one batch request, you can have up to two different reference numbers. For example, the following request snippet exceeds the number of allowed reference numbers in one batch request.

```
ItemLookup.1.ItemId=0976925524&  
ItemLookup.2.ItemId=0485935524&  
ItemLookup.3.ItemId=0792335535&
```

Shared Parameters

There are times when the parameter values for the simple requests in a batch request are the same, for example, *ItemType=ASIN*. In this case, instead of using a *ReferenceNumber* for each simple request, you can substitute the special value, "Shared," as shown in the following example.

```
ItemLookup.Shared.ItemType=ASIN
```

The following parameter declarations show the equivalent of the preceding declaration.

```
ItemLookup.1.ItemType=ASIN&  
ItemLookup.2.ItemType=ASIN
```

Both forms of the request work but using the special value, Shared, reduces the amount of typing required. Generally, you only use the Shared value with required parameters. Optional parameters do not need to be included in the request and their default values, if any, are assumed and thus shared across the simple requests in the batch request.

Performing Multiple ItemLookups in One Request

The other way to execute multiple *ItemLookup* requests in one request is to use a comma-separated list of *ItemIds*, for example:

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=B00008OE6I,B35987036I,B0002546I,B25468OE6I,B09788OE6I,B00453OE6I&  
IdType=ASIN&  
ResponseGroup=OfferFull&  
Condition=All&  
Timestamp=[ YYYY-MM-DDThh:mm:ssZ ]  
&Signature=[Request Signature]
```

The preceding example shows six *ItemIds* in the request, which means `ItemLookup` will be executed six times, one for each *ItemId*. You can specify up to ten *ItemIds*.

Tip

Be careful not to introduce spaces before or after the commas in the comma-separated list of *ItemIds*.

Parameters Common to All Product Advertising API Requests

Topics

- [Required Parameters \(p. 73\)](#)
- [General, Optional Parameters \(p. 74\)](#)
- [XML-Encoding Parameters \(p. 74\)](#)
- [Debugging Parameters \(p. 75\)](#)

Product Advertising API operations use a variety of required and optional parameters. The API Reference Guide describes the parameters that each operation can use.

There are, however, a number of parameters that all operations can use. These parameters can be grouped into types.

The following sections describe these parameter types.

Required Parameters

The parameters in the following table are required in every request.

Parameter	Value	Description
Service	AWSECommerceService	Specifies the Product Advertising API service
AWSAccessKeyId	Your Amazon-assigned Access Key ID	To register for an Access Key ID from the Amazon Web site, go to http://aws.amazon.com . Every Product Advertising API 4.0 request must contain either an Access Key ID or a Subscription ID but not both.

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Parameter	Value	Description
SubscriptionId	Your Amazon-assigned subscription ID	Every Product Advertising API 4.0 request must contain either an Access Key ID or a Subscription ID but not both. Starting with version 2005-10-05, Product Advertising API stopped distributing Subscription IDs. If you already have one, it will continue to work.
AssociateTag	An Amazon-assigned Associate ID	The <i>AssociateTag</i> enables product URLs returned by Product Advertising API to be tagged as originating from your Associates website. For your requests to work and to receive a referral credit for a sale, you must include an AssociateTag value in all your requests. Be sure to specify the value correctly; no error is generated for incorrect values.
Operation	Operation you wish to perform, for example, ItemLookup	One of the Product Advertising API operation types.

Related Topics

- [Operations \(p. 192\)](#)

General, Optional Parameters

The parameters in the following table can be used optionally in any Product Advertising API request.

Parameter	Value	Description
MerchantId	An optional parameter that can be used to filter search results and offer listings to include only items sold by Amazon. By default, the API will return items sold by various merchants including Amazon.	The only valid optional value is “Amazon”.
ResponseGroup (p. 238)	Various	Specifies what subset of data to return. The API Reference Guide specifies the response groups that can be used with each operation..
Version	Various	Version of the Product Advertising API 4.0 WSDL. The default is 2011-08-01. If you want another version, including the latest, you must specify it in your request.

XML-Encoding Parameters

Another optional parameter is provided, that you may need in some environments, as described in the following table.

Parameter	Value	Description
XMLEscaping	"Single", the default, or "Double"	<i>XMLEscaping</i> specifies whether responses are XML-encoded in a single pass or a double pass. By default, <i>XMLEscaping</i> is "Single," and Product Advertising API responses are encoded only once in XML. For example, if the response data includes an ampersand character (&), the character is returned in its regular XML encoding (&). If <i>XMLEscaping</i> is "Double," the same ampersand character is XML-encoded twice (&). The Double value for <i>XMLEscaping</i> is useful in some clients, such as PHP, that do not decode text within XML elements.

Debugging Parameters

Process to Debut a Request

- | | |
|---|---|
| 1 | Use the <i>Validate</i> parameter described in the following table. |
|---|---|

Parameter	Value	Description
Validate	"False", the default, or "True"	Use the <i>Validate</i> parameter to have Product Advertising API test your request without actually executing it. When present, <i>validate</i> must equal "True." If the request is valid, the response will contain an element called IsValid with a value of True. If the request is invalid, the response will contain 1) an element called IsValid with a value of False and 2) the errors that would be returned if the request were actually executed. Notes: Since the request is not actually executed, only a subset of the errors for the request may be returned. This is because some errors (e.g., no_exact_matches) are only generated during execution of a request.

We also recommend that you include the *Request* response group for help with debugging. The Request response group echoes back the parameters used to generate the response and allows you to verify that your request was received correctly.

Responses

In response to a request, the Product Advertising API web service returns an XML document that contains the results of the call in an XML data structure. This data conforms to a WSDL and schema.

For REST requests, this data structure is simply the body of the HTTP response. You can use a data binding method for REST responses, or use an XML parser directly to process the information.

For SOAP requests, the data structure is the SOAP message body of the response. SOAP toolkits typically convert the response data into structures for use with your programming language, or allow you to specify your own data bindings.

Other than the use of a message envelope in the SOAP response, REST and SOAP responses are identical. Both conform to the Product Advertising API schema. The SOAP WSDL imports an XSD file to define the response messages. REST users can access the XSD file directly. For more information, see [WSDL Location \(p. 19\)](#).

Important

All requests that you submit must be authenticated. For information about authenticating REST requests, see [Authenticating REST Requests \(p. 56\)](#). For information about authenticating SOAP requests, see [Authenticating SOAP Requests \(p. 65\)](#).

Anatomy of a Response

Product Advertising API responses vary according to the operations and parameters submitted in the request. The number of responses is essentially infinite, based on the number of possible requests. There are, however, segments of the response that are common across all responses, as shown in the following figure.

```

<?xml version="1.0" encoding="UTF 8" ?>
<ItemLookupResponse xmlns="http://webservices.amazon.com/
AWSECommerceService/2006-09-13">
<OperationRequest>
<HTTPHeaders>
<Header Name="UserAgent" Value="Mozilla/4.0 (compatible; MSIE 6.0;
Windows NT 5.1; SV1; .NET CLR 1.1.4322; .NET CLR 2.0.50727)" />
</HTTPHeaders>
<RequestId>1Z7F948WCDAWRW1T6CFH</RequestId>
<Arguments>
<Argument Name="Operation" Value="ItemLookup" />
<Argument Name="Service" Value="AWSECommerceService" />
<Argument Name="AWSAccessKeyId"
Value="1V9M7E1EXAMPLE" />
<Argument Name="ItemId" Value="0976925524" />
<Argument Name="IdType" Value="ASIN" />
</Arguments>
<RequestProcessingTime>0.0174400806427002</RequestProcessingTime>
</OperationRequest>
<Items>
<Request>
<IsValid>True</IsValid>
<ItemLookupRequest>
<IdType>ASIN</IdType>
<ItemId>0976925524</ItemId>
</ItemLookupRequest>
</Request>
<Item>
<ASIN>0976925524</ASIN>
<DetailPageURL>http://www.amazon.com/gp/redirect.html%3
FASIN=0976925524%26tag=ws%26lcode=xm%26cID=2025%26
ccmID=165953%26location=/o/ASIN/0976925524%253F
AWSAccessKeyId=1V9M7E1EXAMPLE
</DetailPageURL>
<ItemAttributes>
<Author>Stephen Davenport</Author>
<Manufacturer>H.H. Bonnell</Manufacturer>
<ProductGroup>Book</ProductGroup>
<Title>Saving Miss Oliver's: A Novel of Leadership, Loyalty and Change</Title>
</ItemAttributes>
</Item>
</Items>
</ItemLookupResponse>

```

The following sections describe each segment in this response.

Version Information Segment

The first two lines of every response contain version information. The first line details the XML version used, which, in this example, is 1.0. The first line also includes the character encoding, which, in this example, is UTF-8.

The second line of every response contains the name of the response, which is named after the operation in the request. In this example, the `ItemLookup` operation returns a response element named `ItemLookupResponse`.

The second line also contains the version of Product Advertising API used to create the response. In this example, the version number is 2013-08-01. If a version is not specified in a request, Product Advertising API uses the default version, 2011-08-01. Make sure to specify the latest version number if you want the latest Product Advertising API functionality.

Operation Request Segment

The second segment of a response is always the Operation Request. For the most part, it returns the operation's parameters, called arguments, that were used in the request. There is, however, some additional information. The first large subsection is the `HTTPHeader` section, which specifies the network agent used to send the request. Typically, the agent, called the user agent, is a web browser and the information returned describes that browser, such as its name, version, and the operating system of its host.

The second large subsection contains the arguments, or operation parameters, used in the request. These values are unprocessed echoes of the values submitted in the request. This information is echoed for the benefit of troubleshooting requests.

Finally, interspersed around the large subsections in the Operation Request segment is Product Advertising API processing information, including the Request ID and the time it took to process the request. This is interesting information for troubleshooting. You will not, however, have to use either the Request ID or the processing time in future requests.

Request Validation Segment

The segments described so far are typically less interesting than the ones that follow. The Request Validation segment contains error information if there was an error in the request. It is also the last segment that Product Advertising API returns in a response if there was an error.

In the preceding example, the request was valid, as shown in the `IsValid` element.

```
<IsValid>True</IsValid>
```

The `IsValid` element pertains only to the validity of the request. It reports whether all of the required elements of a request are present, whether parameter restrictions and constraints have been obeyed, and whether parameter values are legal. `IsValid` does not assure that a valid request will be processed by Product Advertising API. For example, an `ItemId`, such as, 1234ABCD, is in the correct form, but no items in Amazon's catalog match that `ItemId`, so, the request would be valid but would return an error.

There are many reasons why a request can fail, as described in the following table.

Problem	Description
Incorrect parameters supplied	<p>The request is missing parameters that an operation requires, or the combination of parameters is not allowed, or the Service parameter was omitted. In this case, the IsValid value is "False" and the request is not processed by Product Advertising API. Common mistakes that cause these errors are spaces in the URL that prevent Product Advertising API from reading the entire request, or misspelled and mis-capitalized parameter names or values. If you inadvertently enter a space in a request, your browser automatically enters the URL-encoded form of a space: %20. For example, if you paste, ItemId= B12345, into your browser as part of a request, the URL field in the browser shows, ItemId=%20B12345.</p>
Invalid values	<p>The request might be syntactically correct but the values for one or more parameters might be invalid. For example, you might supply an ItemId value that does not match any item sold on Amazon. In this case, the IsValid value is "True" but an error message is returned that says that the value is "not a valid value for ItemId. Please change this value and retry your request."</p>
Empty result	<p>The request is valid but there is no data that matches the search criteria. In this case, the IsValid value is "True." Remember that parameter names and values are case sensitive.</p>
Network or processing error	<p>The request is valid but a network outage or processing failure has caused Product Advertising API to return an empty response. In this case, the IsValid value is "True."</p>
Partial request errors	<p>Product Advertising API returns as much information as possible. For example, if you use a batch request and Product Advertising API finds items for one request but not the other, Product Advertising API returns all of the information for the found item and an error message for the other request.</p>

When one of these errors occurs, the IsValid value is False and Product Advertising API returns an error element in the Request Validation segment. The error element includes:

- **Error code**—The title of the error
- **Error message**—A brief description of the error condition

The following example shows an error message.

```
<Errors>
<Error>
<Code>missing_service_parameter</code>
<message>Your request is missing the Service parameter. Please add the Service parameter to your request and retry. Valid values for the Service parameter include AWSEcommerceService.</message>
</Error>
</Errors>
```

The more difficult error to assess is a request that is valid, that is processed, but contains an error in logic. For example, a request might use default values such that only items in new condition are returned when the requester meant to return items in all conditions.

The remainder of the Request Validation segment is a subsection named after the operation used in the request. In this example, the subsection is named `ItemLookupRequest`. This subsection echoes the parameter values used in the request. These values are returned for the purpose of troubleshooting the request.

Item Attributes Segment

Assuming that your request is valid, the final segment of the response that contains the item attributes is typically the part of the response that contains the most value. This segment contains all of the descriptive information about the items that satisfied the request. In the preceding example, one item was found that satisfied the search criteria. Many attributes are returned that describe that item, including, the title, "Saving Miss Oliver's: A Novel of Leadership, Loyalty and Change."

The item attributes returned in a response vary according to the response group used and the items found. Merchants do not always provide Amazon with a single set of item attributes. For example, one merchant might supply the name of a book's publisher, another might not. A response contain both of these books would therefore contain a different set of item attributes. Item attributes that do not have values are not returned. The API Reference Guide describes the item attributes that can be returned by each response group.

Paging and Sorting Through Responses

Topics

- [Paging Through Results \(p. 80\)](#)
- [Sorting Results \(p. 82\)](#)

The only drawback of having so many items at your fingertips is the possibility of receiving too many in a response. Product Advertising API handles this problem in several ways:

- Results are returned on page, generally, up to ten results per page.
- The `Sort` parameter orders results.

Paging Through Results

It is possible to create a request that returns many thousands of items in a response. This is problematic for several reasons. Returning all of the item attributes for those items would dramatically impact the performance of Product Advertising API in a negative way. Also, posting a thousand responses on a web page is impractical.

For that reason, Product Advertising API developed the strategy of returning results a little at a time. The good news is that you can return any page of results. For example, the first request can return the last

page of results. To do that, you have to specify the desired page of results using one of the parameters that enable you to return result pages.

To page through results

- Use the appropriate paging parameter in the request. Operations have their own paging parameters. For example, the following `ItemSearch` request uses `ItemPage` to ask for the fourth page of results.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
Keywords=Potter&  
SearchIndex=Books&  
ItemPage=4  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

The following snippet of the response shows that the fourth page of results has been returned.

```
<ItemSearchRequest>  
  <ItemPage>4</ItemPage>  
  <Keywords>Potter</Keywords>  
  <SearchIndex>Books</SearchIndex>  
</ItemSearchRequest>  
</Request>  
<TotalResults>9729</TotalResults> <TotalPages>973</TotalPages>
```

This example shows that 9729 items matched the search criteria. Also, it shows that those results are on 973 (~9729/10) pages. You might try putting in an `ItemPage` value over 10. If you do, Product Advertising API returns the following error.

```
<Error>  
  <Code>AWS.ParameterOutOfRange</Code>  
  <Message>The value you specified for ItemPage is invalid. Valid values must  
be between 1 and 10.</Message>  
</Error>
```

So, how do you get that 973rd page? You cannot. A better approach is to submit a new request that is more targeted and yields fewer items in the response.

Maximum Number Of Returned Pages

The last example showed that Product Advertising API returns only so many pages for any one request. This is because performance must be optimized for the tens of thousands of Product Advertising API developers and customers. For that reason, many Product Advertising API operations have pagination parameters and associated maximum values, as shown in the following table.

Operation	Parameter Name	Maximum Page Number
ItemLookup	VariationPage	150
ItemSearch	ItemPage	10

These parameters are defined in the section of the API reference that describes the associated operation.

Sorting Results

The following Product Advertising API operations have a *Sort* parameter that arranges results:

- ItemSearch

To sort results

1. Consult the appendix, [Locale Reference \(p. 336\)](#), to determine available sort values.

Available sort values vary by locale and search index.

2. Add the *Sort* parameter to a request that uses one of the preceding operations.

For example, the following request returns books with "Harry Potter" in their title or description in alphabetical order.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=1MEXAMPLEZBG2&  
Operation=ItemSearch&  
Keywords=Harry%20Potter&  
SearchIndex=Books&  
Sort=titlerank&  
ItemPage=4&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

A small snippet of the response shows that the book titles are returned in alphabetical order.

```
<Title>Aventuras de Harry Potter, Las</Title>  
...  
<Title>Beacham's Sourcebook For Teaching Young Adult Fiction: Exploring Harry  
Potter</Title>  
...  
<Title>Beatrix Potter to Harry Potter: Portraits of Children's Writers</Title>
```

Product Advertising API provides many different sorting criteria, for example, price (high to low, or low to high), salesrank (best to worst selling, or worst to best selling), publication date, review rank, and release date. Valid sort parameters vary by search index, for example, the DigitalMusic search index can be sorted by UploadedDate. That value for *Sort* would not make sense in the Automotive search index, for example. Sort parameters also differ by locale.

For more information about sort values by locale and search index, see the appendix, [Locale Reference \(p. 336\)](#).

Default Sort Values

There are many sort values. The majority are not applied unless the *Sort* parameter is included in the request. There are two sort values, however, that are used by default.

- For ItemSearch requests that do not use the *BrowseNode* parameter, results are sorted by Relevance

- For `ItemSearch` requests that do use the `BrowseNode` parameter, results are sorted by BestSeller ranking

Finding Items to Buy

Topics

- [Search Operations \(p. 83\)](#)
- [Items You Cannot Buy \(p. 83\)](#)
- [Items Sold by Merchants \(p. 85\)](#)
- [Common ItemSearch Parameters \(p. 87\)](#)
- [Power Searches \(p. 91\)](#)
- [Using Search Bins to Find Items \(p. 95\)](#)
- [Finding Items Using Browse Nodes \(p. 101\)](#)
- [Request/Response Examples \(p. 105\)](#)

In the previous chapter, you learned how Amazon groups and catalogs items for sale. In the following sections, you learn how to use Product Advertising API operations to find those items.

Search Operations

The following table describes the Product Advertising API operations that find items.

Operation	Description
ItemSearch (p. 223)	To find items sold by merchants and sellers. This operation is the one used most often to find items for sale.
BrowseNodeLookup (p. 193)	To find items associated with browse nodes by navigating through the browse node hierarchy. This operation does not return items directly, only the browsenodes associated with items.

If you do not know whether an item is for sale by a merchant or seller, search first using `ItemSearch` for two reasons:

- Most of the items sold on Amazon are sold by merchants.
- Sellers often list their items for sale in Amazon's marketplace as well as in their own stores. Anything sold in the marketplace can be found by `ItemSearch`.

Items You Cannot Buy

You might assume that any item returned by one of the search operations is for sale. This, however, is not the case. Some items, such as Variation parents and Collection parents, are never for sale. Before presenting items to customers, you must make sure the items can be purchased.

Product Advertising API provides several ways to determine if an item can be purchased, for example, `ItemSearch` has an `Availability` parameter, which specifies whether an item is available for purchase. The best way, however, to determine whether or not an item can really be purchased is by using one of the following response groups in a request:

- [Offers Response Group \(p. 279\)](#)

- OfferFull Response Group (p. 275)
- Large Response Group (p. 262)

Note

Large is a parent of the Offers response group.

All of the search operations listed, except BrowseNodeLookup, can use these response groups. These response groups return an OfferListingId element for each item that can be purchased. Items that do not have an OfferListingId cannot be purchased.

The following response snippet shows that an item can be purchased because the response contains an *OfferListingId*.

```
<Item>
  ...
  <Offer>
    ...
    <OfferListing>
      <OfferListingId>g7CWSnBZmVESKy%2BCNS</OfferListingId>
      <Price>
        <Amount>625</Amount>
        <CurrencyCode>USD</CurrencyCode>
        <FormattedPrice>$6.25</FormattedPrice>
      </Price>
      <Availability>Usually ships in 1-2 business days
      </Availability>
    </OfferListing>
  </Offer>
</Item>
```

This response shows how the *OfferListingId* element is a child of the Item element.

The Availability element in the preceding example is not a reliable means of determining whether or not an item is truly available for purchase. Its message concerns how quickly an item can ship when it is in stock. A value returned for Availability does not guarantee that the item is in stock.

Tip

The next chapter talks about adding items to a customer's shopping cart. While it is possible to add an item to a cart using an ASIN, the preferred means of adding an item is by specifying an *OfferListingId* because an *OfferListingId*, not an ASIN, guarantees that an item can be purchased.

Availability Parameter

The *Availability* parameter filters out of ItemSearch results those items that are unavailable. The availability of an item can change rapidly. There is typically a discrepancy between an item's availability as reported by ItemSearch and the item's true availability, as reported by Amazon's web site. For this reason, the availability of items reported by ItemSearch and by Amazon's web site will be slightly different. Items that are "available" are classified on Amazon's retail web site as:

- Currently for sale
- Pre-orders
- Special orders
- New releases
- E-mail me when items become available
- Items available for in-store pickup

- Items for sale by third parties

Parameter Restrictions for Availability

The following table describes the `ItemSearch` parameters that must be included to return available items (only).

ItemSearch Parameter	Description
Availability	Must be set to "Available." When the <code>Availability</code> parameter is not set, <code>ItemSearch</code> returns available and unavailable items. "Available" is the only valid value for <code>Availability</code> . Setting it to another value returns an error message. Parameter values are case sensitive. When the <code>Availability</code> parameter is set to "Available", the only optional constraint that can be present is <code>MerchantId</code> .
MerchantId	An optional parameter that can be used to filter search results and offer listings to only include items sold by Amazon. By default, the API will return items sold by various merchants including Amazon. The only valid optional value for <code>MerchantId</code> is "Amazon".

The following search indices do not work with the `Availability` parameter:

- Items available for in-store pickup
- Items for sale by third parties

In both cases, because Amazon does not warehouse the items for sale, Amazon cannot determine the availability of them.

Items Sold by Merchants

By far, most items on Amazon are sold by merchants. Amazon itself is one. For that reason, [ItemSearch \(p. 223\)](#) is one of the most heavily used Product Advertising API operations. Because there are so many items for sale on Amazon, `ItemSearch` has many input parameters that help target a request. `ItemSearch` requests can also use many response groups, which can tailor the type of information returned with each item.

At first, the number of `ItemSearch` input parameters might seem overwhelming. This section explains the parameters most commonly used. By mastering these, you can create highly targeted requests. For a description of all of the `ItemSearch` parameters, see `ItemSearch`.

Required ItemSearch Parameters

`ItemSearch` can potentially return any item sold by a merchant and most sellers. Because there are so many items, `ItemSearch` requires that you specify a search index and at least one additional parameter, as shown in the following example.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&
```

```
AWSAccessKeyId=[AWS Access Key ID]&
Operation=ItemSearch&
SearchIndex=Books&Keywords=Saving%20Miss&20oliver's
&Timestamp=[ YYYY-MM-DDThh:mm:ssZ ]
&Signature=[ Request Signature ]
```

In this request, `ItemSearch` looks for "Saving Miss Oliver's" in the titles and descriptions of all of the items in the Books search index. The response would include all matches.

The previous example used the `Keywords` parameter as the second parameter, which is one of the most popular parameters to use. The following list shows all of the `ItemSearch` parameters that you could have used instead.

- | | | |
|---|--|---|
| <ul style="list-style-type: none">• Actor• Artist• AudienceRating• Author• Brand• BrowseNode | <ul style="list-style-type: none">• Composer• Conductor• Director• Keywords• Manufacturer• MusicLabel | <ul style="list-style-type: none">• Orchestra• Power• Publisher• Title |
|---|--|---|

A cursory look at the list of parameters shows you that most are very specific, which makes it easy to determine whether or not they should be used in a request. The `Publisher` parameter, for example, is used only to specify the publisher of a book. Once you know the item you are looking for, choosing which parameter to use becomes easy.

Parameter Support by Search Index

Each search index supports only a subset of all `ItemSearch` parameters. For example, in the US locale, when you specify the Blended search index, you can only use one parameter: `Keywords`, in a request. Using any of the other parameters in that request would return an error.

All other search indices support multiple parameters. For example, when you specify the Beauty search index, in the US locale, you can include one or more of the following parameters in the request.

- | | | |
|--|---|---|
| <ul style="list-style-type: none">• Brand• BrowseNode• Condition | <ul style="list-style-type: none">• ItemPage• Keywords• Manufacturer• MaximumPrice | <ul style="list-style-type: none">• MinimumPrice• Sort• Title |
|--|---|---|

The search index—parameter combinations, for the most part, make sense. For example, if you use the Automotive search index, the `Author` parameter is invalid in the request. This restriction makes intuitive sense. So, in general, it is not the case that you need to memorize all of the parameters that can be used in each search index.

Search Indices, Parameters, and Locales

There is one further restriction on the use of parameters in an `ItemSearch` request. The search index values that can be used in an `ItemSearch` (p. 223) request vary by locale. For example, the Baby and Beauty search indices are available in the US but not in the UK locale. An error is returned if you use a

search index value that is not supported in a locale. The limitations on the use of search indices by locale therefore also limits the use of ItemSearch parameters.

For a complete list of ItemSearch parameters supported in each search index and in each locale, see [Locale Reference \(p. 336\)](#).

Common ItemSearch Parameters

Topics

- [Returning Only Available Items \(p. 87\)](#)
- [Inaccurate Availabilities \(p. 88\)](#)
- [Availability Parameter Restrictions and Constraints \(p. 89\)](#)
- [Searching Across Indices \(p. 89\)](#)

After you decide on a search index value and check [Locale Reference \(p. 336\)](#) to determine what [ItemSearch \(p. 223\)](#) input parameters are valid for that search index, you should set values for as many valid parameters as you can to increase the accuracy of the search results.

The most commonly used input parameters are the ones that can be used with the most search indices, including:

- Availability—Specifies that the item must be available for purchase. The only valid value for the parameter is "Available."
- BrowseNode—Enables you to search a specified browse node for associated items.
- Condition—Enables you to specify the condition of an item. Valid values are "All," "New," "Used," "Collectible," and "Refurbished." The default is "New." Condition does not restrict the total number of items returned. It does, however, restrict the offers returned to those items that are in the specified condition.
- Keywords—A word or phrase (words separated by percent-encoded spaces, %20) used as a search criteria. The titles and descriptions of items are searched for keywords.
- MaximumPrice—The maximum price that an item can cost.
- MinimumPrice—The minimum price that an item can cost.
- Title—A word or phrase (words separated by percent-encoded spaces, %20) used as a search criteria. The titles of items are searched for these words.

The definitions for all ItemSearch parameters are in the API Reference. The following sections describe in greater detail some of the commonly-used parameters.

Returning Only Available Items

ItemSearch returns available and unavailable items. Unavailable items are, for example, items that are temporarily out of stock. By setting the *Availability* parameter to "Available," ItemSearch can filter out most of the items that are unavailable. The following ItemSearch request returns shirts that are available.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
Condition=All&  
Availability=Available&  
SearchIndex=Apparel&  
Keywords=Shirt
```

```
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

"Available" is the only valid value for the parameter. Setting it to any other value returns an error message. By default, the value is not set.

Items that are "available" are classified on Amazon's retail web site as:

- Currently for sale
- Pre-orders
- Special orders
- New releases
- E-mail me when items become available
- Items available for in-store pickup
- Items for sale by third parties

The availability of an item can change rapidly. There is typically a discrepancy between an item's availability as reported by `ItemSearch` and the item's true availability, as reported by Amazon's web site. For this reason, the availability of items reported by `ItemSearch` and by Amazon's web site can be slightly different. These differences are most evident for items, such as software, whose availability changes often.

Note

Do not confuse the *Availability* parameter with the return element, `Availability`. The latter is an element in a response that describes how soon an item can be shipped, such as, "Ships in 48 hours." While this is a helpful value to display, it does not guarantee that an item is truly available to be purchased. For that determination, test for an `OfferListingId`, which is provided by the `Offers`, `OfferFull`, and `Large` response groups.

Inaccurate Availabilities

The *Availability* parameter does a good job of filtering out of the response items that are unavailable. The parameter, however, is not foolproof. It is possible for an item to be unavailable for purchase even if:

- The item is returned in a response
- The response has been filtered using the *Availability* parameter
- The `Availability` element in the response says the item can be shipped in twenty-four hours

For example, some items, including [Variations \(p. 38\)](#) parents, are never available for purchase because they do not represent real items; they are abstractions. These parent items, however, are often returned as being available. The following request returns a Collection parent item even though the *Availability* parameter is used.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=B0006PLAOE&  
Availability=Available&  
ResponseGroup=ItemAttributes,Offers&  
Condition=All  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

A snippet of the response shows that the Collection parent item is returned, so you might assume that it is available. However, the item is not associated with any offers, so it cannot be purchased.

```
<Item>
<ASIN>B0006PLAOE</ASIN>
...
<Offers>
<TotalOffers>0</TotalOffers>
```

The contradiction of an item being available but not something you can buy shows that the *Availability* parameter is helpful but not the final arbiter in determining what items a customer can actually purchase. Instead, as was mentioned at the beginning of this chapter, a better test for availability is whether or not an item has an *OfferListingId*. Also, in the preceding example, you can see that you can test the value of *TotalOffers* to determine if an item has an offer.

Process to Include Item's Availability

1	Include in an ItemSearch request <i>Availability</i> = Available.
2	Include in the request <i>ResponseGroup</i> = Offers.
3	Test to see that the value in the response for <i>TotalOffers</i> is greater than zero.

Even though the *Availability* parameter is not foolproof, it does have value. The advantage gained by using the parameter is that it prevents the return of items that certainly do not have an *OfferListingId*. This filtering reduces the amount of testing you need to do to make sure the returned items have an *OfferListingId*.

Availability Parameter Restrictions and Constraints

The *Availability* parameter carries with it a restriction and some constraints. The restriction is that the *Availability* parameter cannot be used with the Blended search index. When the *Availability* parameter is set to "Available", the only optional constraint that can be present is *MerchantId*=Amazon.

Parameter	Description
<i>MerchantId</i>	An optional parameter that can be used to filter search results and offer listings to only include items sold by Amazon. By default, the API will return items sold by various merchants including Amazon. The only valid optional value for <i>MerchantId</i> is "Amazon".

Searching Across Indices

ItemSearch requests require that you specify a search index. This is because searching across the millions of products in Amazon databases would take too long. Product Advertising API does, however, enable you to search across multiple search indices using the All or Blended search indices.

All Search Index

You can use the All search index to do an ItemSearch search through all search indices. There are, however, a number of restrictions placed on this request: the only parameter that you can use in the request is *Keywords*, and you cannot, for example, sort results.

Blended Searches

ItemSearch searches through a specified search index, or *SearchIndex* can be set to "Blended." A blended search always searches through the following search indices (only).

The indexes that are searched are specific to a particular marketplace. The following tables list the search indexes for each marketplace.

Note

Blended searches are not supported in CN, IT, and ES.

Blended search indexes in CA

<ul style="list-style-type: none">• Books• DVD• Electronics• ForeignBooks	<ul style="list-style-type: none">• Kitchen• Music• Software• SoftwareVideoGames	<ul style="list-style-type: none">• SportingGoods• Tools• VHS• VideoGames
--	---	--

Blended search indexes in DE

<ul style="list-style-type: none">• Apparel• Automotive• Books• DVD• Electronics• ForeignBooks• Grocery	<ul style="list-style-type: none">• HealthPersonalCare• Kitchen• Music• PCHardware• Shoes• Software	<ul style="list-style-type: none">• SoftwareVideoGames• SportingGoods• Tools• Toys• VHS• VideoGames
---	--	--

Blended search indexes in FR

<ul style="list-style-type: none">• Apparel• Books• DVD• Electronics• ForeignBooks	<ul style="list-style-type: none">• HealthPersonalCare• Kitchen• Music• PCHardware• Shoes	<ul style="list-style-type: none">• Software• SoftwareVideoGames• SportingGoods• Toys• VHS• VideoGames
--	---	---

Blended search indexes in JP

<ul style="list-style-type: none">• Apparel• Automotive• Books• DVD• Electronics• ForeignBooks• Grocery	<ul style="list-style-type: none">• HealthPersonalCare• Kitchen• Music• PCHardware• Shoes	<ul style="list-style-type: none">• Software• SportingGoods• Toys• VHS• VideoGames
---	---	--

Blended search indexes in UK

<ul style="list-style-type: none">• Apparel• Automotive• Books• DVD• Electronics• Grocery	<ul style="list-style-type: none">• HealthPersonalCare• Kitchen• Music• PCHardware• Shoes• Software	<ul style="list-style-type: none">• SoftwareVideoGames• SportingGoods• Tools• Toys• VHS• VideoGames
--	--	--

Blended search indexes in US

<ul style="list-style-type: none">• Apparel• Automotive• Books• DVD• Electronics• GourmetFood• Grocery	<ul style="list-style-type: none">• HealthPersonalCare• HomeGarden• Kitchen• Music• PCHardware• Shoes	<ul style="list-style-type: none">• Software• SportingGoods• Tools• Toys• VHS• VideoGames
--	--	--

Power Searches

Topics

- [Power Search Syntax \(p. 92\)](#)

ItemSearch's *Power* parameter, which can only be used when the search index equals Books, enables you to use simple or complex queries to perform book searches. A simple power search would be to return all books written by a specified author. While this query is valuable, it does not offer anything more than a similar search using the *Author* parameter in an ItemSearch request.

The true value of power searches comes in the ability to specify multiple criteria to search for books. For example, you could create a query that returned all books by a specific author, published during a specified year, in a specified language, and printed in a specified format.

Power Search Syntax

The individual parts of a power search query are of the following form

```
key:value
```

For example, the following query string searches for books authored by Davenport.

```
author:Davenport
```

Values are not case sensitive. So, "Davenport" returns the same books as "davenport."

The individual parts of a power search query are linked together using a variety of operators. The following example searches for all books authored by Davenport that were published during 2006.

```
author:Davenport and pubdate:during 2006
```

Other operators, such as parentheses, can be used to create additional specificity. For example, a query of subject:history and (spain or mexico) and not military and language:spanish would return a list of books in the **Spanish** language on the **subject** of either **Spanish** or **Mexican history**, excluding all items with **military** in their description.

These parameter values would be part of an `ItemSearch` request that used the `Power` parameter, as shown in the following example.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[ID]&  
Operation=ItemSearch&  
SearchIndex=Books&Power=subject:history%20and%20(spain%20or%20mex  
ico)%20and%20not%20military%20and%20language:spanish  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Note that spaces must be URL-encoded (%20) as shown.

Power Search Keywords

Power search queries are created using one or more keyword:value pairs. The keywords you can use in a power search are described in the following table.

Keyword	Description
after	Restricts the results to books published after the specified date. This keyword is used with pubdate, for example, pubdate:after 2006.
ASIN	An alphanumeric token that uniquely identifies a book.
author	Book's author.
author-begins	Author's name begins with this value.
author-exact	Authors name is exactly this value.

Keyword	Description
binding	Searches for books with the specified binding. Values for binding include abridged and large print.
during	Searches for books that were published during the time period specified. This keyword is used with pubdate, for example, pubdate:during 2006.
EISBN	Electronic International Standard Book Number of the digital book.
ISBN	International Standard Book Number of the book.
keywords	Words that can be found in the title or description of a book.
keywords-begin	Search for all words that begin with this value.
language	Language, such as Spanish, that the book is written in.
pubdate	Book's publication date.
publisher	Name of the book's publisher.
subject	Find books with the specified word in their subject description.
subject-begins	Find books whose subject description begins with this word or character.
subject-words-begin	Find books whose subject description begins with these words
title	Title of the book.
title-begins	Title of the book begins with this value exactly. This value does not mean "begins with," it means "begins." For the example, if the value is "I", the book, "I Lied," would be returned; the book, "Isabel," would not be returned.
title-words-begin	Title of the book begins with this word.

Power Search Operators

The following table describes the Power search queries operators that you use to build queries.

Header 1	Header 2
not	Excludes the following parameter from the results, for example, subject:history and not military, excludes military history in the results.
and	Specifies that both values must be true to be selected. For example, subject:history and (Spanish and Mexican), requires that the books selected contain both Spanish and Mexican history.
or	Exclusive or which means one of either item but not both. For example subject:history and (Spanish or Mexican), means the subject matter can be about the history of Spain or Mexico, but not both.
colon (:)	Used as an equals sign, for example, subject:history, searches for books whose subject matter is history.

Header 1	Header 2
parenthesis	Groups terms to clarify operations, for example, subject: history and (spain or mexico) Without the parentheses, you would search for books about Spanish history or Mexico. With parentheses, you search for books about Spanish history or Mexican history.
asterisk (*)	Stands for zero or more alphanumeric characters, for example, keywords:high%20tech* Some of the keywords used in a search would be "high tech," "high technology," and "high technologies." Use the asterisk to generalize your search.
Quotation marks (" ")	Specifies an exact match of the word(s) within the quotes, for example, keywords:"Saving Miss Oliver's"

Example Power Searches

The following five Power Search examples demonstrate many of the key words and operators.

```
author: ambrose and binding: (abridged or large print) and pubdate: after 11-1996
subject: history and (Spain or Mexico) and not military and language: Spanish
(subject: marketing and author: kotler) or (publisher: harper and subject: "high technology")
keywords: "high tech*" and not fiction and pubdate: during 1999
isbn: 0446394319 or 0306806819 or 1567993850
```

Power Search Tips

Topics

- [Exact Matches \(p. 94\)](#)
- [Discarded Search Words \(p. 95\)](#)

The following tips help you avoid common problems when using power search key words.

Exact Matches

title-begins require exact matches. So, the following examples return completely different results.

```
title-begins:I
title-begins:I*
```

The first example would return the book, "I Lied," but it would not return the book, "Isabel." The second example would return both books. This behavior also applies to:

- author
- author-begins
- author-exact
- title

- title-words-begin

Discarded Search Words

The search engine automatically discards small words, such as "A" and "The." So, for example, if you created queries using either of the following key:value pairs. `title-begins:A` `title-begins:The` you would get zero results because the search engine discards those words when searching through titles. This behavior is also true for:

- author
- author-begins
- author-exact
- title
- title-words-begin

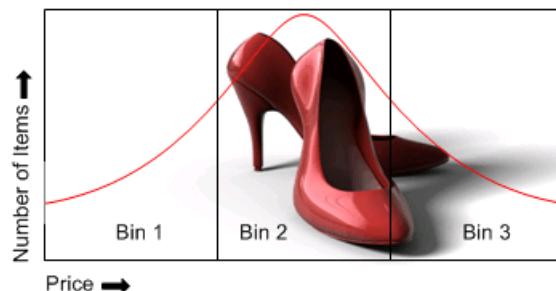
Using Search Bins to Find Items

Topics

- [NarrowBy Attribute \(p. 96\)](#)
- [Search Bin Example \(p. 96\)](#)
- [NarrowBy Values \(p. 97\)](#)
- [Results Refined by Repeating ItemSearch Requests \(p. 99\)](#)
- [ItemSearch Request Tips \(p. 101\)](#)

Up to this point, you have seen how you can use operation input parameters and response groups to filter out unwanted responses. The `SearchBins` response group provides a different means of refining results. It enables you to filter results based on values returned in a response.

The `SearchBins` response group categorizes the items returned by `ItemSearch` into groups, called bins. The grouping is based on some criteria, depending on the search index. For example, a set of bins can be based on a set of price ranges for an item. In the case of women's shoes, for example, `SearchBins` might return a bin that contains ASINs for shoes that cost between \$0 and \$50, a second bin for shoes that cost \$50 to \$100, and a third bin for shoes that cost more than \$100.



The advantage of using search bins is that the response group divides the items into bins without you having to return or parse item attributes. You can then submit a second `ItemSearch` request and return only the items in one bin.

You cannot create bins nor can you specify the criteria used to divide the items into groups. The `SearchBins` response group does that automatically.

Some search indices support more than one kind of bin. For example, apparel items can be divided in to bins according to price range and brand. In this case, the response would return multiple sets of bins, called SearchBinSets, in which the items would be divided according to different criteria.

The criteria used to divide the returned items into bins is called the *NarrowBy* value.

Note

Search bins are only available in the US locale.

Related Topics

- [SearchBins Response Group \(p. 294\)](#)

NarrowBy Attribute

The basis on which returned items are split into bins is specified by the *NarrowBy* attribute in the SearchBinSet element. In the following example, the *NarrowBy* attribute shows that the bins are based on price range.

```
<SearchBinSet NarrowBy="PriceRange">
```

For another product category, the *NarrowBy* attribute might be different, for example:

```
<SearchBinSet NarrowBy="BrandName">
```

You cannot specify *NarrowBy* values nor can you specify the values they encompass. When the SearchBins response group is included in a request, ItemSearch automatically divides the ItemSearch results into bins.

Search Bin Example

The following request uses the SearchBins response group to return search bins.

```
Service=AWSECommerceService&
AWSAccessKeyId=[Access Key ID]&
Operation=ItemSearch&
SearchIndex=Baby&
Keywords=pants&
Availability=Available&
Condition=All&
ResponseGroup=SearchBins
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

The following xml is a snippet from the response.

```
<SearchBinSets>
<SearchBinSet NarrowBy="PriceRange">
<Bin>
<BinName>$0-$24</BinName>
<BinItemCount>1645</BinItemCount>
<BinParameter>
<Name>MinimumPrice</Name>
<Value>0</Value>
```

```
</BinParameter>
<BinParameter>
  <Name>MaximumPrice</Name>
  <Value>2499</Value>
</BinParameter>
</Bin>
<Bin>
  <BinName>$25$49</BinName>
  <BinItemCount>647</BinItemCount>
  <BinParameter>
    <Name>MinimumPrice</Name>
    <Value>2500</Value>
  </BinParameter>
  <BinParameter>
    <Name>MaximumPrice</Name>
    <Value>4999</Value>
  </BinParameter>
</Bin>
<Bin>
  <BinName>$50$99</BinName>
  <BinItemCount>173</BinItemCount>
  <BinParameter>
    <Name>MinimumPrice</Name>
    <Value>5000</Value>
  </BinParameter>
  <BinParameter>
    <Name>MaximumPrice</Name>
    <Value>9999</Value>
  </BinParameter>
</Bin>
```

This response snippet shows the first three bins in the response. The NarrowBy value shows that the items were divided up based on price range. The BinName element names the bin. The names are descriptive of the price ranges that each bin represents. For example, the BinName, \$50\$99, contains items that cost between \$50 and \$99.99, which you can see by the values returned for MinimumPrice and MaximumPrice in that bin. The BinItemCount element shows how many items are in each bin, for example, there are 173 items in the last bin.

The BinParameter/Value elements show the values used to create the bins. In this example, the parameters are the minimum and maximum prices of the items in that bin. For example, in the last bin, the minimum price of an item in that bin is \$50.00 and the maximum value is \$99.99.

The BinParameter/Name value, such as MaximumPrice, is an ItemSearch parameter name. This means that you can use the <Value> as the value for the parameter named by <Name> in a subsequent ItemSearch request. In this example, *MinimumPrice* is the ItemSearch parameter and, in the last bin, the value is 5000. By submitting a second request using ItemSearch's parameters, *MinimumPrice* and *MaximumPrice*, you could return the item attributes for only the items in that bin.

As you can see from this example, the SearchBins response group enables you to narrow your search without you having to parse through item attributes.

NarrowBy Values

The following table describes the NarrowBy values.

NarrowBy Values	Description
BrandName	Brands, such as Levi's, Reebok, and Nike, that create the item. Use the name of a brand to filter out similar items made by other companies.
PriceRange	Minimum and maximum prices for a bin of items. Use the minimum and maximum price values in each bin to filter out items outside of the price range you want.
SpecialSize	Uncommon sizes an item comes in. Examples are "Plus Size & Tall," "Misses," "Maternity," "Husky," "Petites," and "Big & Tall."
Subject	BrowseNode IDs of all topics related to items returned by ItemSearch. For example, searching for books about dogs returns, in the Subject bins, BrowseNodes for "Home & Garden," "Animal Care & Pets," "Dogs," and "Educational."

All search indices return the Subject bin. Most return all of the bins.

NarrowBy Values Per Search Index

The following table shows which NarrowBy values are returned by each search index:

Search Index	NarrowBy
Apparel	Subject, BrandName, PriceRange, SpecialSize
Baby	Subject, BrandName, PriceRange, SpecialSize
Beauty	Subject, BrandName, PriceRange, SpecialSize
Blended	Not supported
Books	Subject
Classical	Subject
DVD	Subject
Electronics	Subject, BrandName, PriceRange, SpecialSize
Garden	Subject, BrandName, PriceRange, SpecialSize
GourmetFood	Subject, BrandName, PriceRange, SpecialSize
HealthPersonalCare	Subject, BrandName, PriceRange, SpecialSize
Jewelry	Subject, BrandName, PriceRange, SpecialSize
Kitchen	Subject, BrandName, PriceRange, SpecialSize
Magazines	Subject
Marketplace	Subject
Miscellaneous	Subject, BrandName, PriceRange, SpecialSize
Music	Subject
MusicalInstruments	Subject, BrandName, PriceRange, SpecialSize

Search Index	NarrowBy
OfficeProducts	Subject, BrandName, PriceRange, SpecialSize
PCHardware	Subject, BrandName, PriceRange, SpecialSize
Photo	Subject, BrandName, PriceRange, SpecialSize
Software	Subject, BrandName, PriceRange, SpecialSize
SportingGoods	Subject, BrandName, PriceRange, SpecialSize
Tools	Subject, BrandName, PriceRange, SpecialSize
Toys	Subject, BrandName, PriceRange, SpecialSize
VHS	Subject
Video	Subject
VideoGames	Subject, BrandName, PriceRange, SpecialSize
Wireless	Subject
WirelessAccessories	Subject

Results Refined by Repeating ItemSearch Requests

One value of using search bins is that you can divide items into groups according to criteria without having to parse item attributes. Based on the search bins returned, you can then submit a second request using the `ItemSearch` parameter value that helps target your results, but how?

The names of bins and the parameters that describe the bins vary according to the bin. The following sample shows a bin based on price.

```
<SearchBinSetNarrowBy="PriceRange">
<Bin>
  <BinName>$0$24</BinName>
  <BinItemCount>1645</BinItemCount>
  <BinParameter>
    <Name>MinimumPrice</Name>
    <Value>9</Value>
  </BinParameter>
  <BinParameter>
    <Name>MaximumPrice</Name>
    <Value>2499</Value>
  </BinParameter>
</Bin>
```

The response shows the minimum and maximum price for items in the bin, \$0\$24, and the number of items in it, 1645.

Other NarrowBy values name bins differently.

As you can see from these examples, BinParameter names are the same as ItemSearch input parameter names. This correspondence means that you can create a second ItemSearch request using the search bin results as values for ItemSearch parameter values. For example, `MinimumPrice` and `MaximumPrice` are returned in search bins based on `PriceRange`. You could take the values of the search bin and put

them directly into `ItemSearch` parameters. Using the preceding `PriceRange` example, you could write the following `ItemSearch` request to retrieve items only in the first search bin.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
SearchIndex=Baby&  
Keywords=pants&  
Availability=Available&  
Condition=All&  
MinimumPrice=0& MaximumPrice=2499&  
ResponseGroup=SearchBins  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

`ItemSearch` divides the results of this request into another set of search bins because the `SearchBins` response group was used again. This means that the price range of the first search bin in the first response is split into multiple search bins in the response to the second request. The second response enables you to present more granularity in price ranges. For example, from the first response, you could return all items that cost between \$0 and \$24.99. In the second response, you are able to provide a much smaller price interval, for example, \$10 to \$14.99.

To refine search results using `SearchBin`

1. Include the `SearchBins` response group in an `ItemSearch` request.
The response includes the `narrowby` value and results grouped by bins.
2. Use related `ItemSearch` parameters to send a second request to return results related to only those items within the specified bin.
For example, if the `NarrowBy` value is `PriceRange`, the related `ItemSearch` parameters are `MinimumPrice` and `MaximumPrice`.
3. If you want to refine the results further, use the `SearchBins` response group in a second request and repeat the procedure.

The process of using search bin results for `ItemSearch` parameter values can be iterative. You can, for example, submit a third request using the `SearchBins` response group to divide one search bin into more search bins. This process can be repeated until the level of granularity you desire is reached. At that point, you can send a last request using other response groups of your choosing.

Alternatively, you could refine the search results in a different way. Some search indices return more than one set of search bins. In those cases, you can use the values from more than one set of search bins in an `ItemSearch` request. Using the preceding example, if the response also included a search bin based on `BrandName`, which is the `NarrowBy` value, you could use brand and price range values in an `ItemSearch` request.

```
Brand=Levi's&  
MinimumPrice=0&  
MaximumPrice=2499&
```

The response would then only include shirts by Levi's that cost under \$25. You could continue to drill down by adding additional parameters to the request.

ItemSearch Request Tips

Here are some tips to help you create accurate [ItemSearch \(p. 223\)](#) requests.

- If you want to find only items sold by Amazon, set the MerchantId parameter to "Amazon". (Note: Amazon sells only new items).
- The *Keywords* parameter searches for word matches in an item's title and description. If you know a word is part of the title of an item, use the Title parameter because, in this case, it often returns fewer but more accurate results than the Keywords parameter.
- To use Boolean values, such as AND, NOT, or OR, in an ItemSearch request, use the Power parameter. You can create relatively sophisticated search criteria using this parameter. For more information, see [ItemSearch \(p. 223\)](#).

Finding Items Using Browse Nodes

Topics

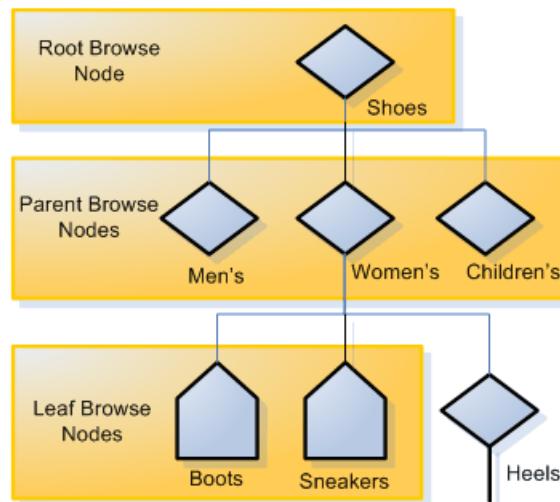
- [Traversing the Browse Node Hierarchy \(p. 102\)](#)
- [Finding a Node to Start Your Search \(p. 103\)](#)
- [Understanding BrowseNode Results When Drilling Down \(p. 104\)](#)

Browse nodes ([p. 31](#)) form an organizational hierarchy in which Amazon places items for sale. As the name suggests, the hierarchy of nodes is designed to ease and speed up the task of browsing through all of the items for sale. Zero or more items for sale are associated with each browse node.

Each browse node has an ID, which is a positive integer, and a name. All items associated with a node have something to do with the name of the node. For example, a node whose name is "Books about Ancient Greece," would be books whose subject is ancient Greece.

This hierarchy of nodes is dynamic as are the items associated with each node—that is, items can be associated and disassociated with browse nodes at any time, and nodes themselves can either be added to, subtracted from, or moved within the node hierarchy.

The value of the hierarchy is that it groups similar items and relates items in an intuitive way. As you progress down the hierarchy, you progress from parent to child nodes where child nodes are subsets of the parent node's product category, as shown in the following figure.



As you can see in this figure, as you go down the hierarchy, you refine then number of items that can be returned. In this very small, representative sample of the browse node hierarchy, the Shoes category has as a subset, Women's Shoes. It has two child nodes, Boots and Sneakers.

Also keep in mind that an item can be associated with more than one browse node, and that a browse node can itself be associated with more than one browse node.

[ItemSearch \(p. 223\)](#) returns all of the items associated with a node and all of the nodes below it. For that reason, you can see that a search at the level of Women's Shoes will return all of the items related to Women's Boots and Women's Sneakers. If the customer was really only interested in women's boots, the response would contain a lot of uninteresting results—all of the items that are women's sneakers. A more targeted search would have specified the Boots browse node using ItemSearch's BrowseNode parameter. For example, if the browse node ID of Women's Boots is 123456, a targeted request would be a follows.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
Keywords=tall&  
SearchIndex=Apparel&  
BrowseNode=123456  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Traversing the Browse Node Hierarchy

As we have seen, you traverse down the hierarchy to make your search more targeted. You might also traverse up the tree to find, for example, the root category of a product. For example, if you have an item, such as a carving knife, you might find the node it is associated with and go up the hierarchy to find the root product category of knives and then, in another request, use the TopSellers response group to return the top sellers in the product category. These top sellers might be of interest to your customer.

[BrowseNodeLookup \(p. 193\)](#) operation is the most direct way of traversing the browse node hierarchy. When you supply it a browse node ID, it returns the name of the browse node as well as its direct descendants and a lineage of ancestors. Look at the response to the following request.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[Access Key ID]&  
Operation=BrowseNodeLookup&  
BrowseNodeId=11232&  
ResponseGroup=BrowseNodeInfo  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

A snippet of its response follows.

```
<Item>  
<ASIN>0131856340</ASIN>  
<BrowseNodes>  
  <BrowseNode>  
    <BrowseNodeId>11232</BrowseNodeId>  
    <Name> Social Sciences</Name>  
    <Ancestors>
```

```
<BrowseNode>
  <BrowseNodeId>53</BrowseNodeId>
  <Name>Nonfiction</Name>
  <Ancestors>
    <BrowseNode>
      <BrowseNodeId>1000</BrowseNodeId>
      <Name>Subjects</Name>
      <Ancestors>
        <BrowseNode>
          <BrowseNodeId>283155</BrowseNodeId>
          <Name>Books</Name>
        </BrowseNode>
      </Ancestors>
    </BrowseNode>
  </Ancestors>
  <Children>
    <BrowseNode>
      <BrowseNodeId>11233</BrowseNodeId>
      <Name>Anthropology</Name>
    </BrowseNode>
    <BrowseNode>
      <BrowseNodeId>11242</BrowseNodeId>
      <Name>Archaeology</Name>
    </BrowseNode>
    <BrowseNode>
      <BrowseNodeId>3048861</BrowseNodeId>
      <Name>Children's Studies</Name>
    </BrowseNode>
  </Children>
</BrowseNodes>
```

Traversing down the tree is easy enough: select the browse node ID that is relevant and repeat the `BrowseNodeLookup` operation until you descend to the appropriate browse node.

Traversing up the tree is similar. Although the [BrowseNodeLookup \(p. 193\)](#) operation, by default, returns the complete ancestral lineage of the subject browse node, there is a limitation: the request only returns one parent browse node for each node. That is, if a node has more than one parent, the response will only show one of the parent nodes. Which one it returns is arbitrary. For that reason, you might want to traverse up the browse node hierarchy one level at a time.

Related Topics

- [BrowseNodes Response Group \(p. 244\)](#)

Finding a Node to Start Your Search

Traversing up or down the browse node hierarchy is easy enough. The question is, where do you start? In the US locale alone, there are over 120,000 nodes and those nodes are changing constantly. Fortunately, there are multiple ways to find the browse node where you can start your search:

- Many high level browse nodes are listed in the [Browse Nodes Values](#) section of the Product Advertising API Reference.
- The `BrowseNodes` response group returns browse nodes. You can use this response group with the following operations: [ItemSearch \(p. 223\)](#), and [SimilarityLookup \(p. 233\)](#).

- On www.amazon.com, search for an item that is similar to the one you want and then copy the browse node out of the URL.

As an example, let's see how you might find listings for a horse bridle. None of the top product categories (search indices) relate directly to horses. So, let's use `ItemSearch` and the `BrowseNodes` response groups to find a browse node that is associated with horse bridles.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
Keywords=horse,bridle&  
SearchIndex=PetSupplies,SportingGoods  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

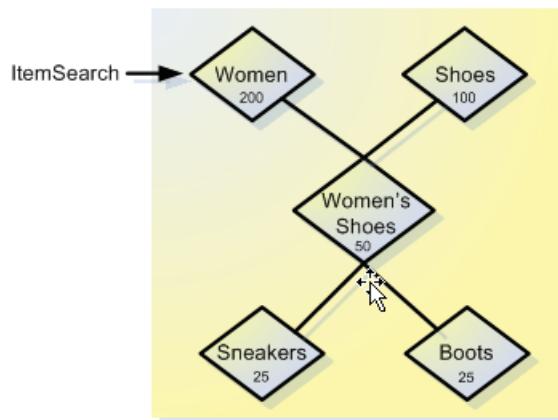
This request looks in the PetSupplies and SportingGoods search indices for anything related to horses or bridles.

Related Topics

- [BrowseNodes Response Group \(p. 244\)](#)

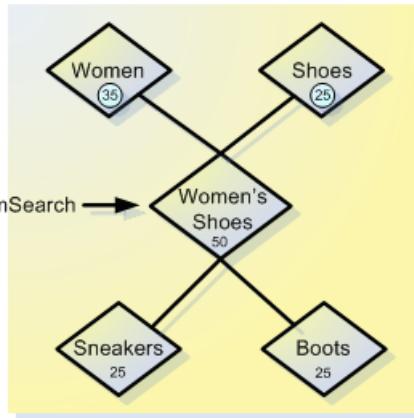
Understanding BrowseNode Results When Drilling Down

`BrowseNodes` are related in a hierarchy where one `BrowseNode` can have zero or more ancestor and child `BrowseNodes`, as shown in the following figure.



This diagram shows five `BrowseNodes` and their hierarchy. Node A might be, for example, Women. Node B might be Shoes. Node C, a child of `BrowseNodes` A and B, might be Women's Shoes.

The number inside each node represents the number of items in the `BrowseNode` when `ItemSearch` is called on Node A. `BrowseNode` C is a subset of `BrowseNode` A and a subset of `BrowseNode` B. Perhaps fifty of the items in `BrowseNode` C are also in `BrowseNode` A. When `ItemSearch` was run on `BrowseNode` A, the operation returned that `BrowseNode` A has 200 items. When `ItemSearch` is repeated using a `BinParameter` Name value that was returned in the first `ItemSearch` request, it is the same as running `ItemSearch` on a child of `BrowseNode` A, which, in this case, is `BrowseNode` C. By narrowing the search to only those values found in `BrowseNode` C, `ItemSearch` returns only those items in `BrowseNode` A that are also in `BrowseNode` C. As shown in the following figure, the number of common items is 35.



As a result, `ItemSearch` returns that BrowseNode A now contains only 35 items. While the change in the item count in BrowseNode A might, at first, be confusing, understanding that `ItemSearch` is returning only the intersection of BrowseNodes A and C explains why the number of items in BrowseNode A changes. Notice that the item counts in other BrowseNodes can also change.

Because the number of items in surrounding BrowseNodes can change with each new drill-down using `ItemSearch`, the BrowseNodes that contain the greatest number of items can change dramatically. In the previous discussion, for example, the number of items in BrowseNode A changed from 200 to 35 on successive `ItemSearch` requests. Because `ItemSearch` returns only the top ten BrowseNodes that contain the most items, the identity of the top ten BrowseNodes can change with each `ItemSearch`.

Request/Response Examples

In all the example requests in this section, the `[YourAssociateTag]` parameter refers to the Associate storeId/tag that is assigned to your Associate account, and the `[YourAWSAccessKeyId]` value refers to the AWSAccessKeyId that you get when you sign up for PA-API. For more information about authentication parameters, see [Your AWS Identifiers](#).

Similarly, in the example responses, the buy links have parameters such as AWSAccessKeyId and tag that have the value of your AWS AccessKeyId and AssociateTag based on the values that you specify in your request.

Topics

- [Searching by Keyword \(p. 106\)](#)
- [Searching by Title \(p. 108\)](#)
- [Searching by Manufacturer \(p. 109\)](#)
- [Searching by Author \(p. 110\)](#)
- [Searching by Actor \(p. 111\)](#)
- [Lookup by UPC \(p. 112\)](#)
- [Lookup by ISBN \(p. 114\)](#)
- [Searching by Theme \(p. 115\)](#)
- [Searching by Theme in a Specific Category \(p. 116\)](#)
- [Discovering Top Lists \(p. 118\)](#)
- [Discovering Similar Items \(p. 119\)](#)
- [Discovering Accessories \(p. 120\)](#)
- [Retrieving Price Information \(p. 121\)](#)
- [Retrieving Images \(p. 124\)](#)
- [Retrieving Customer Reviews \(p. 126\)](#)

- [Finding Related Items \(p. 127\)](#)
- [Finding Similar Items \(p. 129\)](#)
- [Discovering Only Available Items \(p. 130\)](#)
- [Discovering Variations \(p. 132\)](#)

Searching by Keyword

This example uses the `ItemSearch` operation to find products on Amazon with the Keyword Harry Potter. To search the complete Amazon catalog, we use the All search index.

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemSearch  
&ResponseGroup=Small  
&SearchIndex=All  
&Keywords=harry_potter  
&AWSAccessKeyId=[Your_AWSAccessKeyId]  
&AssociateTag=[Your_AssociateTag]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request_Signature]
```

Example Response

The response is a set of items (up to 10 per page) represented in XML. Below is an example of three of the returned products with a subset of the catalog information:

```
<MoreSearchResultsUrl>
    http://www.amazon.com/gp/redirect.html?
    camp=2025
    &creative=386001
    &location=http%3A%2F%2Fwww.amazon.com%2Fgp%2Fsearch%3Fkeywords%3Dharry%2Bpot
    ter%26url%3Dsearch-alias%253Daws-amazon-aps
    &linkCode=xm2
    &tag=[YourAssociateTag]
    &AWSAccessKeyId=[YourAWSAccessKeyId]
</MoreSearchResultsUrl>
<Item>
    <ASIN>B005OCFGTO</ASIN>
    <DetailPageURL>
        http://www.amazon.com/Harry-Potter-Complete-8-Film-Collection/dp/B005OCFG
        TO%3FAWSAccessKeyId%3D[YourAWSAccessKeyId]%26tag%3D[YourAssociateTag]%26link
        Code%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeASIN%3DB005OCFGTO
    </DetailPageURL>
    <ItemAttributes>
        <Actor>Daniel Radcliffe</Actor>
        <Actor>Rupert Grint</Actor>
        <Actor>Emma Watson</Actor>
        <Actor>Robbie Coltrane</Actor>
        <Actor>Maggie Smith</Actor>
        <Director>Chris Columbus</Director>
        <Director>Alfonso Cuaron</Director>
        <Director>Mike Newell</Director>
        <Director>David Yates</Director>
        <Manufacturer>Warner Bros.</Manufacturer>
        <ProductGroup>DVD</ProductGroup>
        <Title>Harry Potter: The Complete 8-Film Collection</Title>
    </ItemAttributes>
</Item>
<Item>
    <ASIN>059035342X</ASIN>
    <DetailPageURL>
        http://www.amazon.com/Harry-Potter-Sorcerers-Stone-
        Book/dp/059035342X%3FAWSAccessKeyId%3D[YourAWSAccessKeyId]%26tag%3D[YourAsso
        ciateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS
        IN%3D059035342X
    </DetailPageURL>
    <ItemAttributes>
        <Author>J.K. Rowling</Author>
        <Creator Role="Illustrator">Mary GrandPré</Creator>
        <Manufacturer>Scholastic Paperbacks</Manufacturer>
        <ProductGroup>Book</ProductGroup>
        <Title>Harry Potter and the Sorcerer's Stone (Book 1)</Title>
    </ItemAttributes>
</Item>
<Item>
    <ASIN>B002DQLGHU</ASIN>
    <DetailPageURL>
        http://www.amazon.com/Harry-Potter-Sorcerers-Stone/dp/B002DQLGHU%3FAWSAC
        cessKeyId%3D[YourAWSAccessKeyId]%26tag%3D[YourAssociateTag]%26link

```

```
Code%3Dxm%26camp%3D2025%26creative%3D165953%26creativeASIN%3DB002DQLGHU
</DetailPageURL>
<ItemAttributes>
  <Actor>Daniel Radcliffe</Actor>
  <Actor>Rupert Grint</Actor>
  <Actor>Emma Watson</Actor>
  <Actor>John Cleese</Actor>
  <Actor>Robbie Coltrane</Actor>
  <Creator Role="Producer">David Heyman</Creator>
  <Creator Role="Writer">Steve Kloves</Creator>
  <Creator Role="Writer">J.k. Rowling</Creator>
  <Director>Chris Columbus</Director>
  <ProductGroup>Movie</ProductGroup>
  <Title>Harry Potter and the Sorcerer's Stone</Title>
</ItemAttributes>
</Item>
```

Searching by Title

This example uses the ItemSearch operation to find books on Amazon with the Title Blue. To search the Music category, we use the Music search index.

Example Request

```
http://webservices.amazon.com/onca/xml?
  Service=AWSECommerceService
  &Operation=ItemSearch
  &ResponseGroup=Small
  &SearchIndex=Music
  &Title=Blue
  &AWSAccessKeyId=[Your_AWSAccessKeyId]
  &AssociateTag=[Your_AssociateTag]
  &Timestamp=[YYYY-MM-DDThh:mm:ssZ]
  &Signature=[Request_Signature]
```

Example Response

The response is a set of items (up to 10 per page) represented in XML. Below is an example of two of the returned products with a subset of the catalog information:

```
<MoreSearchResultsUrl>
  http://www.amazon.com/gp/redirect.html?
  AWSAccessKeyId=[Your_AWSAccessKeyId]
  &ie=UTF8
  &location=ht
  tp%3A%2F%2Fwww.amazon.com%2Fgp%2Fsearch%2F%3Fkeywords%3DBlue%26ie%3DUTF8%26url%3Dsearch-
  alias%253Dpopular
  &tag=[Your_AssociateTag]
  &creative=386001
  &camp=2025
  &linkCode=xm2
</MoreSearchResultsUrl>
<Item>
  <ASIN>B004LL1HM4</ASIN>
  <DetailPageURL>
    http://www.amazon.com/Helplessness-Blues-Fleet-
    Foxes/dp/B004LL1HM4%3FAWSAccessKeyId%[Your_AWSAccessKeyId]%26tag%3D[Your_Aso-
    ciateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS
    IN%3DB004LL1HM4
  </DetailPageURL>
  <ItemAttributes>
    <Artist>Fleet Foxes</Artist>
    <Manufacturer>Sub Pop</Manufacturer>
    <ProductGroup>Music</ProductGroup>
    <Title>Helplessness Blues</Title>
  </ItemAttributes>
</Item>
<Item>
  <ASIN>B004AHNIGM</ASIN>
  <DetailPageURL>
    http://www.amazon.com/Low-Country-Blues-Gregg-Allman/dp/B004AHNIGM%3FAWSAC
    cessKeyId%3D[Your_AWSAccessKeyId]%26tag%3D[Your_AssociateTag]%26link
    Code%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeASIN%3DB004AHNIGM
  </DetailPageURL>
  <ItemAttributes>
    <Artist>Gregg Allman</Artist>
    <Manufacturer>Rounder</Manufacturer>
    <ProductGroup>Music</ProductGroup>
    <Title>Low Country Blues</Title>
  </ItemAttributes>
</Item>
```

Searching by Manufacturer

This example uses the ItemSearch operation to find electronics on Amazon with the Manufacturer Sony. To search the Electronics category, we use the Electronics search index.

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemSearch  
&ResponseGroup=Small  
&SearchIndex=Electronics  
&Manufacturer=Sony  
&AWSAccessKeyId=[Your_AWSAccessKeyId]  
&AssociateTag=[Your_AssociateTag]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request_Signature]
```

Example Response

The response is a set of items (up to 10 per page) represented in XML. Below is an example of two of the returned products with a subset of the catalog information:

```
<Item>  
  <ASIN>B0015AARJI</ASIN>  
  <DetailPageURL>  
    http://www.amazon.com/PlayStation-3-Dualshock-Wireless-Control  
    ler/dp/B0015AARJI%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]%26tag%3D[Your_Aso  
    ciateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS  
    IN%3DB0015AARJI  
    </DetailPageURL>  
  <ItemAttributes>  
    <Manufacturer>Sony Computer Entertainment</Manufacturer>  
    <ProductGroup>Video Games</ProductGroup>  
    <Title>PlayStation 3 Dualshock 3 Wireless Controller</Title>  
  </ItemAttributes>  
</Item>  
<Item>  
  <ASIN>B003VUO6H4</ASIN>  
  <DetailPageURL>  
    http://www.amazon.com/PlayStation-3-160-GB/dp/B003VUO6H4%3FAWSAccessKey  
    Id%3D[Your_AWSAccessKeyId]%26tag%3D[Your_AssociateTag]%26link  
    Code%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeASIN%3DB003VUO6H4  
    </DetailPageURL>  
  <ItemAttributes>  
    <Manufacturer>Sony</Manufacturer>  
    <ProductGroup>Video Games</ProductGroup>  
    <Title>PlayStation 3 160 GB</Title>  
  </ItemAttributes>  
</Item>
```

Searching by Author

This example uses the ItemSearch operation to find books on Amazon with the Author J.K. Rowling.

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemSearch  
&ResponseGroup=Small  
&SearchIndex=Books  
&Author=J.K.Rowling  
&AWSAccessKeyId=[Your_AWSAccessKeyId]  
&AssociateTag=[Your_AssociateTag]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request_Signature]
```

Example Response

The response is a set of items (up to 10 per page) represented in XML. Below is an example of two of the returned products with a subset of the catalog information:

```
<Item>  
  <ASIN>0545139708</ASIN>  
  <DetailPageURL>  
    http://www.amazon.com/Harry-Potter-Deathly-Hallows-  
    Book/dp/0545139708%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]&tag%3D[Your_Aso-  
    ciateTag]&26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS-  
    IN%3D0545139708  
  </DetailPageURL>  
  <ItemAttributes>  
    <Author>J.K. Rowling</Author>  
    <Manufacturer>Arthur A. Levine Books</Manufacturer>  
    <ProductGroup>Book</ProductGroup>  
    <Title>Harry Potter and the Deathly Hallows (Book 7)</Title>  
  </ItemAttributes>  
</Item>  
<Item>  
  <ASIN>0545162076</ASIN>  
  <DetailPageURL>  
    http://www.amazon.com/Harry-Potter-Paperback-Box-  
    Books/dp/0545162076%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]&tag%3D[Your_Aso-  
    ciateTag]&26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS-  
    IN%3D0545162076  
  </DetailPageURL>  
  <ItemAttributes>  
    <Author>J.K. Rowling</Author>  
    <Manufacturer>Arthur A. Levine Books</Manufacturer>  
    <ProductGroup>Book</ProductGroup>  
    <Title>Harry Potter Paperback Box Set (Books 1-7)</Title>  
  </ItemAttributes>  
</Item>
```

Searching by Actor

This example uses the ItemSearch operation to find DVDs on Amazon with the Actor Tom Hanks.

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemSearch  
&ResponseGroup=Small  
&SearchIndex=DVD  
&Actor=Tom Hanks  
&AWSAccessKeyId=[Your_AWSAccessKeyId]  
&AssociateTag=[Your_AssociateTag]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request_Signature]
```

Example Response

The response is a set of items (up to 10 per page) represented in XML. Below is an example of two of the returned products with a subset of the catalog information:

```
<Item>  
  <ASIN>B00275EHJG</ASIN>  
  <DetailPageURL>  
    http://www.amazon.com/Toy-Story-3-Tom-Hanks/dp/B00275EHJG%3FAWSAccessKey  
    Id%3D[Your_AWSAccessKeyId]%26tag%3D[Your_AssociateTag]%26link  
    Code%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeASIN%3DB00275EHJG  
  </DetailPageURL>  
  <ItemAttributes>  
    <Actor>Tom Hanks</Actor>  
    <Actor>Tim Allen</Actor>  
    <Director>Lee Unkrich</Director>  
    <Manufacturer>Disney*Pixar</Manufacturer>  
    <ProductGroup>DVD</ProductGroup>  
    <Title>Toy Story 3</Title>  
  </ItemAttributes>  
</Item>  
<Item>  
  <ASIN>B0030IIZ4M</ASIN>  
  <DetailPageURL>  
    http://www.amazon.com/Toy-Story-Tim-Allen/dp/B0030IIZ4M%3FAWSAccessKey  
    Id%3D[Your_AWSAccessKeyId]%26tag%3D[Your_AssociateTag]%26link  
    Code%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeASIN%3DB0030IIZ4M  
  </DetailPageURL>  
  <ItemAttributes>  
    <Actor>Tim Allen</Actor>  
    <Actor>Tom Hanks</Actor>  
    <Actor>Annie Potts</Actor>  
    <Actor>John Ratzenberger</Actor>  
    <Actor>Don Rickles</Actor>  
    <Manufacturer>Disney*Pixar</Manufacturer>  
    <ProductGroup>DVD</ProductGroup>  
    <Title>Toy Story</Title>  
  </ItemAttributes>  
</Item>
```

Lookup by UPC

This example uses the ItemLookup operation to find a product using a UPC.

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemLookup  
&ResponseGroup=Large  
&SearchIndex=All  
&IdType=UPC  
&ItemId=635753490879  
&AWSAccessKeyId=[Your_AWSAccessKeyId]  
&AssociateTag=[Your_AssociateTag]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request_Signature]
```

Example Response

The response is an item representing the matched UPC:

```
<Item>
  <ASIN>B004U9USEA</ASIN>
  <DetailPageURL>
    http://www.amazon.com/Samsung-GT-P1010CWAXAR-Galaxy-Tab-Wi-
    Fi/dp/B004U9USEA%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]&%26tag%3D[Your_Associ-
    ateTag]&%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS
    IN%3DB004U9USEA
  </DetailPageURL>
  <SalesRank>6</SalesRank>
  <ItemAttributes>
    <Binding>Personal Computers</Binding>
    <Brand>Samsung</Brand>
    <Color>Black/White</Color>
    <CPUManufacturer>Intel</CPUManufacturer>
    <CPUSpeed Units="GHz">2.1</CPUSpeed>
    <CPUType>Intel Pentium 4</CPUType>
    <DisplaySize Units="inches">10.1</DisplaySize>
    <EAN>0635753490879</EAN>
    <Feature>Android Froyo (2.2); CPU: 1GHz A8 Cortex Processor;</Feature>
    <Feature>Battery: Li-Polymer, 4000mAh</Feature>
    <Feature>Memory: 16GB Internal Memory; Up to 32GB Expandable Memory (mi-
    croSD)</Feature>
    <Feature>WiFi: 802.11 a/b/g/n; USB 2.0; Bluetooth 2.1 Connectivity</Feature>

    <Feature>Audio: MP3, OGG, AAC, AMR-NB, AMR-WB, WMA, FLAC, WAV, MID, AC3,
    RTTTL/RTX, OTA, i-Melody, SP-MIDI</Feature>
    <Feature>Display: 7.0" WSVGA Display; 600 x 1024 Pixel Display Resolution;
    3.54" x 6.05" Display Size; 16M TFT Display Technology</Feature>
    <Feature>Video: Codec: Mpeg4, H.264, H.263, Divx/XviD Format: 3gp(mp4),
    wmv(asf), avi(divx), mkv, flv</Feature>
    <HardDiskSize Units="GB">1</HardDiskSize>
    <ListPrice>
      <Amount>36999</Amount>
      <CurrencyCode>USD</CurrencyCode>
      <FormattedPrice>$369.99</FormattedPrice>
    </ListPrice>
    <Manufacturer>Samsung IT</Manufacturer>
    <Model>GT-P1010CWAXAR</Model>
    <MPN>GT-P1010CWAXAR</MPN>
    <Title>Samsung Galaxy Tab (Wi-Fi)</Title>
    <UPC>635753490879</UPC>
  </ItemAttributes>
</Item>
```

Lookup by ISBN

This example uses the ItemLookup operation to find a product using an ISBN.

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemLookup  
&ResponseGroup=Large  
&SearchIndex=All  
&IdType=ISBN  
&ItemId=076243631X  
&AWSAccessKeyId=[Your_AWSAccessKeyId]  
&AssociateTag=[Your_AssociateTag]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request_Signature]
```

Example Response

The response is an item representing the matched ISBN:

```
<Item>  
  <ASIN>076243631X</ASIN>  
  <DetailPageURL>  
    http://www.amazon.com/Mammoth-Book-Tattoos-Lal-  
    Hardy/dp/076243631X%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]%26tag%3D[Your_As-  
    sociateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS-  
    IN%3D076243631X  
  </DetailPageURL>  
  <SalesRank>7483</SalesRank>  
  <ItemAttributes>  
    <Author>Lal Hardy</Author>  
    <Binding>Paperback</Binding>  
    <DeweyDecimalNumber>391.65</DeweyDecimalNumber>  
    <EAN>9780762436316</EAN>  
    <Feature>ISBN13: 9780762436316</Feature>  
    <Feature>Condition: New</Feature>  
    <ISBN>076243631X</ISBN>  
    <Manufacturer>Running Press</Manufacturer>  
    <NumberOfItems>1</NumberOfItems>  
    <NumberOfPages>512</NumberOfPages>  
    <ProductGroup>Book</ProductGroup>  
    <PublicationDate>2009-03-10</PublicationDate>  
    <Publisher>Running Press</Publisher>  
    <Studio>Running Press</Studio>  
    <Title>The Mammoth Book of Tattoos</Title>  
  </ItemAttributes>  
</Item>
```

Searching by Theme

This example uses the ItemSearch operation to find products related to the theme Travel.

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemSearch  
&ResponseGroup=Small  
&SearchIndex=All  
&Keywords=Travel  
&AWSAccessKeyId=[Your_AWSAccessKeyId]  
&AssociateTag=[Your_AssociateTag]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request_Signature]
```

Example Response

The response is a set of items (up to 10 per page) represented in XML. Below is an example of two of the returned products with a subset of the catalog information:

```
<Item>  
  <ASIN>1426201257</ASIN>  
  <DetailPageURL>  
    http://www.amazon.com/Journeys-Lifetime-Worlds-Greatest-  
    Trips/dp/1426201257%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]%26tag%3D[Your_As-  
    sociateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS-  
    IN%3D1426201257  
  </DetailPageURL>  
  <ItemAttributes>  
    <Author>National Geographic</Author>  
    <Manufacturer>National Geographic</Manufacturer>  
    <ProductGroup>Book</ProductGroup>  
    <Title>Journeys of a Lifetime: 500 of the World's Greatest Trips</Title>  
  </ItemAttributes>  
</Item>  
<Item>  
  <ASIN>B003EM7MP2</ASIN>  
  <DetailPageURL>  
    http://www.amazon.com/Travel-Accessories-Samsonite-Space-Medi-  
    um/dp/B003EM7MP2%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]%26tag%3D[Your_Associ-  
    ateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS-  
    IN%3DB003EM7MP2  
  </DetailPageURL>  
  <ItemAttributes>  
    <ProductGroup>Apparel</ProductGroup>  
    <Title>Travel Accessories Samsonite Space Saver Bags Medium Packs Set of 4  
    Clear</Title>  
  </ItemAttributes>  
</Item>
```

Searching by Theme in a Specific Category

This example uses the ItemSearch operation to find products related to the theme Travel in the Books search index.

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemSearch  
&ResponseGroup=Small  
&SearchIndex=Books  
&Keywords=Travel  
&AWSAccessKeyId=[Your_AWSAccessKeyId]  
&AssociateTag=[Your_AssociateTag]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request_Signature]
```

Example Response

The response is a set of items (up to 10 per page) represented in XML. Below is an example of two of the returned products with a subset of the catalog information:

```
<MoreSearchResultsUrl>
    http://www.amazon.com/gp/redirect.html?
        &AWSAccessKeyId=[Your_AWSAccessKeyId]
        &ie=UTF8
        &location=ht
    tp%3A%2F%2Fwww.amazon.com%2Fgp%2Fsearch%2F%3Fkeywords%3DTravel%26ie%3DUTF8%26url%3Dsearch-
    alias%253Dstripbooks
        &tag=[Your_AssociateTag]
        &creative=386001
        &camp=2025
        &linkCode=xm2
</MoreSearchResultsUrl>
<Item>
    <ASIN>1426201257</ASIN>
    <DetailPageURL>
        http://www.amazon.com/Journeys-Lifetime-Worlds-Greatest-
        Trips/dp/1426201257%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]%26tag%3D[Your_As-
        sociateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS-
        IN%3D1426201257
    </DetailPageURL>
    <ItemAttributes>
        <Author>National Geographic</Author>
        <Manufacturer>National Geographic</Manufacturer>
        <ProductGroup>Book</ProductGroup>
        <Title>Journeys of a Lifetime: 500 of the World's Greatest Trips</Title>
    </ItemAttributes>
</Item>
<Item>
    <ASIN>030740692X</ASIN>
    <DetailPageURL>
        http://www.amazon.com/Once-Lifetime-Trips-Extraordinary-Experi-
        ences/dp/030740692X%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]%26tag%3D[Your_As-
        sociateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS-
        IN%3D030740692X
    </DetailPageURL>
    <ItemAttributes>
        <Author>Chris Santella</Author>
        <Manufacturer>Clarkson Potter</Manufacturer>
        <ProductGroup>Book</ProductGroup>
        <Title>Once in a Lifetime Trips: The World's 50 Most Extraordinary and
        Memorable Travel Experiences</Title>
    </ItemAttributes>
</Item>
```

Discovering Top Lists

This example uses the BrowseNodeLookup operation to discover the top sellers and new releases for the Kitchen category.

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=BrowseNodeLookup  
&ResponseGroup>NewReleases,TopSellers  
&BrowseNodeId=1063498  
&AWSAccessKeyId=[Your_AWSAccessKeyId]  
&AssociateTag=[Your_AssociateTag]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request_Signature]
```

Example Response

```
<BrowseNode>  
  <BrowseNodeId>1063498</BrowseNodeId>  
  <TopSellers>  
    <TopSeller>  
      <ASIN>B00023RSUA</ASIN>  
      <Title>Black & Decker CCC3000 18-Volt Cordless Electric Lawncare Cen  
ter</Title>  
    </TopSeller>  
    <TopSeller>  
      <ASIN>B001KXZ808</ASIN>  
      <Title>EatSmart Precision Digital Bathroom Scale w/ Extra Large Backlit  
3.5" Display and "Step-On" Technology</Title>  
    </TopSeller>  
  </TopSellers>  
  <NewReleases>  
    <NewRelease>  
      <ASIN>B004NXUAXW</ASIN>  
      <Title>Ozeri Touch Digital Bathroom Scale -- Measures Weight, Body Fat,  
Hydration, Muscle and Bone Mass with Auto Recognition Technology for 8 Personal  
Profiles</Title>  
    </NewRelease>  
    <NewRelease>  
      <ASIN>B000SQK3QW</ASIN>  
      <Title>Costless Pet Treats Duck Breast Fillets, 32-Ounce</Title>  
    </NewRelease>  
  </NewReleases>  
</BrowseNode>
```

Discovering Similar Items

This example uses the ItemLookup operation in conjunction with the Similarities response group to find items similar to the item with UPC 047875840041 (Call of Duty: Black Ops Video Game).

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemLookup  
&ResponseGroup=Similarities  
&SearchIndex=All  
&IdType=UPC  
&ItemId=047875840041  
&AWSAccessKeyId=[Your_AWSAccessKeyID]  
&AssociateTag=[Your_AssociateTag]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request_Signature]
```

Example Response

```
<Item>  
  <ASIN>B003JVCA9Q</ASIN>  
  <SimilarProducts>  
    <SimilarProduct>  
      <ASIN>B0015AARJI</ASIN>  
      <Title>PlayStation 3 Dualshock 3 Wireless Controller</Title>  
    </SimilarProduct>  
    <SimilarProduct>  
      <ASIN>B002I0K6DG</ASIN>  
      <Title>Killzone 3</Title>  
    </SimilarProduct>  
    <SimilarProduct>  
      <ASIN>B000ZK9QCS</ASIN>  
      <Title>God of War III</Title>  
    </SimilarProduct>  
    <SimilarProduct>  
      <ASIN>B003L8DXOI</ASIN>  
      <Title>Assassin's Creed: Brotherhood</Title>  
    </SimilarProduct>  
    <SimilarProduct>  
      <ASIN>B000HKP88C</ASIN>  
      <Title>Grand Theft Auto IV</Title>  
    </SimilarProduct>  
  </SimilarProducts>  
</Item>
```

Discovering Accessories

This example uses the ItemLookup operation in conjunction with the Accessories response group to find items that are accessories to ASIN B0036WT3RA (Samsung TV).

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemLookup  
&ResponseGroup=Accessories  
&IdType=ASIN  
&ItemId=B0036WT3RA  
&AWSAccessKeyId=[Your_AWSAccessKeyID]  
&AssociateTag=[Your_AssociateTag]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request_Signature]
```

Example Response

```
<Item>  
  <ASIN>B0036WT3RA</ASIN>  
  <Accessories>  
    <Accessory>  
      <ASIN>B002TLTE6Y</ASIN>  
      <Title>AmazonBasics Universal Tilt TV Wall Mount for 34- to 65-Inch Displays [Amazon Frustration-Free Packaging]</Title>  
    </Accessory>  
    <Accessory>  
      <ASIN>B002TLTE7I</ASIN>  
      <Title>AmazonBasics Universal Fixed TV Wall Mount for 26- to 50-inch Displays [Amazon Frustration-Free Packaging]</Title>  
    </Accessory>  
    <Accessory>  
      <ASIN>B003ES5ZRS</ASIN>  
      <Title>AmazonBasics High Speed Mini-HDMI to HDMI Cable with Ethernet (9.8 Feet / 3 Meters)</Title>  
    </Accessory>  
    <Accessory>  
      <ASIN>B003ES5ZVO</ASIN>  
      <Title>AmazonBasics High Speed HDMI Cable with Ethernet - Braided (9.8 Feet / 3.0 Meters)</Title>  
    </Accessory>  
    <Accessory>  
      <ASIN>B003ES5ZUU</ASIN>  
      <Title>AmazonBasics High Speed HDMI Cable with Ethernet - Braided (6.5 Feet / 2 Meters)</Title>  
    </Accessory>  
  </Accessories>  
</Item>
```

Retrieving Price Information

This example uses the ItemLookup operation in conjunction with the Offers response group to find the price of a particular item, ASIN B004J3V90Y (Cannon EOS Digital SLR camera).

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemLookup  
&ResponseGroup=Offers  
&IdType=ASIN  
&ItemId=B001FA1000  
&AssociateTag=[Your AssociateTag]  
&AWSAccessKeyId=[Your AWSAccessKeyId]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Example Response

```
<Item>
  <ASIN>B004J3V90Y</ASIN>
  <OfferSummary>
    <LowestNewPrice>
      <Amount>88999</Amount>
      <CurrencyCode>USD</CurrencyCode>
      <FormattedPrice>$889.99</FormattedPrice>
    </LowestNewPrice>
    <LowestUsedPrice>
      <Amount>94950</Amount>
      <CurrencyCode>USD</CurrencyCode>
      <FormattedPrice>$949.50</FormattedPrice>
    </LowestUsedPrice>
    <LowestRefurbishedPrice>
      <Amount>87995</Amount>
      <CurrencyCode>USD</CurrencyCode>
      <FormattedPrice>$879.95</FormattedPrice>
    </LowestRefurbishedPrice>
    <TotalNew>33</TotalNew>
    <TotalUsed>2</TotalUsed>
    <TotalCollectible>0</TotalCollectible>
    <TotalRefurbished>1</TotalRefurbished>
  </OfferSummary>
  <Offers>
    <TotalOffers>36</TotalOffers>
    <TotalOfferPages>1</TotalOfferPages>
    <MoreOffersUrl>
      http://www.amazon.com/gp/offer-listing/B004J3V90Y/?
        &AWSAccessKeyId=[Your_AWSAccessKeyID]
        &ie=UTF8
        tag=[Your_AssociateTag]
        creative=386001&
        camp=2025&
        linkCode=xm2
    </MoreOffersUrl>
    <Offer>
      <OfferAttributes>
        <Condition>New</Condition>
      </OfferAttributes>
      <OfferListing>
        <OfferListingId>
          VbaLvFuVe0S7AYINHddSPNvU1cF9tbW1xmD2Pple4Hn1W0hEPi3N6cbFiF0wTjU05rss
          wYbqr6w0HCBfOAgfs%2FUtYKm3XWOpf%2B9C7GbmgoY%3D
        </OfferListingId>
        <Price>
          <Amount>89900</Amount>
          <CurrencyCode>USD</CurrencyCode>
          <FormattedPrice>$899.00</FormattedPrice>
        </Price>
        <Availability>Usually ships in 24 hours</Availability>
        <AvailabilityAttributes>
          <AvailabilityType>now</AvailabilityType>
          <MinimumHours>0</MinimumHours>
          <MaximumHours>0</MaximumHours>
        </AvailabilityAttributes>
        <IsEligibleForSuperSaverShipping>1</IsEligibleForSuperSaverShipping>
      </OfferListing>
    </Offer>
  </Offers>
</Item>
```

```
</OfferListing>
</Offer>
</Offers>
</Item>
```

Retrieving Images

This example uses the `ItemLookup` operation in conjunction with the `Images` response group to get all available images of a particular item, ASIN B004HO6I4M (Rio, the movie).

Example Request

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService
&Operation=ItemLookup
&ResponseGroup=Images
&IdType=ASIN&
&ItemId= B004HO6I4M
&AWSAccessKeyId=[Your_AWSAccessKeyId]
&AssociateTag=[Your_AssociateTag]
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request_Signature]
```

Example Response

```
<Item>
  <ASIN>B004HO6I4M</ASIN>
  <SmallImage>
    <URL>
      http://ecx.images-amazon.com/images/I/519SgX2wwDL._SL75_.jpg
    </URL>
    <Height Units="pixels">75</Height>
    <Width Units="pixels">56</Width>
  </SmallImage>
  <MediumImage>
    <URL>
      http://ecx.images-amazon.com/images/I/519SgX2wwDL._SL160_.jpg
    </URL>
    <Height Units="pixels">160</Height>
    <Width Units="pixels">120</Width>
  </MediumImage>
  <LargeImage>
    <URL>
      http://ecx.images-amazon.com/images/I/519SgX2wwDL._SL500_.jpg
    </URL>
    <Height Units="pixels">500</Height>
    <Width Units="pixels">375</Width>
  </LargeImage>
  <ImageSets>
    <ImageSet Category="primary">
      <SwatchImage>
        <URL>
          http://ecx.images-amazon.com/images/I/519SgX2wwDL._SL30_.jpg
        </URL>
        <Height Units="pixels">30</Height>
        <Width Units="pixels">22</Width>
      </SwatchImage>
      <SmallImage>
        <URL>
          http://ecx.images-amazon.com/images/I/519SgX2wwDL._SL75_.jpg
        </URL>
        <Height Units="pixels">75</Height>
        <Width Units="pixels">56</Width>
      </SmallImage>
      <ThumbnailImage>
        <URL>
          http://ecx.images-amazon.com/images/I/519SgX2wwDL._SL75_.jpg
        </URL>
        <Height Units="pixels">75</Height>
        <Width Units="pixels">56</Width>
      </ThumbnailImage>
      <TinyImage>
        <URL>
          http://ecx.images-amazon.com/images/I/519SgX2wwDL._SL110_.jpg
        </URL>
        <Height Units="pixels">110</Height>
        <Width Units="pixels">82</Width>
      </TinyImage>
      <MediumImage>
        <URL>
          http://ecx.images-amazon.com/images/I/519SgX2wwDL._SL160_.jpg
        </URL>
```

```
</URL>
<Height Units="pixels">160</Height>
<Width Units="pixels">120</Width>
</MediumImage>
<LargeImage>
<URL>
    http://ecx.images-amazon.com/images/I/519SgX2wwDL._SL500_.jpg
</URL>
<Height Units="pixels">500</Height>
<Width Units="pixels">375</Width>
</LargeImage>
</ImageSet>
</ImageSets>
</Item>
```

The images are returned in two ways: under `Item` and under `ImageSets`. The images under `Item` are specified by the `SmallImage`, `MediumImage`, and `LargeImage` elements.

The sizes of the images under `ImageSets` are specified by the `_SLXXX_` suffix in the URL, where `XXX` is the number of pixels on the longest side of the image. A medium size image, for example, has 160 pixels on its longest side so it has the suffix `_SL160_`. This is the preferred way to reference images.

The `ImageSets` element attribute, `Category`, is set to `Primary`. Primary images are the same images that appear in the `Item` section.

Retrieving Customer Reviews

This example uses the `ItemLookup` operation in conjunction with the `Reviews` response group to retrieve the customer reviews data for a particular item, ASIN `B004HFS6Z0` (Kindle Wi-Fi).

Example Request

```
http://webservices.amazon.com/onca/xml?
    Service=AWSECommerceService
    &Operation=ItemLookup
    &ResponseGroup=Reviews
    &IdType=ASIN
    &ItemId=B004HFS6Z0
    &AssociateTag=[Your Associate Tag]
    &AWSAccessKeyId=[Your AWSAccessKeyId]
    &Timestamp=[YYYY-MM-DDThh:mm:ssZ]
    &Signature=[Request Signature]
```

Example Response

```
<Item>
  <ASIN>B004HFS6Z0</ASIN>
  <CustomerReviews>
    <IFrameURL>
      http://www.amazon.com/reviews/iframe?
      akid=[Your_AWSAccessKeyId]
      &alinkCode=xm2
      &asin=B004HFS6Z0
      &atag=[Your_AssociateTag]
      &exp=2011-06-01T22%3A32%3A53Z
      &v=2
      &sig=pxn6bbln%2B%2FVTPJdj8oCcXvjTHmo3spkUMjbQMPbhCKI%3D
    </IFrameURL>
    <HasReviews>true</HasReviews>
  </CustomerReviews>
</Item>
```

Finding Related Items

This example uses the `ItemLookup` operation in conjunction with the `RelatedItems` response group to find music tracks for a particular album Bob Dylans Greatest Hits using the albums ASIN B00136LUWW. The example uses the `RelationshipType` parameter to specify how the items are related. This parameter is required when you use the `RelatedItems` response group. Setting `RelationshipType` to `Tracks` enables relating an MP3 Album (parent) to its Tracks (children). As the example shows, you can obtain more information when you use the `RelatedItems` response group along with the `Small` response group. Finding the reverse relationship is also possiblethat is, given a track, you can use `RelatedItems` to find the parent album.

Example Request

```
http://webservices.amazon.com/onca/xml?
  Service=AWSECommerceService
  &Operation=ItemLookup
  &ResponseGroup=RelatedItems,Small
  &IdType=ASIN
  &ItemId=B00136LUWW
  &RelationshipType=Tracks
  &AssociateTag=[Your_AssociateTag]
  &AWSAccessKeyId=[Your_AWSAccessKeyId]
  &Timestamp=[YYYY-MM-DDThh:mm:ssZ]
  &Signature=[Request_Signature]
```

Example Response

Note that the response has been edited for brevity.

```
<Item>
  <ASIN>B00136LUWW</ASIN>
  <DetailPageURL>
    http://www.amazon.com/Bob-Dylans-Greatest-Hits/dp/B00136LUWW%3FAWSAccessKey
    Id%3D[Your_AccessKeyId]%26tag%3D[Your_AssociateTag]%26link
    Code%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeASIN%3DB00136LUWW
  </DetailPageURL>
  <ItemAttributes>
    <Creator Role="Primary Contributor">Bob Dylan</Creator>
    <Manufacturer>Columbia</Manufacturer>
    <ProductGroup>Digital Music Album</ProductGroup>
    <Title>Bob Dylan's Greatest Hits</Title>
  </ItemAttributes>
  <RelatedItems>
    <Relationship>Children</Relationship>
    <RelationshipType>Tracks</RelationshipType>
    <RelatedItemCount>10</RelatedItemCount>
    <RelatedItemPageCount>1</RelatedItemPageCount>
    <RelatedItemPage>1</RelatedItemPage>
    <RelatedItem>
      <Item>
        <ASIN>B00136NUSY</ASIN>
        <ItemAttributes>
          <Creator Role="Primary Contributor">Bob Dylan</Creator>
          <Manufacturer>Columbia</Manufacturer>
          <ProductGroup>Digital Music Track</ProductGroup>
          <Title>Just Like A Woman</Title>
        </ItemAttributes>
      </Item>
    </RelatedItem>
    <RelatedItem>
      <Item>
        <ASIN>B00136LTN2</ASIN>
        <ItemAttributes>
          <Creator Role="Primary Contributor">Bob Dylan</Creator>
          <Manufacturer>Columbia</Manufacturer>
          <ProductGroup>Digital Music Track</ProductGroup>
          <Title>Rainy Day Women #12 & 35</Title>
        </ItemAttributes>
      </Item>
    </RelatedItem>
    <RelatedItem>
      <Item>
        <ASIN>B00136JOO8</ASIN>
        <ItemAttributes>
          <Creator Role="Primary Contributor">Bob Dylan</Creator>
          <Manufacturer>Columbia</Manufacturer>
          <ProductGroup>Digital Music Track</ProductGroup>
          <Title>Blowin' In The Wind</Title>
        </ItemAttributes>
      </Item>
    </RelatedItem>
  </RelatedItems>
</Item>
```

Finding Similar Items

This example uses the `Similarity` operation in conjunction with the `Small` response group to find items similar to the item with ASIN B000W7JWUA (Settlers of Catan Board Game).

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=SimilarityLookup  
&ResponseGroup=Small  
&IdType=ASIN  
&ItemId=B000W7JWUA  
&AssociateTag=[YourAssociateTag]  
&AWSAccessKeyId=[YourAWSAccessKeyId]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[RequestSignature]
```

Example Request

This request returns the intersection of the similarities for each ASIN. The response to this request is shown in [Sample Response \(p. 235\)](#).

Return up to ten items that are similar to any of the ASINs specified.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=SimilarityLookup  
&ResponseGroup=Small  
&ItemId=ASIN1,ASIN2,ASIN3  
&SimilarityType=Random  
&AssociateTag=[YourAssociateTag]  
&AWSAccessKeyId=[YourAWSAccessKeyId]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[RequestSignature]
```

Example Request

This request returns the union of items that are similar to all of the ASINs specified. Only ten items can be returned and those are picked randomly from all of the similar items. Repeating the operation could produce different results.

Example Response

The `SimilarityLookup` operation returns up to ten products per page. The response below has been edited for brevity.

```
<Item>
  <ASIN>B000W7JWYG</ASIN>
  <DetailPageURL>
    http://www.amazon.com/Settlers-Catan-Player-Extension/dp/B000W7JWYG%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]%26tag%3D[Your_AssociateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeASIN%3DB000W7JWYG
  </DetailPageURL>
  <ItemAttributes>
    <Manufacturer>Mayfair Games</Manufacturer>
    <ProductGroup>Toy</ProductGroup>
    <Title>The Settlers of Catan 5 and 6 Player Extension</Title>
  </ItemAttributes>
</Item>
<Item>
  <ASIN>B000W7G78A</ASIN>
  <DetailPageURL>
    http://www.amazon.com/MayFair-Games-MFG3063-Catan-Sea
    farers/dp/B000W7G78A%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]%26tag%3D[Your_AssociateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS
    IN%3DB000W7G78A
  </DetailPageURL>
  <ItemAttributes>
    <Manufacturer>Mayfair Games</Manufacturer>
    <ProductGroup>Toy</ProductGroup>
    <Title>Catan: Seafarers Game Expansion</Title>
  </ItemAttributes>
</Item>
<Item>
  <ASIN>B000W7I7EW</ASIN>
  <DetailPageURL>
    http://www.amazon.com/Catan-Cities-Knights-Game-Expansion/dp/B000W7I7EW%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]%26tag%3D[Your_AssociateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeAS
    IN%3DB000W7I7EW
  </DetailPageURL>
  <ItemAttributes>
    <Manufacturer>Mayfair Games</Manufacturer>
    <ProductGroup>Toy</ProductGroup>
    <Title>Catan: Cities and Knights Game Expansion</Title>
  </ItemAttributes>
</Item>
```

Discovering Only Available Items

This example uses the `ItemSearch` operation to find Engagement ring sets under the `Jewelry` category. In order to restrict the API response to include only available items, set the `Availability` parameter to `Available`.

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemSearch  
&ResponseGroup=Small  
&Keywords=Engagement%20ring%20set  
&Availability=Available  
&SearchIndex=Jewelry  
&AssociateTag=[Your AssociateTag]  
&AWSAccessKeyId=[Your AWSAccessKeyId]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Example Response

The response below has been edited for brevity.

```
<MoreSearchResultsUrl>
    http://www.amazon.com/gp/redirect.html?
        AWSAccessKeyId=[Your_AWSAccessKeyId]
        &ie=UTF8
        &location=http%3A%2F%2Fwww.amazon.com%2Fgp%2Fsearch%2F%3Fkeywords%3Dengagement%2520ring%2520sets%26ie%3DUTF8%26url%3Dsearch-alias%253Djewelry
        &tag=[Your_AssociateTag]
        &creative=386001
        &camp=2025
        &linkCode=xm2
</MoreSearchResultsUrl>
<Item>
    <ASIN>B000MFGN6I</ASIN>
    <DetailPageURL>
        http://www.amazon.com/Sterling-Silver-Zirconia-Earrings-Diameter/dp/B000MFGN6I%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]%26tag%3D[Your_AssociateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeASIN%3DB000MFGN6I
    </DetailPageURL>
    <ItemAttributes>
        <Manufacturer>Amazon.com Collection</Manufacturer>
        <ProductGroup>Jewelry</ProductGroup>
        <Title>Sterling Silver Cubic Zirconia Hoop Earrings (0.6" Diameter)</Title>
    </ItemAttributes>
</Item>
<Item>
    <ASIN>B000SMNL2E</ASIN>
    <DetailPageURL>
        http://www.amazon.com/Sterling-Silver-Marcasite-Colored-Pendant/dp/B000SMNL2E%3FAWSAccessKeyId%3D[Your_AWSAccessKeyId]%26tag%3D[Your_AssociateTag]%26linkCode%3Dxm2%26camp%3D2025%26creative%3D165953%26creativeASIN%3DB000SMNL2E
    </DetailPageURL>
    <ItemAttributes>
        <Manufacturer>Amazon.com Collection</Manufacturer>
        <ProductGroup>Jewelry</ProductGroup>
        <Title>Sterling Silver Marcasite and Garnet Colored Glass Heart Pendant, 18"</Title>
    </ItemAttributes>
</Item>
```

Discovering Variations

This example uses the ItemLookup operation in conjunction with VariationMatrix to find variations for a particular item with ASIN B003FVODV8 (Nike Air Flightposite Mens shoes).

Example Request

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService  
&Operation=ItemLookup  
&ResponseGroup=VariationMatrix  
&IdType=ASIN  
&ItemId=B003FVODV8  
&AssociateTag=[Your AssociateTag]  
&AWSAccessKeyId=[Your AWSAccessKeyId]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Example Response

The following response has been edited for brevity.

```
<Item>
  <ASIN>B003FVODV8</ASIN>
  <Variations>
    <VariationDimensions>
      <VariationDimension>Size</VariationDimension>
      <VariationDimension>Color</VariationDimension>
    </VariationDimensions>
    <Item>
      <ASIN>B0033P8NU8</ASIN>
      <ItemAttributes>
        <Color>Black / Black-Black</Color>
        <Size>10 D(M) US</Size>
      </ItemAttributes>
      <VariationAttributes>
        <VariationAttribute>
          <Name>Size</Name>
          <Value>10 D(M) US</Value>
        </VariationAttribute>
        <VariationAttribute>
          <Name>Color</Name>
          <Value>Black / Black-Black</Value>
        </VariationAttribute>
      </VariationAttributes>
    </Item>
    <Item>
      <ASIN>B0033P4SF2</ASIN>
      <ItemAttributes>
        <Color>Black / Black-Black</Color>
        <Size>11.5 D(M) US</Size>
      </ItemAttributes>
      <VariationAttributes>
        <VariationAttribute>
          <Name>Size</Name>
          <Value>11.5 D(M) US</Value>
        </VariationAttribute>
        <VariationAttribute>
          <Name>Color</Name>
          <Value>Black / Black-Black</Value>
        </VariationAttribute>
      </VariationAttributes>
    </Item>
    <Item>
      <ASIN>B0039ONLL4</ASIN>
      <ItemAttributes>
        <Color>Metallic Zinc / Metallic Zinc-Black</Color>
        <Size>11.5 D(M) US</Size>
      </ItemAttributes>
      <VariationAttributes>
        <VariationAttribute>
          <Name>Size</Name>
          <Value>11.5 D(M) US</Value>
        </VariationAttribute>
        <VariationAttribute>
          <Name>Color</Name>
        </VariationAttribute>
      </VariationAttributes>
    </Item>
  </Variations>
</Item>
```

```
<Value>Metallic Zinc / Metallic Zinc-Black</Value>
</VariationAttribute>
</VariationAttributes>
</Item>
</Variations>
</Item>
```

Motivating Customers to Buy

Topics

- [Images \(p. 135\)](#)
- [Promotions \(p. 135\)](#)
- [Reviews \(p. 138\)](#)
- [Suggesting Similar Items to Buy \(p. 141\)](#)
- [Recommending Items to Others \(p. 148\)](#)
- [Top Sellers \(p. 148\)](#)
- [New Releases \(p. 151\)](#)
- [Returning New Releases From Shopping Cart Items \(p. 152\)](#)
- [Sorting by Popularity, Price, or Condition \(p. 152\)](#)
- [Shipping Options \(p. 154\)](#)

Motivating customers to buy products through your web site is vital to the health of your business. Many Product Advertising API operations and response groups provide ways to pique a customer's interest and help drive sales. All of the sections in this chapter explain ways to enhance the selling potential of your web site.

Images

Topics

An image is said to be worth a thousand words. In e-commerce, this is almost always true. The downside of e-commerce is that customers cannot try on clothes or handle items they might like to buy. Providing customers with great images helps overcome that hurdle.

Promotions

Topics

- [Promotion Categories \(p. 136\)](#)
- [Benefit and Eligible Items \(p. 137\)](#)
- [Typical Response Elements Used \(p. 137\)](#)

Giving customers the opportunity to buy items at discounted prices is a great way to drive sales. You can determine whether or not an item has an associated promotion by including the *PromotionSummary* response group in your request.

The *PromotionSummary* response group returns most if not all of the information you need to display promotional information on a web site, as shown in the following figure.

Product Promotions

Buy 4 eligible items in the 4-for-3 promotion offered by Amazon.com and get 1 of them free. [Here's how](#) (restrictions apply)

Promotions are only available with items that have offers. Items that do not have offers are, for example, Collection and Variation parent ASINs. For that reason, when you use either of the promotion response groups, you must also use, in the same request, a response group that returns an offer, including:

- *Large*
- *OfferFull*
- *Offers*

You can use the following operations to get promotion information because these operations can return offers:

- *ItemLookup*
- *ItemSearch*
- *SimilarityLookup*

Product Advertising API operations do not enable you to create promotions for items. The promotional response groups only enable you to return promotional information.

Related Topics

- [PromotionSummary Response Group \(p. 285\)](#)

Promotion Categories

There are many different kinds of promotions associated with items for sale. Product Advertising API fully supports the following promotion categories.

Category	Description
ForEachQuantityXGetQuantityFreeX	For a specified number of items, you receive additional items for free. For example, buy six dozen eggs and get a dozen eggs free.
BuyAmountXGetSimpleShippingFreeX	For a specified dollar amount, you receive free shipping. For example, spend \$25 and your item is shipped free of charge.
BuyAmountXGetAmountOffX	For a specified dollar amount, you receive a discounted price. For example, spend \$25 and get a \$5 discount.
BuyQuantityXGetAmountOffX	For a specified number of items, you receive a discounted price. For example, buy three balls and get a \$5 discount.
BuyQuantityXGetPercentOffX	For a specified number of items, you receive a percentage discount. For example, buy three balls and get a 15% discount.

These promotional categories are returned by the response element:

- Category, in *PromotionSummary* responses

Benefit and Eligible Items

Items returned by one of the promotions response groups are related to the promotion in one of the following ways:

- **Benefit**—The item is part of the promotional reward
For example, in a buy one camera and get a camera case free promotion, the camera case is the benefit item
- **Eligible**—The item is what the customer must purchase to qualify for the promotion
For example, in a buy one camera and get a camera case free promotion, the camera is the eligible item
- **Both**—It is possible for an item to be both the benefit and eligible item
For example, in a buy two shirts get the third shirt half off promotion, the shirt is both the benefit and the eligible item

The promotions response groups specify whether an item is the benefit or eligible item by using the elements *IsInBenefitSet* and *IsInEligibilitySet*.

```
<IsInBenefitSet>true</IsInBenefitSet>
<IsInEligibilityRequirementSet>true</IsInEligibilityRequirementSet>
```

The value type for both of these elements is boolean. When "true," the item is part of that set. For example, if *IsInBenefitSet* is "true," the item is one of the benefits of the promotion.

If *IsInBenefitSet* is "true," the response also contains the element "BenefitDescription," which describes the benefit item, as shown.

```
<BenefitDescription>Save $25.00 when you spend $125.00 or more on Kitchen & Housewares or Bed & Bath products offered by Amazon.com. Enter code AUGSAVER at checkout.</BenefitDescription>
```

If *IsInEligibilitySet* is "true," the response will contain the element, "EligibilityDescription," which describes the eligible item.

Typical Response Elements Used

The promotion response groups provide a wealth of information about specific items. It is almost always a good idea to include one or both of the promotion response groups in requests that also ask for offers. Among all of the response elements returned by PromotionSummary, the following are typically used in the display of promotion information.

Response Element	Description
BenefitDescription	Describes the benefit, which is the item(s) that the customer receives as a result of the promotion. This element will not be present if the item is not part of the promotional benefits.
EligibilityDescription	Describes the items the customer must purchase to qualify for the promotion. This element will not be present if the item does not qualify the customer to receive the promotional benefit.
TermsAndConditions	Specifies the terms and conditions of the promotion.

The following response snippet shows the values for these elements.

```
<BenefitDescription>Save $25.00 when you spend $125.00 or more on Kitchen & Housewares or Bed & Bath products offered by Amazon.com. Enter code AUGSAVER at checkout.</BenefitDescription>
<TermsAndConditions><STRONG>To receive the Best Value discount:</STRONG> <OL>
<LI>Add $125 of qualifying Kitchen & Housewares or Bed & Bath products to your Shopping Cart via the <STRONG>Add to Shopping Cart</STRONG> button on each respective product information page. ...
</TermsAndConditions>
```

These three elements are meant to be read by people. For that reason, they are returned in HTML.

Response Element	Description
ComponentType	Specifies what the promotion applies to, for example, Shipping, ItemPrice, Subtotal.
CouponCombination-Type	Specifies the kinds of promotional coupons that can be combined, for example, Unrestricted, Preferential, and Exclusive, where: <ul style="list-style-type: none"> • <i>Unrestricted</i>—Can be used with any other promotions • <i>Preferential</i>—Can be used with some other promotions • <i>Exclusive</i>—Cannot be used with any other promotions
FormattedPrice	The price formatted for display.
IsInBenefitSet	A boolean value. When True, the associated ASIN is what the customer receives as part of the promotion.
IsInEligibilityRequirementSet	A boolean value. When "true," the associated ASIN is what the customer must purchase to qualify for the promotion.

The following response snippet shows the values for these elements.

```
<ComponentType>ItemPrice</ComponentType>
<CouponCombinationType>Unrestricted</CouponCombinationType>
<IsInBenefitSet>true</IsInBenefitSet>
<IsInEligibilityRequirementSet>true</IsInEligibilityRequirementSet>
```

These values show that the promotion is based on discounting the price of the item ("ItemPrice"), that the promotion can be combined with any others ("Unrestricted"), and that the item is both what needs to be bought and what is awarded ("True").

For full responses, see the PromotionSummary response group.

Related Topics

- [PromotionSummary Response Group \(p. 285\)](#)

Reviews

Topics

- [Getting Editorial Reviews \(p. 139\)](#)
- [Getting Customer Reviews \(p. 139\)](#)

One of the great benefits of shopping on Amazon is the wealth of reviews of both items and sellers.

All of these features, in Product Advertising API, are read-only, that is, it is possible to retrieve reviews but not possible to create new reviews or lists.

Getting Editorial Reviews

The `EditorialReviews` response group provides the merchant's description of an item. This information is less of a review and more of a product description. The content of the `EditorialReviews` response group can be displayed individually as part of an `ItemLookup`, `ItemSearch`, or `SimilarityLookup` request.

Product Description

From the Manufacturer

This award-winning ride-on rocket features retro styling and Radio Flyer dependability. The classic red steel body is safe and durable. Kids love the astronaut and space sounds, vibrating motor action, clicking nose cone, and light up panel and after burner. Comfortable no-slip seat and covered front wheels make this car safe and sturdy.

For books, Editorial Reviews is a separate listing on the DetailPageURL web page. For example,

Editorial Reviews

The Midwest Book Review

SAVING MISS OLIVER'S is an engaging novel and is very highly recommended to all general fiction readers.

Bookwire, April 07, 2006

---Rich characters, unexpected plot development, and underlying themes of hope, lofty ideals, educational excellence, and historical pride.

Stephen Waters, Former School Head

---couldn't put it down. It was like a wire was attached to my brain, my memories, my very soul.

The following XML snippet shows part of the equivalent Product Advertising API EditorialReview response.

```
<EditorialReview>
  <Source>Bookwire, April 07, 2006</Source>
  <Content>—Rich characters, unexpected plot development, and underlying themes
  of hope, lofty ideals, educational excellence, and historical pride.</Content>
</EditorialReview>
```

The Editorial Reviews section also contains the author's description of the book.

Getting Customer Reviews

The `Reviews` response group provides an iframe URL that contains customer reviews for a specified item.

Important

The content of the `Reviews` response group must be periodically updated as it expires in 24 hours.

The reviews are returned in the "Customer Reviews" section on the DetailPageURL web page, as shown in the following figure.

Customer Reviews



Most Helpful Customer Reviews

1,666 of 1,942 people found the following review helpful:

★☆☆☆☆ Heartbreak of Heathcliff Proportions, August 3, 2008

By [J. Martin "Librarian"](#) (Dallas, TX) - [See all my reviews](#)

REAL NAME

This review is from: [Breaking Dawn \(The Twilight Saga, Book 4\) \(Hardcover\)](#)

I've only recently entered the Twilight fold. Having initially read reviews of the series in library journals and having heard passionate testimonials from avid fans, I thought I would give it a try.

Inexorably, I fell absolutely and positively in love with the first three Twilight books. I read them (the first time, that is) in three days. Then, like a junkie, I feverishly searched the media for news on the movie, the books, and all things Stephanie Meyers.

Stephenie Meyer's books were my brand of heroin.

The following XML snippet shows part of the equivalent Product Advertising API Customer Reviews response returned by an ItemLookup or ItemSearch request.

```
<ItemLookupResponse>
<Items>
<Item>
<ASIN>0316067938</ASIN>
<CustomerReviews>
<IFrameURL>
http://www.amazon.com/reviews/iframe?akid=\[AWS Access Key ID\]&asin=0316067938&exp=2013-08-01T17%3A54%3A07Z&linkCode=xm2&summary=0&tag=ws&truncate=256&v=2&sig=\[Signature\]
</IFrameURL>
</CustomerReviews>
</Item>
</Items>
</ItemLookupResponse>
```

After you receive the IFrameURL in the Customer Reviews response, you can embed it into an HTML page. For example:

```
<iframe src="http://www.amazon.com/reviews/iframe?akid=[AWS Access Key ID]&asin=0316067938&exp=2011-08-01T17%3A54%3A07Z&linkCode=xm2&summary=0&tag=ws&truncate=256&v=2&sig=[Signature]" />
```

Important

Each iframe URL is valid for 24 hours. If the iframe URL expires, you will receive a 403 Forbidden error code.

Suggesting Similar Items to Buy

Topics

- [Finding Similar Item IDs \(p. 141\)](#)
- [Returning Items Similar to Cart Items \(p. 142\)](#)
- [Using SimilarityLookup \(p. 143\)](#)
- [Filtering Similar Items \(p. 144\)](#)
- [Similar Versions of the Same Item \(p. 144\)](#)
- [Related Items \(p. 145\)](#)

When a customer purchases or searches for an item, they demonstrate an interest. As a developer, you can capitalize on that fact by suggesting to the customer similar items they might also like to buy. Add-on purchases is a powerful means of quickly increasing sales.

Similarity is based on items that customers bought, that is, customers who bought X also bought Y. This algorithm is different from one based on items viewed, for example. Basing the algorithm on purchases rather than viewing assures you that the similar items are more likely to be of interest to the customer.

Product Advertising API provides the following means of returning a list of similar items:

- Similarities response group
- CartSimilarities response group
- SimilarityLookup operation

Typically, the `Similarities` response group is used to find item IDs that are similar to the items returned in a response. To return extended information about those items, you could use the similar item IDs in `ItemLookup` requests.

Alternately, if you know the ID of the item for which you want similar items, you can use the `SimilarityLookup` operation to return extended information about each similar item.

Finding Similar Item IDs

The `Similarities` response group returns the title and ID of items that are similar to those returned in a response. For example, in the following sample request.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId= B000184IY0&  
ResponseGroup=Similarities  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

the following similar item was returned:

```
<SimilarProduct>  
  <ASIN>B00004GJVO</ASIN>  
  <Title>Minor Move</Title>  
</SimilarProduct>
```

You can use the information in this response to display the titles of similar items. If you want to display more information about the similar items, use the ASIN returned in a new ItemLookup request and specify an appropriate response group, such as ItemAttributes.

Returning Items Similar to Cart Items

Customers demonstrate their interest in an item by putting it in their shopping cart. Showing customers similar items to what they already have in their cart is a good way to spur add-on sales.

The CartSimilarities response group, which works with most cart operations, returns items that are similar to the ones included in the cart request. Items are returned based on:

- **Similarity**—Items are similar to the one purchased
- **Items viewed**—Customers who viewed the item in the cart also viewed the items returned by this response group
- **Similar items**—Similar items in other product categories

Each of these similarity types have their own element tag: <SimilarProduct>, <SimilarViewedProduct>, and <OtherCategoriesSimilarProduct>, respectively, as shown.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=ws&  
Operation=CartCreate&  
Item.1.ASIN=B000062TU1&  
Item.1.Quantity=2&  
ResponseGroup=CartSimilarities  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

This request produces the following response snippet.

```
<SimilarProducts>  
  <SimilarProduct>  
    <ASIN>B00008DDXC</ASIN>  
    <Title>Harry Potter and the Chamber of Secrets (Widescreen Edition)(Harry  
Potter 2)</Title>  
  </SimilarProduct>  
</SimilarProducts>  
<SimilarViewedProducts>  
  <SimilarViewedProduct>  
    <ASIN>B000E6UZZK</ASIN>  
    <Title>Harry Potter Years 1-4 (Harry Potter and the Sorcerer's Stone  
/Chamber of Secrets / Prisoner of Azkaban / Goblet of Fire) (Widescreen Edition)  
    </Title>  
  </SimilarViewedProduct>  
</SimilarViewedProducts>  
<OtherCategoriesSimilarProducts>  
  <OtherCategoriesSimilarProduct>  
    <ASIN>0590353403</ASIN>  
    <Title>Harry Potter and the Sorcerer's Stone (Book 1)</Title>  
  </OtherCategoriesSimilarProduct>  
</OtherCategoriesSimilarProducts>
```

This response shows that the *Harry Potter and the Sorcerer's Stone* DVD placed in the shopping cart is similar to another Harry Potter DVD, *Harry Potter and the Chamber of Secrets*. Customers who viewed the DVD in the shopping cart also viewed the DVD, *Harry Potter Years..* A related item to the DVD in the cart but in a different product category is the book version of the DVD: *Harry Potter and the Sorcerer's Stone*.

Related Topics

- [CartSimilarities Response Group \(p. 252\)](#)

Using SimilarityLookup

When you put an item ID in a `SimilarityLookup` operation requires, the response includes similar items. In previous sections, you saw that you can use the `Similarities` response group to return similar items. So, why use `SimilarityLookup`? This operation gives you the following advantages:

- `SimilarityLookup` provides a number of request parameters, such as `Condition`, to help filter the response
- `SimilarityLookup` is able to use many response groups to customize the information in the response
- You can specify more than one item in a request and find items that are similar to all of them, or similar to each item in the request

The following request returns items similar to the specified ASIN.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=SimilarityLookup&  
ItemId=[ASIN]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

The following XML is a snippet of the full response.

```
<Item>  
  <ASIN>B0009VX8VI</ASIN>  
  <ItemAttributes>  
    <ProductGroup>Apparel</ProductGroup>  
    <Title>Mark VII Men's Short Sleeve Knit Golf Shirt</Title>  
  </ItemAttributes>  
</Item>
```

This response shows that one item, *Mark VII Men's Short Sleeve Knit Golf Shirt*, was found that is similar to the ASIN specified in the request.

Specifying Multiple Items

The `SimilarityLookup` operation enables you to specify multiple items in a request, for example:

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=SimilarityLookup&
```

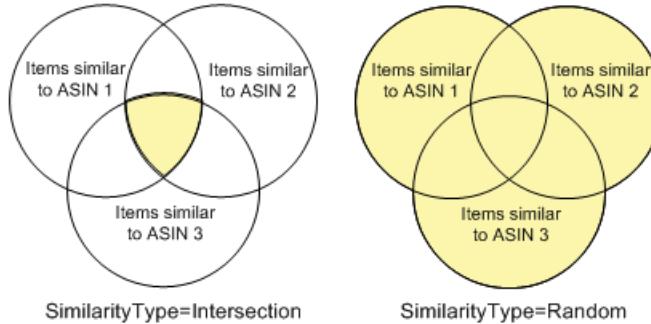
```
ItemId=ASIN1,ASIN2,ASIN3  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

The response contains either items that are:

- Similar to all of the items specified in the request (intersection)
- Similar to one or more of the items specified in the request (union)

You specify the intersection or union of similar ASINs by setting the value of the *SimilarityType* parameter in a *SimilarityLookup* request. The possible parameter values are:

- Intersection, which means that the items returned are similar to all of the items specified in the *SimilarityLookup* request. This value is the default.
- Random, which means that the items returned are similar to at least one of the items specified in the *SimilarityLookup* request.



The second value is called Random because the similar items returned are a random pick of all similar items found. The operation can only return up to ten similar items. So, it is possible, if there are more than ten similar items, that identical *SimilarityLookup* requests can return different lists of similar items. It is also possible for the operation to return no similar items. This response is returned as an error message, for example:

```
<Error>  
  <Code>AWS.ECommerceService.NoSimilarities</Code>  
  <Message>There are no similar items for this ASIN: B000B776KY.  
  </Message>  
</Error>
```

An empty result is even more likely when the *SimilarityType* value is "Intersection."

Filtering Similar Items

The *SimilarityLookup* operation enables you to restrict the items returned by *MerchantId*. You can specify that you want to find similar items sold by only Amazon by setting the optional *MerchantId* parameter to "Amazon". This parameter is optional in *SimilarityLookup* requests.

Similar Versions of the Same Item

Some items come in a variety of media formats. For example, a book might come in hardback, paperback, audio cassette, audio CD, and DVD. A person buying an item in one format might be interested in the

same item presented in a different format. To return all of the media formats of a single item, Product Advertising API provides the `AlternateVersions` response group. The catch is, the response group works only with items in the KindleStore, Music, MP3Downloads, Books, or ForeignBooks product categories. That means, for `ItemSearch` and `ItemLookup`, the search index must be Books or, in non-US locales, ForeignBooks, and, for `ItemLookup`, the specified item must be a music title, or a book or foreign book.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
Operation=ItemSearch&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=ws&  
SearchIndex=Books&  
Keywords=potter&  
ResponseGroup=AlternateVersions&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

This request returns books and media in other formats that contain "potter" in their title or product description, as shown in the following snippet of the response.

```
<AlternateVersions>  
  <AlternateVersion>  
    <ASIN>030728364X</ASIN>  
    <Title>Harry Potter and the Half-Blood Prince (Book 6)</Title>  
    <Binding>Audio Cassette</Binding>  
  </AlternateVersion>  
  <AlternateVersion>  
    <ASIN>0307283658</ASIN>  
    <Title>Harry Potter and the Half-Blood Prince (Book 6)</Title>  
    <Binding>Audio CD</Binding>  
  </AlternateVersion>  
</AlternateVersions>
```

This response shows that the book, *Harry Potter and the Half-Blood Prince*, is available on audio cassette and CD.

Related Items

You can return a list of related items using the `RelatedItems` response group in an `ItemLookup` request. When you do, you are required to use, in the same request, the `RelationshipType` parameter, which specifies the relationship between the related items, as shown in the following section. If you have more than ten related items, you use the `RelatedItemPage` parameter to return a set of ten related items. A value of 2, for example, returns the second set of ten related items.

Relationship Types

When an `ItemLookup` request uses the `RelatedItems` response group, the `RelationshipType` parameter is required. This parameter specifies the means by which items are related to the one specified in the `ItemLookup` request (by the `ItemId` parameter). The following list specifies all of the valid values for `RelationshipType`.

RelationshipType	Description
AuthorityTitle	Links a non-buyable ASIN TitleAuthority parent with its buyable children. A book might have a single TitleAuthority ASIN that relates to a list of children ASINs for different formats of the same book (hardback, paperback, audio book, kindle). MP3 albums have the same AuthorityTitle parent as its physical CD counterpart.
DigitalMusicArranger	Non-buyable child of both MP3 albums and tracks.
DigitalMusicComposer	Non-buyable child of both MP3 albums and tracks.
DigitalMusicConductor	Non-buyable child of both MP3 albums and tracks.
DigitalMusicEnsemble	Non-buyable child of both MP3 albums and tracks.
DigitalMusicLyricist	Non-buyable child of both MP3 albums and tracks.
DigitalMusicPerformer	Non-buyable child of both MP3 albums and tracks.
DigitalMusicPrimaryArtist	Non-buyable child of both MP3 albums and tracks. This is the relationship that shows all MP3 downloads for a single artist on amazon.com.
DigitalMusicProducer	Non-buyable child of both MP3 albums and tracks.
DigitalMusicRemixer	Non-buyable child of both MP3 albums and tracks.
DigitalMusicSongWriter	Non-buyable child of both MP3 albums and tracks.
Episode	Relates an Unbox Season (parent) to Episodes (children) from that season. Note this is the same relationship as Tracks and can be used interchangeably.
Season	Relates an Unbox Series (parent) to its Seasons (children).
Tracks	Relates an MP3 Album (parent) to its Tracks (children). Note this is the same relationship as Episode and can be used interchangeably.

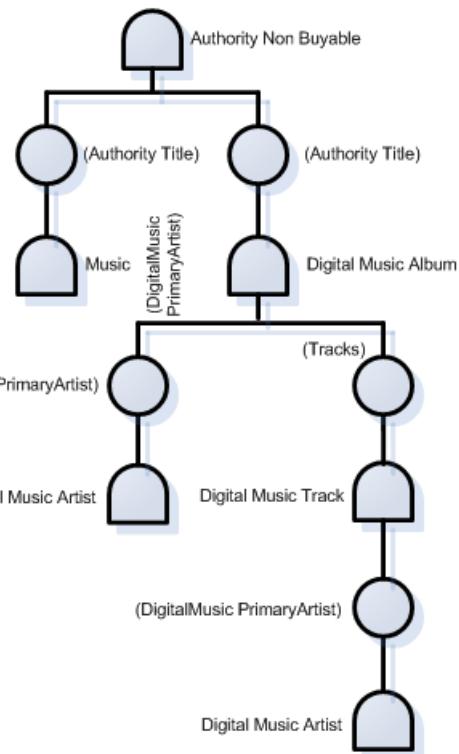
Hierarchy of Relationship Types

The RelationshipTypes values are hierarchically arranged. The following set of images show the hierarchies for MP3Downloads, UnboxVideo, and KindleStore items. In these images, the circles represent relationship types and the bell shaped figure represent items.

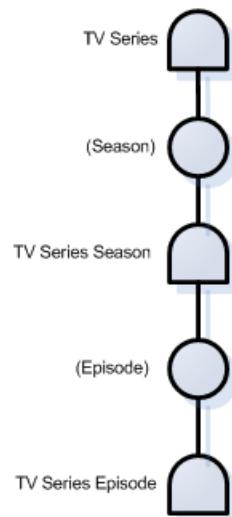
The following illustration shows the MP3Downloads hierarchy.

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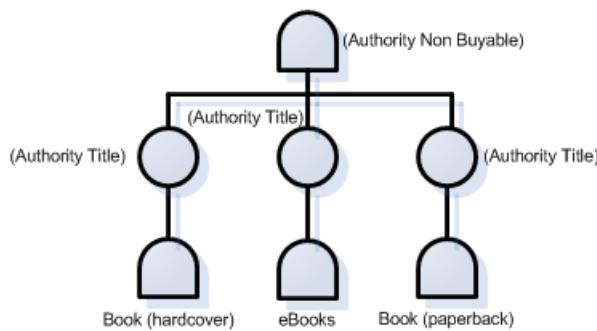
Suggesting Similar Items to Buy



The following illustration shows the UnboxVideo hierarchy.



The following illustration shows the KindleStore hierarchy.



AuthorityTitle is similar to a variation parent in that it is an organizational tool (a container) rather than a real item that you can purchase. They do not have detail pages.

Recommending Items to Others

The Small response group, and its parent response groups, return a Tell Your Friend link that looks similar to the following:

```
http://www.amazon.com/gp/pdp/taf/B000IHL51S%3FSubscriptionId%3DAKIAIOSFODNN7EX
AMPLE%26tag%3Dws%26linkCode%3Dxm2%26camp%3D2025%26creative%3D386001%26creativeAS
IN%3DB000IHL51S
```

This link brings up an email so the customer can easily email a friend about the item.

Top Sellers

Topics

- [Generalizing the Top Seller \(p. 149\)](#)
- [Getting Top Sellers From the Shopping Cart \(p. 150\)](#)

Top selling items, by definition, are enjoyed by many people. Items labeled top sellers often spark a customer's interest.

You can use the BrowseNodeLookup operation with the TopSellers response group to return the top sellers in a browse node. For example, the following request returns the top sellers in browse node 20.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=BrowseNodeLookup&
BrowseNodeId=20&
ResponseGroup=TopSellers
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

The following response snippet includes the name and ASIN of the two top selling items in browse node 20.

```
<TopSeller>
<ASIN>0446578622</ASIN>
<Title>The Notebook Girls</Title>
```

```
</TopSeller>
<TopSeller>
  <ASIN>1400062586</ASIN>
  <Title>You're Wearing That? : Understanding Mothers and Daughters in Conversation</Title>
</TopSeller>
```

You might wonder where you can get the browse node ID of an item so that you can find the top sellers in the browse node. The easiest way to return browse node IDs is to use the `BrowseNodes` response group with `ItemLookup`, `ItemSearch`, or `SimilarityLookup`, as shown.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=ItemLookup&
ItemId=B00008OE6I&
ResponseGroup=Browsenodes
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

The following is a small portion of the full response.

```
<Item>
  <ASIN>B000002ADT</ASIN>n
  <BrowseNodes>
    <BrowseNode>
      <BrowseNodeId>63926</BrowseNodeId>
      <Name>General</Name>
```

This response provides the browse node ID and name with which the ASIN, B000002ADT, is associated.

Alternately, you can look in the Product Advertising API Developer Guide for a list of the top level browse node IDs.

Generalizing the Top Seller

Sometimes you might like to return the best sellers in the root browse node. For example, if a customer is buying a camera, you might assume that the person is interested other electronic items. In this case, you use the `BrowseNodeLookup` operation. Its default response group is `BrowseNodes`. For example, the following request searches for DVD comedies.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=BrowseNodeLookup&
BrowseNodeId=163357
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

The response, part of which follows, includes the browse node IDs of the specified browse node's parent and child browse nodes.

```
<BrowseNode>
  <BrowseNodeId>163357</BrowseNodeId>
```

```
<Name>Comedy</Name>
<Children>
  <BrowseNode>
    <BrowseNodeId>599826</BrowseNodeId>
    <Name>Boxed Sets</Name>
  </BrowseNode>
  ...
<Item>
  <Ancestors>
    <BrowseNode>
      <BrowseNodeId>549726</BrowseNodeId>
      <Name>Performing Arts</Name>
    <Ancestors>
      <BrowseNode>
        <BrowseNodeId>5</BrowseNodeId>
      <Name>Entertainment</Name>
    <Ancestors>
      <BrowseNode>
        <BrowseNodeId>2000</BrowseNodeId>
        <Name>Subjects</Name>
      <Ancestors>
        <BrowseNode>
          <BrowseNodeId>1000</BrowseNodeId>
          <Name>Books</Name>
```

This response shows one of the browse node's children. More important to this discussion, however, is the browse node ancestry that is returned. The further down the response that you read, the higher up you go in the browse node hierarchy. The eldest ancestor of the browse node ID, 163357, which is in the request is browse node ID 1000, Books.

Now that you have the browse node ID of the root product category, you can use the `BrowseNodeLookup` operation again, this time with the `TopSellers` response group to return the top sellers in the root browse node category.

Note

`BrowseNodeLookup` only returns one ancestor of a browse node even if a node has multiple ancestors. Which ancestor is returned is not predictable. This limitation of the operation typically is of little consequence in this use case. Any root browse node ID returned by the operation is always relevant to the browse node ID in the request.

Getting Top Sellers From the Shopping Cart

It is assumed that any item that a customer adds to their shopping cart is of interest to them. For that reason, Product Advertising API provides the `CartTopSellers` response group that returns the ASINs and titles of the top five, best sellers in the root category of the item specified in the cart operation. For example, when adding a television to a cart, the five top sellers in the root category, electronics, are returned, for example, the top selling computers, MP3 players, or digital cameras.

The `CartTopSellers` response group can be used with most cart operations, as shown.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
AssociateTag=ws&
Operation=CartCreate&
Item.1.ASIN=B000062TU1&
```

```
Item.1.Quantity=2&
ResponseGroup=CartTopSellers
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

The following is a snippet of the response:

```
<TopSellers>
  <TopSeller>
    <ASIN>B00005JOFQ</ASIN>
    <Title>Brokeback Mountain (Widescreen Edition)</Title>
  </TopSeller>
  <TopSeller>
    <ASIN>B000E6EK3S</ASIN>
    <Title>Harry Potter and the Goblet of Fire (Widescreen Two-Disc Deluxe Edition)(Harry Potter 4)</Title>
  </TopSeller>
</TopSellers>
```

This response shows that there are two top sellers associated with the root product category of the item that was added to the shopping cart.

New Releases

Whether it's the release of a new book or a new DVD, new releases are always popular with customers. Product Advertising API enables you to take advantage of that motivator with two response groups, NewReleases and CartNewReleases.

The NewReleases response group returns the ASIN and title of newly released items in a specified browse node. This response group works only in BrowseNodeLookup requests, as shown.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=BrowseNodeLookup&
BrowseNodeId=4229&
ResponseGroup=NewReleases
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

The response includes the new releases associated with browse node 4229.

```
<NewReleases>
  <NewRelease>
    <ASIN>0446578622</ASIN>
    <Title>The Notebook Girls</Title>
  </NewRelease>
</NewReleases>
```

To find the browse node ID of an item, use the BrowseNodes response group.

Returning New Releases From Shopping Cart Items

A great way to spur add-on sales is by presenting customers with newly released items that are similar to items in their shopping cart. The CartNewReleases response group enables you to do this. This response group works with most cart operations.

The CartNewReleases response group returns the ASINs and titles of the top five new releases in the root category of the item specified in the cart operation. For example, when adding a television to a cart the top five new releases in the root category, electronics, are returned.

In the following request, an item is added twice to a newly-created shopping cart.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=ws&  
Operation=CartCreate&  
Item.1.ASIN=B000062TU1&  
Item.1.Quantity=2&  
ResponseGroup=CartNewReleases  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

The response includes a new release from the root product category.

```
<NewReleases>  
  <NewRelease>  
    <ASIN>B00005JOFQ</ASIN>  
    <Title>Brokeback Mountain (Widescreen Edition)</Title>  
  </NewRelease>  
</NewReleases>
```

Sorting by Popularity, Price, or Condition

The order in which you present the items returned is important to your customers. Often, they would like to know things, such as, what item is the least expensive, which is the most popular, which items are collectibles? Product Advertising API provides this functionality using the Sort parameter in ItemSearch requests.

The valid values for the Sort parameter in ItemSearch requests vary by locale and search index. For a complete list of valid values, see [Locale Reference \(p. 336\)](#).

Some of the most common ItemSearch Sort parameter values are described in the following table.

Sort Parameter	Description
pricerank, price, +price	Order items according to price from cheapest to the most expensive. The three versions of this value are equivalent in meaning but are valid in different search indices.
inversepricerank, -price	Order items according to price from the most expensive to the cheapest. The two versions of this value are equivalent in meaning but are valid in different search indices.

Sort Parameter	Description
salesrank	Order items according to how well they've sold, from best to worst sellers.
relevancerank	Order items according to how often the keyword appears in the product description, where the keyword appears (for example, the ranking is higher when keywords are found in titles), if there are multiple keywords, how closely they occur in descriptions, and, finally, how often customers purchased the products they found using the keyword.
reviewrank	Order items according to how highly rated the item was reviewed by customers where the highest ranked items are listed first and the lowest ranked items are listed last.

For example, the following request returns a list of toy rockets sorted from the cheapest to the most expensive.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=ItemSearch&
Keywords=Rocket&
SearchIndex=Toys&
Sort=price&
ResponseGroup=Offers&
ItemPage=10
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

The following is a snippet of the response.

```
<Item>
<ASIN>B000BOWQWA</ASIN>
<OfferSummary>
<LowestNewPrice>
<Amount>210</Amount>
<CurrencyCode>USD</CurrencyCode>
<FormattedPrice>$2.10</FormattedPrice>
</LowestNewPrice>
<TotalNew>3</TotalNew>
<TotalUsed>0</TotalUsed>
<TotalCollectible>0</TotalCollectible>
<TotalRefurbished>0</TotalRefurbished>
</OfferSummary>
</Item>
<Item>
<ASIN>B0006N6MGW</ASIN>
<OfferSummary>
<LowestNewPrice>
<Amount>211</Amount>
<CurrencyCode>USD</CurrencyCode>
<FormattedPrice>$2.11</FormattedPrice>
</LowestNewPrice>
<TotalNew>2</TotalNew>
```

```
<TotalUsed>0</TotalUsed>
<TotalCollectible>0</TotalCollectible>
<TotalRefurbished>0</TotalRefurbished>
</OfferSummary>
</Item>
```

This response lists two different items (toy rockets), which are ordered by price. The same ASIN can be offered for sale by multiple merchants and sellers. The offers response group provides a summary of the lowest price per condition. For example, the first item, B000BOWQWA, listed in the response is being sold as "New" by three sellers (<TotalNew>3</TotalNew>). The lowest price of this item in New condition is \$2.10. No one is selling this item in Used, Collectible, or Refurbished condition.

All other Sort parameter values work in a similar way.

Shipping Options

Shipping options are generally spelled out in child elements of the OfferListing element. One such child element is *IsEligibleForSuperSaverShipping*, a boolean value that specifies whether an item is eligible for super saver shipping. You cannot set this value; you can only use the value.

Returning Price and Availability Information

Topics

- [Returning Prices \(p. 154\)](#)
- [Determining Availability \(p. 160\)](#)

Previous chapters have shown how to find items and how to suggest additional items that a customer might find interesting. Returning price and availability information is important for the customer.

Returning price and availability information is explained in the following sections.

Returning Prices

Topics

- [Minimum Advertised Price \(p. 155\)](#)
- [Offer Summaries \(p. 155\)](#)
- [Returning All Offers \(p. 156\)](#)
- [Returning More Information About the Offer \(p. 156\)](#)
- [Providing Price Ranges for Product Categories \(p. 157\)](#)
- [Items That Do Not Have Offers \(p. 157\)](#)
- [Determining Parent Items \(p. 158\)](#)
- [Returning Offers From Item Variations \(p. 158\)](#)
- [Variation Dimensions \(p. 159\)](#)

Items for sale on Amazon can be sold by more than one seller or merchant. For example, the same camera might be sold by three different merchants or sellers. The following figure from Amazon's retail web site shows an example in which two merchants are selling the same book.

<p>\$11.67 & eligible for FREE Super Saver Shipping on orders over \$25.00. Details</p> <p> FULFILLED BY AMAZON</p>	<p>New</p>	<p> amazon.com.</p>	<ul style="list-style-type: none"> • In Stock. • Want it delivered Thursday, August 10? Order it in the next 0 hours and 43 minutes, and choose One-Day Shipping at checkout. See details • See shipping rates • See return policy
<p>\$12.19</p>	<p>New</p> <p>Comments: Book. Delivered direct from our US warehouse</p>	<p>Seller: pbshopus Rating:  88% positive ratings over the past twelve months (21847 ratings). Seller has 24976 lifetime ratings.</p>	<ul style="list-style-type: none"> • In Stock. • Ships from NJ, United States • International shipping available • See shipping rates

Notice that the merchants are selling the same book for different prices. In other examples, the same item might be offered in multiple conditions, such as New and Used.

Any item being sold is associated with an offer. An offer is a combination of price, condition, and vendor. For example, one offer might be Amazon selling the new book for \$11.67. Therefore, to find an item's price, you return the offers made by the vendors selling the item.

Offer information is made available by the OfferSummary, Offers, and OfferFull response groups, which can be part of ItemLookup, ItemSearch, and SimilarityLookup requests.

Minimum Advertised Price

Some manufacturers have a minimum advertised price (MAP) that can be displayed on Amazon's retail website. When the Amazon price is lower than the MAP, the manufacturer does not allow the price to be shown until the customer takes further action, such as placing the item in their shopping cart, or in some cases, proceeding to the final checkout stage.

When performing an ItemSearch or ItemLookup operation in these cases, the string "Too Low to Display" is returned instead of the actual price. Customers need to go to Amazon to see the price on the retail website, but won't be required to purchase the product.

Offer Summaries

The OfferSummary response group returns summary information about offers, including:

- Total number of offers per condition
- Lowest price per condition

For example, the following response snippet shows the lowest prices for an item in New and Used condition.

```
<OfferSummary>
<LowestNewPrice>
<Amount>801</Amount>
<CurrencyCode>USD</CurrencyCode>
<FormattedPrice>$8.01</FormattedPrice>
</LowestNewPrice>
<LowestUsedPrice>
<Amount>799</Amount>
<CurrencyCode>USD</CurrencyCode>
<FormattedPrice>$7.99</FormattedPrice>
</LowestUsedPrice>
<TotalNew>45</TotalNew>
<TotalUsed>20</TotalUsed>
```

```
<TotalCollectible>0</TotalCollectible>
<TotalRefurbished>0</TotalRefurbished>
</OfferSummary>
```

Returning All Offers

Amazon returns offers for new and used items. The Small response group, and all of its parent response groups, return a link that displays all new and used offers for the item in the response. The link is similar to the following.

```
http://www.amazon.com/gp/offer-listing/B000IHL51S%3FSubscriptionId%3DAKIAIOSFOD
NN7EXAMPLE
%26Code%3Dxm%26camp%3D2025%26creative%3D386001%26creativeAS
IN%3DB000IHL51S
```

Returning More Information About the Offer

Perhaps you want to display more than just the cheapest offer of an item in each condition. In this case, you would use the Offers response group.

The following response snippet shows the data included for a single offer.

```
<Offer>
  <OfferAttributes>
    <Condition>Used</Condition>
  </OfferAttributes>
  <OfferListing>
    <OfferListingId>f0ctUVF4LATNxevdXAj5g0j3UbEE%2B1gm%2Fy3ZNjJ%2Brxg
GUqPn%2FNY%2BqBcVFOVLQWAugw1j05zt9zqm865o%2BTk3zGIGDF5oWog
FW7frgBq77QgTs%2Baxm%2B2gLQ%3D%3D
    </OfferListingId>
    <Price>
      <Amount>21995</Amount>
      <CurrencyCode>USD</CurrencyCode>
      <FormattedPrice>$219.95</FormattedPrice>
    </Price>
    <Availability>Usually ships in 1-2 business days
    </Availability>
    <IsEligibleForSuperSaverShipping>0
    </IsEligibleForSuperSaverShipping>
  </OfferListing>
</Offer>
```

If you want more information about the vendor than is included in the Offers response group, use the OfferFull response group. That response group adds to the Offers response the:

- Merchant's name
- Merchant's nickname

Providing Price Ranges for Product Categories

You can use the SearchBins response group to return the price ranges of items for sale in a specified product category.. The following response to an [ItemSearch \(p. 223\)](#) request shows how the SearchBins response group can provide price ranges.

```
<SearchBinSets>
  <SearchBinSet NarrowBy="PriceRange">
    <Bin>
      <BinName>$25-$49</BinName>
      <BinItemCount>316</BinItemCount>
      <BinParameter>
        <Name>MinimumPrice</Name>
        <Value>2500</Value>
      </BinParameter>
      <BinParameter>
        <Name>MaximumPrice</Name>
        <Value>4999</Value>
      </BinParameter>
    </Bin>
  </SearchBinSet>
  <Bin>
    <BinName>$0-$24</BinName>
    <BinItemCount>280</BinItemCount>
    <BinParameter>
      <Name>MinimumPrice</Name>
      <Value>0</Value>
    </BinParameter>
    <BinParameter>
      <Name>MaximumPrice</Name>
      <Value>2499</Value>
    </BinParameter>
  </Bin>
</SearchBinSets>
```

This response shows that there are 316 items in this product category that cost between \$25 and \$49 and 280 items that cost between \$0 and \$24.

Knowing what price ranges are available for a product category enables you to use the *MaximumPrice* and *MinimumPrice* parameters in a second ItemSearch request to retrieve items only in the specified price range. Using one of the offer response groups in the same request enables you to display the prices of the items in a specified price range.

Items That Do Not Have Offers

There are two kinds of items returned by Product Advertising API:

- Regular items
- Parent items

A parent item is an abstraction of a collection of items. For example, shirt is a parent item. A shirt that is a specific size and color would be a child of the parent item, which is called a regular item. Each regular item has an item identifier, such as an ASIN. That means that a red, large shirt would have a different ASIN from the same shirt that is blue and size large. The child items are also called variations.

Because a parent item is an abstraction, it cannot be sold so it does not have an *OfferListingId*.

Determining Parent Items

How do you determine if the item returned in a response is a parent item? If you use either the Variations or VariationSummary response groups in a request, the responses will include a VariationSummary tag if the item is a parent item.

Secondly, if you use one of the offer response groups, parent items do not have offers. So, the summary would be as follows.

```
<OfferSummary>
  <LowestNewPrice>
    <Amount>0</Amount>
    <CurrencyCode>USD</CurrencyCode>
    <FormattedPrice>$0.00</FormattedPrice>
  </LowestNewPrice>
  <TotalNew>0</TotalNew> <TotalUsed>0</TotalUsed> <TotalCollectible>0</TotalCollectible>
  <TotalRefurbished>0</TotalRefurbished>
</OfferSummary>
```

Returning Offers From Item Variations

The Book, Music, Video, and DVD search indexes have very few parent items. The Apparel, Jewelry, and SportingGoods search indexes have many parent items and variations.

If a parent item is returned in a response, it will not have an offer. Instead, you must find the offers associated with the variations of the parent item. You do this by adding the Variations response group to the request, as follows.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=1MEXAMPLEZBG2&
Operation=ItemSearch&
Keywords=Ralph%20Lauren&
SearchIndex=Apparel&
Sort=pricerank&
ResponseGroup=Offers,Variations&
Availability=Available&
Condition=All
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

The Variations and Offers response groups returns the first ten variations of the parent item and their offers, which is shown in the following response snippet.

```
<Variations>
  <TotalVariations>6</TotalVariations>
  <TotalVariationPages>1</TotalVariationPages>
  <Item>
    <ASIN>B000FG8I6W</ASIN>
    <ItemAttributes>
      <Binding>Apparel</Binding>
      <Brand>Polo Ralph Lauren</Brand>
      <ClothingSize>10 - 13</ClothingSize>
      <Color>Beige Heather</Color>
      <Department>mens</Department>
```

```
...
</ItemAttributes>
<Offers>
<Offer>
<Merchant>
<Name>Polo.com</Name>
</Merchant>
<OfferAttributes>
<Condition>New</Condition>
</OfferAttributes>
<OfferListing>
<OfferListingId>WjQ49eW5WwGDJ4Ga6u06I156YzTQKzVh0G2ag0k9vZtbj
cojcnuWkkbogxg6dzeDmu9alzXSn04nz0DvdnZT8gqeIRSRRx2shyER2SDHWREJth
dUmXvDYO%2Bf0z%2FOdpye</OfferListingId>
<Price>
<Amount>1400</Amount>
<CurrencyCode>USD</CurrencyCode>
<FormattedPrice>$14.00</FormattedPrice>
</Price>
<SalePrice>
<Amount>560</Amount>
<CurrencyCode>USD</CurrencyCode>
<FormattedPrice>$5.60</FormattedPrice>
</SalePrice>
<Availability>Usually ships in 1-2 business days</Availability>
</OfferListing>
</Offer>
</Offers>
```

Variation Dimensions

A variation is a child ASIN. The parent ASIN is an abstraction of the children items. For example, Shirt is a parent ASIN. Parent ASINs cannot be sold. A child ASIN of it would be a blue shirt, size 16, sold by MyApparelStore. This child ASIN is one of potentially many variations. The ways in which variations differ are called dimensions.

In the preceding example, size and color are the dimensions. Parent ASINs therefore return two related elements:

- VariationDimensions
- VariationDimension

The following response snippet shows these elements.

```
<VariationDimensions>
<VariationDimension>ClothingSize</VariationDimension>
<VariationDimension>Color</VariationDimension>
</VariationDimensions>
```

The values returned by these elements are the dimensions listed in the child ASIN's response, as shown.

```
<Item>
...
<ItemAttributes>
```

```
...  
<ClothingSize>Large</ClothingSize>  
<Color>Black</Color>  
...  
</ItemAttributes>  
...  
</Item>
```

Determining Availability

Topics

- [Availability Values \(p. 160\)](#)
- [Checking for an Offer Listing ID \(p. 161\)](#)
- [Using the ItemSearch Availability Parameter \(p. 162\)](#)

Only items that are available can be put into the active area of a remote shopping cart. Unavailable items can be put in the SaveForLater area of the cart.

Amazon defines available items as those that are:

- Currently for sale
- Pre-release orders, such as buying a Harry Potter book before it is released
- Special orders
- e-mail me when the items become available

The availability of an item can change without notice. Putting an item in a cart does not reserve it. Items in carts can become unavailable and their prices can change as soon as the item goes into the cart.

Determining if an item is available is determined differently for merchants and sellers.

Availability of Merchant Items

1	Check the Availability element value returned by the Offers or OfferFull response groups.
2	Make sure the item has an offer listing ID.
3	Use the Availability request parameter along with the Condition parameter in an ItemSearch request. Items might be available, for example, in one condition but not another.

With Merchants, you use one of the Offer response groups to determining item availability.

Availability Values

The Offer Summary Report lists the availability of an item using the Availability element. The value of the element indicates if the item can be purchased and how soon it will be shipped, as shown.

```
<Availability>Usually ships in 24 hours</Availability>
```

This response, which is returned by the Offers and OfferFull response groups, confirms that an item is available to buy.

The value returned by the Availability element may not match the one on the Amazon retail web site's product detail page because typically there is a short and long version of an availability message. Product Advertising API returns the short version. The more verbose availability message is used on the retail web site.

For non-Amazon products in JP, FR, DE, and CA; the value returned by the Availability element is "1-2 business days," or the localized equivalent, regardless of the actual availability.

The following table describes the possible Availability element values.

Message	Description
Usually ships in %X	A dynamic response where %X represents a variable amount of time.
Not yet released	The item is not available for purchase. The item may or may not have a projected release date. If there is a release date, it may show up in the ReleaseDate element of the item attributes.
Not yet published	The item is not available for purchase. The item may or may not have a projected release date. If there is a release date, it may show up in the ReleaseDate element of the item attributes.
This item is not stocked or has been discontinued.	The item is not available for purchase.
Out of Stock	The item is currently not available for purchase, but may be in the future.
Limited Availability	Used for items sold by third-parties if an item is out of stock, but may be available for purchase later.
Out of Print--Limited Availability	Customers can choose to be notified if a copy becomes available.
Special Order	Titles occasionally go out of print or publishers run out of stock. The buyer is notified if the item becomes unavailable.
This item is currently not available by this merchant	The message is sent primarily for Amazon offers that are missing an availability message.

These availability messages apply to Amazon only. Sellers might return a completely different set of availability messages.

Checking for an Offer Listing ID

An offer listing ID is an alphanumeric token that uniquely identifies an item that is sold by any merchant, including Amazon. Whereas an offer is a combination of Condition and Price, an offer listing ID is similar to a price tag, one is associated with each item for sale, as shown in the following figure.



This figure shows that three vendors are selling the same item, a shirt. The vendor, labeled Offer 1, has three shirts in stock and each has an OfferListingId.

If an item is for sale, it has an offer listing ID. This ID is returned by the Offers and OfferFull response groups, as shown in the following response snippet.

```
<OfferListing>
  <OfferListingId>[Offer Listing ID]</OfferListingId>
  <Price>
    <FormattedPrice>Too low to display</FormattedPrice>
  </Price>
  <Availability>Usually ships in 24 hours</Availability>
  <IsEligibleForSuperSaverShipping>0
  </IsEligibleForSuperSaverShipping>
</OfferListing>
```

Offers contain availability and shipping information.

Using the OfferSummary Response Group

The OfferSummary response group returns, in part, the total number of items available in each condition, for example:

```
<Item>
  <ASIN>B000BWFJQ2</ASIN>
  <OfferSummary>
    <LowestNewPrice>
      <Amount>295</Amount>
      <CurrencyCode>USD</CurrencyCode>
      <FormattedPrice>$2.95</FormattedPrice>
    </LowestNewPrice>
    <TotalNew>1</TotalNew> <TotalUsed>0</TotalUsed> <TotalCollectible>0</TotalCollectible> <TotalRefurbished>0</TotalRefurbished>
  </OfferSummary>
```

This response shows that only one of the specified items, B000BWFJQ2, is available and it is only available in "New" condition.

Using the ItemSearch Availability Parameter

The ItemSearch *Availability* parameter enables you to search only for items that are available. The only valid value for Availability is "Available," as shown in the next example.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
Condition=All&  
Availability=Available&  
SearchIndex=Apparel&  
Keywords=Shirt  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Items can become unavailable quickly. Even though this parameter filters out unavailable items, checking that an item has an *OfferListingId* is still recommended.

Working With Remote Shopping Carts

Topics

- [Shopping Cart Concepts \(p. 163\)](#)
- [Remote Shopping Cart Tasks \(p. 168\)](#)
- [Add to Cart Form \(p. 175\)](#)

Most e-commerce web sites have adopted the metaphor of the shopping cart, which is a place to save and list the items a customer wants to buy. Just like a shopping cart in a grocery store, the e-commerce shopper has the ability to change the number and kinds of items the cart contains. They might add new items to a cart, increase or decrease the quantity of an item that is already in the cart, even empty the cart of all items. Instead of physically adding and removing items from a real cart, Product Advertising API operations provide similar functionality on a virtual shopping cart, called the Product Advertising API remote shopping cart.

Once the customer has found something they want to buy, they typically click an HTML button or link called, for example, **Add To Cart**. This action adds the item(s) to their existing shopping cart. If this is the first item they have chosen to place in a shopping cart, the shopping cart itself is created.

In Product Advertising API, the shopping cart is called remote because the cart is hosted by Amazon servers. In that sense, the shopping cart is remote to the seller's or Associate's servers where the customer is shopping.

The opposite of a remote shopping cart is a local shopping cart, which is the shopping cart customers use while shopping on www.amazon.com. It is considered local because Amazon hosts the shopping web pages as well as the shopping cart. Product Advertising API operations work solely with remote shopping carts.

The following sections describe remote shopping carts and how to work with them.

Shopping Cart Concepts

Topics

- [Cart Identifiers \(p. 164\)](#)
- [Cart Limitations \(p. 164\)](#)
- [Active and SaveForLater Areas \(p. 164\)](#)
- [Items That Cannot Be Added to the Active Cart Area \(p. 165\)](#)
- [Remote Shopping Carts are Hosted by Amazon \(p. 166\)](#)

- [Cart Lifespan \(p. 167\)](#)

The following sections describe remote shopping carts in detail.

Cart Identifiers

When you create a remote shopping cart using `CartCreate`, Product Advertising API returns the new cart's ID (`CartId`). The cart ID is also an alphanumeric token that is used to identify a cart. The cart ID and HMAC values must be used in all Product Advertising API requests related to the cart (except `CartCreate`). HMAC (Hash-based Message Authentication Code) is a specific construction for calculating a message authentication code (MAC) involving a cryptographic hash function in combination with a secret key. You can use it to verify both the data integrity and the authenticity of a message at the same time. AWS calculates the HMAC using a standard, cryptographic hash algorithm, such as SHA-256.

Cart Limitations

A cart can contain up to 50 entries. Each entry can represent one or more (up to 999) of the same items. That means that a Product Advertising API shopping cart can contain a maximum of almost 50,000 items.

Many products have a limit on the quantity that can be added to a cart. Sometimes this is inherent to the product, for example, one-of-a-kind jewelry items. Sometimes it is a limit set by the vendor, for example, they might set a limit on big ticket items, such as a motorcycle, of one per customer. If you add an item to the cart with a quantity that exceeds the maximum allowed, `CartAdd` automatically resets the quantity to the maximum value. No error is generated. Therefore, you must verify the quantity of items in the cart with the number ordered to determine if the quantity has been capped. If so, you must notify the customer.

Active and SaveForLater Areas

Shopping carts have two distinct areas:

- **Active**—Contains the items that are ready to be purchased.
- **SaveForLaterItem**—Contains items that a customer has chosen to buy but are currently unavailable, or items that a customer has designated they want to save and buy later.



Available items placed in a shopping cart are automatically added to the Active area unless the customer specifies otherwise. Unavailable items or items in the shopping cart that become unavailable are automatically put into the SaveForLater area. When those items become available Amazon automatically moves the items to the Active area of the shopping cart.

The SaveForLater area can also be used by customers as a holding place for items they are interested in but not ready to purchase. The prices and availability for items in this area are regularly updated by Amazon.

Items That Cannot Be Added to the Active Cart Area

Product Advertising API operations sometimes return items that cannot be added to the Active cart area. The following sections explain those cases:

- Out of stock items
- Items with limited quantities
- Digital items
- Variation parent items
- Collection parent items

Out of Stock Items

Most items for sale are available immediately. There are times, however, when that is not true. Items can go out of stock or very popular items, such as a new Harry Potter book, are pre-sold, that is, the book is sold before the book is even published.

When a customer adds an item to their cart that is not available, it is added to the SavedForLater area. Also, if an item in the cart, for some reason, becomes unavailable, Amazon automatically moves the item in the cart to the SavedForLater items section.

It is also possible for a customer to add an item directly to the SavedForLater items area in their cart so that they can easily purchase the item at a later date.

When items become available, you can use the `CartModify` operation with the `Action` parameter to move items from the SaveForLater section of the cart to the Active section, which is fully described in [Moving Adding Items as Saved For Later \(p. 172\)](#). Or, if Amazon automatically moved an item in the Active area to the SaveForLater area because the item went out of stock, Amazon will move it back into the Active area automatically when it becomes available.

Items With Limited Quantities

Many products have a limit on the quantity that can be added to a cart. Sometimes this is inherent to the product, for example, one-of-a-kind jewelry items. Sometimes it is a limit set by the vendor, for example, they might set a limit for big ticket items of one per customer. If you add an item to the cart with a quantity that exceeds the maximum, `CartAdd` or `CartCreate` automatically resets the quantity to the maximum. No error is generated. Therefore, you must verify the quantity of items in the cart with the number ordered to determine if the quantity has been capped. If so, you must notify the customer.

Digital Items

Digital Items, such as Kindle books, Amazon Instant Video, and MP3 files, can be purchased only by using Amazon 1-click. They cannot be placed in the cart. The following values for the `Binding` response element (`ItemAttributes`) are digital media formats:

- MP3 Music
- Amazon Instant Video
- Kindle Edition

Variation Parents

Variation parent items cannot be added to a cart. For example, you cannot add Apparel to a cart because it is not clear what apparel you really want to buy. You could add one of its children, however, such as a red shirt, size large. If you try to add a parent item, you get an error message similar to the following.

The item you specified, **[ASIN]**, is not eligible to be added to the cart. Check the item's availability to make sure it is available.

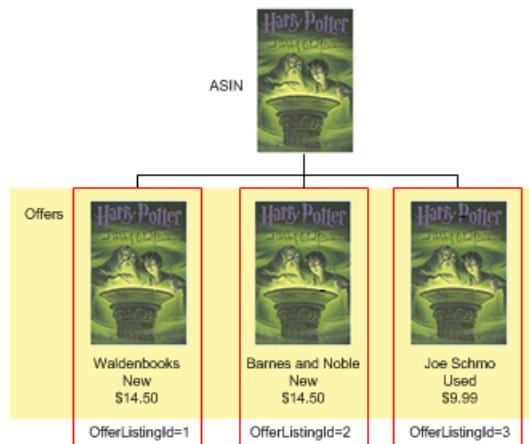
Variation parents do not have corresponding OfferListingId's.

Collection Parents

Collection parent items are abstractions of the items in the collection. The collection parent cannot be added to a cart. The Collection parent is used as a name holder for the collection. Collection parents do not have corresponding OfferListingId's.

Offers and Identifiers

ASINs identify items, such as a Harry Potter book. ASINs do not, however, identify sales information related to those items.



As you can see in the preceding figure, an ASIN identifies an item but not an instance of it that a customer can purchase. Every ASIN can be sold by many merchants. Each merchant lists the condition and price of the item. This combination of data represents an *OfferListingId*. Taken together, all *OfferListingIds* are referred to as offers. If an ASIN does not have an *OfferListingId*, the item cannot be purchased.

For this reason, it is recommended that you add items to a shopping cart by their *OfferListingId* rather than by their *ASIN*.

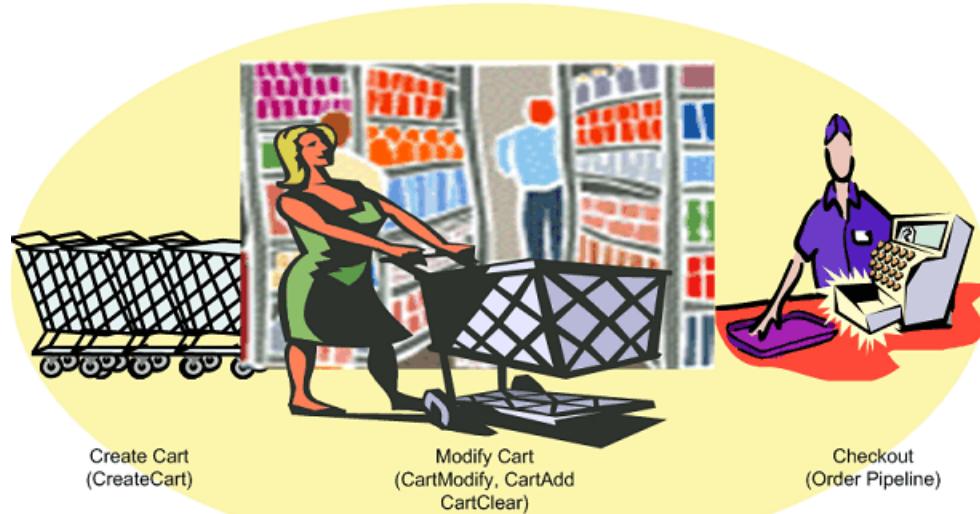
Remote Shopping Carts are Hosted by Amazon

Although a Product Advertising API application or web site runs on your servers, Product Advertising API remote shopping carts are hosted by Amazon servers. You use Product Advertising API operations to create and modify the cart and its contents. Keeping a local copy of a shopping cart is not recommended because the price and availability of items change often and Amazon automatically updates items in shopping carts. Also, Amazon automatically updates the status of lists, such as Wishlists, when a customer buys an item on a list. Keeping a local copy of a shopping cart runs the risk of cart items getting out of sync with their real price, availability, and status.

Because Product Advertising API shopping carts are hosted by Amazon instead of a local host, the shopping carts are called "remote." The cart used by a customer shopping on the Amazon retail web site, www.amazon.com in the US locale, is considered the "local" shopping cart. Amazon maintains for each customer ID only one local shopping cart. Developers can maintain more than one remote shopping cart for a customer but maintaining one cart per customer ID is recommended.

Cart Lifespan

Shopping carts have a lifespan. A remote shopping cart is created and, in time, it expires. In between, the contents of the cart can be modified and purchased, as shown in the following diagram.



Cart Creation

The first time a customer wants to add an item to their shopping cart, a remote shopping cart must be created, which is accomplished using the `CartCreate` operation. It is not possible to create an empty cart. At least, one item must be added.

Modifying a Cart

If a customer has an existing remote shopping cart, it should be used and modified accordingly. Modification can come in many forms:

- Items can be added to and deleted from the cart
- Items can be moved from the Active area of the cart to the SaveForLater area, or the reverse

The `CartId` and `HMAC` are used in the `CartModify`, `CartAdd`, or `CartClear` operations to modify the contents of the cart.

Cart Expiration

It is not possible to delete a remote shopping cart. Instead, it expires automatically after ninety days of disuse if there are items in the cart, or, if the cart is empty, after seven days of disuse. Carts are emptied either by the `CartClear` or `CartModify` operations, or automatically when the customer purchases the items in their cart. The expiration of the cart is reset when the cart is modified. For example, if, on day eighty-nine of disuse, a customer modifies the items in their shopping cart, the life time of the cart is reset to an additional ninety days. In that way, shopping carts can last indefinitely.

Once the items in a cart have been purchased using the *PurchaseURL* value, the cart is not deleted immediately but it should no longer be used. From a customer's point of view, once he or she has purchased the items in their cart and there are no items remaining in the SaveForLater section, the old cart is gone. The next time they want to purchase an item, they receive a new cart.

Remote Shopping Cart Tasks

Topics

- [Creating a Remote Shopping Cart \(p. 168\)](#)
- [Retrieving the Contents of a Cart \(p. 174\)](#)

Product Advertising API operations give you complete control of the items in a remote shopping cart. The tasks you can implement using Product Advertising API cart operations are described in the following sections.

Creating a Remote Shopping Cart

A remote shopping cart must be created the first time a customer decides to add an item to a shopping cart. Once the cart is created, it is reused and modified appropriately until it expires. Only one local cart can be created and only one cart per customer per vendor should be created.

Typically, an HTML button labeled, for example, Add to Cart, implements a *CartCreate* request, which includes:

- At least one item to add to the cart.
You cannot create an empty cart.
- An *AssociateTag*.
Including the *AssociateTag* value gives the Associate credit for the customer's purchase.

Example Creating a Cart

The following request creates a cart that will be merged with the customer's cart when the customer uses *PurchaseURL*.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]& AssociateTag=[ID]&  
Operation=CartCreate&  
Item.1.OfferListingId=B000062TU1&  
Item.1.Quantity=2  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

In this example, two of the same item (Quantity=2) whose ASIN is B000062TU1 are added to the newly created (Operation=CartCreate) shopping cart. The Associate specified will receive a referral fee if the customer purchases the item.

In the lifespan of a shopping cart, *CartCreate* can be used only once. If you call *CartCreate* a second time, you create a new shopping cart. We recommend that you only create one cart per customer.

Specifying the Items in the CartCreate Request

In one CartCreate request, you can add up to ten different items to the cart. The quantity of each item can be between 1 and 50. That means in one CartCreate request, you could add up to five-hundred items (10 items * 50 quantity).

Items are specified in parameter pairs, as follows:

```
Item.N.ItemIdType=[Item identifier]  
Item.N.Quantity=[Number of Item.N items]
```

N is a positive integer. The *N* value associates the ItemId with the quantity of those items that should be added to the cart, for example:

```
Item.1.OfferListingId=[An OfferListingId]&  
Item.1.Quantity=3&  
Item.2.OfferListingId=[An OfferListingId]&  
Item.2.Quantity=5&
```

This request adds three number 1 items and five number 2 items to the remote shopping cart. You could interchange lines without affecting the end result, for example:

```
Item.1.OfferListingId=[An OfferListingId]&  
Item.2.OfferListingId=[An OfferListingId]&  
Item.1.Quantity=3&  
Item.2.Quantity=5&
```

The values for *N* do not have to be listed in ascending or descending order, nor do the values of *N* need to be sequential. You could, for example, use the values, 1, 4, 7 for *N*. Also, the value of *N* is not retained between requests. For that reason, it is permissible to use Item.1 in a CartCreate request and then in a CartAdd request, which adds an item to the cart. In these requests, Item.1 can refer to two completely different items.

The value of adding multiple items to the cart in one request is performance. It takes less time to add ten items in one request than it does to add ten items to the cart in ten separate requests.

Using OfferListingId

You can specify items to add to a cart in the following ways.

Identifiers	Description
ASIN	An alphanumeric token that uniquely identifies an item sold by Amazon. Amazon assigns ASINs to items. Using OfferListingId is the preferred method of identifying items to add to the cart.
OfferListingId	An alphanumeric token that uniquely identifies an item sold by a seller or merchant. Amazon assigns OfferListingIds to items. You can find an OfferListingId using the ItemLookup and ItemSearch operations with Offers and OfferFull response groups. Using OfferListingId is the preferred method of identifying items to add to the cart.

The CartCreate example uses OfferListingId to identify the items to add to the cart. An OfferListingId is returned by the Offers and OfferFull response groups. An alternative is using an item's ASIN. An ASIN is assigned to every item offered by Amazon. An OfferListingId is assigned to every item that is available for sale.

The advantage of using OfferListingId in the CartCreate request is that items that cannot be purchased, such as Variation parent items, do not have OfferListingId's. By using the OfferListingId, you are assured that an item can be purchased.

AssociateTag Parameter

An *AssociateTag* is an alphanumeric token distributed by Amazon that uniquely identifies an Associate. It is the means by which Amazon credits an Associate for a sale. As we will see in a later section, the *AssociateTag* parameter becomes part of the *PurchaseURL*, which is the URL used to purchase the items in a remote shopping cart. You must include an *AssociateTag* value in a CartCreate request. For more information about how to get an Associate tag, see [Getting Set Up](#) in the *Product Advertising API Getting Started Guide*.

If a request does not contain an *AssociateTag* value, Product Advertising API returns an error.

Be careful when you specify an *AssociateTag* value in the CartCreate request. Errors are not returned for incorrect values.

Using Values Returned by CartCreate in Other Cart Operations

The following XML is a snippet of the response to the CartCreate request.

```
<CartId>002 2197248 2529608</CartId>
<HMAC>/WrekkZAPx782xttLFbZqviNUOA=</HMAC>
<URLEncodedHMAC>%2FWrekkZAPx782xttLFbZqviNUOA%3D</URLEncodedHMAC>
<PurchaseURL>https://www.amazon.com/gp/cart/aws merge.html?cart id=002 2197248
2529608%26associate id=ws%26hmac=/WrekkZAPx782xttLFbZqviNUOA=%26AWSAccessKey
Id=[AWS Access Key ID]</PurchaseURL>
<SubTotal>
    <Amount>2998</Amount>
    <CurrencyCode>USD</CurrencyCode>
    <FormattedPrice>$29.98</FormattedPrice>
</SubTotal>
<CartItems>
    <SubTotal>
        <Amount>2998</Amount>
        <CurrencyCode>USD</CurrencyCode>
        <FormattedPrice>$29.98</FormattedPrice>
    </SubTotal>
    <CartItem>
        <CartItemId>UV3W10T4V7PCZ</CartItemId>
        <ASIN>B000062TU1</ASIN>
        <Quantity>2</Quantity>
        <Title>Harry Potter and the Sorcerer's Stone (Full Screen Edition) (Harry
Potter 1)</Title>
        <ProductGroup>DVD</ProductGroup>
        <Price>
            <Amount>1499</Amount>
            <CurrencyCode>USD</CurrencyCode>
            <FormattedPrice>$14.99</FormattedPrice>
        </Price>
        <ItemTotal>
            <Amount>2998</Amount>
            <CurrencyCode>USD</CurrencyCode>
            <FormattedPrice>$29.98</FormattedPrice>
        </ItemTotal>
    </CartItem>
</CartItems>
```

Many of the item attributes in the response are used in future cart requests. Those item attributes are explained in the following table.

Attribute	Description
CartId	An alphanumeric token that uniquely identifies a remote shopping cart. This value must accompany every cart operation associated with the newly created cart.
HMAC	Hash Message Authentication Code. This is an encrypted alphanumeric token used to authenticate requests. A URL-encoded version of this value must accompany every cart operation associated with the newly created cart. The alternative is to include, instead, the URLEncodedHMAC value.
URLEncodedHMAC	This is the <i>HMAC</i> value with all of the characters converted in to a URL-compliant form. Some <i>HMAC</i> characters, such as plus (+), are incompatible with URLs. This is a problem because the <i>HMAC</i> must be included in every cart operation and thus is part of the URL request. The <i>URLEncodedHMAC</i> value, then, is a convenience function that relieves developers of the need to create their own URL-encoded <i>HMAC</i> value. This value must accompany every cart operation. <pre><HMAC>Cw1g4IbVzOtZFkJR/zBj1GNnZMA</HMAC> <URLEncodedHMAC>Cw1g4IbVzOtZFkJR/zBj1GNnZMA </URLEncodedHMAC></pre>
PurchaseURL	This is the URL that is submitted, like a request, to enter the Order Pipeline and purchase the items in a cart. <i>PurchaseURL</i> includes the Associate's Tag. It is important that this URL is used to make the purchase otherwise the Associate will not get credit for the sale. <pre><PurchaseURL>https://www.amazon.com/gp/cart/aws-merge.html?cart-id=102-9464231-2184159%26associate-id=ws%26hmac=Cw1g4IbVzOtZFkJR/zBj1GNnZMA=%26AWSAccessKeyId=1VEXAMPLE9C02</PurchaseURL></pre>
CartItemID	An alphanumeric token that uniquely identifies an item in the cart. Although the items added to a remote shopping cart using <i>CartCreate</i> were identified by an <i>ASIN</i> or <i>OfferListingId</i> , those items lose those associations. Instead, to refer to an item in a cart in future cart operation requests, you must use the item's <i>CartItemID</i> value.

Modifying the Items in a Remote Shopping Cart

Product Advertising API operations give you a lot of flexibility to modify the number of items in a cart. For example, use:

- **CartAdd**—To add new items to a cart.
- **CartClear**—To remove all items from a cart.
- **CartModify**—To increase or decrease the number of items that are already in a cart, and to move items between the Active and the SaveForLater cart areas.

You can use this operation to delete a single item from a cart by setting its quantity to zero.

All of these operations can be used only on an existing remote shopping cart.

Adding Items to a Cart

Often a customer, after creating a shopping cart, wants to keep shopping and add additional items to an existing shopping cart. You can facilitate this activity using the Product Advertising API operations `CartAdd` and `CartModify`.

If the item being added is already in the cart, you have to use the `CartModify` operation to change the quantity of the items already in the cart. You cannot use `CartAdd` to add items that are already in a cart. In the following example, the quantity of the specified item is changed to 10.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=[Associate ID]&  
Operation=CartModify &  
CartId=102-5929035-5792105&  
HMAC=[HMAC]&  
Item.1.CartItemId=[Cart Item ID]& Item.1.Quantity=10  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Notice that the item in the cart is referred to by its `CartItemId`. The `Quantity` value, 10, is the total number of those items that should be in the cart.

If the item being added to the cart is not already in the cart, you must use the `CartAdd` operation. `CartAdd` cannot increase the quantity of items that are already in the cart. If you try to do that, you get an error.

The following is an example of a request using `CartAdd`.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
CartId=102-5929035-5792105&  
HMAC=[HMAC]=&  
Operation=CartAdd &  
Item.1.OfferListingId=1400042127& Item.1.Quantity=2  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

This request adds to the cart two (Quantity=2) of the same items, which are identified by the `OfferListingId` (1400042127).

As you can see, the method of identifying the item and its quantity to add to the cart is the same as it was for `CartCreate`. For more information, see [CartCreate. \(p. 203\)](#)

Adding Items as Saved For Later

To add an item to the `SaveForLater` area, use "SaveForLater" as the value for the `Action` parameter in a `CartModify` operation, for example:

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=[Associate ID]&  
Operation=CartModify&  
CartId=[Cart ID]&
```

```
HMAC=[HMAC]&
Item.1.CartItemId=[Cart Item ID]&
Item.1.Quantity=1
Item.1.Action=SaveForLater
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

In this request, the item identified by Item.1 is moved to the cart's SaveForLater area. The Quantity parameter enables you to move only some of one type of item into the SaveForLater area, for example, if you had fifteen copies of the book, *Saving Miss Oliver's*, in the cart, you could move eight of them to the SaveForLater area by setting Item.1.Quantity=8 in the preceding request.

Notice that only `CartModify` can move an item between the Active and SaveForLater areas. This means that an item cannot be added directly to the SaveForLater area; it must first be added to the cart using `CartCreate` or `CartAdd` and then moved to SaveForLater. Amazon will automatically move an item to the SaveForLater area if the item is currently unavailable. `CartModify` will not be able to move that item into the Active area until it becomes available. At that time, Amazon will move the item automatically into the Active area.

Note

The value for the `Action` parameter is "SaveForLater." Items in the SaveForLater area are tagged in the XML response with the element, `SavedForLaterItem`, as shown in the following XML snippet from a response.

```
<SavedForLaterItem>
  <CartItemId>ULI7S9IYFJHX0</CartItemId>
  <ASIN>B0009GZV4A</ASIN>
  <Quantity>2</Quantity>
  <Title>Mark VII Men's Short Sleeve Golf Shirts with
    Tri -Colored Stripe Trim</Title>
  <ItemTotal>
    <Amount>1288</Amount>
    <CurrencyCode>USD</CurrencyCode>
    <FormattedPrice>$12.88</FormattedPrice>
  </ItemTotal>
</SavedForLaterItem>
```

To move an item from the SaveForLater area to the Active area, use "MoveToCart" as the value for the `Action` parameter in a `CartModify` operation:

```
Item.1.CartItemId=[Cart Item ID]&
Item.1.Quantity=1
Item.1.Action=MoveToCart
```

Removing Items From a Cart

A customer might, at times, decide to remove some or all of the items in their remote shopping cart.

To remove all items from a cart

- Use `CartClear` to remove all items from a cart.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
```

```
AssociateTag=ws&
Operation=CartClear&
CartId=002-2041347-9034467&
HMAC=[HMAC]
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

If the customer, however, wants to remove only some of the items in their cart, use `CartModify` and set the `Quantity` and `CartItemID` parameters appropriately, for example:

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=CartModify&
CartId=[cart ID]&
Item.1.CartItemId=U1I8M9790QFD07&
Item.1.Quantity=15&
Item.2.CartItemId=U3K5GRHEXU6FHK&
Item.2.Quantity=0
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

This request sets the quantity of the item specified by `CartItemID=U3K5GRHEXU6FHK` to 0, thereby removing it from the cart.

Retrieving the Contents of a Cart

You should not maintain a local copy of the remote shopping cart. Instead, use `CartGet` to retrieve the items in a shopping cart.

Retrieving the items in a cart

- Use the cart's `HMAC` and `CartId` values in a `CartGet` request.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
AssociateTag=ws&
Operation=CartGet&
CartId=002-2041347-9034467&
HMAC=[HMAC]

&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

By default, `CartGet` uses the `Cart` response group. This response group provides a lot of information about items, including, for example, their price, quantity, and the seller ID of the seller selling the item, as shown in the following response snippet.

```
<PurchaseURL>https://www.amazon.com/gp/cart/aws-merge.html?cart-id=002-9918938-1696046%26associate-id=ws%26hmac=b0ogzvivVYlxjS29WwoBRFesFYU=%26AWSAccessKeyId=[AWS Access Key ID]</PurchaseURL>
<CartItems>
  <SubTotal>
    <Amount>1994</Amount>
    <CurrencyCode>USD</CurrencyCode>
    <FormattedPrice>$19.94</FormattedPrice>
  </SubTotal>
  <CartItem>
    <CartItemId>U3KYV0C66V3PAA</CartItemId>
    <ASIN>B000062TU1</ASIN>
    <Quantity>2</Quantity>
    <Title>Harry Potter and the Sorcerer's Stone (Full Screen Edition) (Harry Potter 1)</Title>
    <ProductGroup>DVD</ProductGroup>
    <Price>
      <Amount>997</Amount>
      <CurrencyCode>USD</CurrencyCode>
      <FormattedPrice>$9.97</FormattedPrice>
    </Price>
    <ItemTotal>
      <Amount>1994</Amount>
      <CurrencyCode>USD</CurrencyCode>
      <FormattedPrice>$19.94</FormattedPrice>
    </ItemTotal>
  </CartItem>
</CartItems>
```

You could, for example, use the *CartItemId* in a *CartModify* operation to change the quantity of that item. You could also use the *PurchaseURL* to purchase the items in the cart.

Add to Cart Form

The Add to Cart form enables you to add any number of items to a customer's shopping cart and send the customer to the Amazon retail web site.

Note

There is no direct way for a customer to get back to your site after getting sent to the Amazon site. To improve a customer's experience on your site, you may want to note this on your site or provide a way to get back to your site (using a new window, for example).

Although the parameters are optional, but you must specify at least one of the following parameters: ASIN or OfferListingId.

To add more than one item to the customer's cart

- Append each set of parameters with a period, then a unique identifier, which establishes a relationship between the parameters (for example, "ASIN.1=[*ASIN*]&Quantity.1=1&ASIN.2=[Another ASIN]&Quantity.2=12").

The Add to Cart form works with all locales. Send the Add to Cart form data to one of the following URLs:

- <http://www.amazon.com/gp/aws/cart/add.html>
- <http://www.amazon.co.jp/gp/aws/cart/add.html>
- <http://www.amazon.co.uk/gp/aws/cart/add.html>

- <http://www.amazon.de/gp/aws/cart/add.html>
- <http://www.amazon.fr/gp/aws/cart/add.html>
- <http://www.amazon.ca/gp/aws/cart/add.html>

The following table describes the input parameters for the Add to Cart form.

Parameter	Description	Required?
ASIN.x	Specifies one or more product ASINs to add, where x is a unique identifier.	Optional
OfferListingId.x	An alternative way to specify one or more product offer listings from third-party sellers, where x is a unique identifier.	Optional
AWSAccessKeyId	Your Access Key ID Here. You may want to specify this as a hidden parameter.	Required
AssociateTag	Your associate tag. You may want to specify this as a hidden parameter.	Required

Example HTML for the Add to Cart Form

```
<form method="GET" action="http://www.amazon.com/gp/aws/cart/add.html">
<input type="hidden" name="AWSAccessKeyId" value="Access Key ID" /><br/>
<input type="hidden" name="AssociateTag" value="Associate Tag" /><br/>
<p>One Product<br/>
ASIN:<input type="text" name="ASIN.1"/><br/>
Quantity:<input type="text" name="Quantity.1"/><br/>
<p>Another Product<br/>
ASIN:<input type="text" name="ASIN.2"/><br/>
Quantity:<input type="text" name="Quantity.2"/><br/>
</p>
<input type="submit" name="add" value="add" />
</form>
```

Purchasing the Items in a Remote Shopping Cart

Topics

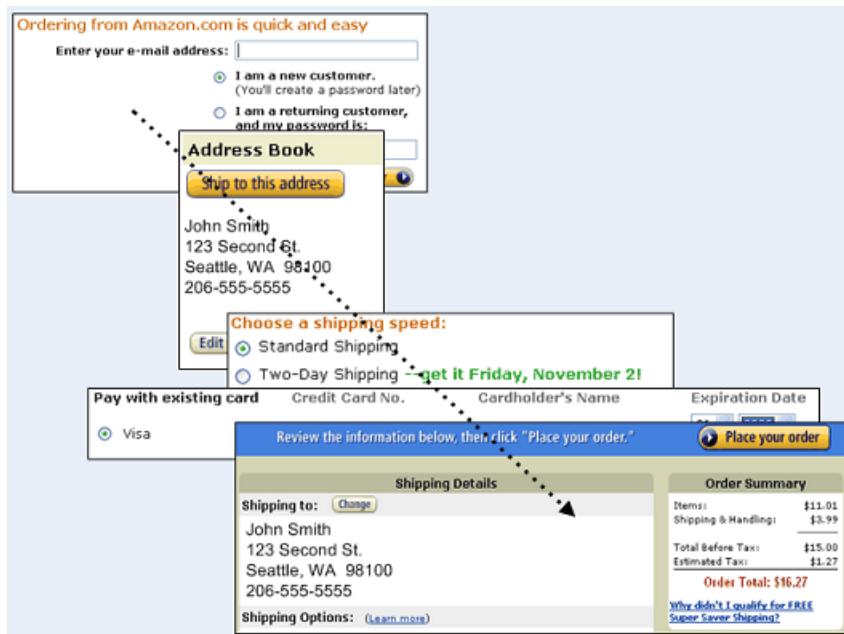
- [Order Pipeline \(p. 177\)](#)
- [Implementing the Proceed to Checkout Button \(p. 177\)](#)

When a customer has finished shopping and wants to purchase the items in their remote shopping cart, they typically click an HTML button on a web site labeled, for example, **Proceed to Checkout**. This button must submit the value of the *PurchaseURL*, which is returned by all cart operations except *CartClear*. Once the customer clicks this button, the items in the Active area are emptied from the shopping cart and entered into the Order Pipeline.

This chapter explains how to submit the contents of a remote shopping cart for purchase in the following sections.

Order Pipeline

The Order Pipeline is a series of web pages hosted by Amazon that guides the customer through entering all of the information necessary to purchase the items. That information includes, for example, the customer's name, shipping address, billing address, payment method, and a purchase confirmation web page, as shown in the following figure.



Several report types are available, such as Earnings, Daily Trends, and so on. For more information, go to [Amazon Associates Reports](#). Conversion rate reports give you some indication of how often carts are turning in to orders. Amazon does not provide per-customer order identification, however, as it would violate customer privacy.

Implementing the Proceed to Checkout Button

All of the web pages in the Order Pipeline are hosted by Amazon so your application plays no role in purchasing the items or order fulfillment. Your application must, however, use the *PurchaseURL* returned by Product Advertising API cart operations to enter the shopping cart items into the Order Pipeline. The *PurchaseURL* is often implemented as an HTML form and button labeled, for example, **Proceed to Checkout**, as shown in the following figure.



PurchaseURL

All cart operations except *CartClear* return a value for *PurchaseURL*, for example:

```
<PurchaseURL>https://www.amazon.com/gp/cart/aws-merge.html?cart-id=002-9918938-1696046%26associate-id=[Your ID]%26hmac=b0ogzvivVYLXjSZ9WwoBRFesFYU=%26AWSAccessKeyId=[Access Key ID]<PurchaseURL>
```

This value is a URL that should be submitted, like a request, to purchase the items in a remote shopping cart. The value contains the Associate's Tag if it was specified in the *CartCreate* operation. The

Associate's Tag value in the *PurchaseURL* is what links the customer's purchase to the Associate. If the *PurchaseURL* is not used to buy the items in a cart, the Associate will not receive credit for the sale.

The information in bold includes:

- Cart identity (cart-id, hmac)
- Associate identity (associate-id)
- Request submitter (AWSAccessKeyId)

You can manually change any of the values in the *PurchaseURL* but that is not recommended.

Handling Errors and Troubleshooting Applications

Topics

- [Syntax and Parameter Errors \(p. 178\)](#)
- [Retrieving Errors \(p. 180\)](#)
- [Troubleshooting Applications \(p. 180\)](#)
- [Error Codes and Messages \(p. 181\)](#)

Product Advertising API provides specific and descriptive errors to help you troubleshoot problems with your requests. There are two kinds of errors, as explained in the following sections.

Syntax and Parameter Errors

Topics

- [Processing Error \(p. 179\)](#)
- [Results and Errors \(p. 180\)](#)

All responses contain an *IsValid* element, for example:

```
<IsValid>False</IsValid>
```

The *IsValid* element tells you whether or not there is an error in the syntax of any elements of the request and if all required parameters are included. For example, if you were to omit the *Operation* parameter, which is required in every request, Product Advertising API would set *IsValid* to False and not process your request. Typically, these kinds of errors are a little more subtle. Typical errors are incorrectly capitalized parameters or values, or the failure to include a required parameter in the request. For example, in the following request, the *SearchIndex* parameter is entered as "Searchindex."

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
Keywords=Potter&  
Searchindex=Books  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Product Advertising API returns the following error:

```
<Errors>
  <Error>
    <Code>AWS.MissingParameters</Code>
    <Message>Your request is missing required parameters. Required parameters include SearchIndex.
    </Message>
  </Error>
</Errors>
```

Product Advertising API believes that the request is missing the *SearchIndex* parameter just because the "I" was not capitalized in the parameter name.

In the sample response, notice that the error consists of an error code that identifies the error, and an error message that describes the error. The error messages is in the language of the locale.

For a detailed list of error codes and messages, see [Error Codes and Messages \(p. 181\)](#) section of the API Reference.

Processing Error

Is it possible to submit a valid request and still have an error? Yes. If you were to submit a request and no items in Amazon satisfied the request, you would receive an error. The following request is an example of this problem.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=ItemSearch&
Condition=Refurbished&
ResponseGroup=Images&
SearchIndex=Automotive&
Title=Harry%20Potter
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

The following response snippet shows the error.

```
<IsValid>True</IsValid>
...
<Errors>
  <Error>
    <Code>AWS.ECommerceService.NoExactMatches</Code>
    <Message>We did not find any matches for your request.
    </Message>
  </Error>
</Errors>
```

Looking for a refurbished edition of a Harry Potter book in the Automotive section doesn't make much sense. So, it's not surprising that there were no items that satisfied that request. Similar problems can be much more subtle, however. For example, the default value of *Condition* is "New." In part, this is because Amazon only sells new items. If you submitted a request without specifying a value for *Condition* and received no results, you might assume that there are no items that satisfy the request. By setting *Condition* to "All," however, you might find that items do satisfy the request.

A similar error message is displayed when, for example, you use `ItemLookup` to find an item that does not exist in the Amazon catalog.

```
<Errors>
<Error>
  <Code>AWS.InvalidParameterValue</Code>
  <Message>B0111NOSUCHITEM is not a valid value for ItemId. Please change
this value and retry your request.
  </Message>
</Error>
</Errors>
```

`ItemId` was set equal to "B0111NoSuchItem" in the request. The error message shows that Product Advertising API converts `ItemId` values to all caps.

Results and Errors

As long as the request is valid, Product Advertising API will try to process it. There are times when Product Advertising API returns a result and an error. For example, if you had a batch request, one item might be found, the other not. In that case, `IsValid` would be true, the response would contain the item attributes of the item found, and the response would also contain an error message that the second item could not be found. Product Advertising API attempts to return as much information as possible even when an error prevents the successful completion of a portion of a request.

Retrieving Errors

Typically, you want your application to check whether or not a request generated an error before spending any time processing results. The easiest way to find out if an error occurred is to look for an `Error` node in the response.

XPath syntax provides a simple way to search for the presence of an `Error` node, as well as an easy way to retrieve the error code and message. The following code snippet uses Perl and the `XML::XPath` module to determine if an error occurred during a request. If an error occurred, the code prints the first error code and message in the response.

```
use XML::XPath;
my $xp = XML::XPath->new(xml =>$response);
if ( $xp->find("//Error") )
{print "There was an error processing your request:\n", " Error code: ",
$xp->findvalue("//Error[1]/Code"), "\n", " ",
$xp->findvalue("//Error[1]/Message"), "\n\n"; }
```

Troubleshooting Applications

We recommend the following processes to diagnose and resolve problems with your Product Advertising API–enabled Web sites or applications.

- Verify that Product Advertising API is running correctly.
To do this, simply open a browser window and submit a REST request. This will confirm that the service is available and responding to requests. Normally Product Advertising API is available 24 hours per day, 7 days per week.
- Check that you are specifying inclusive response groups.
You may not receive the expected information in your Product Advertising API response if you have specified a response group(s) that does not return the data you want.

- Check the structure of your request.
Each Product Advertising API operation has a reference page. Double check that you are using parameters correctly. Try the request on one of the other locales. If SOAP is not working, try your request with REST through your browser. That will help you determine if the problem lies with your code or your SOAP client or with Product Advertising API.
- If your application is submitting requests faster than once per second per IP address, you may receive error messages from Product Advertising API until you decrease your rate of requests.
- Look at the sample applications to see if they are doing similar operations to give you hints on what you might be doing wrong.
- Try your request with multiple ASINs or keyword/title search strings.
The Amazon catalog is extremely large and sometimes individual products have anomalous data results.

Efficiency Guidelines

If your application is trying to submit requests that exceed the maximum request limit for your account, you may receive error messages from Product Advertising API. The request limit for each account is calculated based on revenue performance. Each account used to access the Product Advertising API is allowed an initial usage limit of 1 request per second. Each account will receive an additional 1 request per second (up to a maximum of 10) for every \$4,600 of shipped item revenue driven in a trailing 30-day period (about \$0.11 per minute). You can verify that your sales are being attributed to your calls to the Product Advertising API by checking for the following:

- You are using the only links provided by the API when linking back to Amazon.
- Your Associate Account and Product Advertising API account are created using the same Amazon Account (or email).
- You are passing your Associate tag in all your requests to the API.

Error Codes and Messages

Product Advertising API (Product Advertising API) errors provide you with information about syntactical errors in your requests, as well as errors that occur during the execution of your request (for example, a search for products returns no results). Errors are composed of two elements: *code* and *message*. The error code is a unique string that identifies the error; the error message is a human-readable description of the error that serves as an aid in debugging. These elements will be nested within an Error element. If a request generates more than one error, all Errors will appear in the response.

Errors may appear at different levels in your response. Their location reflects at what stage in the execution of the request the error was generated and what kind of error it is. Errors in syntax that prevent requests from being executed will appear as children of the response's root element. An error associated with a particular item in the response will be a child of the Item element. See the sample requests for examples of each of these situations.

Error Codes

Product Advertising API returns errors in three categories so that you can easily determine how best to handle the problem:

- 2XX errors are caused by mistakes in the request. For example, your request might be missing a required parameter. The error message in the response gives a clear indication of what is wrong.
- 4XX errors indicate an issue with the request. A 403 indicates the request was not authenticated correctly.

- 5XX errors are transient errors reflecting an error internal to Amazon. A 503 error means that you are submitting requests too quickly and your requests are being throttled. If this is the case, you need to reduce the number of requests you are sending per second.

Error Messages

Product Advertising API returns error messages in English for the Amazon.com (US), Amazon.co.uk (UK), Amazon.de (DE), Amazon.fr (FR), and Amazon.ca (CA) locales. Error messages are in Japanese for the Amazon.co.jp (JP) locale.

Error Code & Description	Message	Affected Operations
AWS.ExactParameterRequirement You will receive this message when the value of your parameter is longer than permitted by Product Advertising API.	Your request contains too much data for <i>[ParameterName]</i> . This parameter can have a maximum length of <i>[MaximumNumber]</i> .	All
AWS.ExceededMaximumParameterValues You will receive this error message when you specify too many values for one or more parameters in your request.	Your request contains too many values for <i>[ParameterName]</i> . This parameter can have a maximum of <i>[MaximumNumber]</i> values.	<ul style="list-style-type: none"> • ItemLookup • SimilarityLookup
AWS.InsufficientParameterValues You will receive this error message when your request contains an insufficient number of values for a required parameter.	Your request contains too few values for <i>[ParameterName]</i> . This parameter must have a minimum of <i>[Minimum Value]</i> values.	All
AWS.InternalError You will receive this error if Product Advertising API is unable to complete your request due to an internal problem or outage. For SOAP, this will be presented as a SOAP fault rather than an error.	We are unable to process your request at this time. Please retry your request. If you encounter this error repeatedly, please post a message on the AWS discussion board.	All
AWS.InvalidAccount You will receive this error when you try to use an AwsAccessKeyId in a locale where it is not registered for the Product Advertising API.	Your AccessKey Id is not registered for Product Advertising API. Please use the AccessKey Id obtained after registering at [RegistrationUrlForThatLocale]	All
AWS.InvalidEnumeratedParameter You will receive this error message when your request contains an invalid value for a parameter that has an explicit list of valid values, such as SearchIndex.	The value you specified for <i>[ParameterName]</i> is invalid. Valid values include <i>[EnumeratedValuesList]</i> .	<ul style="list-style-type: none"> • CartAdd • CartCreate • CartModify • ItemLookup • ItemSearch • SimilarityLookup

Error Code & Description	Message	Affected Operations
AWS.InvalidISO8601Time You will receive this error when your request contains a date or time value that is not formatted according to the profile of the ISO-8601 date/time standard that is described at http://www.w3.org/TR/NOTE-datetime . For example, this error will be returned if your request contains an invalid value for the Version parameter.	[ParameterName] has an invalid value. It must contain a valid ISO 8601 date and time.	All
AWS.InvalidOperationForMarketplace You will receive this error message when you try to execute an operation in a locale where the operation is not supported.	This operation, [Operation-Name], is not available for this locale.	All
AWS.InvalidOperationParameter You will receive this error message when the operation name you entered is not available from Product Advertising API. For instance, if you tried to use AsinSearch (from AWS 3.0) as an operation name, you would get this error since AsinSearch is not a valid operation name in Product Advertising API 4.0.	The Operation parameter is invalid. Please modify the Operation parameter and retry. Valid values for the Operation parameter include [ListOfOperationValues].	All
AWS.InvalidParameterCombination You will receive this error message when two or more of the request parameters you have entered can not be used in the same request. For example, if you are using the CartAdd operation, you would receive this error if you tried to add items to the cart by both ASIN and OfferListingId.	Your request contains an invalid parameter combination. [ParameterName] and [ParameterName] cannot appear in the same request.	<ul style="list-style-type: none"> • ItemSearch • CartCreate • CartAdd
AWS.InvalidParameterValue You will receive this error message when your request contains an invalid value for an ID parameter, such as ItemId.	[ParameterValue] is not a valid value for [ParameterName]. Please change this value and retry your request.	<ul style="list-style-type: none"> • CartAdd • CartCreate • CartModify • ItemLookup • ItemSearch • SimilarityLookup
AWS.InvalidResponseGroup You will receive this error message when the response group name you entered in your request is incompatible with the operation you would like to perform.	Your ResponseGroup parameter is invalid. Valid response groups for [Operation Name] requests include [Available Response Group List].	All

Error Code & Description	Message	Affected Operations
AWS.InvalidServiceParameter You will receive this error message when the service name you provide in your request is not recognized or supported by Amazon. All Product Advertising API requests should use the service name "AWSECommerceService."	The Service parameter is invalid. Please modify the Service parameter and retry. Valid values for the Service parameter include [ValidServicesList] .	All
AWS.InvalidSubscriptionId You will receive this error message when the subscription ID you use in your request is not recognized by AWS.	Your request contains an invalid subscription ID. Please retry your request with a valid subscription ID.	All
AWS.MaximumParameterRequirement You receive this error message when your request contains the wrong number of parameters from an exclusive group.	Your request should have at most [Maximum Number] of the following parameters: [Parameter Names] .	All
AWS.MinimumParameterRequirement You receive this error message when your request contains the wrong number of parameters from an exclusive group.	Your request should have at least [Minimum Number] of the following parameters: [Parameter Names] .	All
AWS.MissingOperationParameter You will receive this error message when your request does not include the Operation parameter and the name of the operation you would like to perform.	Your request is missing the Operation parameter. Please add the Operation parameter to your request and retry. Valid values for the Operation parameter include [ValidOperationsList] .	All
AWS.MissingParameterCombination You will receive this error message when your request does not contain a combination of two or more parameters that must be present together in your request.	Your request is missing a required parameter combination. Required parameter combinations include [Parameter One] .	• ItemLookup
AWS.MissingParameters You will receive this error when your request does not include all of the parameters required by the operation.	Your request is missing required parameters. Required parameters include [RequiredParameterList] .	All

Error Code & Description	Message	Affected Operations
AWS.MissingParameterValueCombination You will receive this error message when your request requires a combination of parameters, one or more of which must have a specific value. For example, when you make an ItemLookup request for a product based on its Universal Product Code (or UPC), you are required to include the IdType and ItemId parameters. The value of the IdType parameter must be UPC.	Your request is missing a required parameter combination. When <i>[Parameter One]</i> equals <i>[Restricted Value]</i> , <i>[Parameter Two]</i> must be present.	<ul style="list-style-type: none"> ItemLookup
AWS.MissingServiceParameter You will receive this error message when the your request does not contain the required Service parameter.	Your request is missing the Service parameter. Please add the Service parameter to your request and retry. Valid values for the Service parameter include <i>[Valid-ServicesList]</i> .	All
AWS.ParameterOutOfRange You will receive this error message when you submit a parameter value that exceeds or is lower than the range of valid values for the parameter. For example, ItemSearch allows you to fetch search results page using the ItemPage parameter. The range of values for ItemPage is 1 to 10. If you supply a value outside that range (less than 1 or greater than 10), you will receive this error.	The value you specified for <i>[ParameterName]</i> is invalid. Valid values must be between <i>[LowerBound]</i> and <i>[UpperBound]</i> .	<ul style="list-style-type: none"> ItemSearch ItemLookup
AWS.ParameterRepeatedInRequest You receive this error message when you include the same parameter more than once in your request.	The parameter, <i>[ParameterName]</i> , appeared more than once in your request.	All
AWS.RestrictedParameterValueCombination You will receive this error message when your request contains a combination of parameter values that are not permitted in the same request.	Your request contains a restricted parameter combination. When <i>[Parameter One]</i> equals <i>[Restricted Value]</i> , <i>[Parameter Two]</i> cannot be present.	All
AWS.ECommerceService.ExceededMaximumCartItems You will receive this error message when you exceed the maximum quantity value allowed for items being added to a shopping cart.	You may not add more than <i>[Maximum Item Quantity]</i> items to the cart.	<ul style="list-style-type: none"> CartAdd CartCreate

Error Code & Description	Message	Affected Operations
AWS.ECommerceService.InvalidCartId You will receive this error message when the CartId you entered into your request is not recognized.	Your request contains an invalid value for CartId. Please check your CartId and retry your request.	<ul style="list-style-type: none"> • CartAdd • CartClear • CartGet • CartModify
AWS.ECommerceService.InvalidHMAC You will receive this error message when the shopping cart HMAC value you use in your request is not recognized by Product Advertising API. The HMAC value is a unique token that is used to associate a cart with an Amazon user and a particular session on the Amazon web site.	Your request contains an invalid value for HMAC. Please check your HMAC and retry your request. Remember that the HMAC must be URL-encoded if you are using REST.	<ul style="list-style-type: none"> • CartAdd • CartClear • CartGet • CartModify
AWS.ECommerceService.InvalidQuantity You will receive this error message when the quantity in your request is not valid for the current item.	You have exceeded the maximum quantity allowed for the following item(s): [ItemID] .	<ul style="list-style-type: none"> • CartAdd • CartCreate • CartModify
AWS.ECommerceService.ItemAlreadyInCart You will receive this error message when you try to add an item to a shopping cart that already contains that item.	The item you specified, [ItemID] , is already in your cart.	<ul style="list-style-type: none"> • CartAdd • CartCreate
AWS.ECommerceService.ItemNotAccessible Some products cannot be manipulated or viewed using Product Advertising API. You will receive this error message when the product ID you use in your request is not available through Product Advertising API.	This item is not accessible through Product Advertising API.	<ul style="list-style-type: none"> • ItemLookup
AWS.ECommerceService.ItemNotEligibleForCart Some products cannot be manipulated or viewed using Product Advertising API. You will receive this error message when you attempt to add such an item to a remote shopping cart.	The item you specified, [ItemID] , is not eligible to be added to the cart. Check the item's availability to make sure it is available.	<ul style="list-style-type: none"> • CartAdd • CartCreate • CartModify
AWS.ECommerceService.NoExactMatches	We did not find any matches for your request.	<ul style="list-style-type: none"> • ItemSearch
AWS.ECommerceService.NoSimilarities	There are no similar items for this ASIN(s): [ItemID] .	<ul style="list-style-type: none"> • SimilarityLookup

Error Code & Description	Message	Affected Operations
RequestThrottled You will receive this error if your application is submitting requests faster than allowed by IP or account. For more information about rates, see the Efficiency Guidelines section in ht tp://docs.aws.amazon.com/AWSECommerceService/latest/DG/TroubleshootingApplications.html .	Request from <i>ID</i> / <i>IP</i> is throttled.	All

Best Programming Practices

Topics

- [Read the Product Advertising API Terms and Conditions \(p. 187\)](#)
- [Use the Latest API Version \(p. 187\)](#)
- [Understand Available Operations \(p. 188\)](#)
- [Use the Right Response Group \(p. 188\)](#)
- [Use Your Associate Tag in Product Advertising API Requests \(p. 188\)](#)
- [Handling Errors \(p. 188\)](#)
- [Use Caches Carefully \(p. 189\)](#)
- [Use the Correct AWSAccessKeyId \(p. 189\)](#)
- [Community Forums \(p. 189\)](#)

The following checklist of best practices describes how you can increase the effectiveness of your Product Advertising API 4.0 applications.

Read the Product Advertising API Terms and Conditions

The Product Advertising API Terms and Conditions spell out in detail the limitations that Amazon enforces on all Product Advertising API applications. The thrust of all Product Advertising API applications should be to direct sales to Amazon and thus earn Associate sales commissions. If your application is designed around another purpose, please reconsider and make sure your proposed Product Advertising API application falls within the guidelines of the Product Advertising API Terms and Conditions. Applications that do not meet the Product Advertising API Terms and Conditions will be blocked from accessing Product Advertising API.

Use the Latest API Version

Product Advertising API makes frequent releases. Each release either adds functionality or increases the accuracy, speed, and stability of Product Advertising API. Most releases do all of these. Go to <http://aws.amazon.com/resources> frequently for documentation about the latest release.

The Product Advertising API uses the default API version 2013-08-01 unless you supply a different value for the *Version* parameter. To use a different version, you must include it in the *Version* parameter in your requests.

Product Advertising API 3.0 has been deprecated. Make sure you develop against Product Advertising API 4.0.

Understand Available Operations

Product Advertising API provides many different operations to facilitate product discovery. Using the right operations can dramatically enhance your customer's shopping experience and increase your Associate commissions. See the API Reference for a full description of all Product Advertising API operations. Some enable you to:

Task	Operations
Find products and categories	ItemSearch, ItemLookup, and BrowseNodeLookup
Find similar items	SimilarityLookup
Provide shopping cart functionality for your application or website	CartCreate, CartAdd, CartModify, and CartGet

Use the Right Response Group

One of the great features of Product Advertising API is the control you have over the amount of information returned in responses. A response group is a collection of data returned by Product Advertising API. Product Advertising API has over 55 response groups, each serving a different need. So, you can get exactly the information you need and no more.

We recommend that you specify response groups that return only the information your application needs. Response groups, such as Large and ItemAttributes return lots of data. Such large data sets sometimes incur performance penalties both in Product Advertising API fulfilling the request and in your application's processing of the response.

Use Your Associate Tag in Product Advertising API Requests

To earn commissions for selling Amazon items, you must register with Amazon as an Associate. Go to <http://amazon.com/associates>. In return, you receive an Associate tag, which identifies you. By including your Associate tag in each Product Advertising API request, you receive commissions for customer purchases.

Amazon also uses your Associate tag to monitor your use of Product Advertising API, which helps us determine how to improve our web service.

Handling Errors

Make sure your application handles errors gracefully. One way to do that is to check the status of the *IsValid* element. *IsValid* is returned with every request. If its value is "False," there will be an error message with a description of why your request was not valid.

It's generally a good practice to log any unexpected error that is returned by Product Advertising API. Errors are returned with an error code and message. The code is a descriptive string that identifies the error. The error message is a more 'human friendly' message that can be displayed to your customers. Your application should be able to handle expected error messages.

Your application, for example, should display error messages that are meaningful to the customer. For example, when Product Advertising API responds with the error, “AWS.ECommerceService.NoExactMatches,” your application should display an explanation, such as, “We did not find any matches for your request.”

If your application exceeds the number of allowed requests submitted per second, Product Advertising API returns a 503 error, which means that Product Advertising API is restricting the number of requests it is processing from your application. The Product Advertising API Terms and Conditions outline the number of allowed requests permitted per second.

Use Caches Carefully

Product Advertising API product data changes often. Prices can change hourly, BrowseNode values change without notice, and product availability is volatile. For these reasons, you should not cache product data.

It is against the Product Advertising API Terms and Conditions to cache customer information derived from Amazon.

You can enhance the performance of your application by caching identifiers, such as the *CartId*, *HMAC*, and *PurchaseURL*.

Use the Correct AWSAccessKeyId

To become a Product Advertising API developer, you must register with Amazon. Go to <http://aws.amazon.com> and create a web service account. Your account contains an *AWSAccessKeyId* and a *SecretKey*. Every Product Advertising API request you submit must include the *AWSAccessKeyId*. Because your account is linked to your email address, Amazon can contact you easily.

Community Forums

Product Advertising API has an active and passionate developer community. It's a great place to get API questions answered or share ideas with other developers. To join, go to <http://developer.amazonwebservices.com/connect/forum.jspa?forumID=9>

Locale Considerations

Topics

- [Locales \(p. 190\)](#)
- [General Differences \(p. 190\)](#)
- [Associate IDs \(p. 191\)](#)
- [Shipping Restrictions \(p. 191\)](#)

As you have seen throughout the previous chapters, there are subtle differences in Product Advertising API functionality across locales. The operations are the same for all locales but the valid response groups, search indices, and sort values vary from one locale to another. These differences are captured in the appendices of this manual.

This chapter discusses locale considerations in the following sections.

Locales

Amazon is a world-wide venture. Product Advertising API is as well. As you saw in earlier chapters, Product Advertising API operates in the following locales:

- CA
- CN
- DE
- ES
- FR
- IN
- IT
- JP
- UK
- US

Each of these locales is serviced by an Amazon web site that uses the local language, local customs, and local formatting. For example, when you look at the DE homepage for Amazon, you see the listings in German. If you purchased an item, you would find the price in Euros, and, if you were to purchase a movie, you would find that the movie rating would conform to the movie rating system used in Germany. Product Advertising API responses contain the same localized information. Product Advertising API determines the correct locale by examining the endpoint in the request. For example, the endpoints for the DE locale are:

```
http://ecs.amazonaws.de/onca/xml  
https://ecs.amazonaws.de/onca/xml
```

For a list of the other endpoints, see [Anatomy Of a REST Request \(p. 45\)](#).

Currency, for example is localized, as follows.

```
<SubTotal>  
  <Amount>4082</Amount>  
  <CurrencyCode>USD</CurrencyCode>  
  <FormattedPrice>$40.82</FormattedPrice>  
</SubTotal>
```

The values for *CurrencyCode* are similar to the names of Product Advertising API locales. In the preceding example, the currency is formatted according to the conventions in the US locale.

General Differences

Each locale serves a different segment of the world population. As a result, the items sold by Amazon vary to the demands of the customers. In addition to Amazon web sites being localized by language, custom, and formatting conventions, the locales vary in many ways, as described in the following table.

Difference	Description
Items for sale	The selection of DVDs, for example, sold in the JP locale are different than those sold in the DE locale. The same is true for books. Not only are the languages of the books different, the selection of books varies by locale.
Customer feedback	Amazon encourages customers to share their feedback on items, sellers and merchants. Customer reviews are restricted to the locale in which they are entered.
Sellers and merchants	Sellers and merchants can do business in multiple locales but they don't have to. As a result, items from a seller might be available in only one locale. The largest merchants, beside Amazon, are available in the US locale only.
Customer accounts	Customer accounts are restricted to a locale. A customer can create accounts in every locale.
Item identifiers	Item identifiers, such as ASINs, are unique to a locale, that is, the same ASIN value can refer to different items in different locales.
Availability of some response groups	The availability of some response groups, sort parameters, and search indices varies by locale.

Associate IDs

To be an Associate, you must sign up in each locale in which you intend to do business. That means, for example, if you have an Associate ID for the US locale, you will not get credit if you submit a *PurchaseURL* in the DE locale. To get credit, you must get an Associate ID in the DE locale. For a list of web sites where you can register as an Associate, see [Becoming an Associate \(p. 8\)](#).

Shipping Restrictions

Amazon places shipping restrictions based on item and locale. The sale of items must obey the rules and regulations of the host country. It is possible, for example, that a host country would restrict the sale of some electronic equipment to specific countries. Some locales restrict shipping to specified countries regardless of the item. For example, in the UK locale, shipping is restricted to Ireland, Scotland, and England.

Because Amazon is used to fulfill the orders, Amazon takes charge of restricting shipping. Your application or web site, however, should be aware of the shipping restrictions.

To see the latest details on shipping restrictions for each locale, go to <http://www.amazon.com/gp/help/customer/display.html?nodeId=468634>.

Shipping costs also play an important role in helping your customers purchase items for the lowest possible price. For example, Harry Potter books are available in all locales. A customer in the US could purchase a copy of a Harry Potter book from the UK locale. The shipping charges, however, would be significantly higher than if the same item were purchased through the US locale.

For more information about shipping, go to <http://www.amazon.com/gp/help/customer/display.html>.

API Reference

Topics

- [Operations \(p. 192\)](#)
- [Common Request Parameters \(p. 236\)](#)
- [Response Groups \(p. 238\)](#)
- [Response Elements Common to All Response Groups \(p. 317\)](#)
- [Response Elements \(p. 318\)](#)
- [Locale Reference \(p. 336\)](#)
- [ItemSearch Sort Values \(p. 508\)](#)
- [MarketplaceDomain Parameter \(p. 511\)](#)

The following sections of the guide provide reference material for the Product Advertising API. For more information about any concepts or programming tasks associated with the reference material, refer to the previous chapters in this guide.

Operations

The following operations are available in the Product Advertising API.

- | | |
|--|---|
| <ul style="list-style-type: none">• BrowseNodeLookup (p. 193)• CartAdd (p. 196)• CartClear (p. 201)• CartCreate (p. 203)• CartGet (p. 209) | <ul style="list-style-type: none">• CartModify (p. 213)• ItemLookup (p. 217)• ItemSearch (p. 223)• SimilarityLookup (p. 233) |
|--|---|

BrowseNodeLookup

Description

Given a browse node ID, `BrowseNodeLookup` returns the specified browse node's name, children, and ancestors. The names and browse node IDs of the children and ancestor browse nodes are also returned. `BrowseNodeLookup` enables you to traverse the browse node hierarchy to find a browse node.

As you traverse down the hierarchy, you refine your search and limit the number of items returned. For example, you might traverse the following hierarchy: DVD>Used DVDs>Kids and Family, to select out of all the DVDs offered by Amazon only those that are appropriate for family viewing. Returning the items associated with Kids and Family produces a much more targeted result than a search based at the level of Used DVDs.

Alternatively, by traversing up the browse node tree, you can determine the root category of an item. You might do that, for example, to return the top seller of the root product category using the `TopSeller` response group in an [ItemSearch \(p. 223\)](#) request.

You can use `BrowseNodeLookup` iteratively to navigate through the browse node hierarchy to reach the node that most appropriately suits your search. Then you can use the browse node ID in an [ItemSearch \(p. 223\)](#) request. This response would be far more targeted than, for example, searching through all of the browse nodes in a search index.

Availability

All locales

Request Parameters

Name	Description	Required
<code>BrowseNodeId</code>	A positive integer assigned by Amazon that uniquely identifies a product category. Type: String Default: None Valid Values:A positive integer. For a list of valid browse node IDs, see Locale Reference (p. 336) .	Yes
<code>ResponseGroup</code>	Specifies the types of values to return. You can specify multiple response groups in one request by separating them with commas. Default: BrowseNodeInfo (p. 242) Valid Values: MostGifted (p. 271) NewReleases (p. 273) MostWishedFor (p. 272) TopSellers (p. 302)	No

`BrowseNodeLookup` also accepts the parameters that all operations can use. For more information, see, [Common Request Parameters \(p. 236\)](#)

Response

Name	Description
<i>Ancestors</i>	Container object for a parent browse node.
<i>BrowseNode</i>	Container object for all browse node data, including browse node ID, browse node name, browse node children and ancestors.
<i>BrowseNodeId</i>	A positive integer that uniquely identifies a product group, such as Literature & Fiction: (17), Medicine: (13996), and Mystery & Thrillers: (18).
<i>Children</i>	Container for one or more browse nodes, which are the children of the browse node submitted in the request.
<i>Name</i>	Name of the BrowseNode, for example, the name of BrowseNode 17 is Literature & Fiction.

For more information about the parent elements of these tags, see the appropriate response group in [Response Groups \(p. 238\)](#)

Examples

Use `BrowseNodeLookup` iteratively to navigate through the hierarchy of browse nodes. In this way, customers can refine their searches, for example.

```
DVD>Actors & Actresses>Steve Martin
DVD>Used DVDs>Kids & Family
```

The first hierarchy narrows the search down to DVDs in which Steve Martin plays a part. The second hierarchy narrows the list of DVDs down to those that are suitable for Kids and Family. This node, for example, might contain thirty such DVD titles.

The following request returns the name, parent, and children of the browse node for DVD comedies (163357)

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=BrowseNodeLookup&
BrowseNodeId=163357
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

The response to this request is shown in [Sample Response \(p. 195\)](#).

Use the [NewReleases \(p. 273\)](#) response group to display the newly released items for a specified browse node:

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=BrowseNodeLookup&
BrowseNodeId=163357&
ResponseGroup>NewReleases
```

```
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response

The following XML is a snippet of the full response to the first sample request.

```
<BrowseNode>  
  <BrowseNodeId>163357</BrowseNodeId>  
  <Name>Comedy</Name>  
  <Children>  
    <BrowseNode>  
      <BrowseNodeId>599826</BrowseNodeId>  
      <Name>Boxed Sets</Name>  
    </BrowseNode>  
    <BrowseNode>  
      <BrowseNodeId>538712</BrowseNodeId>  
      <Name>African American Comedy</Name>  
    </BrowseNode>  
    <BrowseNode>  
      <BrowseNodeId>163358</BrowseNodeId>  
      <Name>Animation</Name>  
    </BrowseNode>  
    <BrowseNode>  
      <BrowseNodeId>720556</BrowseNodeId>  
      <Name>Black Comedy</Name>  
    </BrowseNode>  
    <BrowseNode>  
      <BrowseNodeId>291102</BrowseNodeId>  
      <Name>British</Name>  
    </BrowseNode>  
  </Children>  
  <Item>  
    <Ancestors>  
      <BrowseNode>  
        <BrowseNodeId>549726</BrowseNodeId>  
        <Name>Performing Arts</Name>  
      <Ancestors>  
        <BrowseNode>  
          <BrowseNodeId>5</BrowseNodeId>  
          <Name>Entertainment</Name>  
        <Ancestors>  
          <BrowseNode>  
            <BrowseNodeId>1000</BrowseNodeId>  
            <Name>Subjects</Name>  
          <Ancestors>  
            <BrowseNode>  
              <BrowseNodeId>1000</BrowseNodeId>  
              <Name>Books</Name>
```

This response shows that the browse node, Comedy, which is specified in the request, has five direct descendants (Boxed Sets, African American Comedy, Animation, Black Comedy, and British) and its ancestors are Books>Subjects>Entertainment>Performing>Comedy.

Related Operations

- [ItemSearch \(p. 223\)](#)
- [ItemLookup \(p. 217\)](#) using the [BrowseNodes \(p. 244\)](#) response group

CartAdd

Description

The CartAdd operation enables you to add items to an existing remote shopping cart. CartAdd can only be used to place a new item in a shopping cart. It cannot be used to increase the quantity of an item already in the cart. If you would like to increase the quantity of an item that is already in the cart, you must use the CartModify operation.

You add an item to a cart by specifying the item's *OfferListingId*, or *ASIN* and *ListItemId*. Once in a cart, an item can only be identified by its *CartItemID*. That is, an item in a cart cannot be accessed by its ASIN or *OfferListingId*. *CartItemID* is returned by [CartCreate \(p. 203\)](#), [CartGet \(p. 209\)](#), and [CartAdd \(p. 196\)](#).

To add items to a cart, you must specify the cart using the *CartID* and *HMAC* values, which are returned by the [CartCreate](#) operation.

If the associated [CartCreate \(p. 203\)](#) request specified an *AssociateTag*, all CartAdd requests must also include a value for Associate Tag otherwise the request will fail.

Note

Some manufacturers have a minimum advertised price (MAP) that can be displayed on Amazon's retail web site. In these cases, when performing a Cart operation, the MAP is returned instead of the actual price. The only way to see the actual price is to add the item to a remote shopping cart and follow the *PurchaseURL*. The actual price will be the MAP or lower.

Availability

All locales.

Request Parameters

Name	Description	Required
<i>ASIN</i>	Specifies ASIN of item to be added to the cart where N is a positive integer between 1 and 10, inclusive. Up to ten items can be added at a time. Using an item's <i>OfferListingId</i> is preferred instead of the item's ASIN. Type: String Default: None Valid Values: Valid ASIN Constraint: Required if an <i>OfferListingId</i> is not specified.	Conditional

Name	Description	Required
<i>AssociateTag</i>	<p>Specifies the Associate who is making the request. An Associate tag, also known as an Associate ID, is an automatically generated unique identifier. When you log in to the Amazon Associates website for your locale, the page that you are directed to includes a message that says "Signed in as" followed by your Associate tag.</p> <p>The Associate tag that you used to create a cart must also be used on all other operations associated with the same cart.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Value: The same Associate tag that was used in the related CartCreate request.</p> <p>Constraint:</p>	Yes
<i>CartId</i>	<p>Alphanumeric token returned by CartCreate (p. 203) that identifies a cart.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Value returned by CartCreate.</p>	Yes
<i>HMAC</i>	<p>The Hash Message Authentication Code is an encrypted alphanumeric token that is used to authenticate requests.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Value is calculated using request parameters, their values, a cryptographic function, and the Secret Key, which acts as the "key" for the function.</p>	Yes
<i>Item</i>	<p>Container for <i>ASIN</i> or <i>OfferListingId</i>, and <i>Quantity</i>. This is a SOAP only parameter.</p> <p>Valid Values: An <i>ASIN</i> or an <i>OfferListingId</i> is required.</p>	Yes (SOAP only)
<i>Items</i>	<p>Container for one or more <i>Item</i>(s). This is a SOAP only parameter.</p> <p>Valid Values: Item</p>	Yes (SOAP only)
<i>MergeCart</i>	This parameter is deprecated. When a customer purchases items in a remote shopping cart, the items are added to the customer's Amazon retail shopping cart.	Deprecated

Name	Description	Required
<i>OfferListingId</i>	An offer listing ID is a token that uniquely identifies an item that is sold by any merchant, including Amazon. This parameter is preferred to using an ASIN to add an item to a cart. Type: String Default: None Valid Values: Valid offer listing ID Constraint: Required if ASIN is not offered .	Conditional
<i>Quantity</i>	Specifies number of items to be added to the cart where N is a positive integer. The Quantity value is matched to the Item.N.ASIN value by the index number, N. For example, Item.1.ASIN is associated with Item.1.Quantity. Type: String Default: None Valid Values: Positive integer between 1 and 999, inclusive. Conditional Required for REST	Conditional
<i>ResponseGroup</i>	Specifies the types of values to return. You can specify multiple response groups in one request by separating them with commas. Type: String Default: Cart (p. 246) Valid Values: CartSimilarities (p. 252) CartTopSellers (p. 250) NewReleases (p. 273)	No

CartAdd also accepts the parameters that all operations can use. For more information, see, [Common Request Parameters \(p. 236\)](#)

Response

Name	Description
<i>Amount</i>	Price of the item in terms of the lowest currency denomination, for example, pennies.
<i>ASIN</i>	An alphanumeric token that uniquely identifies an item sold by Amazon.
<i>CartAddRequest</i>	Container for <i>CartId</i> , <i>HMAC</i> , and <i>Items</i> .
<i>CartId</i>	Alphanumeric token returned by CartCreate that identifies a cart.
<i>CurrencyCode</i>	Format for the display of the money
<i>FormattedPrice</i>	The price to display on the web site.
<i>HMAC</i>	Hash Message Authentication Code returned by CartCreate that identifies a cart. This is an encrypted alphanumeric token that is used to authenticate cart operations.
<i>Item</i>	Container for <i>ASIN</i> or <i>OfferListingId</i> , and <i>Quantity</i> .

Name	Description
<i>Items</i>	Container for one or more item(s).
<i>PurchaseURL</i>	URL that customers should use to purchase the items in the cart. It includes the Associate's ID. It is important that they use this URL otherwise the Associate will not get credit for the purchase.
<i>Quantity</i>	Number of items added to cart.
<i>Subtotal</i>	Container for Amount, CurrencyCode, and FormattedPrice

For more information about the parent elements of these tags, see the appropriate response group in [Response Groups \(p. 238\)](#)

Examples

Add a single item to the cart:

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
CartId=[CartId]&
HMAC=[HMAC]&
Operation=CartAdd&
Item.1.OfferListingId=[Offer Listing ID]&

Item.1.Quantity=1
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

The response to this request is shown in, [Response to Sample Request \(p. 195\)](#).

Add multiple items to the cart.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
CartId=[CartId]&
HMAC=[HMAC]&
Operation=CartAdd&
Item.1.OfferListingId=[Offer Listing ID]&
Item.1.Quantity=1&
Item.2.OfferListingId=[Offer Listing ID]&
Item.2.Quantity=3&
Item.3.OfferListingId=[Offer Listing ID]&
Item.3.Quantity=1
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

This request adds three different items to a cart. A cart can carry up to fifty different items and each item can have a maximum *Quantity* value of 999..

Add to the cart an item from a list.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
CartId=[CartId]&  
HMAC=[HMAC]&  
Operation=CartAdd&  
Item.1.ASIN=[ASIN]&  
Item.1.Quantity=3&  
Item.1.ListItemId=[List item ID]  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

This request adds 3 items from a list.

Sample Response

The following XML is a snippet of the full response to the first sample request.

```
<CartAddRequest>  
  <CartId>102-6666665-5792105</CartId>  
  <HMAC>oRqNBTPiRBugxEKEJ+FyUZkVbEg=</HMAC>  
  <Items>  
    <Item>  
      <ASIN>1400042127</ASIN>  
      <Quantity>1</Quantity>  
    </Item>  
  </Items>  
</CartAddRequest>  
</Request>  
  <CartId>102-6666665-5792105</CartId>  
  <HMAC>oRqNBTPiRBugxEKEJ+FyUZkVbEg=</HMAC>  
  <URLEncodedHMAC>oRqNBTPiRBugxEKEJ%2BFyUZkVbEg=</URLEncodedHMAC>  
<PurchaseURL>https://www.amazon.com/gp/cart/aws-merge.html?cart-id=102-5929035-  
5792105%26associate-id=ws%26hmac=oRqNBTPiRBugxEKEJ%2BFyUZkVbEg=%26AWSAccessKey  
Id=[AWS Access Key ID]</PurchaseURL>  
  <SubTotal>  
    <Amount>3432</Amount>  
    <CurrencyCode>USD</CurrencyCode>  
    <FormattedPrice>$34.32</FormattedPrice>  
</SubTotal>
```

Related Operations

- [CartCreate \(p. 203\)](#)
- [CartGet \(p. 209\)](#)
- [CartModify \(p. 213\)](#)
- [CartClear \(p. 201\)](#)

CartClear

Description

The `CartClear` operation enables you to remove all of the items in a remote shopping cart, including `SavedForLater` items. To remove only some of the items in a cart or to reduce the quantity of one or more items, use [CartModify \(p. 213\)](#).

To delete all of the items from a remote shopping cart, you must specify the cart using the `CartId` and `HMAC` values, which are returned by the `CartCreate` operation. A value similar to the `HMAC`, `URLEncodedHMAC`, is also returned. This value is the URL encoded version of the `HMAC`. This encoding is necessary because some characters, such as + and /, cannot be included in a URL. Rather than encoding the `HMAC` yourself, use the `URLEncodedHMAC` value for the `HMAC` parameter.

`CartClear` does not work after the customer has used the `PurchaseURL` to either purchase the items or merge them with the items in their Amazon cart.

Carts exist even though they have been emptied. The lifespan of a cart is 7 days since the last time it was acted upon. For example, if a cart created 6 days ago is modified, the cart lifespan is reset to 7 days.

Availability

All locales.

Request Parameters

Name	Description	Required
<code>AssociateTag</code>	<p>Specifies the Associate who is making the request. An Associate tag, also known as an Associate ID, is an automatically generated unique identifier. When you log in to the Amazon Associates website for your locale, the page that you are directed to includes a message that says "Signed in as" followed by your Associate tag.</p> <p>The Associate tag that you used to create a cart must also be used on all other operations associated with the same cart.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Value: The same Associate tag that was used in the related <code>CartCreate</code> request.</p> <p>Constraint:</p>	Yes
<code>CartId</code>	<p>Alphanumeric token returned by <code>CartCreate</code> that identifies a cart.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Value returned by <code>CartCreate</code>.</p>	Yes

Name	Description	Required
<i>HMAC</i>	<p>The Hash Message Authentication Code is an encrypted alphanumeric token that is used to authenticate requests.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Value is calculated using request parameters, their values, a cryptographic function, and the Secret Key, which acts as the "key" for the function.</p>	Yes
<i>MergeCart</i>	This parameter is deprecated. When a customer purchases items in a remote shopping cart, the items are added to the customer's Amazon retail shopping cart.	Deprecated
<i>ResponseGroup</i>	<p>Specifies the types of values to return. You can specify multiple response groups in one request by separating them with commas.</p> <p>Type: String</p> <p>Default: Cart (p. 246)</p>	No

CartClear also accepts the parameters that all operations can use. For more information, see, [Common Request Parameters \(p. 236\)](#).

Response

Name	Description
<i>Cart</i>	Container for remote shopping cart related response elements.
<i>CartClearRequest</i>	Container for <i>CartClear</i> and <i>HMAC</i> .
<i>CartId</i>	Alphanumeric token returned by <i>CartCreate</i> that uniquely identifies a cart.
<i>HMAC</i>	Hash Message Authentication Code returned by <i>CartCreate</i> that identifies a cart. This is an encrypted alphanumeric token that is used to authenticate cart operations.
<i>URLEncodedHMAC</i>	URL encoded version of the <i>HMAC</i> . This encoding is necessary because some characters, such as + and /, cannot be included in a URL.

For more information about the parent elements of these tags, see the appropriate response group in [Response Groups \(p. 238\)](#)

Examples

Remove all items from a specified cart:

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
```

```
AssociateTag=[Associate Tag]&
Operation=CartClear&
CartId=[Cart ID]&
HMAC=[URL-encoded HMAC]
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

This operation removes all of the items in the specified cart. Because the *HMAC* includes the *AssociateTag*, you must supply it in this request.

The response to this request is shown in, [Response to Sample Request \(p. 195\)](#).

Sample Response

The following XML is a snippet of the full response to the first sample request.

```
<Cart>
<Request>
<IsValid>True</IsValid>
<CartClearRequest>
<CartId>102-2689399-8023324</CartId>
<HMAC>iLYO/W0hft0Te4uXAbMiBhs36T8=</HMAC>
</CartClearRequest>
</Request>
<CartId>102-2689399-8023324</CartId>
<HMAC>iLYO/W0hft0Te4uXAbMiBhs36T8=</HMAC>
<URLEncodedHMAC>iLYO/W0hft0Te4uXAbMiBhs36T8=</URLEncodedHMAC>
</Cart>
```

Related Operations

- [CartAdd \(p. 196\)](#)
- [CartCreate \(p. 203\)](#)
- [CartGet \(p. 209\)](#)
- [CartModify \(p. 213\)](#)

CartCreate

Description

The *CartCreate* operation enables you to create a remote shopping cart. A shopping cart is the metaphor used by most e-commerce solutions. It is a temporary data storage structure that resides on Amazon servers. The structure contains the items a customer wants to buy. In Product Advertising API, the shopping cart is considered remote because it is hosted by Amazon servers. In this way, the cart is remote to the vendor's web site where the customer views and selects the items they want to purchase.

Once you add an item to a cart by specifying the item's ASIN or *OfferListing* ID, the item is assigned a *CartItemID* and is accessible only by that value. That is, in subsequent requests, an item in a cart cannot be accessed by its ASIN or *OfferListingID*. *CartItemID* is returned by [CartCreate \(p. 203\)](#), [CartGet \(p. 209\)](#), and [CartAdd \(p. 196\)](#).

Because the contents of a cart can change for different reasons, such as item availability, you should not keep a copy of a cart locally. Instead, use the other cart operations to modify the cart contents. For example, to retrieve contents of the cart, which are represented by *CartItemIds*, use [CartGet \(p. 209\)](#).

Available products are added as cart items. Unavailable items, for example, items out of stock, discontinued, or future releases, are added as *SaveForLaterItems*. No error is generated. The Amazon database changes regularly. You may find a product with an offer listing ID but by the time the item is added to the cart the product is no longer available. The checkout page in the Order Pipeline clearly lists items that are available and those that are *SaveForLaterItems*.

It is impossible to create an empty shopping cart. You have to add at least one item to a shopping cart using a single *CartCreate* request. You can add specific quantities (up to 999) of each item.

CartCreate can be used only once in the life cycle of a cart. To modify the contents of the cart, use one of the other cart operations.

Carts cannot be deleted. They expire automatically after being unused for 7 days. The lifespan of a cart restarts, however, every time a cart is modified. In this way, a cart can last for more than 7 days. If, for example, on day 6, the customer modifies a cart, the 7 day countdown starts over.

Specifying the Items

In one *CartCreate* request, you can add up to ten items; the quantity of each item is set separately, as follows:

```
Item.1.OfferListingId=[Offer Listing ID]
Item.1.Quantity=3
Item.2.OfferListingId=[Offer Listing ID]
Item.2.Quantity=1
```

This code adds two items identified by their *OfferListingIds* and the quantity of each item is set to 3 and 1, respectively.

You can use any combination of *ASINs* or *OfferListingIDs* in a single request to specify the items to add to a cart. You can only use one type of item identifier to add an item to a cart. You cannot, for example, use an *ASIN* and an *OfferListingId* in the same request to add the same item to a cart.

For more information the formatting used to add items to a cart, see [CartAdd \(p. 196\)](#).

Availability

All locales.

Request Parameters

Name	Description	Required
<i>ASIN</i>	An alphanumeric token that uniquely identifies an item. Using <i>OfferListingId</i> is preferred instead of <i>ASIN</i> when adding items to a cart. Valid Values: <i>ASIN</i> Constraint: Required if <i>OfferListingId</i> is not used	Conditional

Name	Description	Required
<i>AssociateTag</i>	<p>Specifies the Associate who is making the request. An Associate tag, also known as an Associate ID, is an automatically generated unique identifier. When you log in to the Amazon Associates website for your locale, the page that you are directed to includes a message that says "Signed in as" followed by your Associate tag.</p> <p>The Associate tag that you use to create a cart must also be used on all other operations associated with the same cart.</p> <p>Type: String Default: None Valid Values: An Associate Tag.</p>	Yes
<i>Item</i>	<p>For REST, a prefix for <i>ASIN</i> and quantity, both of which are used to specify the item to add to the cart, for example, item.1.<i>ASIN</i>=1234abcd, item.1.quantity=2.</p> <p>Valid Values: Does not take a value.</p> <p>Type: String Default: None</p>	Yes
<i>Items</i>	Container for one or more Item objects. This parameter is required for SOAP only.	Yes <small>see Y</small>
<i>MergeCart</i>	This parameter is deprecated. When a customer purchases items in a remote shopping cart, the items are added to the customer's Amazon retail shopping cart. Type: String	Deprecated
<i>OfferListingId</i>	An offer listing ID is an alphanumeric token that uniquely identifies an item. Use the OfferListingId instead of an item's ASIN to add the item to the cart. Type: String Default: None Valid Values: An Offer Listing ID Constraint: Required if <i>ASIN</i> is not used.	Conditional
<i>Quantity</i>	The suffix used with Item to specify the number of items to be added to the cart, for example, Item.1. <i>ASIN</i> =0976925524 Item.1.Quantity=2. See <i>Item</i> . Type: String Default: None Valid Values: Positive integer	No

Name	Description	Required
<i>ResponseGroup</i>	<p>Specifies the types of values to return. You can specify multiple response groups in one request by separating them with commas.</p> <p>Type: String</p> <p>Default:Cart (p. 246)</p> <p>Valid Values: CartSimilarities (p. 252) CartTopSellers (p. 250) CartNewReleases (p. 249)</p>	No

CartCreate also accepts the parameters that all operations can use. For more information, see, [Common Request Parameters \(p. 236\)](#).

Response

Name	Description
<i>Amount</i>	Price of the item in terms of the lowest currency denomination, for example, pennies.
<i>ASIN</i>	An alphanumeric token that uniquely identifies an item.
<i>Cart</i>	Container for all of the elements in the cart.
<i>CartCreateRequest</i>	Container for all of the items requested.
<i>CartId</i>	An alphanumeric token that uniquely identifies a cart. This value must be included in all future cart operations related to this cart.
<i>CartItems</i>	Container for purchase related information about each item in the cart
<i>CurrencyCode</i>	Locale of the sale that specifies the formatting of the price.
<i>FormattedPrice</i>	The price of the item as it should appear to the customer.
<i>HMAC</i>	An encoded value used to authenticate a request. This value must be included in all future cart operations related to this cart.
<i>ItemTotal</i>	Amount due for any number one kind of item.
<i>PurchaseURL</i>	The URL the customer should use to purchase the item. The URL includes the <i>AssociateTag</i> so that the Associate gets credit for the purchase.
<i>Quantity</i>	Number of individual items ordered.
<i>SavedForLaterItems</i>	Container object for items added to the cart that are currently unavailable.
<i>SubTotal</i>	Pre-tax and shipping subtotal of all items in the cart.
<i>URLEncodedHMAC</i>	A URL encoded version of the HMAC. The HMAC must be put in a URL and so it must be URL compliant. Use this value instead of the HMAC in all future requests related to this cart.

For more information about the parent elements of these tags, see the appropriate response group in [Response Groups \(p. 238\)](#).

Examples

Create a remote shopping cart and add multiple items of varying quantities to it.

```
http:// webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=[Associate Tag]&  
Operation=CartCreate&  
Item.1.ASIN=[ASIN]&  
Item.1.Quantity=2&  
Item.2.ASIN=[ASIN]&  
Item.2.Quantity=7&  
Item.3.ASIN=[ASIN]&  
Item.3.Quantity=5  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

This request creates a remote shopping cart and adds three different items, 2 of the first item, 7 of the second item, and 5 of the third item. The response to this request is shown in, [Response to Sample Request \(p. 195\)](#).

Create a shopping cart by adding items not necessarily sold by Amazon.

```
http:// webservices.amazon.com/onca/xml  
?Service=AWSECommerceService&  
AWSAccessKeyId=[Access Key ID]&  
AssociateTag=[Associate Tag]&  
Operation=CartCreate&  
Item.1.OfferListingId=[Offer Listing ID]&  
Item.1.Quantity=2&  
Item.2.OfferListingId=[Offer Listing ID]&  
Item.2.Quantity=7&  
Item.3.OfferListingId=[Offer Listing ID]&  
Item.3.Quantity=5  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

This request creates a remote shopping cart and adds three different items that are not sold by Amazon: 2 of the first item, 7 of the second item, and 5 of the third item. OfferListingId returns items for sale by all sellers and merchants, including Amazon.

Sample Response

The following XML is a snippet of the full response to the first sample request.

```
<Cart>  
  <Request>  
    <IsValid>True</IsValid>  
    <CartCreateRequest>  
      <Items>  
        <Item>  
          <ASIN>B000062TU1</ASIN>  
          <Quantity>2</Quantity>  
        </Item>
```

```

        </Items>
    </CartCreateRequest>
</Request>
<CartId>102-5014548-4857758</CartId>
<HMAC>O2p9hhZwJShnp6ZDWvZD06FhpAI=</HMAC>
<URLEncodedHMAC>O2p9hhZwJShnp6ZDWvZD06FhpAI=</URLEncodedHMAC>

<PurchaseURL>https://www.amazon.com/gp/cart/aws-merge.html?cart-id=102-5014548-4857758%26associate-id=ws%26mac=O2p9hhZwJShnp6ZDWvZD06FhpAI=%26AWSAccessKeyId=1VMEXAMPLE9C02</PurchaseURL>
    <SubTotal>
        <Amount>1994</Amount>
        <CurrencyCode>USD</CurrencyCode>
        <FormattedPrice>$19.94</FormattedPrice>
    </SubTotal>
    <CartItems>
        <SubTotal>
            <Amount>1994</Amount>
            <CurrencyCode>USD</CurrencyCode>
            <FormattedPrice>$19.94</FormattedPrice>
        </SubTotal>
        <CartItem>
            <CartItemID>U31XY1DHZEGCTB</CartItemID>
            <ASIN>B000062TU1</ASIN>
            <Quantity>2</Quantity>
            <Title>Harry Potter and the Sorcerer's Stone (Full Screen Edition) (Harry Potter 1)</Title>
            <ProductGroup>DVD</ProductGroup>
            <Price>
                <Amount>997</Amount>
                <CurrencyCode>USD</CurrencyCode>
                <FormattedPrice>$9.97</FormattedPrice>
            </Price>
            <ItemTotal>
                <Amount>1994</Amount>
                <CurrencyCode>USD</CurrencyCode>
                <FormattedPrice>$19.94</FormattedPrice>
            </ItemTotal>
        </CartItem>
    </CartItems>
</Cart>

```

Sample SavedForLaterItem XML Snippet

The following snippet from the XML response shows the addition of an item to a cart that is currently unavailable. On the retail web site, these items are displayed as "Saved For Later."

```

<SavedForLaterItems>
    <SubTotal>
        <Amount>1288</Amount>
        <CurrencyCode>USD</CurrencyCode>
        <FormattedPrice>$12.88</FormattedPrice>
    </SubTotal>
    <SavedForLaterItem>
        <CartItemID>ULI7S9IYFJHX0</CartItemID>
        <ASIN>B0009GZV4A</ASIN>
        <Quantity>2</Quantity>

```

```
<Title>Mark VII Men's Short Sleeve Golf Shirts with Tri -Colored Stripe Trim</Title>
<ProductGroup>Apparel</ProductGroup>
<Price>
  <Amount>644</Amount>
  <CurrencyCode>USD</CurrencyCode>
  <FormattedPrice>$6.44</FormattedPrice>
</Price>
<ItemTotal>
  <Amount>1288</Amount>
  <CurrencyCode>USD</CurrencyCode>
  <FormattedPrice>$12.88</FormattedPrice>
</ItemTotal>
</SavedForLaterItem>
</SavedForLaterItems>
```

Related Operations

- [CartAdd \(p. 196\)](#)
- [CartClear \(p. 201\)](#)
- [CartGet \(p. 209\)](#)
- [CartModify \(p. 213\)](#)

CartGet

Description

The `CartGet` operation enables you to retrieve the IDs, quantities, and prices of all of the items, including `SavedForLater` items in a remote shopping cart.

Because the contents of a cart can change for different reasons, such as availability, you should not keep a copy of a cart locally. Instead, use `CartGet` to retrieve the items in a remote shopping cart.

To retrieve the items in a cart, you must specify the cart using the `CartId` and `HMAC` values, which are returned in the `CartCreate` operation. A value similar to `HMAC`, `URLEncodedHMAC`, is also returned. This value is the URL encoded version of the `HMAC`. This encoding is necessary because some characters, such as + and /, cannot be included in a URL. Rather than encoding the `HMAC` yourself, use the `URLEncodedHMAC` value for the `HMAC` parameter.

`CartGet` does not work after the customer has used the `PurchaseURL` to either purchase the items or merge them with the items in their Amazon cart.

All `CartGet` requests must also include a value for `AssociateTag`; otherwise, the request will fail.

Availability

All locales.

Request Parameters

Name	Description	Required
<i>AssociateTag</i>	<p>Specifies the Associate who is making the request. An Associate tag, also known as an Associate ID, is an automatically generated unique identifier. When you log in to the Amazon Associates website for your locale, the page that you are directed to includes a message that says "Signed in as" followed by your Associate tag.</p> <p>The Associate tag that you used to create a cart must also be used on all other operations associated with the same cart.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Value: The same Associate tag that was used in the related CartCreate request.</p> <p>Constraint:</p>	Yes
<i>CartId</i>	<p>Alphanumeric token returned by CartCreate that identifies a cart.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Value returned by CartCreate</p>	Yes
<i>CartItemID</i>	<p>Alphanumeric token that uniquely identifies an item in a cart. Once an item, specified by an ASIN or OfferListingId, has been added to a cart, you must use the <i>CartItemID</i> to refer to it. The other identifiers will not work.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Value returned by CartCreate</p>	Yes
<i>HMAC</i>	<p>The Hash Message Authentication Code is an encrypted alphanumeric token that is used to authenticate requests.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Value is calculated using request parameters, their values, a cryptographic function, and the Secret Key, which acts as the "key" for the function.</p>	Yes
<i>MergeCart</i>	This parameter is deprecated. When a customer purchases items in a remote shopping cart, the items are added to the customer's Amazon retail shopping cart.	Deprecated

Name	Description	Required
<i>ResponseGroup</i>	<p>Specifies the types of values to return. You can specify multiple response groups in one request by separating them with commas.</p> <p>Type: String</p> <p>Default: Cart (p. 246)</p> <p>Valid Values: CartSimilarities (p. 252) CartTopSellers (p. 250) CartNewReleases (p. 249)</p>	No

`CartGet` also accepts the parameters that all operations can use. For more information, see, [Common Request Parameters](#) (p. 236)

Response

Name	Description
<i>Amount</i>	Price of the item in terms of the lowest currency denomination, for example, pennies.
<i>CartId</i>	Alphanumeric token returned by <code>CartCreate</code> that identifies a cart.
<i>CartItem</i>	Container for <code>CartItem</code> , ASIN, Quantity, Title, ProductGroup, Price, ItemTotal
<i>CartItems</i>	Container for Subtotal and CartItem
<i>CurrencyCode</i>	Format for the display of the money
<i>FormattedPrice</i>	The price to display on the web site.
<i>HMAC</i>	Hash Message Authentication Code returned by <code>CartCreate</code> that identifies a cart. This is an encrypted alphanumeric token that is used to authenticate cart operations.
<i>ItemTotal</i>	Container for Amount, CurrencyCode, FormattedPrice. Cost of the item multiplied by the quantity ordered.
<i>Price</i>	Container for Amount, CurrencyCode, FormattedPrice. Price of a single item.
<i>PurchaseURL</i>	URL that customers should use to purchase the items in their cart. The URL includes the Associate's ID, called the Associate Tag. It is important to use the <code>PurchaseURL</code> otherwise the Associate will not get credit for the customer's purchase.
<i>Subtotal</i>	Container for Amount, CurrencyCode, and FormattedPrice. Subtotal is the total price of all of the items in a cart but not including tax or shipping.
<i>URLEncodedHMAC</i>	A URL encoded version of the <i>HMAC</i> . This encoding is necessary because some characters, such as + and /, cannot be included in a URL. The value of this parameter is a convenience function. Otherwise, you would have to URL encode the HMAC yourself.

For more information about the parent elements of these tags, see the appropriate response group in [Response Groups \(p. 238\)](#)

Examples

Retrieve all of the items in a specified cart:

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=[Associate Tag]&  
Operation=CartGet&  
CartId=[Cart ID]&  
HMAC=[URL-encoded HMAC]
```

This operation retrieves all of the items in the specified remote shopping cart. Because the *HMAC* includes the *AssociateTag*, you must supply it in this request.

The response to this request is shown in, [Response to Sample Request \(p. 195\)](#).

Sample Response

The following XML is a snippet of the full response to the first sample request.

```
<CartId>002-9918938-1696046</CartId>  
<HMAC>b0ogzvivVYLNjSZ9WwoBRFesFYU=</HMAC>  
<URLEncodedHMAC>b0ogzvivVYLNjSZ9WwoBRFesFYU=</URLEncodedHMAC>  
<PurchaseURL>https://www.amazon.com/gp/cart/aws-merge.html?cart-id=002-9918938-  
1696046%26associate-id=ws%26hmac=b0ogzvivVYLNjSZ9WwoBRFesFYU=%26AWSAccessKey  
Id=1V293857EXAMPLEFW9C02</PurchaseURL>  
<SubTotal>  
  <Amount>1994</Amount>  
  <CurrencyCode>USD</CurrencyCode>  
  <FormattedPrice>$19.94</FormattedPrice>  
</SubTotal>  
<CartItems>  
  <SubTotal>  
    <Amount>1994</Amount>  
    <CurrencyCode>USD</CurrencyCode>  
    <FormattedPrice>$19.94</FormattedPrice>  
</SubTotal>  
  <CartItem>  
    <CartItemID>U3KYV0C66V3PAA</CartItemID>  
    <ASIN>B000062TU1</ASIN>  
    <Quantity>2</Quantity>  
    <Title>Harry Potter and the Sorcerer's Stone (Full Screen Edition) (Harry  
Potter 1)</Title>  
    <ProductGroup>DVD</ProductGroup>  
    <Price>  
      <Amount>997</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$9.97</FormattedPrice>  
</Price>  
    <ItemTotal>  
      <Amount>1994</Amount>  
      <CurrencyCode>USD</CurrencyCode>
```

```
<FormattedPrice>$19.94</FormattedPrice>
</ItemTotal>
</CartItem>
</CartItems>
</Cart>
```

This response shows all of the items in the specified cart.

Related Operations

- [CartAdd \(p. 196\)](#)
- [CartClear \(p. 201\)](#)
- [CartCreate \(p. 203\)](#)
- [CartModify \(p. 213\)](#)

CartModify

Description

The `CartModify` operation enables you to change the quantity of items that are already in a remote shopping cart and move items from the active area of a cart to the `SaveForLater` area or the reverse.

To modify the number of items in a cart, you must specify the cart using the `CartId` and `HMAC` values that are returned in the [CartCreate \(p. 203\)](#) operation. A value similar to `HMAC`, `URLEncodedHMAC`, is also returned. This value is the URL encoded version of the `HMAC`. This encoding is necessary because some characters, such as + and /, cannot be included in a URL. Rather than encoding the `HMAC` yourself, use the `URLEncodedHMAC` value for the `HMAC` parameter.

You can use `CartModify` to modify the number of items in a remote shopping cart by setting the value of the `Quantity` parameter appropriately. You can eliminate an item from a cart by setting the value of the `Quantity` parameter to zero. Or, you can double the number of a particular item in the cart by doubling its `Quantity`. You cannot, however, use `CartModify` to add new items to a cart.

All `CartModify` requests must also include the value for `AssociateTag` that was used in the associated [CartCreate \(p. 203\)](#) request; otherwise, the request will fail.

Availability

All locales.

Request Parameters

Name	Description	Required
<i>Action</i>	<p>The Action parameter is a child element of the Item parameter in both SOAP requests. Use the Action parameter to change cart items to move items to the Saved-For-Later area, or change Saved-For-Later (SaveForLater) items to the active cart area (MoveToCart).</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: MoveToCart SaveForLater</p>	No
<i>AssociateTag</i>	<p>Specifies the Associate who is making the request. An Associate tag, also known as an Associate ID, is an automatically generated unique identifier. When you log in to the Amazon Associates website for your locale, the page that you are directed to includes a message that says "Signed in as" followed by your Associate tag.</p> <p>The Associate tag that you used to create a cart must also be used on all other operations associated with the same cart.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Value: The same Associate tag that was used in the related CartCreate request.</p> <p>Constraint:</p>	Yes
<i>CartId</i>	<p>Alphanumeric token returned by CartCreate (p. 203) that identifies a cart.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Value returned by CartCreate (p. 203).</p>	Yes
<i>CartItemNId</i>	<p>Specifies an item to be modified in the cart where N is a positive integer between 1 and 10, inclusive. Up to ten items can be modified at a time. <i>CartItemNId</i> is neither an ASIN nor an OfferListingId. It is, instead, an alphanumeric token returned by CartCreate (p. 203) and CartAdd. This parameter is used in conjunction with <i>Item.N.Quantity</i> to modify the number of items in a cart. See <i>Item</i>, that follows, for more information.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Value returned by CartCreate (p. 203) or CartAdd.</p>	Yes

Name	Description	Required
<i>HMAC</i>	<p>The Hash Message Authentication Code is an encrypted alphanumeric token that is used to authenticate requests.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Value is calculated using request parameters, their values, a cryptographic function, and the Secret Key, which acts as the "key" for the function. Value returned by CartCreate (p. 203)</p>	Yes
<i>Item</i>	Specifies the item to modify. Typical construction is Item.1.CartItemId=[ID]; Item.1.Quantity=[number].	Yes
<i>Items</i>	<p>Container for one or more Item objects. This is a SOAP only parameter.</p> <p>Valid Value: Item</p> <p>Constraint: Required and valid only for SOAP requests.</p>	Conditional
<i>MergeCart</i>	This parameter is deprecated. When a customer purchases items in a remote shopping cart, the items are added to the customer's Amazon retail shopping cart.	Deprecated
<i>Quantity</i>	<p>Specifies the revised number of items that the customer would like in the cart where N is a positive integer. This parameter is used in conjunction with <i>Item.N.CartItemId</i> to modify the number of items in a cart. The Quantity value is matched to the Item.N.CartItemId value by the index number, N. For example, Item.1.CartItemId is associated with Item.1.Quantity.</p> <p>Type: Positive integer</p> <p>Type: String</p> <p>Default: None</p> <p>Constraint: N is a positive integer between 0 and 999, inclusive. Required with REST queries.</p>	Conditional
<i>ResponseGroup</i>	<p>Specifies the types of values to return. You can specify multiple response groups in one request by separating them with commas.</p> <p>Type: String</p> <p>Default: Cart (p. 246)</p> <p>Valid Values:CartSimilarities (p. 252) CartTopSellers (p. 250) CartNewReleases (p. 249)</p>	No

CartModify also accepts the parameters that all operations can use. For more information, see, [Common Request Parameters \(p. 236\)](#)

Response

Name	Description
<i>CartId</i>	Alphanumeric token returned by CartCreate (p. 203) that identifies a cart.
<i>CartItemId</i>	Specifies an item in a cart. <i>CartItemId</i> is neither an ASIN nor an OfferListingId. It is, instead, an alphanumeric token returned by CartCreate (p. 203) and CartAdd. Child of Item.
<i>HMAC</i>	Hash Message Authentication Code returned by CartCreate (p. 203) that identifies a cart. This is an encrypted alphanumeric token that is used to authenticate cart operations.
<i>Item</i>	For REST, a prefix for CartItemId and Quantity, both of which are used to specify the item to be modified, for example, item.1.CartItemId=1234abcd, item.1.Quantity=2 changes the quantity of item 1234abcd to 2.
<i>Items</i>	Container for Item when specifying more than one Item.
<i>Quantity</i>	The suffix used with Item to specify the number of items to be added to the cart. See Item.

For more information about the parent elements of these tags, see the appropriate response group in [Response Groups \(p. 238\)](#).

Examples

Increase the quantity of an item (Item.1) already in the cart and remove an item (Item.2).

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
AssociateTag=[Associate ID]&
Operation=CartModify&
CartId=[Cart ID]&
HMAC=[HMAC]&
Item.1.CartItemId=[Cart Item ID]&
Item.1.Quantity=10&
Item.2.CartItemId=[Cart Item ID]&
Item.2.Quantity=0
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

Notice that items in the cart are referred to by *CartItemId*, not their *ASIN* or *OfferListingId*. *CartItemId* is returned by [CartCreate \(p. 203\)](#), [CartGet \(p. 209\)](#), and [CartAdd \(p. 196\)](#). If you want to use CartModify to modify the items in a cart, you must refer to the items using their *CartItemId*. You use [CartGet \(p. 209\)](#) to retrieve the *CartItemIds*.

The response to this request is shown in, [Response to Sample Request \(p. 195\)](#).

Move an item (Item.1) to the SaveForLater area in the cart and reduce then number of items (Item.2) to 1.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=[Associate ID]&  
Operation=CartModify&  
CartId=[Cart ID]&  
HMAC=[HMAC]&  
Item.1.CartItemId=[Cart Item ID]&  
Item.1.Action=SaveForLater  
Item.2.CartItemId=[Cart Item ID]&  
Item.2.Quantity=1  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response

The following XML is a snippet of the full response to the first sample request.

```
<CartModifyRequest>  
  <CartId>103-8104506-5223005</CartId>  
  <HMAC>uiFluRr5yj+GGL3SvWD1mFDyvP0=</HMAC>  
  <Items>  
    <Item>  
      <CartItemId>UQIKL90WK14UD</CartItemId>  
      <Quantity>10</Quantity>  
    </Item>  
  </Items>  
</CartModifyRequest>
```

Notice that the quantity of the item was changed to 10 (from 5). The rest of the CartModify request is identical to the [CartCreate \(p. 203\)](#) response.

Related Operations

- [CartAdd \(p. 196\)](#)
- [CartClear \(p. 201\)](#)
- [CartCreate \(p. 203\)](#)
- [CartGet \(p. 209\)](#)

ItemLookup

Description

Given an Item identifier, the ItemLookup operation returns some or all of the item attributes, depending on the response group specified in the request. By default, ItemLookup returns an item's *ASIN*, *Manufacturer*, *ProductGroup*, and *Title* of the item.

ItemLookup supports many response groups, so you can retrieve many different kinds of product information, called item attributes, including product reviews, variations, similar products, pricing, availability, images of products, accessories, and other information.

To look up more than one item at a time, separate the item identifiers by commas.

Availability

All locales, however, the parameter support varies by locale.

Request Parameters

Name	Description	Required
<i>Condition</i>	<p>Specifies an item's condition. If Condition is set to "All," a separate set of responses is returned for each valid value of Condition. The default value is "New" (not "All"). So, if your request does not return results, consider setting the value to "All." When the value is "New," the ItemSearch Availability parameter cannot be set to "Available." Amazon only sells items that are "New."</p> <p>Type: String</p> <p>Default: New</p> <p>Valid Values: Used Collectible Refurbished, All</p>	No
<i>IdType</i>	<p>Type of item identifier used to look up an item. All <i>IdTypes</i> except <i>ASINx</i> require a <i>SearchIndex</i> to be specified.</p> <p>Type: String</p> <p>Default: ASIN</p> <p>Valid Values: SKU UPC EAN ISBN (US only, when search index is Books). UPC is not valid in the CA locale.</p>	No
<i>IncludeReviewsSummary</i>	<p>When set to <code>true</code>, returns the reviews summary within the Reviews iframe.</p> <p>Type: Boolean</p> <p>Default: True</p> <p>Valid Values: True False</p>	No
<i>ItemId</i>	<p>One or more (up to ten) positive integers that uniquely identify an item. The meaning of the number is specified by <i>IdType</i>. That is, if <i>IdType</i> is ASIN, the <i>ItemId</i> value is an ASIN. If <i>ItemId</i> is an ASIN, a search index cannot be specified in the request.</p> <p>Type: String</p> <p>Default: None</p> <p>Constraints: Must be a valid item ID. For more than one ID, use a comma-separated list of up to ten IDs.</p>	Yes

Name	Description	Required
<i>MerchantId</i>	<p>An optional parameter you can use to filter search results and offer listings to only include items sold by Amazon. By default, the API will return items sold by various merchants including Amazon. Enter <code>Amazon</code> if you only want to see items sold by Amazon in the response.</p> <p>Type: String</p> <p>Valid Values: <code>Amazon</code></p>	No
<i>RelatedItemPage</i>	<p>This optional parameter is only valid when the <i>RelatedItems</i> response group is used. Each <code>ItemLookup</code> request can return, at most, ten related items. The <i>RelatedItemPage</i> value specifies the set of ten related items to return. A value of 2, for example, returns the second set of ten related items</p>	No
<i>RelationshipType</i>	<p>This parameter is required when the <i>RelatedItems</i> response group is used. The type of related item returned is specified by the <i>RelationshipType</i> parameter. Sample values include Episode, Season, and Tracks. For a complete list of types, go to Relationship Types (p. 145).</p> <p>Required when <i>RelatedItems</i> response group is used.</p>	Conditional
<i>SearchIndex</i>	<p>The product category to search.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: A search index, for example, Apparel, Beauty, Blended, Books, and so forth. For a complete of search indices, see Locale Reference (p. 336).</p> <p>Constraint: If <code>ItemId</code> is an ASIN, a search index cannot be specified in the request. Required for non-ASIN <code>ItemIds</code>.</p>	Conditional
<i>TruncateReviewsAt</i>	<p>By default, reviews are truncated to 1000 characters within the Reviews iframe. To specify a different length, enter the value. To return complete reviews, specify 0.</p> <p>Type: Integer</p> <p>Default: 1000</p> <p>Constraints: Must be a positive integer or 0 (returns entire review)</p>	No

Name	Description	Required
<i>VariationPage</i>	<p>Page number of variations returned by <code>ItemLookup</code>. By default, <code>ItemLookup</code> returns all variations. Use <code>VariationPage</code> to return a subsection of the response. There are 10 variations per page. To examine offers 11 through 20, for example, set <code>VariationPage</code> to 2.</p> <p>Type: String</p> <p>Default: All</p> <p>Valid Values: Integer between 1 and 150, inclusive</p>	No
<i>ResponseGroup</i>	<p>Specifies the types of values to return. You can specify multiple response groups in one request by separating them with commas.</p> <p>Type: String</p> <p>Default: Small (p. 301)</p> <p>Valid Values: Accessories (p. 239) BrowseNodes (p. 244) EditorialReview (p. 253) Images (p. 255) ItemAttributes (p. 257) ItemIds (p. 261) Large (p. 262) Medium (p. 267) OfferFull (p. 275) Offers (p. 279) PromotionSummary (p. 285) OfferSummary (p. 283) RelatedItems (p. 287) Reviews (p. 291) SalesRank (p. 293) Similarities (p. 299) Small (p. 301) Tracks (p. 304) VariationImages (p. 308) Variations (p. 305) (US only) VariationSummary (p. 315)</p>	No

`ItemLookup` also accepts the parameters that all operations can use. For more information, see, [Common Request Parameters](#) (p. 236)

Response

Name	Description
<i>ASIN</i>	Amazon Standard Identification Number, which is an alphanumeric token assigned by Amazon to an item that uniquely identifies it.
<i>Item</i>	Container for information about the item, including <code>ASIN</code> , <code>Title</code> , <code>ProductGroup</code> , and <code>Manufacturer</code> .
<i>ItemAttributes</i>	Container for information about an item, including <code>Title</code> , <code>ProductGroup</code> , and <code>Manufacturer</code> .
<i>Items</i>	Container for one or more Item(s).
<i>Manufacturer</i>	Name of the company that manufactured the item.
<i>ProductGroup</i>	Category of the item, for example, “Book,” “DVD.”
<i>Title</i>	Title of the item.

For more information about the parent elements of these tags, see the appropriate response group in [Response Groups](#) (p. 238)

Examples

The following request returns the information associated with *ItemId* B00008OE6I.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=B00008OE6I  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

The response to this request is shown in, [Response to Sample Request \(p. 195\)](#).

The following request returns an offer for a refurbished item that is not sold by Amazon.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=B00008OE6I&  
IdType=ASIN&  
ResponseGroup=OfferFull&  
Condition=All&  
Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

In the following request, the *ItemId* is an SKU, which requires that you also specify the *IdType*.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=[SKU]&  
IdType=SKU  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

In the following request, the *ItemId* is a UPC, which requires that you also specify the *SearchIndex* and *ItemType*.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=[UPC]&  
SearchIndex=Books&  
&IdType=UPC  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

In the following request, the *ItemId* is an EAN, which requires that you also specify the *SearchIndex* and *ItemType*.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=[EAN]&  
SearchIndex=Electronics&  
IdType=EAN  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Use the [BrowseNodes \(p. 244\)](#) response group to find the browse node of an item.

Use the [Tracks \(p. 304\)](#) response group to find the track, title, and number for each track on each CD in the response.

Use the [Similarities \(p. 299\)](#) response group to find the ASIN and Title for similar products returned in the response.

Use the [Reviews \(p. 291\)](#) response group to find reviews written by customers about an item, and the total number of reviews for each item in the response.

Use the [OfferSummary \(p. 283\)](#) response group to find the number of offer listings and the lowest price for each of the offer listing condition classes, including New, Used, Collectible, and Refurbished.

Use the [Accessories \(p. 239\)](#) response group to find the a list of accessory product ASINs and Titles for each product in the response that has accessories.

The following requests an iframe that contains customer reviews for the specified item.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=0316067938&  
ResponseGroup=Reviews&  
TruncateReviewsAt="256"&  
IncludeReviewsSummary="False"&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response

The following code snippet is a response to the first request. It shows all of the item attributes that are returned by default.

```
<Items>  
  <Request>  
    <IsValid>True</IsValid>  
    <ItemLookupRequest>  
      <ItemId>B00008OE6I</ItemId>  
    </ItemLookupRequest>  
  </Request>  
  <Item>  
    <ASIN>B00008OE6I</ASIN>  
    <ItemAttributes>
```

```
<Manufacturer>Canon</Manufacturer>
<ProductGroup>Photography</ProductGroup>
<Title>Canon PowerShot S400 4MP Digital Camera w/ 3x Optical Zoom</Title>
</ItemAttributes>
</Item>
</Items>
```

The following code snippet is part of a response for an iframe that contains customer reviews.

```
<ItemLookupResponse>
<Items>
<Item>
<ASIN>0316067938</ASIN>
<CustomerReviews>
<IFrameURL>
http://www.amazon.com/reviews/iframe?akid=AKIAIOSFODNN7EXAMPLE&asin=0316067938&exp=2013-08-01T17%3A54%3A07Z&linkCode=xm2&summary=0&tag=ws&truncate=256&v=2&sig=rhBGpRiaQ3L78yqgE5y30u8bF6zXsK3HL%2F2KpNMJns0%3D
</IFrameURL>
</CustomerReviews>
</Item>
</Items>
</ItemLookupResponse>
```

Related Operations

- [ItemSearch \(p. 223\)](#)

ItemSearch

Description

The `ItemSearch` operation returns items that satisfy the search criteria, including one or more search indices.

`ItemSearch` returns up to ten search results per page. When `condition` equals "All," `ItemSearch` returns additional offers for those items, one offer per condition type (if an offer exists)—for example, one new, one used, one refurbished, and one collectible item. Or, for example, if there are no collectible or refurbished offers, `ItemSearch` returns one new and one used offer.

Because there are thousands of items in each search index, `ItemSearch` requires that you specify the value for at least one parameter in addition to a search index. The additional parameter value must reference items within the specified search index. For example, you might specify a browse node (`BrowseNode` is an `ItemSearch` parameter), Harry Potter Books, within the Books product category. You would not get results, for example, if you specified the search index to be Automotive and the browse node to be Harry Potter Books. In this case, the parameter value is not associated with the search index value.

The `ItemPage` parameter enables you to return a specified page of results. The maximum `ItemPage` number that can be returned is 10. An error is returned if you try to access higher numbered pages. If you do not include `ItemPage` in your request, the first page will be returned by default. There can be up to ten items per page.

ItemSearch is the operation that is used most often in requests. In general, when trying to find an item for sale, you use this operation.

For more discussion about finding items by BrowseNode, see [Understanding BrowseNode Results When Drilling Down \(p. 104\)](#).

Availability

All locales.

Request Parameters

ItemSearch has a lot of parameters. Not all of them pertain, however, to all search indices. For example, when the search index is apparel, it would be inappropriate to use the *Actor* parameter. As a result, each search index can use only a subset of all of the parameters. For a complete list of the ItemSearch parameters that can be used with a specific search index in a specific locale, see [Locale Reference \(p. 336\)](#).

The parameters that apply to the largest number of search indices are shown in the following table.

Parameter	Valid Search Indices
<i>BrowseNode</i>	Every index except All and Blended
<i>Condition</i>	Every index except All and Blended
<i>Keywords</i>	All
<i>MaximumPrice</i>	Every index except All and Blended
<i>MinimumPrice</i>	Every index except All and Blended
<i>Title</i>	Every index except All and Blended

ItemSearch requires that you specify a search index and at least one of the following parameters:

• Actor • Artist • AudienceRating • Author • Brand • BrowseNode	• Composer • Conductor • Director • Keywords • Manufacturer	• MusicLabel • Orchestra • Power • Publisher • Title
--	---	--

Name	Description	Required
<i>Actor</i>	Name of an actor associated with the item. You can enter all or part of the name. Type: String Default: None	No

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Name	Description	Required
<i>Artist</i>	<p>Name of an artist associated with the item. You can enter all or part of the name.</p> <p>Type: String</p> <p>Default: None</p>	No
<i>AudienceRating</i>	<p>Movie ratings based on MPAA ratings or age, depending upon the locale. You may specify one or more values in a comma-separated list in a REST request or by using multiple elements in a SOAP request.</p> <p>Type: String.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: See Movie Ratings by Locale (p. 230), which follows this table.</p>	No
<i>Author</i>	<p>Name of an author associated with the item. You can enter all or part of the name.</p> <p>Type: String</p> <p>Default: None</p>	No
<i>Availability</i>	<p>Enables ItemSearch to return only those items that are available. This parameter must be used in combination with a merchant ID and <i>Condition</i>. For more information, see Availability Parameter (p. 84), which follows this table. When Availability is set to "Available," the Condition parameter cannot be set to "New."</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Available</p>	Yes
<i>Brand</i>	<p>Name of a brand associated with the item. You can enter all or part of the name.</p> <p>Type: String, for example, Timex, Seiko, Rolex.</p> <p>Type: String</p> <p>Default: None</p>	No

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Name	Description	Required
<i>BrowseNode</i>	<p>Browse nodes are positive integers that identify product categories, for example, Literature & Fiction: (17), Medicine: (13996), Mystery & Thrillers: (18), Nonfiction: (53), Outdoors & Nature: (290060).</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Positive integer.</p>	No
<i>Composer</i>	<p>Name of an composer associated with the item. You can enter all or part of the name.</p> <p>Type: String</p> <p>Default: None</p>	No
<i>Condition</i>	<p>Use the <i>Condition</i> parameter to filter the offers returned in the product list by condition type. By default, <i>Condition</i> equals "New". If you do not get results, consider changing the value to "All. When the Availability parameter is set to "Available," the Condition parameter cannot be set to "New."</p> <p>ItemSearch returns up to ten search results at a time. When <i>condition</i> equals "All," ItemSearch returns up to three offers per condition (if they exist), for example, three new, three used, three refurbished, and three collectible items. Or, for example, if there are no collectible or refurbished offers, ItemSearch returns three new and three used offers.</p> <p>Type: String</p> <p>Default: New</p> <p>Valid Values: Used Collectible Refurbished All</p>	No
<i>Conductor</i>	<p>Name of a conductor associated with the item. You can enter all or part of the name.</p> <p>Type: String</p> <p>Default: None</p>	No
<i>Director</i>	<p>Name of a director associated with the item. You can enter all or part of the name.</p> <p>Type: String</p> <p>Default: None</p>	No

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Name	Description	Required
<i>IncludeReviewsSummary</i>	<p>When set to <code>true</code>, returns the reviews summary within the Reviews iframe.</p> <p>Type: Boolean</p> <p>Default: True</p> <p>Valid Values: <code>True</code> <code>False</code></p>	No
<i>ItemPage</i>	<p>Retrieves a specific page of items from all of the items in a response. Up to ten items are returned on a page unless <code>Condition</code> equals "All." In that case, <code>ItemSearch</code> returns additional offers for those items, one offer per condition type (if an offer exists)—for example, one new, one used, one refurbished, and one collectible item. Or, for example, if there are no collectible or refurbished offers, <code>ItemSearch</code> returns one new and one used offer. If you do not include <code>ItemPage</code> in your request, the first page is returned. The total number of pages of items found is returned in the <code>TotalPages</code> response tag.</p> <p>Valid Values: 1 to 10 (1 to 5 when the search index = "All")</p> <p>Type: String</p> <p>Default: None</p>	No
<i>Keywords</i>	<p>A word or phrase associated with an item. The word or phrase can be in various product fields, including product title, author, artist, description, manufacturer, and so forth. When, for example, the search index equals "Music-Tracks," the <code>Keywords</code> parameter enables you to search by song title. If you enter a phrase, the spaces must be URL-encoded as %20.</p> <p>Type: String</p> <p>Default: None</p>	No
<i>Manufacturer</i>	<p>Name of a manufacturer associated with the item. You can enter all or part of the name.</p> <p>Type: String</p> <p>Default: None</p>	No
<i>MaximumPrice</i>	<p>Specifies the maximum price of the items in the response. Prices are in terms of the lowest currency denomination, for example, pennies. For example, 3241 represents \$32.41.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Positive integer</p>	No

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Name	Description	Required
<i>MerchantId</i>	An optional parameter you can use to filter search results and offer listings to only include items sold by Amazon. By default, Product Advertising API returns items sold by various merchants including Amazon. Use the <code>Amazon</code> to limit the response to only items sold by Amazon. Type: String Valid Values: Amazon	No
<i>MinimumPrice</i>	Specifies the minimum price of the items to return. Prices are in terms of the lowest currency denomination, for example, pennies, for example, 3241 represents \$32.41. Type: String Default: None Valid Values: Positive integer	No
<i>MinPercentageOff</i>	Specifies the minimum percentage off for the items to return. Type: String Default: None Valid Values: Positive integer	No
<i>Orchestra</i>	Name of an orchestra associated with the item. You can enter all or part of the name. Type: String Default: None	No
<i>Power</i>	Performs a book search using a complex query string. Only works when the search index is set equal to "Books." Valid Values: See, Power Searches (p. 91) following this table. Type: String Default: None	No
<i>Publisher</i>	Name of a publisher associated with the item. You can enter all or part of the name. Type: String Default: None	No
<i>RelatedItemPage</i>	This optional parameter is only valid when the <code>Related-Items</code> response group is used. Each <code>ItemLookup</code> request can return, at most, ten related items. The <code>RelatedItem-Page</code> value specifies the set of ten related items to return. A value of 2, for example, returns the second set of ten related items.	No

Name	Description	Required
<i>RelationshipType</i>	<p>This parameter is required when the <i>RelatedItems</i> response group is used. The type of related item returned is specified by the <i>RelationshipType</i> parameter. Sample values include Episode, Season, and Tracks. A complete list of values follows this table.</p> <p>Constraint: Required when RelatedItems response group is used</p>	Conditional
<i>SearchIndex</i>	<p>The product category to search. Many ItemSearch parameters are valid with only specific values of <i>SearchIndex</i>.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: A search index, for example, Apparel, Beauty, Blended, Books, and so forth. For Blended searches, go to Blended Searches (p. 90). For a complete list of search indices, see Locale Reference (p. 336).</p>	Yes
<i>Sort</i>	<p>Means by which the items in the response are ordered.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Valid values vary significantly by search index. For a list of valid values, see Locale Reference (p. 336).</p>	No
<i>Title</i>	<p>The title associated with the item. You can enter all or part of the title. <i>Title</i> searches are a subset of <i>Keyword</i> searches. If a <i>Title</i> search yields insufficient results, consider using a <i>Keywords</i> search.</p> <p>Type: String</p> <p>Default: None</p>	No
<i>TruncateReviewsAt</i>	<p>By default, reviews are truncated to 1000 characters within the Reviews iframe. To specify a different length, enter the value. To return complete reviews, specify 0.</p> <p>Type: Integer</p> <p>Default: 1000</p> <p>Constraints: Must be a positive integer or 0 (returns entire review)</p>	No

Name	Description	Required
<i>VariationPage</i>	<p>Retrieves a specific page of variations returned by ItemSearch. By default, ItemSearch returns all variations. Use <i>VariationPage</i> to return a subsection of the response. There are 10 variations per page. To examine offers 11 through 20, for example, set <i>VariationPage</i> to 2. The total number of pages is returned in the <i>TotalPages</i> element.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: Positive integer</p>	No
<i>ResponseGroup</i>	<p>Specifies the types of values to return. You can specify multiple response groups in one request by separating them with commas.</p> <p>Type: String</p> <p>Default: Small (p. 301)</p> <p>Valid Values: Accessories (p. 239) BrowseNodes (p. 244) EditorialReview (p. 253) ItemAttributes (p. 257) ItemIds (p. 261) Large (p. 262) Medium (p. 267) OfferFull (p. 275) Offers (p. 279) OfferSummary (p. 283) Reviews (p. 291) RelatedItems (p. 287) SearchBins (p. 294) Similarities (p. 299) Small (p. 301) Tracks (p. 304) Variations (p. 305) VariationSummary (p. 315) </p>	No

ItemSearch also accepts the parameters that all operations can use. For more information, see, [Common Request Parameters](#) (p. 236)

Movie Ratings Vary by Locale

Movie rating values captured in the *AudienceRating* parameter, vary by locale. The following table shows the valid values of *AudienceRating*.

Locale	AudienceRating Values
<i>CA</i>	G, PG, PG-13, R, NC-17, NR, Unrated, Family Viewing
<i>DE</i>	6, 12, 16
<i>FR</i>	PG, 12, 16, 18
<i>US</i>	G, PG, PG-13, R, NC-17, NR, Unrated

Response

Name	Description
<i>ASIN</i>	Amazon Standard Identification Number, which is an alphanumeric token assigned by Amazon to an item that uniquely identifies it.

Name	Description
<i>Item</i>	Container for item information, including ASIN and ItemAttributes.
<i>ItemAttributes</i>	Container for information about an item, including Manufacturer, ProductGroup, and Title.
<i>Manufacturer</i>	Item's manufacturer.
<i>MoreSearchResultsURL</i>	The URL where the complete search results are displayed. The URLs provided in the search results are the exact ones that you should use when you link back to Amazon.com. They are tagged with your Associate tag and contain other tracking information to increase your hourly request limit as the sales that you generate increase.
<i>ProductGroup</i>	Product category; similar to search index.
<i>Title</i>	Item's title.
<i>TotalPages</i>	Total number of pages in response. There are up to ten items per page.
<i>TotalResults</i>	Total number of items found.

For more information about the parent elements of these tags, see the appropriate response group in [Response Groups \(p. 238\)](#).

Examples

Use the search index, Toys, and the parameter, *Keywords*, to return information about all toy rockets sold in by Amazon.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=ItemSearch&
Keywords=Rocket&
SearchIndex=Toys
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

The response to this request is shown in, [Response to Sample Request \(p. 195\)](#).

Use a blended search to look through multiple search indices for items that have “Mustang” in their name or description. A blended search looks through multiple search indices at the same time. For more information, see [Blended Searches. \(p. 90\)](#)

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=ItemSearch&
Keywords=Mustang&
SearchIndex=Blended
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

Use the *Availability* parameter to only return shirts that are available:

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
Condition=All&  
Availability=Available&  
SearchIndex=Apparel&  
Keywords=Shirt  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Set the search index to MusicTracks and *Keywords* to the title of a song to find a song title.

Use the [BrowseNodes \(p. 244\)](#) response group to find the browse node of an item.

Use the [Variations \(p. 38\)](#) response group and the *BrowseNode* parameter to find all of the variations of a parent browse node.

Sample Response

The following XML is a snippet of the full response to the first sample request.

```
<TotalResults>372</TotalResults>  
<TotalPages>38</TotalPages>  
<Item>  
  <ASIN>B00021HBN6</ASIN>  
  <ItemAttributes>  
    <Manufacturer>Radio Flyer</Manufacturer>  
    <ProductGroup>Toy</ProductGroup>  
    <Title>Radio Flyer Retro Rocket</Title>  
  </ItemAttributes>  
  </Item>  
  <Item>  
    <ASIN>B0007MZV3C</ASIN>  
    <ItemAttributes>  
      <Manufacturer>Razor USA LLC</Manufacturer>  
      <ProductGroup>Toy</ProductGroup>  
      <Title>Razor Dirt Rocket MX350 Bike</Title>  
    </ItemAttributes>  
  </Item>  
</Item>
```

The *TotalResults* and *TotalPages* tags indicate the number of items found and the number of pages those items are on. Use *TotalPages* with any of the page parameters, such as *ReviewsPage*, to select the page of results to view. Typically, there are up to ten results on a page.

Related Operations

- [ItemLookup \(p. 217\)](#)

SimilarityLookup

Description

The `SimilarityLookup` operation returns up to ten products per page that are similar to one or more items specified in the request. This operation is typically used to pique a customer's interest in buying something similar to what they've already ordered.

If you specify more than one item, `SimilarityLookup` returns the intersection of similar items each item would return separately. Alternatively, you can use the `SimilarityType` parameter to return the union of items that are similar to any of the specified items. A maximum of ten similar items are returned; the operation does not return additional pages of similar items. If there are more than ten similar items, running the same request can result in different answers because the ten that are included in the response are picked randomly. The results are picked randomly only when you specify multiple items and the results include more than ten similar items.

When you specify multiple items, it is possible for there to be no intersection of similar items. In this case, the operation returns the following error:

```
<Error>
<Code>AWS.ECommerceService.NoSimilarities</Code>
<Message>There are no similar items for this ASIN: B00006WREH.</Message>
</Error>
```

This result is very often the case if the items belong to different search indices. The error can occur, however, even when the items share the same search index.

Similarity is a measurement of similar items purchased, that is, customers who bought X also bought Y and Z. It is not a measure, for example, of items viewed, that is, customers who viewed X also viewed Y and Z.

Items returned can be filtered by:

- Condition—Describes the status of an item. Valid values are All, New (default), Used, Refurbished or Collectible. When the Availability parameter is set to "Available," the Condition parameter cannot be set to "New."

Examples

Return items that are similar to a list of items.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=SimilarityLookup&ItemId=ASIN1,ASIN2,ASIN3
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

This request returns the intersection of the similarities for each ASIN. The response to this request is shown in [Response to Sample Request \(p. 195\)](#).

Return up to ten items that are similar to any of the ASINs specified.

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]&
Operation=SimilarityLookup&ItemId=ASIN1,ASIN2,ASIN3&
SimilarityType=Random
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

This request returns the union of items that are similar to all of the ASINs specified. Only ten items can be returned and those are picked randomly from all of the similar items. Repeating the operation could produce different results.

Request Parameters

Name	Description	Required
<i>Condition</i>	<p>Specifies an item's condition. If Condition is set to "All," a separate set of responses is returned for each valid value of Condition.</p> <p>Type: String</p> <p>Default: New</p> <p>Valid Values: All Collectible Refurbished Used</p>	No
<i>ItemId</i>	<p>Specifies the item you want to look up. An ItemId is an alphanumeric identifier assigned to an item. You can specify up to ten ItemIds separated by commas.</p> <p>Type: String</p> <p>Default: None</p> <p>Valid Values: ASIN</p>	Yes
<i>MerchantId</i>	<p>An optional parameter that can be used to filter search results and offer listings to only include items sold by Amazon. By default, Product Advertising API returns items sold by various merchants including Amazon. Enter "Amazon" to return only items sold by Amazon.</p> <p>Type: String</p> <p>Valid Values: Amazon</p>	No

Name	Description	Required
<i>SimilarityType</i>	<p>"Intersection" returns the intersection of items that are similar to all of the ASINs specified. "Random" returns the union of items that are similar to all of the ASINs specified. Only ten items are returned. So, if there are more than ten similar items found, a random selection from the group is returned. For this reason, running the same request multiple times can yield different results.</p> <p>Type: String</p> <p>Default: Intersection</p> <p>Valid Value: Random</p>	No
<i>ResponseGroup</i>	<p>Specifies the types of values to return. You can specify multiple response groups in one request by separating them with commas.</p> <p>Type: String</p> <p>Default: Request (p. 289) Small (p. 301)</p> <p>Valid Values: Accessories (p. 239) BrowseNodes (p. 244) EditorialReview (p. 253) Images (p. 255) Large (p. 262) ItemAttributes (p. 257) ItemIds (p. 261) Medium (p. 267) Offers (p. 279) OfferSummary (p. 283) PromotionSummary (p. 285) Reviews (p. 291) SalesRank (p. 293) Similarities (p. 299) Small (p. 301) Tracks (p. 304) Variations (p. 305) VariationSummary (p. 315) </p>	No

SimilarityLookup also accepts the parameters that all operations can use. For more information, see, [Common Request Parameters](#) (p. 236).

Sample Response

The following XML is a snippet of the full response to the first sample request.

```

<Item>
  <ASIN>B0009VX8XQ</ASIN>
  <ItemAttributes>
    <ProductGroup>Apparel</ProductGroup>
    <Title>Mark VII Men's Short Sleeve Herringbone Knit Golf Shirt</Title>
  </ItemAttributes>
</Item>
<Item>
  <ASIN>B0009VX8VI</ASIN>
  <ItemAttributes>
    <ProductGroup>Apparel</ProductGroup>
    <Title>Mark VII Men's Short Sleeve Knit Golf Shirt</Title>
  </ItemAttributes>
</Item>

```

This response shows that two items were similar to the ASINs submitted. The information included with each item is sufficient to display the item for sale.

Response

Name	Description
<i>ASIN</i>	An alphanumeric token that uniquely identifies an item for sale.
<i>Item</i>	Container for information about an item, including, ItemAttributes, and ASIN.
<i>ItemAttributes</i>	Container for information describing an item, including, ProductGroup and Title.
<i>ProductGroup</i>	Category to which an item belongs. Similar to Search Index.
<i>Title</i>	Name of the item for sale.

For more information about the parent elements of these tags, see the appropriate response group in [Response Groups \(p. 238\)](#).

Related Operations

[ItemSearch \(p. 223\)](#) using the [Similarities \(p. 299\)](#) response group

Common Request Parameters

The following table describes the request parameters that all Product Advertising API operations can use.

Parameter	Definition	Req'd?
<i>AssociateTag</i>	An alphanumeric token that uniquely identifies an Associate. This token is the means by which Amazon identifies the Associate to credit for a sale. If a request is made without identifying an Associate, Associate fees are not paid by Amazon. If the AssociateTag is included in the CartCreate request, the value for AssociateTag is automatically included in the PurchaseURL, which is returned by CartCreate. To obtain an Associate Tag, go to https://affiliate-program.amazon.com . For more information, see Associate Tag (p. 238) . Valid values: An alphanumeric token distributed by Amazon that uniquely identifies an Associate. Use this value in all requests to receive credit for the customer's purchase.	Yes
<i>AWSAccessKeyId</i>	An alphanumeric token that uniquely identifies a seller. For information about getting an AWS access key ID, see Becoming an Associate (p. 8) . Valid value: Access Key ID distributed by Amazon.	Yes

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Common Request Parameters

Parameter	Definition	Req'd?
<i>ContentType</i>	<p>Specifies the format of the content in the response. For example, to transform your Product Advertising API response into HTML, set <i>ContentType</i> to text/html.</p> <p>Valid values: text/html, text/xml</p>	No
<i>MarketplaceDomain</i>	<p>Directs a request for products and offers to the marketplace domain that you specify. A marketplace domain is a website that is powered by Amazon.com and that supports the Amazon Associates program. For more information, see MarketplaceDomain Parameter (p. 511).</p>	No
<i>MerchantId</i>	<p>An optional parameter that can be used to filter search results and offer listings to include only items sold by Amazon. By default, the API returns items sold by various merchants including Amazon. If the value "Amazon" is supplied, only items sold by Amazon are included in the response.</p> <p>Valid values: Amazon</p>	No
<i>Operation</i>	<p>Specifies the Product Advertising API operation to execute. For more information, see Operations (p. 192).</p> <p>Valid values: An Product Advertising API operation, for example, ItemLookup</p>	Yes
<i>Service</i>	<p>Specifies the Product Advertising API service. There is only one value for all Product Advertising API operations.</p> <p>Valid value: AWSECommerceService</p>	Yes
<i>Validate</i>	<p>Prevents an operation from executing. Set the <i>Validate</i> parameter to True to test your request without actually executing it. When present, <i>Validate</i> must equal True; the default value is False. If a request is not actually executed (Validate=True), only a subset of the errors for a request may be returned because some errors (for example, no_exact_matches) are only generated during the execution of a request.</p> <p>Default: False</p> <p>Valid values: True, False</p>	No
<i>Version</i>	<p>The version of the Product Advertising API software and WSDL to use. By default, the 2011-08-01 version is used. Alternately, specify a software version, such as 2013-08-01. For a list of valid version numbers, refer to the Product Advertising API Release Notes. Note that the latest version of Product Advertising API is not used by default.</p> <p>Default: 2011-08-01</p> <p>Valid values: Valid WSDL version date, for example, 2013-08-01.</p>	No

Parameter	Definition	Req'd?
<i>XMLEscaping</i>	<p>Specifies whether responses are XML-encoded in a single pass or a double pass. By default, <i>XMLEscaping</i> is Single, and Product Advertising API responses are encoded only once in XML. For example, if the response data includes an ampersand character (&), the character is returned in its regular XML encoding (&). If <i>XMLEscaping</i> is Double, the same ampersand character is XML-encoded twice (&&). The Double value for <i>XMLEscaping</i> is useful in some clients, such as PHP, that do not decode text within XML elements.</p> <p>Default: Single</p> <p>Valid values: Single, Double</p>	No

AssociateTag

The *AssociateTag* parameter is a required parameter in Product Advertising API requests. When you register as an Amazon Associate, an Associate tag is sent to you by return email. An Associate tag, also known as an Associate ID, is an automatically generated unique identifier that you will need to make requests through the Product Advertising API. When you log in to the Amazon Associates website for your locale, the page that you are directed to includes a message that says "Signed in as" followed by your Associate tag.

Once a cart is associated with an Associate Tag, you must use it in every other cart operation related to that shopping cart. Otherwise, you will receive an error.

If you do not include an Associate Tag in the *CartCreate* request, your request will fail.

AssociateTag is locale-specific, that is, for each locale in which you want to earn Associate revenue, you must get an Associate Tag. If you try to use a US-locale Associate Tag, for example, in the JP locale, you will not earn Associate revenue.

Be careful when specifying an *AssociateTag* because errors are not returned for incorrect values.

Response Groups

Response groups help target the information returned. Each operation can only use a subset of all of the available response groups. The following sections explain, for each response group, the:

- Description of the response group.
- Descriptions of the XML elements returned by the response group.
- The ancestry of the element presented using X-path notation.
- Child response groups, which are the response groups that are included in a response group. For example, the Large response group includes the results returned by the *ItemAttributes* response group.
- Parent response groups, which are response groups that include in the response group. For example, the *ItemAttributes* response group is included in the Large response group, so, the Large response group is a parent of the *ItemAttributes* response group.

Product Advertising API includes the following response groups:

• Accessories (p. 239)	• Medium (p. 267)	• TopSellers (p. 302)
• AlternateVersions (p. 240)	• MostGifted (p. 271)	• Tracks (p. 304)
• BrowseNodeInfo (p. 242)	• MostWishedFor (p. 272)	• Variations (p. 305)
• BrowseNodes (p. 244)	• NewReleases (p. 273)	• VariationImages (p. 308)
• Cart (p. 246)	• OfferFull (p. 275)	• VariationMatrix (p. 310)
• CartNewReleases (p. 249)	• OfferListings (p. 277)	• VariationOffers (p. 312)
• CartTopSellers (p. 250)	• Offers (p. 279)	• VariationSummary (p. 315)
• CartSimilarities (p. 252)	• OfferSummary (p. 283)	
• EditorialReview (p. 253)	• PromotionSummary (p. 285)	
• Images (p. 255)	• RelatedItems (p. 287)	
• ItemAttributes (p. 257)	• Request (p. 289)	
• ItemIds (p. 261)	• Reviews (p. 291)	
• Large (p. 262)	• SalesRank (p. 293)	
	• SearchBins (p. 294)	
	• Similarities (p. 299)	
	• Small (p. 301)	

Accessories Response Group

The Accessories response group returns up to five ASINs and titles of accessories associated with items in the response. For example, if you performed an [ItemLookup \(p. 217\)](#) of a specific ASIN, say, a camera, and included in the request the Accessories response group, the response would include, by default, the titles and ASINs of up to the first ten accessories associated with the ASIN. The accessories for the camera might include a camera case, lens, filters, and so forth.

Relevant Operations

Operations that can use this response group include:

- [SimilarityLookup \(p. 233\)](#)
- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)

Response Elements

The following table describes the elements returned by Accessories.

- [ASIN \(p. 319\)](#)
- [Title \(p. 333\)](#)
- [TotalPages \(p. 333\)](#)
- [TotalResults \(p. 333\)](#)

Parent Response Group

The following response groups are parent response groups of [Accessories \(p. 239\)](#).

- [Large \(p. 262\)](#)

Child Response Group

The following response groups are child response groups of [Accessories \(p. 239\)](#).

- None

Sample REST Use Case

All locales.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=[Associate ID]&  
Operation=ItemLookup&  
IdType=ASIN&  
ItemId=B00008OE6I&  
ResponseGroup=Accessories&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by Accessories.

```
<Item>  
  <ASIN>B00008OE6I</ASIN>  
  <Accessories>  
    <Accessory>  
      <ASIN>B00003G1RG</ASIN>  
      <Title>Viking 128 MB CompactFlash Card (CF128M)</Title>  
    </Accessory>  
    <Accessory>  
      <ASIN>B00004WCCT</ASIN>  
      <Title>Canon Soft Leather Case for Canon Digital ELPH Cameras  
        (Black)</Title>  
    </Accessory>  
    <Accessory>  
      <ASIN>B000051408</ASIN>  
      <Title>SimpleTech STI-CF/128 128MB CompactFlash Card</Title>  
    </Accessory>  
  </Accessories>
```

AlternateVersions Response Group

The AlternateVersions response group returns all of the available media formats for a book or music title. Sample formats include Paperback, Audio CD, Audio Cassette, and MP3 Download. This response group works only with the Books, ForeignBooks, KindleStore, MP3Downloads, and Music product categories, that is, for ItemSearch and ItemLookup, the search index must be KinleStore, MP3Downloads, or Music, or Books or, in non-US locales, ForeignBooks, and, for ItemLookup, the specified item must be a book or foreign book or a music title.

Relevant Operations

Operations that can use this response group include:

- ItemSearch, when the search index is Music, KindleStore, MP3Downloads, or Books or, in non-US locales, ForeignBooks
- ItemLookup when the specified item is music or a book or foreign book, and, if a search index is specified, the value must be Music, KindleStore, MP3Downloads, or Books or, in non-US locales, ForeignBooks

Response Elements

The following table describes and shows the parentage of the elements returned by AlternateVersions.

- [AlternateVersion](#) (p. 318)
- [ASIN](#) (p. 319)
- [Binding](#) (p. 320)
- [Title](#) (p. 333)

AlternateVersions also returns the elements that all response groups return, which described in [Elements Common to All Response Groups](#) (p. 317).

Parent Response Group

The following response groups are parent response groups of AlternateVersions.

- None

Child Response Group

The following response groups are children response groups of AlternateVersions.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by AlternateVersions.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
Operation=ItemSearch&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=ws&  
SearchIndex=Books&  
Keywords=potter&  
ResponseGroup=AlternateVersions&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by AlternateVersions.

```
<AlternateVersions>
  <AlternateVersion>
    <ASIN>030728364X</ASIN>
    <Title>Harry Potter and the Half-Blood Prince (Book 6)</Title>
    <Binding>Audio Cassette</Binding>
  </AlternateVersion>
  <AlternateVersion>
    <ASIN>0307283658</ASIN>
    <Title>Harry Potter and the Half-Blood Prince (Book 6)</Title>
    <Binding>Audio CD</Binding>
  </AlternateVersion>
  <AlternateVersion>
    <ASIN>0439785960</ASIN>
    <Title>
      Harry Potter And The Half-Blood Prince (Harry Potter, Book 6) (Harry Potter)
    </Title>
    <Binding>Paperback</Binding>
  </AlternateVersion>
  <AlternateVersion>
    <ASIN>0439786770</ASIN>
    <Title>
      Harry Potter and the Half-Blood Prince (Book 6) [LIBRARY EDITION]
    </Title>
    <Binding>Library Binding</Binding>
  </AlternateVersion>
```

BrowseNodeInfo Response Group

For a given browse node ID, the BrowseNodeInfo response group returns the browse node name and ID of the child and parent browse nodes.

One application of this information is to use the child and parent browse nodes to traverse the browse node hierarchy to either refine a search (child nodes) or to generalize a search (parent nodes). You do that using [BrowseNodeLookup \(p. 193\)](#) one or more times. Refining a search enables you to return more highly targeted results. Generalizing a response enables you to find what product category a browse node belongs to.

This response group is similar to the [BrowseNodes \(p. 244\)](#) response group. The difference is that the BrowseNodes response group is used with operations, including [ItemSearch \(p. 223\)](#), [ItemLookup \(p. 217\)](#), and [SimilarityLookup \(p. 233\)](#), that are based on item attributes, search indices, and lists, and potentially return multiple items. BrowseNodeInfo can only be used with [BrowseNodeLookup \(p. 193\)](#) and the search is always keyed on a browse node ID.

Relevant Operations

Operations that can use this response group include:

- [BrowseNodeLookup \(p. 193\)](#)

Response Elements

The following table describes the elements returned by BrowseNodeInfo.

- [BrowseNodeId \(p. 320\)](#)
- [Name \(p. 328\)](#)

As you can see from this table, BrowseNodeInfo returns the identity of child and parent browse nodes. That information is typically used with [BrowseNodeLookup \(p. 193\)](#) to traverse the browse node hierarchy.

Parent Response Group

The following response groups are parent response groups of BrowseNodeInfo.

- None

Child Response Group

The following response groups are child response groups of BrowseNodeInfo.

- None

Sample REST Use Case

All locales.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=BrowseNodeLookup&  
BrowseNodeId=11232&  
ResponseGroup=BrowseNodeInfo&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by BrowseNodeInfo.

```
<Item>  
<ASIN>0131856340</ASIN>  
<BrowseNodes>  
  <BrowseNode>  
    <BrowseNodeId>11232</BrowseNodeId>  
    <Name> Social Sciences</Name>  
    <Ancestors>  
      <BrowseNode>  
        <BrowseNodeId>53</BrowseNodeId>  
        <Name>Nonfiction</Name>  
      <Ancestors>  
        <BrowseNode>  
          <BrowseNodeId>1000</BrowseNodeId>
```

```
<Name>Subjects</Name>
<Ancestors>
  <BrowseNode>
    <BrowseNodeId>283155</BrowseNodeId>
    <Name>Books</Name>
  </BrowseNode>
</Ancestors>
</BrowseNode>
<Ancestors>
  <BrowseNode>
    <BrowseNodeId>11233</BrowseNodeId>
    <Name>Anthropology</Name>
  </BrowseNode>
<BrowseNode>
  <BrowseNodeId>11242</BrowseNodeId>
  <Name>Archaeology</Name>
</BrowseNode>
<BrowseNode>
  <BrowseNodeId>3048861</BrowseNodeId>
  <Name>Children's Studies</Name>
</BrowseNode>
</Children>
</BrowseNodes>
```

Notice in this response snippet that the child nodes are all at the same level in the hierarchical browse node tree, which is the level directly beneath the browse node in the request, 11232, Social Science. The parent nodes, however, show the entire lineage of browse nodes from Social Science all the way up the browse node tree to the root browse node, Books, 283155. Only one lineage, however, is returned. If a single node has multiple parents, only one of those parents is returned.

BrowseNodes Response Group

The BrowseNodes response group returns the browse node names and IDs associated with the items returned in the response. The response group also returns the names and IDs of the child and parent browse nodes of the items returned in the response.

It is possible for one item to belong to multiple browse nodes. So, it is common to see multiple hierarchies of browse nodes for a single item.

Some products, such as parent ASINs, do not return information in the BrowsesNodes response group.

This response group is similar to the [BrowseNodeInfo \(p. 242\)](#) response group. The difference is that the BrowseNodes response group is used with operations that are based on item attributes, search indices, and lists. These operations typically return multiple items. BrowseNodeInfo can only be used with [BrowseNodeLookup \(p. 193\)](#) and the search is always keyed on a browse node ID.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by BrowseNodes.

- [BrowseNodeId \(p. 320\)](#)
- [IsCategoryRoot \(p. 325\)](#)
- [Name \(p. 328\)](#)
- [TotalPages \(p. 333\)](#)
- [TotalResults \(p. 333\)](#)

Parent Response Group

The following response groups are parent response groups of BrowseNodes.

- None

Child Response Group

The following response groups are child response groups of BrowseNodes.

- None

Sample REST Use Case

All locales.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=BrowseNodeLookup&  
SearchIndex=Books&  
Keywords=Potter&  
ResponseGroup=BrowseNodes&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by BrowseNodes.

```
<Item>  
  <ASIN>B000002ADT</ASIN>  
  <BrowseNodes>  
    <BrowseNode>  
      <BrowseNodeId>63926</BrowseNodeId>  
      <Name>General</Name>  
      <Ancestors>  
        <BrowseNode>  
          <BrowseNodeId>34</BrowseNodeId>  
          <Name>Jazz</Name>  
          <Ancestors>
```

```
<BrowseNode>
  <BrowseNodeId>301668</BrowseNodeId>
  <Name>Styles</Name>
</BrowseNode>
</Ancestors>
</BrowseNode>
<BrowseNode>
  <BrowseNodeId>598176</BrowseNodeId>
  <Name>Hard Bop</Name>
  <Ancestors>
    <BrowseNode>
      <BrowseNodeId>598174</BrowseNodeId>
      <Name>Bebop</Name>
      <Ancestors>
        <BrowseNode>
          <BrowseNodeId>34</BrowseNodeId>
          <Name>Jazz</Name>
          <Ancestors>
            <BrowseNode>
              <BrowseNodeId>301668</BrowseNodeId>
              <Name>Styles</Name>
            </BrowseNode>
          </Ancestors>
        </BrowseNode>
      <Ancestors>
        <BrowseNode>
      </Ancestors>
    </BrowseNode>
  <Ancestors>
    <BrowseNode>
  </Ancestors>
</BrowseNode>
</Items>
</BrowseNodes>
```

Cart Response Group

The Cart response group provides information about a specified remote shopping cart and the items in it. The cart information includes:

- CartId
- HMAC
- PurchaseURL

For each item in the cart, including SavedForLaterItems, the response group returns:

- CartItemId
- ProductName
- ASIN
- Quantity
- ListPrice
- OurPrice

Relevant Operations

Operations that can use this response group include:

- [CartAdd \(p. 196\)](#)
- [CartCreate \(p. 203\)](#)
- [CartModify \(p. 213\)](#)
- [CartGet \(p. 209\)](#)
- [CartClear \(p. 201\)](#)

Response Elements

The following table describes the elements returned by Cart.

- [Amount \(p. 319\)](#)
- [ASIN \(p. 319\)](#)
- [CartId \(p. 320\)](#)
- [CartItem \(p. 320\)](#)
- [CartItemID \(p. 320\)](#)
- [CartItems \(p. 320\)](#)
- [CurrencyCode \(p. 322\)](#)
- [FormattedPrice \(p. 324\)](#)
- [HMAC \(p. 324\)](#)
- [ParentASIN \(p. 329\)](#)
- [Price \(p. 329\)](#)
- [ProductGroup \(p. 330\)](#)
- [PurchaseURL \(p. 330\)](#)
- [Quantity \(p. 330\)](#)
- [SavedForLaterItem \(p. 331\)](#)
- [Title \(p. 333\)](#)
- [URLEncodedHMAC \(p. 335\)](#)

Parent Response Group

The following response groups are parent response groups of Cart.

- None

Child Response Group

The following response groups are child response groups of Cart.

- None

Sample REST Use Case

All locales.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=ws&  
Operation=CartCreate&  
Item.1.ASIN=B000062TU1&  
Item.1.Quantity=2&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by Cart.

```
<Cart>  
  <Request>  
    <IsValid>True</IsValid>  
    <CartCreateRequest>  
      <Items>  
        <Item>  
          <ASIN>B000062TU1</ASIN>  
          <Quantity>2</Quantity>  
        </Item>  
      </Items>  
    </CartCreateRequest>  
  </Request>  
  <CartId>002-5281165-2803250</CartId>  
  <HMAC>51lu00G/PHqkvxZqC8oRkzmCano=</HMAC>  
  <URLEncodedHMAC>51lu00G%2FPHqkvxZqC8oRkzmCano%3D</URLEncodedHMAC>  
  <PurchaseURL>https://www.amazon.com/gp/cart/aws-merge.html?cart-id=002-5281165-  
2803250%26associate-id=ws%26hmac=51lu00G/PHqkvxZqC8oRkzmCano=%26Subscrip-  
tionId=AKIAI44QH8DHBEXAMPLE</PurchaseURL>  
  <SubTotal>  
    <Amount>1994</Amount>  
    <CurrencyCode>USD</CurrencyCode>  
    <FormattedPrice>$19.94</FormattedPrice>  
  </SubTotal>  
  <CartItems>  
    <SubTotal>  
      <Amount>1994</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$19.94</FormattedPrice>  
    </SubTotal>  
    <CartItem>  
      <CartItemId>U2ABORWEFJ0WZP</CartItemId>  
      <ASIN>B000062TU1</ASIN>  
      <Quantity>2</Quantity>  
      <Title>Harry Potter and the Sorcerer's Stone (Full Screen Edition) (Harry  
Potter 1)</Title>  
      <ProductGroup>DVD</ProductGroup>  
        <Price>  
          <Amount>997</Amount>  
          <CurrencyCode>USD</CurrencyCode>  
          <FormattedPrice>$9.97</FormattedPrice>  
        </Price>  
      <ItemTotal>
```

```
<Amount>1994</Amount>
<CurrencyCode>USD</CurrencyCode>
<FormattedPrice>$19.94</FormattedPrice>
</ItemTotal>
</CartItem>
</CartItems>
</Cart>
```

CartNewReleases Response Group

The CartNewReleases response group returns the ASINs and titles of the top five new releases in the root category of the item specified in the cart operation. For example, when adding a television to a cart the top five new releases in the root category, electronics, are returned.

One use of this response group is to suggest to customers additional items to buy.

Availability

This response group is available in the US locale only.

Relevant Operations

Operations that can use this response group include:

- [CartAdd \(p. 196\)](#)
- [CartCreate \(p. 203\)](#)
- [CartModify \(p. 213\)](#)
- [CartGet \(p. 209\)](#)

Response Elements

The following table describes the elements returned by CartNewReleases.

- [ASIN \(p. 319\)](#)
- [Title \(p. 333\)](#)

Parent Response Group

The following response groups are parent response groups of CartNewReleases.

- None

Child Response Group

The following response groups are child response groups of CartNewReleases.

- None

Sample REST Use Case

All locales.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=ws&  
Operation=CartCreate&  
Item.1.ASIN=B000062TU1&  
Item.1.Quantity=2&  
ResponseGroup=CartNewReleases&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by CartNewReleases.

```
<NewReleases>  
  <NewRelease>  
    <ASIN>B00005JOFQ</ASIN>  
    <Title>Brokeback Mountain (Widescreen Edition)</Title>  
  </NewRelease>  
  <NewRelease>  
    <ASIN>B000EHRVMY</ASIN>  
    <Title>Memoirs of a Geisha (Widescreen 2-Disc Special Edition)</Title>  
  </NewRelease>  
</NewReleases>
```

CartTopSellers Response Group

The CartTopSellers response group returns the ASINS and titles of the top five, best sellers in the root category of the item specified in the cart operation. For example, when adding a television to a cart, the five top sellers in the root category, electronics, are returned, for example, the top selling computers, MP3 players, or digital cameras.

Use this response group to specify additional, related items to buy.

Availability

This response group is available in the US locale only.

Relevant Operations

Operations that can use this response group include:

- [CartAdd \(p. 196\)](#)
- [CartCreate \(p. 203\)](#)
- [CartModify \(p. 213\)](#)
- [CartGet \(p. 209\)](#)

Response Elements

The following table describes the elements returned by CartTopSellers.

- ASIN (p. 319)
- Title (p. 333)

CartTopSellers also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of CartTopSellers.

- None

Child Response Group

The following response groups are child response groups of CartTopSellers.

- None

Sample REST Use Case

All locales.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=ws&  
Operation=CartCreate&  
Item.1.ASIN=B000062TU1&  
Item.1.Quantity=2&  
ResponseGroup=CartTopSellers&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by CartTopSellers.

```
<TopSellers>  
<TopSeller>  
  <ASIN>B00005JOFQ</ASIN>  
  <Title>Brokeback Mountain (Widescreen Edition)</Title>  
  </TopSeller>  
<TopSeller>  
  <ASIN>B000E6EK3S</ASIN>  
  <Title>Harry Potter and the Goblet of Fire (Widescreen Two-Disc Deluxe Edition)  
(Harry Potter 4)</Title>  
  </TopSeller>  
</TopSellers>
```

CartSimilarities Response Group

The [CartSimilarities \(p. 252\)](#) response group returns the title and ASINs of items that:

- Are similar to the item specified in the request. These results, tagged in the XML response with <SimilarProducts> and <SimilarProduct>, are displayed on the retail web site under the heading, "Customers who bought this [item] also bought."
- Have been viewed by customers who also viewed the item specified in the request. These results, tagged in the XML response with <SimilarViewedProducts> and <SimilarViewedProduct>, are displayed on the retail web site under the heading, "Customers who viewed this [item] also viewed"
- Can be found in other categories that are similar to the item specified in the request. These results, tagged in the XML response with <OtherCategoriesSimilarProducts> and <OtherCategoriesSimilarProduct>, are displayed on the retail web site under the heading, "Explore Similar Items," which falls under the heading, "Customers who bought this [item] also bought."

This response group returns a number of items similar to the one the customer added to the shopping cart. The response group is used typically to spur the customer's interest in purchasing additional items.

Relevant Operations

Operations that can use this response group include:

- [CartAdd \(p. 196\)](#)
- [CartCreate \(p. 203\)](#)
- [CartModify \(p. 213\)](#)
- [CartGet \(p. 209\)](#)

Response Elements

The following table describes the elements returned by CartSimilarities.

- [ASIN \(p. 319\)](#)
- [OtherCategoriesSimilarProducts \(p. 329\)](#)
- [SimilarProducts \(p. 332\)](#)
- [SimilarViewedProducts \(p. 332\)](#)
- [Title \(p. 333\)](#)

CartSimilarities also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of CartSimilarities.

- None

Child Response Group

The following response groups are child response groups of CartSimilarities.

- None

Sample REST Use Case

All locales.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=ws&  
Operation=CartCreate&  
Item.1.ASIN=B000062TU1&  
Item.1.Quantity=2&  
ResponseGroup=CartSimilarities&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by CartSimilarities.

```
<SimilarProducts>  
  <SimilarProduct>  
    <ASIN>B00008DDXC</ASIN>  
    <Title>Harry Potter and the Chamber of Secrets (Widescreen Edition) (Harry  
Potter 2)</Title>  
  </SimilarProduct>  
</SimilarProducts>  
<SimilarViewedProducts>  
  <SimilarViewedProduct>  
    <ASIN>B000E6UZZK</ASIN>  
    <Title>Harry Potter Years 1-4 (Harry Potter and the Sorcerer's Stone /  
Chamber of Secrets / Prisoner of Azkaban / Goblet of Fire) (Widescreen Edi  
tion)</Title>  
  </SimilarViewedProduct>  
</SimilarViewedProducts>  
<OtherCategoriesSimilarProducts>  
  <OtherCategoriesSimilarProduct>  
    <ASIN>0590353403</ASIN>  
    <Title>Harry Potter and the Sorcerer's Stone (Book 1)</Title>  
  </OtherCategoriesSimilarProduct>  
</OtherCategoriesSimilarProducts>
```

EditorialReview Response Group

For each item in the response, the EditorialReview response group returns Amazon's review of the item, which, on the Detail page, is labeled the Product Description.

Note

Copyrighted editorial reviews are not returned. For this reason, the reviews returned may be different than those returned by www.amazon.com.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)

- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by EditorialReview.

- [EditorialReviewIsLinkSuppressed \(p. 323\)](#)
- [Source \(p. 332\)](#)

EditorialReview also returns the elements that all response groups return, which is described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of EditorialReview.

- None

Child Response Group

The following response groups are child response groups of EditorialReview.

- None

Sample REST Use Case

All locales.

```
http://ecs.amazonaws.jp/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&Keywords=Fable&  
SearchIndex=Blended&  
ResponseGroup=EditorialReview&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by EditorialReview.

```
<EditorialReviews>  
  <EditorialReview>  
    <Source>From Amazon.com</Source>  
    <Content>Considered by many to be the last great musical comedy, then the  
    rest of the review continues here.  
    </Content>  
  </EditorialReview>  
</EditorialReviews>
```

Images Response Group

The Images response group returns the URLs to all available images of an item in three sizes: small, medium, and large. For example, if a blender is for sale and there are four images of it, this response group returns the URLs of twelve images: four images, each in three sizes.

In addition to returning the URLs of the images, the response groups also returns the height and width dimensions of each image. Use these values to help you display the images correctly.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by the Images response group.

- [Height \(p. 324\)](#)
- [LargeImage \(p. 326\)](#)
- [MediumImage \(p. 327\)](#)
- [SmallImage \(p. 332\)](#)
- [SwatchImage \(p. 332\)](#)
- [ThumbnailImage \(p. 333\)](#)
- [TinyImage \(p. 333\)](#)
- [TotalPages \(p. 333\)](#)
- [TotalResults \(p. 333\)](#)
- [URL \(p. 335\)](#)
- [Width \(p. 335\)](#)

Images also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of the Images response group.

- None

Child Response Group

The following response groups are child response groups of the Images response group.

- None

Sample REST Use Case

All locales.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
ItemId=B000Q67800&  
ResponseGroup=Images&  
SearchIndex=Blended&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by the Images response group.

```
<Item>  
  <ASIN>B000Q67800</ASIN>  
  <SmallImage>  
    <URL>http://ecx.images-amazon.com/images/I/51YL4rlI%2B9L._SL75_.jpg</URL>  
    <Height Units="pixels">75</Height>  
    <Width Units="pixels">58</Width>  
  </SmallImage>  
  <MediumImage>  
    <URL>http://ecx.images-amazon.com/images/I/51YL4rlI%2B9L._SL160_.jpg</URL>  
    <Height Units="pixels">160</Height>  
    <Width Units="pixels">124</Width>  
  </MediumImage>  
  <LargeImage>  
    <URL>http://ecx.images-amazon.com/images/I/51YL4rlI%2B9L.jpg</URL>  
    <Height Units="pixels">500</Height>  
    <Width Units="pixels">389</Width>  
  </LargeImage>  
  
<ImageSets>  
  <ImageSet Category="primary">  
    <SwatchImage>  
      <URL>http://ecx.images-amazon.com/images/I/51YL4rlI%2B9L._SL30_.jpg</URL>  
      <Height Units="pixels">30</Height>  
      <Width Units="pixels">23</Width>  
    </SwatchImage>  
    <SmallImage>  
      <URL>http://ecx.images-amazon.com/images/I/51YL4rlI%2B9L._SL75_.jpg</URL>  
      <Height Units="pixels">75</Height>  
      <Width Units="pixels">58</Width>  
    </SmallImage>  
    <ThumbnailImage>  
      <URL>http://ecx.images-amazon.com/images/I/51YL4rlI%2B9L._SL75_.jpg</URL>  
      <Height Units="pixels">75</Height>  
      <Width Units="pixels">58</Width>  
    </ThumbnailImage>  
    <TinyImage>  
      <URL>http://ecx.images-amazon.com/images/I/51YL4rlI%2B9L._SL110_.jpg</URL>
```

```
<Height Units="pixels">110</Height>
<Width Units="pixels">86</Width>
</TinyImage>
<MediumImage>
<URL>http://ecx.images-amazon.com/images/I/51YL4rlI%2B9L._SL160_.jpg</URL>
<Height Units="pixels">160</Height>
<Width Units="pixels">124</Width>
</MediumImage>
<LargeImage>
<URL>http://ecx.images-amazon.com/images/I/51YL4rlI%2B9L.jpg</URL>
<Height Units="pixels">500</Height>
<Width Units="pixels">389</Width>
</LargeImage>
</ImageSet>
</ImageSets>
```

The images are returned in two ways: under <Item> and under <ImageSets>. The images under <Item> are specified by the <SmallImage>, <MediumImage>, and <LargeImage> elements.

The sizes of the images under <ImageSets> are specified by the _SLXXX_ suffix in the URL, where XXX is the number of pixels on the longest side of the image. A medium size image, for example, has 160 pixels on its longest side so it has the suffix _SL160_. This is the preferred way to reference images.

The ImageSets element attribute, Category, is set to Primary. Primary images are the same images that appear in the <Item> section.

ItemAttributes Response Group

The ItemAttributes response group returns a potentially large number of attributes that describe an item. For example, an item in the Camera and Photo search index might return the attributes, height, width, weight, title, UPC, price, manufacture, zoom ratio, number of megapixels, and carrying case.

All search indices can return all item attributes. The number of item attributes returned, however, varies by ASIN. Typically, ASINs within the same search index return the same item attributes. For example, you would expect the item attributes returned for an item in the "Books" search index to be different from those returned for an item in the "Camera and Photo" search index. But all items within a single search index do not necessarily return the same attributes. For that reason, it is impossible to predict exactly which item attributes will be returned in a response.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by ItemAttributes.

- [Actor \(p. 318\)](#)
- [Artist \(p. 319\)](#)
- [AspectRatio \(p. 319\)](#)

- AudienceRating (p. 319)
- AudioFormat (p. 319)
- Author (p. 319)
- Binding (p. 320)
- Brand (p. 320)
- Category (p. 321)
- CEROAgeRating (p. 321)
- ClothingSize (p. 321)
- Color (p. 321)
- Creator (p. 322)
 - Role (p. 331)
- Department (p. 322)
- Director (p. 322)
- EAN (p. 322)
- EANList (p. 322)
 - EANListElement (p. 323)
- Edition (p. 323)
- EISBN (p. 323)
- EpisodeSequence (p. 323)
- ESRBAgeRating (p. 323)
- Feature (p. 323)
- Format (p. 324)
- Genre (p. 324)
- HardwarePlatform (p. 324)
- HazardousMaterialType (p. 324)
- IsAdultProduct (p. 325)
- IsAutographed (p. 325)
- ISBN (p. 325)
- IsEligibleForTradeIn (p. 325)
- IsMemorabilia (p. 326)
- IssuesPerYear (p. 326)
- ItemDimensions (p. 326)
 - Height (p. 324)
 - Length (p. 327)
 - Weight (p. 335)
 - Width (p. 335)
- ItemPartNumber (p. 326)
- Label (p. 326)
- Languages (p. 326)
 - Language (p. 326)
 - Name (p. 328)
 - Type (p. 334)
 - AudioFormat (p. 319)
- LegalDisclaimer (p. 327)
- ListPrice (p. 327)
- Manufacturer (p. 327)

- ManufacturerMaximumAge ([p. 327](#))
- ManufacturerMinimumAge ([p. 327](#))
- ManufacturerPartsWarrantyDescription ([p. 327](#))
- MediaType ([p. 327](#))
- Model ([p. 328](#))
- MPN ([p. 328](#))
- NumberOfDiscs ([p. 328](#))
- NumberOfIssues ([p. 328](#))
- NumberOfItems ([p. 329](#))
- NumberOfPages ([p. 329](#))
- NumberOfTracks ([p. 329](#))
- OperatingSystem ([p. 329](#))
- PackageQuantity ([p. 329](#))
- PartNumber ([p. 329](#))
- Platform ([p. 329](#))
- ProductGroup ([p. 330](#))
- ProductTypeSubcategory ([p. 330](#))
- PublicationDate ([p. 330](#))
- Publisher ([p. 330](#))
- RegionCode ([p. 330](#))
- ReleaseDate ([p. 331](#))
- RunningTime ([p. 331](#))
- SeikodoProductCode ([p. 331](#))
- Size ([p. 332](#))
- SKU ([p. 332](#))
- Studio ([p. 332](#))
- SubscriptionLength ([p. 332](#))
- Title ([p. 333](#))
- TradeInValue ([p. 334](#))
- UPC ([p. 334](#))
- UPCList ([p. 334](#))
 - UPCL ElementType ([p. 335](#))
- Warranty ([p. 335](#))
- WEEETaxValue ([p. 335](#))

ItemAttributes also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of ItemAttributes.

- None

Child Response Group

The following response groups are child response groups of ItemAttributes.

- None

Sample REST Use Case

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
Condition=All&  
ResponseGroup=ItemAttributes&  
SearchIndex=Blended&  
Keywords=GodSmack&  
Merchant=All&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by ItemAttributes.

```
<Item>  
  <ASIN>B000A2XB9U</ASIN>  
  <ItemAttributes>  
    <AudienceRating>NR (Not Rated)</AudienceRating>  
    <Director>Lawrence Jordan (II)</Director>  
    <Director>Daniel E. Catullo</Director>  
    <EAN>0014381273229</EAN>  
    <Format>Color</Format>  
    <Format>Compilation</Format>  
    <Format>NTSC</Format>  
    <Languages>  
      <Language>  
        <Name>English</Name>  
        <Type>Original Language</Type>  
      </Language>  
    </Languages>  
    <ListPrice>  
      <Amount>1999</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$19.99</FormattedPrice>  
    </ListPrice>  
    <NumberOfItems>1</NumberOfItems>  
    <ProductGroup>DVD</ProductGroup>  
    <ReleaseDate>2005-09-06</ReleaseDate>  
    <RunningTime Units="minutes">131</RunningTime>  
    <Studio>Image Entertainment</Studio>  
    <TheatricalReleaseDate>2005-06-25</TheatricalReleaseDate>  
    <Title>Rockin' the Corps</Title>  
    <UPC>014381273229</UPC>  
  </ItemAttributes>  
</Item>
```

ItemIds Response Group

The ItemIds response group returns the ASINs for all items returned in a response.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by ItemIds.

- [ASIN \(p. 319\)](#)
- [CorrectedQuery \(p. 321\)](#)
- [Keywords \(p. 326\)](#)
- [Message \(p. 328\)](#)
- [TotalPages \(p. 333\)](#)
- [TotalResults \(p. 333\)](#)

ItemIds also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of ItemIds.

- None

Child Response Group

The following response groups are child response groups of ItemIds.

- None

Sample REST Use Case

All locales.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=B000A3UB2O&  
ResponseGroup=ItemIds&  
Version=2013-08-01
```

```
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by ItemIds.

```
<TotalResults>1</TotalResults>  
<TotalPages>1</TotalPages>  
<Item>  
  <ASIN>0976925524</ASIN>  
</Item>  
</Items>
```

Large Response Group

The Large response group returns a great deal of information about items in the response. The Large response group is for demonstration purpose and is not suitable for production applications. Precise required response groups should always be used in applications to reduce latency and response size.

Large is a parent response group that returns the results of the following response groups:

- [Accessories \(p. 239\)](#)
- [BrowseNodes \(p. 244\)](#)
- [Medium \(p. 267\)](#)
- [Offers \(p. 279\)](#)
- [Reviews \(p. 291\)](#)
- [Similarities \(p. 299\)](#)
- [Tracks \(p. 304\)](#)

For more information about what is returned by each of these response groups, refer to their sections.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by Large.

- [Actor \(p. 318\)](#)
- [Amount \(p. 319\)](#)
- [Artist \(p. 319\)](#)
- [ASIN \(p. 319\)](#)
- [AspectRatio \(p. 319\)](#)
- [AudienceRating \(p. 319\)](#)

- [AudioFormat](#) (p. 319)
- [Author](#) (p. 319)
- [Binding](#) (p. 320)
- [Brand](#) (p. 320)
- [BrowseNodeId](#) (p. 320)
- [ClothingSize](#) (p. 321)
- [Color](#) (p. 321)
- [Creator](#) (p. 322)
- [CurrencyCode](#) (p. 322)
- [Department](#) (p. 322)
- [Director](#) (p. 322)
- [EAN](#) (p. 322)
- [Edition](#) (p. 323)
- [ISBN](#) (p. 323)
- [ESRBAgeRating](#) (p. 323)
- [Feature](#) (p. 323)
- [Format](#) (p. 324)
- [FormattedPrice](#) (p. 324)
- [Height](#) (p. 324)
- [IsAutographed](#) (p. 325)
- [ISBN](#) (p. 325)
- [IsMemorabilia](#) (p. 326)
- [IssuesPerYear](#) (p. 326)
- [Keywords](#) (p. 326)
- [Label](#) (p. 326)
- [LegalDisclaimer](#) (p. 327)
- [Length](#) (p. 327)
- [Manufacturer](#) (p. 327)
- [ManufacturerMaximumAge](#) (p. 327)
- [ManufacturerMinimumAge](#) (p. 327)
- [ManufacturerPartsWarrantyDescription](#) (p. 327)
- [MaterialType](#) (p. 327)
- [Message](#) (p. 328)
- [MetalType](#) (p. 328)
- [Model](#) (p. 328)
- [MPN](#) (p. 328)
- [NumberOfDiscs](#) (p. 328)
- [NumberOfIssues](#) (p. 328)
- [NumberOfItems](#) (p. 329)
- [NumberOfPages](#) (p. 329)
- [NumberOfTracks](#) (p. 329)
- [Platform](#) (p. 329)
- [ProductGroup](#) (p. 330)
- [PublicationDate](#) (p. 330)
- [Publisher](#) (p. 330)
- [RegionCode](#) (p. 330)

- [ReleaseDate](#) (p. 331)
- [Role](#) (p. 331)
- [RunningTime](#) (p. 331)
- [SalesRank](#) (p. 331)
- [Size](#) (p. 332)
- [SKU](#) (p. 332)
- [Source](#) (p. 332)
- [Studio](#) (p. 332)
- [SubscriptionLength](#) (p. 332)
- [Title](#) (p. 333)
- [TotalCollectible](#) (p. 333)
- [TotalUsed](#) (p. 334)
- [TotalNew](#) (p. 333)
- [TotalPages](#) (p. 333)
- [TotalRefurbished](#) (p. 333)
- [TotalResults](#) (p. 333)
- [Type](#) (p. 334)
- [UPC](#) (p. 334)
- [URL](#) (p. 335)
- [Warranty](#) (p. 335)
- [Weight](#) (p. 335)
- [Width](#) (p. 335)

Large also returns the elements that all response groups return, as described in [Elements Common to All Response Groups](#) (p. 317).

Parent Response Group

The following response groups are parent response groups of Large.

- None

Child Response Group

The following response groups are child response groups of Large.

- [Accessories](#) (p. 239)
- [BrowseNodes](#) (p. 244)
- [Medium](#) (p. 267)
- [Offers](#) (p. 279)
- [Reviews](#) (p. 291)
- [Similarities](#) (p. 299)
- [Tracks](#) (p. 304)

Sample REST Use Case

The following request shows the results of the Large response group.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=B000ESHHXG&  
ResponseGroup=Large&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by Large.

```
<Item>  
  <ASIN>B000A3UB20</ASIN>  
  <SalesRank>47589</SalesRank>  
  <SmallImage>  
    <URL>http://ec1.images-amazon.com/images/P/B000A3UB20.01-  
A3QXF272WQ86AH._SCTHUMBZZ_.jpg</URL>  
    <Height Units="pixels">75</Height>  
    <Width Units="pixels">75</Width>  
  </SmallImage>  
  <MediumImage>  
    <URL>http://ec1.images-amazon.com/images/P/B000A3UB20.01-  
A3QXF272WQ86AH._SCMZZZZZZ_.jpg</URL>  
    <Height Units="pixels">160</Height>  
    <Width Units="pixels">160</Width>  
  </MediumImage>  
  <LargeImage>  
    <URL>http://ec1.images-amazon.com/images/P/B000A3UB20.01-  
A3QXF272WQ86AH._SCLZZZZZZ_.jpg</URL>  
    <Height Units="pixels">450</Height>  
    <Width Units="pixels">450</Width>  
  </LargeImage>  
  <ImageSets>  
    <ImageSet Category="primary">  
      <SmallImage>  
        <URL>http://ec1.images-amazon.com/images/P/B000A3UB20.01-A3QXF272WQ86A  
H._SCTHUMBZZ_.jpg</URL>  
        <Height Units="pixels">75</Height>  
        <Width Units="pixels">75</Width>  
      </SmallImage>  
    ...  
  <ItemAttributes>  
    <Brand>Nixon</Brand>  
    <ProductGroup>Apparel</ProductGroup>  
    <Title>Nixon Rotolog Wood</Title>  
  </ItemAttributes>  
  <OfferSummary>  
    <LowestNewPrice>  
      <Amount>19999</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$199.99</FormattedPrice>  
    </LowestNewPrice>  
    <TotalNew>1</TotalNew>  
    <TotalUsed>0</TotalUsed>
```

```
<TotalCollectible>0</TotalCollectible>
<TotalRefurbished>0</TotalRefurbished>
</OfferSummary>
<Offers>
    <TotalOffers>0</TotalOffers>
    <TotalOfferPages>0</TotalOfferPages>
</Offers>
<EditorialReviews>
    <EditorialReview>
        <Source>Product Description</Source>
        <Content>Custom right read direct time. Japanese quartz with led. Custom
30 Meter stainless steel with hardened mineral crystal, white inlay and double
gasket crown. Custom solid stainless steel with white inlay and butterfly
closure.</Content>
    </EditorialReview>
</EditorialReviews>
<BrowseNodes>
    <BrowseNode>
        <BrowseNodeId>1045534</BrowseNodeId>
        <Name>Jewelry</Name>
        <Ancestors>
            <BrowseNode>
                <BrowseNodeId>1044486</BrowseNodeId>
                <Name>Girls</Name>
                <Ancestors>
                    <BrowseNode>
                        <BrowseNodeId>1044484</BrowseNodeId>
                        <Name>Children's Accessories</Name>
                        <Ancestors>
                            <BrowseNode>
                                <BrowseNodeId>1036700</BrowseNodeId>
                                <Name>Accessories</Name>
                                <Ancestors>
                                    <BrowseNode>
                                        <BrowseNodeId>1036682</BrowseNodeId>
                                        <Name>Departments</Name>
                                    <Ancestors>
                                    <BrowseNode>
                                        <BrowseNodeId>1036592</BrowseNodeId>
                                        <Name>Apparel</Name>
                                    </BrowseNode>
                                </Ancestors>
                            </BrowseNode>
                        </Ancestors>
                    </BrowseNode>
                </Ancestors>
            </BrowseNode>
        </Ancestors>
    </BrowseNode>
</BrowseNodes>
```

Medium Response Group

The Medium response group returns a great deal of information about the items in a response. The Medium response group is for demonstration purpose and is not suitable for production applications. Precise required response groups should always be used to reduce latency and response size.

Medium is a parent response group that returns the results of the following response groups:

- [EditorialReview \(p. 253\)](#)
- [Images \(p. 255\)](#)
- [ItemAttributes \(p. 257\)](#)
- [OfferSummary \(p. 283\)](#)
- [Request \(p. 289\)](#)
- [SalesRank \(p. 293\)](#)
- [Small \(p. 301\)](#)

For more information about what is returned by each of these response groups, refer to their sections.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by Medium.

- [Actor \(p. 318\)](#)
- [Amount \(p. 319\)](#)
- [Artist \(p. 319\)](#)
- [ASIN \(p. 319\)](#)
- [AspectRatio \(p. 319\)](#)
- [AudienceRating \(p. 319\)](#)
- [AudioFormat \(p. 319\)](#)
- [Author \(p. 319\)](#)
- [Binding \(p. 320\)](#)
- [Brand \(p. 320\)](#)
- [ClothingSize \(p. 321\)](#)
- [Color \(p. 321\)](#)
- [Creator \(p. 322\)](#)
- [CurrencyCode \(p. 322\)](#)
- [Department \(p. 322\)](#)
- [Director \(p. 322\)](#)
- [EAN \(p. 322\)](#)
- [Edition \(p. 323\)](#)
- [EISBN \(p. 323\)](#)

- ESRBAgeRating (p. 323)
- Feature (p. 323)
- Format (p. 324)
- FormattedPrice
- Height (p. 324)
- IsAutographed (p. 325)
- ISBN (p. 325)
- IsMemorabilia (p. 326)
- IssuesPerYear (p. 326)
- Keywords (p. 326)
- Label (p. 326)
- LegalDisclaimer (p. 327)
- Length (p. 327)
- Manufacturer (p. 327)
- ManufacturerMaximumAge (p. 327)
- ManufacturerMinimumAge (p. 327)
- ManufacturerPartsWarrantyDescription (p. 327)
- MaterialType (p. 327)
- Message (p. 328)
- MetalType (p. 328)
- Model (p. 328)
- MPN (p. 328)
- NumberOfDiscs (p. 328)
- NumberOfIssues (p. 328)
- NumberOfItems (p. 329)
- NumberOfPages (p. 329)
- NumberOfTracks (p. 329)
- Platform (p. 329)
- ProductGroup (p. 330)
- PublicationDate (p. 330)
- Publisher (p. 330)
- RegionCode (p. 330)
- ReleaseDate (p. 331)
- Role (p. 331)
- RunningTime (p. 331)
- SalesRank (p. 331)
- Size (p. 332)
- SKU (p. 332)
- Source (p. 332)
- Studio (p. 332)
- SubscriptionLength (p. 332)
- Title (p. 333)
- TotalCollectible (p. 333)
- TotalUsed (p. 334)
- TotalNew (p. 333)
- TotalPages (p. 333)

- TotalRefurbished (p. 333)
- TotalResults (p. 333)
- Type (p. 334)
- UPC (p. 334)
- URL (p. 335)
- Warranty (p. 335)
- Weight (p. 335)
- Width (p. 335)

Medium also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of Medium.

- Large (p. 262)

Child Response Group

The following response groups are child response groups of Medium.

- EditorialReview (p. 253)
- Images (p. 255)
- ItemAttributes (p. 257)
- OfferSummary (p. 283)
- Request (p. 289)
- SalesRank (p. 293)
- Small (p. 301)

Sample REST Use Case

The following request illustrates the XML response elements returned by Medium.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=1890966533&  
ResponseGroup=Medium&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by Medium.

```
<Item>  
  <ASIN>1890966533</ASIN>
```

```
<SalesRank>1738674</SalesRank>
<SmallImage>
    <URL>http://ec1.images-amazon.com/images/P/1890966533.01._SCTHUM
BZZZ_.jpg</URL>
    <Height Units="pixels">60</Height>
    <Width Units="pixels">40</Width>
</SmallImage>
<MediumImage>
    <URL>http://ec1.images-amazon.com/im
ages/P/1890966533.01._SCMZZZZZZ_.jpg</URL>
    <Height Units="pixels">140</Height>
    <Width Units="pixels">94</Width>
</MediumImage>
<ItemAttributes>
    <Author>Wayne G. Pardy</Author>
    <Binding>Paperback</Binding>
    <EAN>9781890966539</EAN>
    <Edition>Reprint</Edition>
    <ISBN>1890966533</ISBN>
    <ListPrice>
        <Amount>5995</Amount>
        <CurrencyCode>USD</CurrencyCode>
        <FormattedPrice>$59.95</FormattedPrice>
    </ListPrice>
    <NumberOfPages>185</NumberOfPages>
    <PackageDimensions>
        <Height Units="hundredths-inches">900</Height>
        <Length Units="hundredths-inches">75</Length>
        <Weight Units="hundredths-pounds">130</Weight>
        <Width Units="hundredths-inches">600</Width>
    </PackageDimensions>
    <ProductGroup>Book</ProductGroup>
    <PublicationDate>1999-05-19</PublicationDate>
    <Publisher>Safetycertified.Com Inc</Publisher>
    <Title>Safety Incentives: The Pros and Cons of Award and Recognition
Programs (Osha Compliance)</Title>
    </ItemAttributes>
    <OfferSummary>
        <TotalNew>0</TotalNew>
        <TotalUsed>0</TotalUsed>
        <TotalCollectible>0</TotalCollectible>
        <TotalRefurbished>0</TotalRefurbished>
    </OfferSummary>
    <EditorialReviews>
        <EditorialReview>
            <Source>Book Description</Source>
            <Content>Whether you are a small business or a safety manager trying
to decide whether or not awards and incentives are right for your operation,
the Safety Incentives Answer Book is must reading.
            </Content>
        </EditorialReview>
    </EditorialReviews>
</Item>
```

MostGifted Response Group

The MostGifted response group returns the ASINs and titles of the ten items given as gifts most within a specified browse node.

Availability

This response group is available in all locales.

Relevant Operations

Operations that can use this response group include:

- [BrowseNodeLookup \(p. 193\)](#)

Response Elements

The following table describes the elements returned by MostGifted. In the Ancestry column, the elements on the left side of a slash mark are the parents of the elements on the right side of the slash mark.

- [Actors \(p. 318\)](#)
- [Artist \(p. 319\)](#)
- [ASIN \(p. 319\)](#)
- [Authors \(p. 319\)](#)
- [ProductGroup \(p. 330\)](#)
- [Title \(p. 333\)](#)

MostGifted also returns the elements that all response groups return, which is described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of MostGifted.

- None

Child Response Group

The following response groups are child response groups of MostGifted.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by MostGifted.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=BrowseNodeLookup&
```

```
BrowseNodeId=20&
ResponseGroup=MostGifted&
Version=2013-08-01
&Timestamp=[ YYYY-MM-DDThh:mm:ssZ ]
&Signature=[ Request Signature ]
```

Sample Response Snippet

The following response snippet shows the elements returned by MostGifted.

```
<TopItemSet>
  <Type>MostGifted</Type>
  <TopItem>
    <ASIN>0553576399</ASIN>
    <Title>Distraction</Title>
    <ProductGroup>Book</ProductGroup>
    <Author>Bruce Sterling</Author>
  </TopItem>
  <TopItem>
    ....
    ....
  </TopItemSet>
```

MostWishedFor Response Group

The MostWishedFor response group returns the ASINs and titles of the ten items given as the items listed on the greatest number of wishlists within a specified browse node.

Availability

This response group is available in all locales.

Relevant Operations

Operations that can use this response group include:

- [BrowseNodeLookup \(p. 193\)](#)

Response Elements

The following table describes the elements returned by MostWishedFor.

- [Actors \(p. 318\)](#)
- [Artist \(p. 319\)](#)
- [ASIN \(p. 319\)](#)
- [Authors \(p. 319\)](#)
- [ProductGroup \(p. 330\)](#)
- [Title \(p. 333\)](#)

MostWishedFor also returns the elements that all response groups return, which is described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of MostWishedFor.

- None

Child Response Group

The following response groups are child response groups of MostWishedFor.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by MostWishedFor.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=BrowseNodeLookup&  
BrowseNodeId=20&  
ResponseGroup=MostWishedFor&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by MostWishedFor.

```
<TopItemSet>  
  <Type>MostWishedFor</Type>  
  <TopItem>  
    <ASIN>0553576399</ASIN>  
    <Title>Distraction</Title>  
    <ProductGroup>Book</ProductGroup>  
    <Author>Bruce Sterling</Author>  
  </TopItem>  
  <TopItem>  
    ....  
    ....  
  </TopItemSet>
```

NewReleases Response Group

The NewReleases response group returns the ASIN and title of newly released items in a specified browse node.

Availability

This response group is available in the US locale only.

Relevant Operations

Operations that can use this response group include:

- [BrowseNodeLookup \(p. 193\)](#)

Response Elements

The following table describes the elements returned by NewReleases.

- [Actors \(p. 318\)](#) for the Video search index
- [Artist \(p. 319\)](#) for the Music search index
- [ASIN \(p. 319\)](#)
- [Authors \(p. 319\)](#) for the Books search index
- [ProductGroup \(p. 330\)](#)
- [Title \(p. 333\)](#)
- [TopItemSet \(p. 333\)](#)

NewReleases also returns the elements that all response groups return, which is described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of NewReleases.

- None

Child Response Group

The following response groups are child response groups of NewReleases.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by NewReleases.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=BrowseNodeLookup&  
BrowseNodeId=4229&  
ResponseGroup=NewReleases&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by NewReleases.

```
<TopItemSet>
  <Type>NewReleases</Type>
  <TopItem>
    <ASIN>0553576399</ASIN>
    <Title>Distraction</Title>
    <ProductGroup>Book</ProductGroup>
    <Author>Bruce Sterling</Author>
  </TopItem>
  <TopItem>
    ....
    ....
  </TopItem>
```

OfferFull Response Group

The OfferFull response group returns comprehensive information about an offer. OfferFull is a parent response group that returns the results of the [Offers \(p. 279\)](#) response group.

Note

Not all merchants will have this data.

This response group is not returned for Amazon Kindle digital books. An Amazon Kindle ASIN can be verified through the *Binding*, *Format*, and *ProductTypeName* response elements.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by OfferFull.

- [Amount \(p. 319\)](#)
- [Availability \(p. 319\)](#)
- [Condition \(p. 321\)](#)
- [CurrencyCode \(p. 322\)](#)
- [FormattedPrice \(p. 324\)](#)
- [IsEligibleForSuperSaverShipping \(p. 325\)](#)
- [MoreOffersUrl \(p. 328\)](#)
- [Name \(p. 328\)](#)
- [OfferListingId \(p. 329\)](#)
- [TotalCollectible \(p. 333\)](#)
- [TotalNew \(p. 333\)](#)
- [TotalOfferPages \(p. 333\)](#)
- [TotalOffers \(p. 333\)](#)
- [TotalRefurbished \(p. 333\)](#)
- [TotalUsed \(p. 334\)](#)

OfferFull also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of OfferFull.

- None

Child Response Group

The following response groups are child response groups of OfferFull.

- [Offers \(p. 279\)](#)

Sample REST Use Case

The following request illustrates the XML response elements returned by OfferFull.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
Condition=All&  
SearchIndex=Books&  
Title=Harry%20Potter&  
ResponseGroup=OfferFull&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by OfferFull.

```
<Item>  
  <ASIN>0439682584</ASIN>  
  <OfferSummary>  
    <LowestNewPrice>  
      <Amount>2580</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$25.80</FormattedPrice>  
    </LowestNewPrice>  
    <LowestUsedPrice>  
      <Amount>1599</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$15.99</FormattedPrice>  
    </LowestUsedPrice>  
    <LowestCollectiblePrice>  
      <Amount>2580</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$25.80</FormattedPrice>  
    </LowestCollectiblePrice>  
  <TotalNew>40</TotalNew>
```

```
<TotalUsed>16</TotalUsed>
<TotalCollectible>3</TotalCollectible>
<TotalRefurbished>0</TotalRefurbished>
</OfferSummary>
<Offers>
<TotalOffers>0</TotalOffers>
<TotalOffers>1</TotalOffers>
<TotalOfferPages>0</TotalOfferPages>
<TotalOfferPages>1</TotalOfferPages>
<Offer>
<Merchant>
<Name>Amazon.com</Name>
</Merchant>
<OfferAttributes>
<Condition>New</Condition>
</OfferAttributes>
<OfferListing>
<OfferListingId>cMVuIFx8kiYSGRIJXiCzKZZyy1
wztVSAYV8vCo2OxHS8L9SB7lwho8fK6CxYkmdDPy8thFzm30Y%3D</OfferListingId>
<Price>
<Amount>2580</Amount>
<CurrencyCode>USD</CurrencyCode>
<FormattedPrice>$25.80</FormattedPrice>
</Price>
<Availability>Usually ships in 24 hours</Availability>
<IsEligibleForSuperSaverShipping>1</IsEligibleForSuperSaverShipping>
</OfferListing>
</Offer>
</Offers>
</Item>
```

OfferListings

The OfferListings response group returns the OfferListings for items returned in the response. The values returned are similar to those returned by the Offers response group minus the values returned by the OfferSummary response group. OfferListings returns shipping options, including *IsEligibleForSuperSavingShipping* which specifies whether the item qualifies for super saver shipping.

Note

This response group is not returned for Amazon Kindle digital books. An Amazon Kindle ASIN can be verified through the *Binding*, *Format*, and *ProductTypeName* response elements.

Relevant Operations

Operations that can use this response group include:

- ItemLookup
- ItemSearch
- SimilarityLookup

Response Elements

The following table describes and shows the parentage of the elements returned by OfferListings. In the Ancestry column, the elements on the left side of a slash mark are the parents of the elements on the right side of the slash mark.

- [Amount \(p. 319\)](#)
- [Availability \(p. 319\)](#)
- [Code \(p. 321\)](#)
- [Condition \(p. 321\)](#)
- [CurrencyCode \(p. 322\)](#)
- [FormattedPrice \(p. 324\)](#)
- [IsEligibleForPrimeFreeDigitalVideo \(p. 325\)](#)
- [IsEligibleForSuperSaverShipping \(p. 325\)](#)
- [MoreOffersUrl \(p. 328\)](#)
- [Name \(p. 328\)](#)
- [OfferListingId \(p. 329\)](#)
- [TotalOfferPages \(p. 333\)](#)
- [TotalOffers \(p. 333\)](#)

OfferListings also returns the elements that all response groups return, which described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of OfferListings.

- None

Child Response Group

The following response groups are children response groups of OfferListings.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by OfferListings.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
AssociateTag=[Associate ID]&  
Operation=ItemSearch&  
Keywords=sports&  
ResponseGroup=OfferListings&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by OfferListings.

```
<Item>
  <ASIN>B000AYGDIO</ASIN>
  <Offers>
    <TotalOffers>18</TotalOffers>
    <TotalOfferPages>2</TotalOfferPages>
    <Offer>
      <OfferAttributes>
        <Condition>New</Condition>
      </OfferAttributes>
      <OfferListing>
        <OfferListingId>
          pBmLD7%2F4J7zqIMjOLpQI5pk0774zf%2BsvrzG4JR92xLmC%
        </OfferListingId>
        <Price>
          <Amount>24700</Amount>
          <CurrencyCode>USD</CurrencyCode>
          <FormattedPrice>$247.00</FormattedPrice>
        </Price>
        <Availability>Usually ships in 1-2 business days</Availability>
        <IsEligibleForSuperSaverShipping>0</IsEligibleForSuperSaverShipping>
      </OfferListing>
    </Offer>
    <!-- 9 ADDITIONAL OFFERS -->
  </Offers>
</Item>
```

Offers Response Group

The Offers response group is a parent response group that returns the contents of the [OfferSummary Response Group \(p. 283\)](#) response group plus, by default, offer listing information. The Offers response group can take *Condition* and *MerchantId* as an optional input parameter. By default, the offer for Buy Box winner is returned, which is an item listed in the box on an item's detail page that enables you to add an item to a shopping cart.

The only valid values for *MerchantId* are Amazon, to get the Amazon offer for an item if it exists, and All, which is the default value. For reasons of reverse compatibility, the Offers response group ignores a *MerchantID* value of Featured or Featured Buy Box Winner and returns the default value.

The following table shows the expected behavior of the Offers response group for various input parameters:

Optional Input Parameters		Offer(s) Data Returned by the API
(Default)	(Default)	Buy Box Winner if it exists [OR] Lowest priced new offer.
(Default)	Amazon	Amazon offer
(Default)	Any other value	Error: invalid value
Used, New, Refurbished, or Collectible	(Default) or All	Lowest priced offer for given condition

Optional Input Parameters		Offer(s) Data Returned by the API
Used, New, Refurbished, or Collectible	Amazon	Amazon offer
Used, New, Refurbished, or Collectible	Any other value	Error: invalid value
All	(Default)	Lowest priced offer for each condition
All	Amazon	Amazon offer
(Default)	Any other value	Error: invalid value

This response group is not returned for Amazon Kindle digital books. An Amazon Kindle ASIN can be verified through the *Binding*, *Format*, and *ProductTypeName* response elements.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by Offers.

- [Amount \(p. 319\)](#)
- [Availability \(p. 319\)](#)
- [Condition \(p. 321\)](#)
- [CurrencyCode \(p. 322\)](#)
- [FormattedPrice \(p. 324\)](#)
- [IsEligibleForPrimeFreeDigitalVideo \(p. 325\)](#)
- [IsEligibleForSuperSaverShipping \(p. 325\)](#)
- [LoyaltyPoints \(p. 327\)](#)
- [MoreOffersUrl \(p. 328\)](#)
- [Name \(p. 328\)](#)
- [OfferListingId \(p. 329\)](#)
- [TotalCollectible \(p. 333\)](#)
- [TotalNew \(p. 333\)](#)
- [TotalOfferPages \(p. 333\)](#)
- [TotalOffers \(p. 333\)](#)
- [TotalRefurbished \(p. 333\)](#)
- [TotalUsed \(p. 334\)](#)

Offers also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Loyalty Points

In the JP locale only, loyalty points are returned. Loyalty points are used to encourage patronage and stimulate sales.

Parent Response Group

The following response groups are parent response groups of Offers.

- [OfferFull \(p. 275\)](#)

Child Response Group

The following response groups are child response groups of Offers.

- [OfferSummary \(p. 283\)](#)

Sample REST Use Case

The following request illustrates the XML response elements returned by Offers.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE&  
Operation=ItemSearch&  
Condition=All&  
SearchIndex=Books&  
Title=Harry%20Potter&  
ResponseGroup=Offers&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by Offers.

```
<Item>  
  <ASIN>047061529X</ASIN>  
  <OfferSummary>  
    <LowestNewPrice>  
      <Amount>1025</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$10.25</FormattedPrice>  
    </LowestNewPrice>  
    <LowestUsedPrice>  
      <Amount>1110</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$11.10</FormattedPrice>  
    </LowestUsedPrice>  
    <TotalNew>37</TotalNew>  
    <TotalUsed>12</TotalUsed>  
    <TotalCollectible>0</TotalCollectible>  
    <TotalRefurbished>0</TotalRefurbished>
```

```
</OfferSummary>
<Offers>
    <TotalOffers>2</TotalOffers>
    <TotalOfferPages>1</TotalOfferPages>
    <MoreOffersUrl>http://www.amazon.com/gp/offer-listing/047061529X/?SubscriptionId=AKIAI44QH8DHBEXAMPLE&ie=UTF8&tag=adrpik-20&creative=386001&camp=2025&linkCode=xm2 </MoreOffersUrl>
        <Offer>
            <OfferAttributes>
                <Condition>New</Condition>
            </OfferAttributes>
            <OfferListing>
                <OfferListingId>6vZH%2FR4dOoabV7sTSv3vC0Np5xK1c8MKOhA15HYbCIJhxOLlJw1O2AM6mLYyVhjnI8s2gMkx7yq%2F%2BEC7yKPWkQTqhVhFBeUDm71EdpaYwrXpppfcAL1yPzyQFkOuK6MsK8aLPSNSVs%3D </OfferListingId>
                <Price>
                    <Amount>1025</Amount>
                    <CurrencyCode>USD</CurrencyCode>
                    <FormattedPrice>$10.25</FormattedPrice>
                </Price>
                <AmountSaved>
                    <Amount>974</Amount>
                    <CurrencyCode>USD</CurrencyCode>
                    <FormattedPrice>$9.74</FormattedPrice>
                </AmountSaved>
                <PercentageSaved>49</PercentageSaved>
                <Availability>Usually ships in 1-2 business days</Availability>
                <AvailabilityAttributes>
                    <AvailabilityType>now</AvailabilityType>
                    <MinimumHours>24</MinimumHours>
                    <MaximumHours>48</MaximumHours>
                </AvailabilityAttributes>
                <IsEligibleForSuperSaverShipping>0</IsEligibleForSuperSaverShipping>
            </OfferListing>
        </Offer>
        <Offer>
            <OfferAttributes>
                <Condition>Used</Condition>
            </OfferAttributes>
            <OfferListing>
                <OfferListingId>uXUlLeu7rH5t3ogkZJ%2Bd11tWCsdsj5kHhjoscRF1D1GuBuDwCyrz0XYR%2BTEOJO7PgpfwLjtX4ojhbXeHZgM0Br4DiWsPhNZTduzvYC8zLgG0z1e%2FgYiieuR0wTyKqssY6ncHyVjZK1A%3D </OfferListingId>
                <Price>
                    <Amount>1110</Amount>
                    <CurrencyCode>USD</CurrencyCode>
                    <FormattedPrice>$11.10</FormattedPrice>
                </Price>
                <AmountSaved>
                    <Amount>889</Amount>
                    <CurrencyCode>USD</CurrencyCode>
                    <FormattedPrice>$8.89</FormattedPrice>
                </AmountSaved>
                <PercentageSaved>44</PercentageSaved>
                <Availability>Usually ships in 1-2 business days</Availability>
                <AvailabilityAttributes>
                    <AvailabilityType>now</AvailabilityType>
```

```
<MinimumHours>24</MinimumHours>
<MaximumHours>48</MaximumHours>
</AvailabilityAttributes>
<IsEligibleForSuperSaverShipping>0</IsEligibleForSuperSaverShipping>
</OfferListing>
</Offer>
</Offers>
</Item>
```

The Request that Generated the Response (REST)

```
http://webservices.amazon.com/onca/xml?
Service=AWSECommerceService&
AWSAccessKeyId=[AWS Access Key ID]
AssociateTag=[Associate ID]
Operation=ItemLookup&
ItemId=B000AYGDIO&
ResponseGroup=Offers
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

OfferSummary Response Group

The [OfferSummary \(p. 283\)](#) response group returns, for each item in the response, the number of offer listings and the lowest price for each condition type. Condition types are New, Used, Collectible, and Refurbished. So, for example, this response group returns the lowest price for each Condition:

- New item
- Used item
- Collectible item
- Refurbished item

Individual offer listings are not returned. The OfferSummary is dependent only on the ASIN parameter and is not affected by the [MerchantId \(p. 328\)](#) or [Condition \(p. 321\)](#) parameters (i.e. the OfferSummary will always be the same for a given ASIN independent of other parameters).

Note

This response group is not returned for Amazon Kindle digital books. An Amazon Kindle ASIN can be verified through the *Binding*, *Format*, and *ProductTypeName* response elements.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by OfferSummary.

- [Amount \(p. 319\)](#)

- CurrencyCode (p. 322)
- FormattedPrice (p. 324)
- TotalCollectible (p. 333)
- TotalNew (p. 333)
- TotalRefurbished (p. 333)
- TotalUsed (p. 334)

OfferSummary also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of OfferSummary.

- Offers (p. 279)

Child Response Group

The following response groups are child response groups of OfferSummary.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by OfferSummary.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=B000A3UB20&  
ResponseGroup=OfferSummary&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by OfferSummary.

```
<OfferSummary>  
  <LowestNewPrice>  
    <Amount>801</Amount>  
    <CurrencyCode>USD</CurrencyCode>  
    <FormattedPrice>$8.01</FormattedPrice>  
  </LowestNewPrice>  
  <LowestUsedPrice>  
    <Amount>799</Amount>  
    <CurrencyCode>USD</CurrencyCode>  
    <FormattedPrice>$7.99</FormattedPrice>  
  </LowestUsedPrice>  
  <TotalNew>45</TotalNew>
```

```
<TotalUsed>20</TotalUsed>
<TotalCollectible>0</TotalCollectible>
<TotalRefurbished>0</TotalRefurbished>
</OfferSummary>
```

PromotionSummary Response Group

The PromotionSummary response group returns summary information about a promotion, including the type of promotion, the promotion ID, eligibility requirements, and text that describes the specifics of the promotion.

PromotionSummary must be used along with one of the following response groups:

- Large
- OfferFull
- Offers

An error is returned if ProductDetails is not accompanied by one of these response groups.

Promotion Types

Promotion types are returned by the Category element and include:

- **ForEachQuantityXGetQuantityFreeX**—For a specified number of items, you receive additional items for free. For example, buy six dozen eggs and get a dozen eggs free.
- **BuyAmountXGetSimpleShippingFreeX**—For a specified dollar amount, you receive free shipping. For example, spend \$25 and your item is shipped free of charge.
- **BuyAmountXGetAmountOffX**—For a specified dollar amount, you receive a discounted price. For example, spend \$25 and get a \$5 discount.

Relevant Operations

Operations that can use this response group include:

- ItemLookup
- ItemSearch
- SimilarityLookup

Response Elements

The following table describes and shows the parentage of the elements returned by PromotionSummary.

With the exception of Promotions, Promotion, and Summary, the ancestry of all elements in the table are Offers/Offer/Promotions/Promotion/Summary.

- BenefitDescription (p. 320)
- Category (p. 321)
- EligibilityRequirementDescription (p. 323)
- Promotion (p. 330)
- PromotionId (p. 330)
- Promotions (p. 330)

- [Summary \(p. 332\)](#)
- [TermsAndConditions \(p. 332\)](#)

PromotionSummary also returns the elements that all response groups return, which described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of PromotionSummary.

- None

Child Response Group

The following response groups are children response groups of PromotionSummary.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by PromotionSummary.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
Operation=ItemLookup&  
ContentType=text/xml&  
AWSAccessKeyId=[AWS Access Key ID]&  
ItemId=B000AQSMPO&  
IdType=ASIN&  
ResponseGroup=Offers,PromotionSummary&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by PromotionSummary.

```
<Promotions>  
  <Promotion>  
    <Summary>  
      <PromotionId>A2QIQTNOFYRK5N</PromotionId>  
      <Category>BuyAmountXGetAmountOffX</Category>  
      <EligibilityRequirementDescription>Save $25.00 when you spend $125.00 or  
more on Kitchen & Housewares or Bed & Bath products offered by Amazon.com. Enter  
code AUGSAVER at checkout.</EligibilityRequirementDescription>  
      <BenefitDescription>Save $25.00 when you spend $125.00 or more on Kitchen  
& Housewares or Bed & Bath products offered by Amazon.com. Enter code AUGSAVER  
at checkout.</BenefitDescription>  
      <TermsAndConditions><STRONG>To receive the Best Value discount:</STRONG>  
<OL> <LI>Add $125 of qualifying Kitchen & Housewares or Bed & Bath products  
to your Shopping Cart via the <STRONG>Add to Shopping Cart</STRONG> button on  
each respective product information page. <LI>At checkout, enter the promotional
```

code and click the **Apply** button. **The amount of the Best Value savings (\$25) will be reflected on the final order checkout page.** If you remove any of the participating promotion items from your Shopping Cart or violate any of the terms and conditions listed below, the promotion will be invalid, and the discount will be removed from the order. If you return any of the items involved in the promotion, the discount previously applied to the order will be subtracted from the return credit.

Terms and Conditions:

Promotional offer valid for a limited time only. Items placed in Shopping Cart overnight may not be eligible for promotion at time of checkout. Promotion applies only to qualifying items displaying the offer message on their product information pages. Items that do not display the offer message do not qualify, regardless of the nature of the item. All All Clad, Calphalon, Capresso, Emerilware, Le Creuset, Orrefors, Kosta Boda, J.A. Henckels, Wusthof, Riedel, Marquis, Shun, Komachi, Waterford, Weber, Tassimo, Margaritaville, DKNY, Tommy Hilfiger, Nautica, Oscar by Oscar de Larenta, Cath Kidston, Raymond Waites, and KitchenAid Proline products are excluded from this offer. All Furniture & Decor and Outdoor Living products are excluded from this offer. Applies only to products sold by the merchant indicated in the promotional offer message. Does not apply to items sold by other merchants on the Amazon.com Web site. For example, where the promotional offer applies to items offered by Amazon.com, items offered by other merchants on the Amazon.com Web site (e.g. Land's End) do not qualify. Does not apply to any products purchased in Amazon.com's other sites, including Amazon.co.uk, Amazon.de, Amazon.fr, or Amazon.co.jp, or in Marketplace, zShops, or Auctions. Unless the offer message indicates otherwise, the promotional offer applies to the lowest priced qualifying item(s) Applies only when all qualifying and benefit products in the promotion are purchased in one order. Applies only to complete orders shipping to a single address that meet all other promotional requirements. Offer good while supplies last. No substitutions or rain checks. Offer must be redeemed through the Shopping Cart. Does not apply to orders placed with 1 Click. Shipping and handling charges apply to all products, including bonus items. Offer may not be combined with other offers, including promotional certificates. Void where prohibited. </TermsAndConditions>

</Summary>

</Promotion>

</Promotions>

RelatedItems Response Group

The *RelatedItems* response group returns items related to an item specified in an [ItemLookup \(p. 217\)](#) request. Related items could be, for example, all of the Unbox episodes in a TV season that are sold separately, or, for example, all of the MP3Download tracks on a MP3 album.

The data returned for *RelatedItems* is limited to ASINs and ItemAttributes. This remains true even if you add additional response groups, such as Large, that would otherwise return additional data.

The relationship between items is unidirectional. One item is the parent and one item is the child. Items, however, can have multiple children or multiple parents for a given relationship type.

The way in which the items are related is specified by the *RelationshipType* parameter. This parameter is required when you use the *RelatedItems* response group. Some values include Episode, Season, Tracks, and Variation. For a list of all relationship types, go to the [ItemLookup \(p. 217\)](#) page.

The relationship type is usually named after the child item in the relationship. For example, an MP3 Track is related to an MP3 album and the type of relationship is Tracks. In this relationship, the album is the parent. If you did an *ItemLookup* for an MP3 Track and requested *RelatedItems* using Tracks as the

RelationshipType, you would receive the parent album (or albums) for that Track. Conversely, looking up an album using Tracks as the *RelationshipType* returns the list of Tracks on that album.

Each `ItemLookup` request can return, at most, ten related items. To return additional items, use the `RelatedItemsPage` parameter. A value of 2, for example, returns the second set of ten related items.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)

Response Elements

The following elements are returned by `RelatedItems`:

- [ItemAttributes \(p. 326\)](#)
- [RelatedItems \(p. 330\)](#)

`RelatedItems` also returns the elements that all response groups return. For more information, go to [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of `RelatedItems`.

- None

Child Response Group

The following response groups are child response groups of `RelatedItems`.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by `RelatedItems`.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
RelationshipType=Tracks&  
ItemId=B0013D8EQK&  
ItemType=ASIN&  
ResponseGroup=RelatedItems,Small&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by RelatedItems.

```
<Item>
<ASIN>B0013D8EQK</ASIN>
<ItemAttributes>
    <Creator Role="Primary Contributor">Johnny Cash</Creator>
    <Manufacturer>Columbia/Legacy</Manufacturer>
    <ProductGroup>Digital Music Album</ProductGroup>
    <Title>At San Quentin</Title>
</ItemAttributes>
<RelatedItems>
    <Relationship>Children</Relationship>
    <RelationshipType>Tracks</RelationshipType>
    <RelatedItemCount>31</RelatedItemCount>
    <RelatedItemPageCount>4</RelatedItemPageCount>
    <RelatedItemPage>1</RelatedItemPage>
    <RelatedItem>
        <Item>
            <ASIN>B0013D4KJK</ASIN>
            <ItemAttributes>
                <Creator Role="Primary Contributor">Johnny Cash</Creator>
                <Manufacturer>Columbia/Legacy</Manufacturer>
                <ProductGroup>Digital Music Track</ProductGroup>
                <Title>The Long Black Veil/Give My Love To Rose (Live)</Title>
            </ItemAttributes>
        </Item>
    </RelatedItem>
    <RelatedItem>
        <Item>
            <ASIN>B0013D7VG4</ASIN>
            <ItemAttributes>
                <Creator Role="Primary Contributor">Johnny Cash</Creator>
                <Manufacturer>Columbia/Legacy</Manufacturer>
                <ProductGroup>Digital Music Track</ProductGroup>
                <Title>Folsom Prison Blues (Live)</Title>
            </ItemAttributes>
        </Item>
    </RelatedItem>
    ...
</RelatedItems>
</Item>
```

Request Response Group

The Request response group returns all of the parameters and their values that were submitted in a request. Use this information to debug requests.

All Product Advertising API operations return this response group by default. There can be up to ten parameters in each request.

Relevant Operations

Operations that can use this response group include:

- All Product Advertising API operations use the Request response group by default.

Response Elements

The following table describes the elements returned by Request. These elements are returned in all Product Advertising API responses because the Request response group is a default response group for all Product Advertising API operations.

- [Code \(p. 321\)](#)
- [IsValid \(p. 326\)](#)
- [Message \(p. 328\)](#)
- [Name \(p. 328\)](#)
- [RequestId \(p. 331\)](#)
- [UserAgent \(p. 335\)](#)

Parent Response Group

The following response groups are parent response groups of Request.

- None

Child Response Group

The following response groups are child response groups of Request.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by Request.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
SearchIndex=Books&  
Title=Harry%20Potter&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by Request.

```
<OperationRequest>  
  <HTTPHeaders>  
    <Header Name="UserAgent" Value="Mozilla/4.0 (compatible; MSIE 6.0; Windows  
NT 5.1; SV1; FunWebProducts; .NET CLR 1.1.4322; .NET CLR 2.0.50727)" />  
  </HTTPHeaders>  
  <RequestId>00KE1E5MWR4KXX0V1WYD</RequestId>  
  <Arguments>  
    <Argument Name="SearchIndex" Value="Books" />
```

```
<Argument Name="Service" Value="AWSECommerceService" />
<Argument Name="Title" Value="Harry Potter" />
<Argument Name="Operation" Value="ItemSearch" />
<Argument Name="AWSAccessKeyId" Value="[VALUE]" />
<Argument Name="Version" Value="2013-08-01" />
</Arguments>
<RequestProcessingTime>
  0.3419508934021
</RequestProcessingTime>
</OperationRequest>
<Items>
  <Request>
    <IsValid>True</IsValid>
    <ItemSearchRequest>
      <SearchIndex>Books</SearchIndex>
      <Title>Harry Potter</Title>
    </ItemSearchRequest>
  </Request>

```

Reviews Response Group

The reviews response group returns the URL to an iframe that contains customer reviews. You can embed the iframe on any web page to display the response content. Only the iframe URL is returned in the request content.

Important

Each iframe URL is valid for 24 hours. If the iframe URL expires, you will receive a 403 Forbidden error code.

For more information about reviews, see [Getting Customer Reviews \(p. 139\)](#).

Each customer review contains the following:

- Rating
- Summary
- Date of review
- Text of the review

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following elements are returned by Reviews:

- [IFrameURL \(p. 325\)](#)

Reviews also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of Reviews.

- None

Child Response Group

The following response groups are child response groups of Reviews.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by Reviews.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=0316067938&  
ResponseGroup=Reviews&  
TruncateReviewsAt="256" &  
IncludeReviewsSummary="False" &  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by Reviews.

```
<ItemLookupResponse>  
  <OperationRequest>  
    <RequestId>[Request ID]</RequestId>  
    <Arguments>  
      <Argument Name="Operation" Value="ItemLookup"/>  
      <Argument Name="Service" Value="AWSECommerceService"/>  
      <Argument Name="ItemId" Value="0316067938"/>  
      <Argument Name="TruncateReviewsAt" Value="256"/>  
      <Argument Name="AWSAccessKeyId" Value="[AWS Access Key ID]"/>  
      <Argument Name="IncludeReviewsSummary" Value="False"/>  
      <Argument Name="ResponseGroup" Value="Reviews"/>  
      <Argument Name="Version" Value="2013-08-01"/>  
    </Arguments>  
    <RequestProcessingTime>0.0416880000000000</RequestProcessingTime>  
  </OperationRequest>  
  <Items>  
    <Item>  
      <ASIN>0316067938</ASIN>  
      <CustomerReviews>
```

```
<IFrameURL>http://www.amazon.com/reviews/iframe?akid=[AWS Access Key  
ID]&asin=0316067938&exp=2011-08-01T17%3A54%3A07Z&linkCode=xm2&sum  
mary=0&tag=ws&truncate=256&v=2&sig=[Signature]</IFrameURL>  
</CustomerReviews>  
</Item>  
</Items>  
</ItemLookupResponse>
```

SalesRank Response Group

The [SalesRank \(p. 293\)](#) response group returns the sales rank for each item in the response. One is the highest rating; a large number means the item has not sold well. Sales rank is per Search Index so it is possible to have several items in one response ranked, for example, as 1.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by SalesRank.

- [ASIN \(p. 319\)](#)
- [SalesRank \(p. 331\)](#)
- [TotalPages \(p. 333\)](#)
- [TotalResults \(p. 333\)](#)

SalesRank also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of SalesRank.

- None

Child Response Group

The following response groups are child response groups of SalesRank.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by SalesRank.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=0976925524&  
ResponseGroup=SalesRank&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by SalesRank.

```
<Item>  
  <ASIN>0976925524</ASIN>  
  <SalesRank>68</SalesRank>  
</Item>
```

SearchBins Response Group

The SearchBins response group groups the items returned by [ItemSearch \(p. 223\)](#) into bins. A set of bins, for example, can be a set of price ranges for a product. In the case of women's shoes, for example, you might have a bin that returns ASINs for shoes that cost between \$0 and \$50, a second bin for shoes that cost \$50 to \$100, and a third bin for shoes that cost more than \$100. The basis on which the items are split into bins is specified by the [NarrowBy \(p. 294\)](#) attribute in the SearchBinSet tag. To refine the search, you make repeated requests using the [NarrowBy \(p. 294\)](#) values.

[ItemSearch](#) returns the first twenty-five bins of results.

For more information about search bins, see [Using Search Bins to Find Items \(p. 95\)](#).

Availability

US locale only.

NarrowBy

The basis on which the items are split into bins is specified by the [NarrowBy \(p. 294\)](#) attribute in the [SearchBinSet \(p. 331\)](#) tag. In the following example, the [NarrowBy \(p. 294\)](#) attribute shows that the bins are based on price range:

```
<SearchBinSet NarrowBy="PriceRange">
```

For another product category, the [NarrowBy \(p. 294\)](#) attribute might be different, for example:

```
<SearchBinSet NarrowBy="BrandName">
```

You cannot specify [NarrowBy \(p. 294\)](#) values nor can you specify the values they encompass. When SearchBins is included as a Response Group in a request, [ItemSearch](#) automatically divides the [ItemSearch](#) results into bins.

NarrowBy Values

NarrowBy values include:

- Subject—BrowseNode IDs of all topics related to items returned by `ItemSearch`. For example, searching for books about dogs returns, in the Subject bins, BrowseNodes for "Home & Garden," "Animal Care & Pets," "Dogs," and "Educational."
- BrandName—Brands, such as Levi's, Reebok, and Nike, that create the item. Use the name of a brand to filter out similar items made by other companies.
- PriceRange—Minimum and maximum prices for a bin of items. Use the minimum and maximum price values in each bin to filter out items outside of the price range you want.
- PercentageOff—Percentage off required on items returned. Use the values returned with `MinPercentageOff` key to refine the results

All Search Indices return the Subject bin. Most return all of the bins.

NarrowBy Values by Search Index

The following list shows which NarrowBy values are returned by each Search Index:

- Apparel—Subject, BrandName, PriceRange, PercentageOff
- Appliances—Subject, BrandName, PriceRange, PercentageOff
- ArtsAndCrafts—Subject, BrandName, PriceRange, PercentageOff
- Automotive—Subject, BrandName, PriceRange, PercentageOff
- Baby—Subject, BrandName, PriceRange, PercentageOff
- Beauty—Subject, BrandName, PriceRange, PercentageOff
- Blended—Not supported
- Books—Subject
- Classical—Subject
- DigitalMusic—Subject
- DVD—Subject
- Electronics—Subject, BrandName, PriceRange
- GourmetFood—Subject, BrandName, PriceRange
- Grocery—Subject, BrandName, PriceRange
- HealthPersonalCare—Subject, BrandName, PriceRange, PercentageOff
- HomeGarden—Subject, BrandName, PriceRange, PercentageOff
- Industrial—Subject, BrandName
- Jewelry—Subject, PriceRange, PercentageOff
- KindleStore—Subject
- Kitchen—Subject, BrandName, PriceRange, PercentageOff
- Magazines—Subject
- Miscellaneous—BrandName, PriceRange, PercentageOff
- MobileApps—Subject, PriceRange
- MP3Downloads—Subject
- Music—Subject
- MusicalInstruments—Subject, BrandName, PriceRange, PercentageOff
- MusicTracks—Subject
- OfficeProducts—Subject, BrandName, PriceRange, PercentageOff
- OutdoorLiving—Subject, BrandName, PriceRange, PercentageOff

- PCHardware—Subject, BrandName, PriceRange
- PetSupplies—Subject, BrandName, PriceRange, PercentageOff
- Photo—Subject, BrandName, PriceRange
- Shoes—Subject, BrandName, PriceRange, PercentageOff
- Software—Subject, PriceRange, PercentageOff
- SportingGoods—Subject, BrandName, PriceRange, PercentageOff
- Tools—Subject, BrandName, PriceRange, PercentageOff
- Toys—Subject, BrandName, PriceRange, PercentageOff
- UnboxVideo—Subject, PriceRange
- VHS—Subject
- Video—Subject
- VideoGames—Subject, BrandName, PriceRange
- Watches—Subject, BrandName, PriceRange, PercentageOff
- Wireless—Subject, PriceRange, PercentageOff
- WirelessAccessories—Subject, PriceRange, PercentageOff

Element Tags in a Bin

The element tags in a bin vary according to the bin. For example, in bins based on price, the elements and Name values are:

```
<BinName>
<BinItemCount>
<BinParameter>
    <Name>MinimumPrice</Name>
    <Value>
<BinParameter>
    <Name>MaximumPrice</Name>
    <Value>
```

The elements show the minimum and maximum price for items in that bin, and the number of items in that bin.

Other NarrowBy values use other element tags in their bins. For example, when NarrowBy is “Brand,” the element tags and Name values are:

```
<Bin>
<BinName>
<BinItemCount>
<BinParameter>
    <Name>Brand</Name>
    <Value>
```

You cannot specify the element tags returned in a bin.

Drilling Down

You can take the values in a bin and add them to the ItemSearch query to filter out of the response items that are outside of that bin. To narrow the search results to shirts that cost between \$0 and \$25, for example, you would add the following Name and its corresponding value as additional parameters in the original ItemSearch request:

```
&MinimumPrice=0  
&MaximumPrice=2499
```

You could narrow the search results even further by adding an additional parameter to the query. For example, you could specify

```
&Brand=Levi's
```

The response would then only include shirts by Levi's that cost under \$25. You could continue to drill down by adding additional parameters to the request.

Notice that in each case the results were narrowed down by adding the value tagged with Name and its corresponding value to the original ItemSearch request.

Relevant Operations

Operations that can use this response group include:

- [ItemSearch \(p. 223\)](#)

Response Elements

The following table describes the elements returned by SearchBins.

- [BinItemCount \(p. 320\)](#)
- [BinName \(p. 320\)](#)
- [Name \(p. 328\)](#)
- [SearchBinSets \(p. 331\)](#)

SearchBins also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of SearchBins.

- None

Child Response Group

The following response groups are child response groups of SearchBins.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by SearchBins.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&
```

```
AWSAccessKeyId=[AWS Access Key ID]&
Operation=ItemSearch&
Condition=All&
SearchIndex=SportingGoods&
Keywords=Glove&
ResponseGroup=SearchBins&
Version=2013-08-01
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by SearchBins.

```
<Item>
    <ASIN>B00005R2GR</ASIN>
</Item>
<Item>
    <ASIN>B00076ZDV8</ASIN>
</Item>
<Item>
    <ASIN>B00092FEEG</ASIN>
</Item>
<Item>
    <ASIN>B000ADTP1W</ASIN>
</Item>
<SearchBinSets>
    <SearchBinSet NarrowBy="PriceRange">
        <Bin>
            <BinName>$25-$49</BinName>
            <BinItemCount>316</BinItemCount>
            <BinParameter>
                <Name>MinimumPrice</Name>
                <Value>2500</Value>
            </BinParameter>
            <BinParameter>
                <Name>MaximumPrice</Name>
                <Value>4999</Value>
            </BinParameter>
        </Bin>
    </SearchBinSet>
    <Bin>
        <BinName>$0-$24</BinName>
        <BinItemCount>280</BinItemCount>
        <BinParameter>
            <Name>MinimumPrice</Name>
            <Value>0</Value>
        </BinParameter>
        <BinParameter>
            <Name>MaximumPrice</Name>
            <Value>2499</Value>
        </BinParameter>
    </Bin>
</SearchBinSet>

<SearchBinSet NarrowBy="BrandName">
    <Bin>
```

```
<BinName>Rawlings</BinName>
<BinItemCount>71</BinItemCount>
<BinParameter>
  <Name>Brand</Name>
  <Value>Rawlings</Value>
</BinParameter>
</Bin>
<Bin>
  <BinName>Body Glove</BinName>
  <BinItemCount>53</BinItemCount>
<BinParameter>
  <Name>Brand</Name>
  <Value>Body Glove</Value>
</BinParameter>
</Bin>
</SearchBinSet>

<SearchBinSet NarrowBy="Subject">
<Bin>
  <BinName>Categories</BinName>
  <BinItemCount>860</BinItemCount>
<BinParameter>
  <Name>BrowseNode</Name>
  <Value>3375301</Value>
</BinParameter>
</Bin>
<Bin>
  <BinName>Baseball</BinName>
  <BinItemCount>311</BinItemCount>
<BinParameter>
  <Name>BrowseNode</Name>
  <Value>3395731</Value>
</BinParameter>
</Bin>
</SearchBinSet>
```

Notice that the [NarrowBy](#) (p. 294) value is PriceRange.

Similarities Response Group

The Similarities response group returns titles and ASINs of five items that are similar to the one specified in the request.

This response group is often used in conjunction with [ItemLookup](#) (p. 217) to return items that are similar to the one specified in the request.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup](#) (p. 217)
- [ItemSearch](#) (p. 223)
- [SimilarityLookup](#) (p. 233)

Response Elements

The following table describes the elements returned by Similarities.

- ASIN (p. 319)
- Title (p. 333)
- TotalPages (p. 333)
- TotalResults (p. 333)

Similarities also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of Similarities.

- None

Child Response Group

The following response groups are child response groups of Similarities.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by Similarities.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
Condition=All&  
SearchIndex=Blended&  
Keywords=Mustang&  
Merchant=All&  
ResponseGroup=Similarities  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by Similarities.

```
<SimilarProduct>  
  <ASIN>B00004GJVO</ASIN>  
  <Title>Minor Move</Title>  
</SimilarProduct>
```

Small Response Group

The Small response group returns basic information about items in a response. The information includes the item's ASIN, title, product group, and author.

This response group is often used with [ItemLookup \(p. 217\)](#), [ItemSearch \(p. 223\)](#), or [SimilarityLookup \(p. 233\)](#) to return basic information about the items in the response.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by Small.

- [Actor \(p. 318\)](#)
- [Artist \(p. 319\)](#)
- [ASIN \(p. 319\)](#)
- [Author \(p. 319\)](#)
- [CorrectedQuery \(p. 321\)](#)
- [Creator \(p. 322\)](#)
- [Director \(p. 322\)](#)
- [Keywords \(p. 326\)](#)
- [Manufacturer \(p. 327\)](#)
- [Message \(p. 328\)](#)
- [ProductGroup \(p. 330\)](#)
- [Role \(p. 331\)](#)
- [Title \(p. 333\)](#)
- [TotalPages \(p. 333\)](#)
- [TotalResults \(p. 333\)](#)

Small also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of Small.

- [Large \(p. 262\)](#)
- [Medium \(p. 267\)](#)

Child Response Group

The following response groups are child response groups of Small.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by Small.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKey=[AWS Access Key ID]&  
Operation=ItemSearch&  
Condition=All&  
SearchIndex=Blended&  
Keywords=Mustan&  
Merchant=All&  
ResponseGroup=Small&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by Small.

```
<CorrectedQuery>  
  <Keywords>mustang</Keywords>  
  <Message>We found no matches for (keywords=Mustan). Below are results for  
(keywords=mustang).</Message>  
</CorrectedQuery>  
<Item>  
  <ASIN>B0002Y69UO</ASIN>  
<ItemAttributes>  
  <Actor>America's Favorite Cars</Actor>  
  <ProductGroup>DVD</ProductGroup>  
  <Title>America's Favorite Cars - The Complete Mustang 40th An  
niversary</Title>  
</ItemAttributes>  
</Item>
```

Notice that the [Keywords \(p. 326\)](#) value, Mustan, was considered misspelled. The search results were for the word, Mustang, instead.

TopSellers Response Group

The TopSellers response group returns the ASINs and titles of the ten best sellers within a specified browse node.

Availability

This response group is available in all locales.

Relevant Operations

Operations that can use this response group include:

- [BrowseNodeLookup \(p. 193\)](#)

Response Elements

The following table describes the elements returned by TopSellers.

- [Actor \(p. 318\)](#) for the Video search index
- [Artist \(p. 319\)](#) for the Music search index
- [ASIN \(p. 319\)](#)
- [Authors \(p. 319\)](#) for the Books search index
- [ProductGroup \(p. 330\)](#)
- [Title \(p. 333\)](#)
- [TopItemSet \(p. 333\)](#)

TopSellers also returns the elements that all response groups return, which is described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of TopSellers.

- None

Child Response Group

The following response groups are child response groups of TopSellers.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by TopSellers.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=BrowseNodeLookup&  
BrowseNodeId=20&  
ResponseGroup=TopSellers&  
Version=2013-08-01  
&Timestamp=[ YYYY-MM-DDThh:mm:ssZ ]  
&Signature=[ Request Signature ]
```

Sample Response Snippet

The following response snippet shows the elements returned by TopSellers.

```
<TopItemSet>  
  <Type>TopSellers</Type>  
  <TopItem>  
    <ASIN>0553576399</ASIN>
```

```
<Title>Distraction</Title>
<ProductGroup>Book</ProductGroup>
<Author>Bruce Sterling</Author>
</TopItem>
<TopItem>
    ....
    ....
</TopItemSet>
```

Tracks Response Group

The Tracks response group returns the title and number of each track on each CD in the response. For example, you could use [ItemLookup \(p. 217\)](#) to return Tracks information about a specified CD.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by Tracks.

- [Number \(p. 328\)](#)
- [TotalPages \(p. 333\)](#)
- [TotalResults \(p. 333\)](#)
- [Track \(p. 334\)](#)

Tracks also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of Tracks.

- None

Child Response Group

The following response groups are child response groups of Tracks.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by Tracks.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
Condition=All&  
SearchIndex=Blended&  
Keywords=GodSmack&  
Merchant=All&  
ResponseGroup=Tracks&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by Tracks.

```
<Item>  
  <ASIN>B000EXOAAO</ASIN>  
  <Tracks>  
    <Disc Number="1">  
      <Track Number="1">Livin In Sin</Track>  
      <Track Number="2">Speak</Track>  
      <Track Number="3">The Enemy</Track>  
      <Track Number="4">Shine Down</Track>  
      <Track Number="5">Hollow</Track>  
      <Track Number="6">No Rest For The Wicked</Track>  
      <Track Number="7">Bleeding Me</Track>  
      <Track Number="8">Voodoo Too</Track>  
      <Track Number="9">Temptation</Track>  
      <Track Number="10">Mama</Track>  
      <Track Number="11">One Rainy Day</Track>  
    </Disc>  
  </Tracks>  
</Item>
```

Variations Response Group

The Variations response group is a parent response group that returns the contents of the VariationSummary response group plus other variation details, such as item attributes, offers, and offer listings for each variation in the response.

Variation Dimensions

A variation is a child ASIN. The parent ASIN is an abstraction of the children items. For example, Shirt is a parent ASIN. Parent ASINs cannot be sold. A child ASIN of it would be a blue shirt, size 16, sold by MyApparelStore. This child ASIN is one of potentially many variations. The ways in which variations differ are called dimensions. In the preceding example, size and color are the dimensions. Parent ASINs therefore return two related elements:

- VariationDimensions
- VariationDimension

For example,

```
<VariationDimensions>
  <VariationDimension>ClothingSize</VariationDimension>
  <VariationDimension>Color</VariationDimension>
</VariationDimensions>
```

The values returned by these elements are the dimensions listed in the child ASIN's response, for example,

```
<Item>
  ...
  <ItemAttributes>
    ...
  </ItemAttributes>
  <VariationAttributes>
    <VariationAttribute>
      <Name>Color</Name>
      <Value>Black</Value>
    </VariationAttribute>
    <VariationAttribute>
      <Name>ClothingSize</Name>
      <Value>Large</Value>
    </VariationAttribute>
  </VariationAttributes>

  ...
</Item>
```

The following lists some of the Product Advertising API variation dimensions:

- GemType (string)
- HandOrientation (string)
- HardwarePlatform (string)
- PackageQuantity (nonNegativeInteger)
- ItemDimensions/Length (DecimalWithUnits)
- ItemDimensions/Width (DecimalWithUnits)
- LensColor (string)
- MetalType (string)
- Model (string)
- NumberOfLicenses (string)
- OperatingSystem (string)
- ProductTypeSubcategory (string)
- ScentName (string) StyleName (string)
- TotalDiamondWeight (DecimalWithUnits)
- TotalGemWeight (DecimalWithUnits)

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Response Elements

The following table describes the elements returned by Variations.

- Amount (p. 319)
- ASIN (p. 319)
- CurrencyCode (p. 322)
- FormattedPrice (p. 324)

Variations also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of Variations.

- None

Child Response Group

The following response groups are child response groups of Variations.

- VariationSummary (p. 315)

Sample REST Use Case

The following request illustrates the XML response elements returned by Variations.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
SearchIndex=Apparel&  
Keywords=Hooded%20Short%20Down%20Jacket&  
ResponseGroup=Variations&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by Variations.

```
<ItemSearchRequest>  
  <Keywords>Hooded Short Down Jacket</Keywords>  
  <ResponseGroup>Variations</ResponseGroup>  
  <SearchIndex>Apparel</SearchIndex>  
</ItemSearchRequest>  
</Request>  
<Item>  
  <ASIN>B000CCIIT6</ASIN>  
</Item>
```

```
<Item>
  <ASIN>B000CCIITQ</ASIN>
</Item>
<Item>
  <ASIN>B000CCONPO</ASIN>
</Item>
<Item>
  <ASIN>B000CCMQ1W</ASIN>
</Item>
<Item>
  <ASIN>B000CDDRJ6</ASIN>
</Item>
<Item>
  <ASIN>B000CCIISC</ASIN>
</Item>
<Item>
  <ASIN>B000CCIIRI</ASIN>
</Item>
<Item>
  <ASIN>B000BVA9AE</ASIN>
</Item>
<Item>
  <ASIN>B000CCMQFS</ASIN>
</Item>
<Item>
  <ASIN>B000CDDRJG</ASIN>
</Item>
</Items>
```

This response shows that the ASIN in the response has ten variations.

VariationImages Response Group

The VariationImages response group displays different image variations of the same item in four sizes: swatch, small, medium, and large, where the swatch image is smaller than the small image. VariationImages is used when there are variations of an item for sale. For example, a shirt for sale might come in four colors. If VariationImages is used as the response group, the shirt will be displayed in sixteen images: four image sizes of each of the four colors.

Parent ASINs do not always have images associated with them; their children, however, should.

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)

Response Elements

The following table describes the elements returned by VariationImages. The elements on the left side of a slash mark are the parents of the elements on the right side of the slash mark.

- [Height \(p. 324\)](#)
- [LargeImage \(p. 326\)](#)
- [MediumImage \(p. 327\)](#)

- SmallImage (p. 332)
- SwatchImage (p. 332)
- ThumbnailImage (p. 333)
- TinyImage (p. 333)
- URL (p. 335)
- Width (p. 335)

VariationImages also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of VariationImages.

- None

Child Response Group

The following response groups are child response groups of VariationImages.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by VariationImages.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=0239409223&  
ResponseGroup=VariationImages  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by VariationImages.

```
<ImageSets>  
  <ImageSet Category="primary">  
  
    <SmallImage>  
      <URL>  
        http://images.amazon.com/images/P/B9999999A.01._SCTHUMBZZ_.jpg  
      </URL>  
      <Height Units="pixels">60</Height>  
      <Width Units="pixels">60</Width>  
    </SmallImage>
```

```
<MediumImage>
  <URL>
    http://images.amazon.com/images/P/B9999999A.01._SCMZZZZZZ_.jpg
  </URL>
  <Height Units="pixels">140</Height>
  <Width Units="pixels">140</Width>
</MediumImage>

<LargeImage>
  <URL>
    http://images.amazon.com/images/P/B9999999A.01._SCLZZZZZZ_.jpg
  </URL>
  <Height Units="pixels">500</Height>
  <Width Units="pixels">500</Width>
</LargeImage>
</ImageSet>
<ImageSet Category="variant">

  <SmallImage>
    <URL>
      http://images.amazon.com/images/P/B9999999A.01.PT01._SCTHUMBZZZ_.jpg
    </URL>
    <Height Units="pixels">48</Height>
    <Width Units="pixels">60</Width>
  </SmallImage>

  <MediumImage>
    <URL>
      http://images.amazon.com/images/P/B9999999A.01.PT01._SCMZZZZZZ_.jpg
    </URL>
    <Height Units="pixels">120</Height>
    <Width Units="pixels">150</Width>
  </MediumImage>

  <LargeImage>
    <URL>
      http://images.amazon.com/images/P/B9999999A.01.PT01._SCLZZZZZZ_.jpg
    </URL>
    <Height Units="pixels">400</Height>
    <Width Units="pixels">500</Width>
  </LargeImage>
</ImageSet>
```

VariationMatrix Response Group

The VariationMatrix response group returns, for a given parent ASIN, the variation dimension name and value of each child ASIN. If a returned item does not have variations, the VariationMatrix response group will not return any data. For example, rings vary by ring size. RingSize, therefore, is the dimension related to this item. The VariationMatrix response group would only return, in this example, <RingSize> elements. The VariationMatrix response group returns nothing if the returned items do not have variations. For more information, see, [Returning Variation Dimension Information Only \(p. 41\)](#).

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)

Response Elements

The following table describes the elements returned by VariationMatrix.

- [ClothingSize \(p. 321\)](#)
- [Color \(p. 321\)](#)
- [HardwarePlatform \(p. 324\)](#)
- [ItemDimensions/Length \(p. 327\)](#)
- [ItemDimensions/Width \(p. 335\)](#)
- [MaterialType \(p. 327\)](#)
- [MetalType \(p. 328\)](#)
- [Model \(p. 328\)](#)
- [OperatingSystem \(p. 329\)](#)
- [PackageQuantity \(p. 329\)](#)
- [ProductTypeSubcategory \(p. 330\)](#)
- [Size \(p. 332\)](#)
- [VariationDimension \(p. 335\)](#)

VariationMatrix also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of VariationMatrix.

- None

Child Response Group

The following response groups are child response groups of VariationMatrix.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by VariationMatrix.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemLookup&  
ItemId=B0008G23PQ&
```

```
Condition>All&
ResponseGroup=VariationMatrix&
Version=2013-08-01
```

Sample Response Snippet

The following response snippet shows the elements returned by VariationMatrix.

```
<Item>
  <ASIN>B0008G23PQ</ASIN>
  <Variations>
    <VariationDimensions>
      <VariationDimension>ClothingSize</VariationDimension>
      <VariationDimension>Color</VariationDimension>
    </VariationDimensions>
  <Item>
    <ASIN>B0008EOA9U</ASIN>
    <VariationAttributes>
      <VariationAttribute>
        <Name>Color</Name>
        <Value>Grey</Value>
      </VariationAttribute>
      <VariationAttribute>
        <Name>ClothingSize</Name>
        <Value>29W x 30L</Value>
      </VariationAttribute>
    </VariationAttributes>
  </Item>
  <Item>
    <ASIN>B0008EO9J6</ASIN>
    <VariationAttributes>
      <VariationAttribute>
        <Name>Color</Name>
        <Value>Navy</Value>
      </VariationAttribute>
      <VariationAttribute>
        <Name>ClothingSize</Name>
        <Value>29W x 30L</Value>
      </VariationAttribute>
    </VariationAttributes>
  </Item>
</Item>
```

VariationOffers Response Group

The VariationOffers response group retrieves the offers for the children of a parent ASIN. VariationOffers is similar to the Variations response group; however, item attributes are not returned for the individual variations. Variations is the parent response group of VariationOffers.

The only valid values for MerchantId are Amazon and All, which is the default value. For reasons of reverse compatibility, the Offers response group treats a MerchantID value of Featured or Featured Buy Box Winner as the default value (All).

The following table shows the expected behavior of the parent and child variation offers for the corresponding MerchantId input parameter:

Merchant ID	Semantics
(Default)	All variations with offers
Amazon	Variations with Amazon offers only
Featured, Featured Buy Box Winner, or All	All variations with offers. The specified MerchantId parameter will not have any effect on the response.
Any other value	Error: invalid value

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)

Response Elements

The following table describes the elements returned by VariationOffers. In the Ancestry column, In the Ancestry column, the elements on the left side of a slash mark are the parents of the elements on the right side of the slash mark.

- [Amount \(p. 319\)](#)
- [ASIN \(p. 319\)](#)
- [Availability \(p. 319\)](#)
- [AvailabilityAttributes \(p. 319\)](#)
- [Condition \(p. 321\)](#)
- [CurrencyCode \(p. 322\)](#)
- [FormattedPrice \(p. 324\)](#)
- [IsEligibleForSuperSaverShipping \(p. 325\)](#)
- [LoyaltyPoints \(p. 327\)](#)
- [MaximumHours \(p. 327\)](#)
- [MinimumHours \(p. 328\)](#)
- [Name \(p. 328\)](#)
- [OfferListingId \(p. 329\)](#)
- [TotalCollectible \(p. 333\)](#)
- [TotalNew \(p. 333\)](#)
- [TotalOfferPages \(p. 333\)](#)
- [TotalOffers \(p. 333\)](#)

VariationOffers also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of VariationOffers.

- [Variations \(p. 315\)](#)

Child Response Group

The following response groups are child response groups of VariationOffers.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by VariationOffers.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=[AWS Access Key ID]&  
Operation=ItemSearch&  
ItemId=B000P4VW1M&  
Condition=All&  
ResponseGroup=VariationOffers&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by VariationOffers.

```
<Item>  
  <ASIN>B000P4VW1M</ASIN>  
  <VariationSummary>  
    <LowestPrice>  
      <Amount>12900</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$129.00</FormattedPrice>  
    </LowestPrice>  
    <HighestPrice>  
      <Amount>12900</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$129.00</FormattedPrice>  
    </HighestPrice>  
  </VariationSummary>  
  <Variations>  
    <TotalVariations>5</TotalVariations>  
    <TotalVariationPages>1</TotalVariationPages>  
    <Item>  
      <ASIN>B000N637Y2</ASIN>  
      <Offers>  
        <Offer>  
          <Merchant>  
            <Name>Amazon.com</Name>  
          </Merchant>  
          <OfferAttributes>  
            <Condition>New</Condition>  
          </OfferAttributes>  
          <OfferListing>  
            <OfferListingId>ct%2FbvUK%2F9aRAxMyfX4EnsglyWuwchEGTLsR7xZwnr  
Rt9AwU%2Fe4yKOeVDEIdvSBUhrBFoR4VZWR1aUBZX%2FhzSDQ%3D%3D</OfferListingId>
```

```
<Price>
  <Amount>12900</Amount>
  <CurrencyCode>USD</CurrencyCode>
  <FormattedPrice>$129.00</FormattedPrice>
</Price>
<AmountSaved>
  <Amount>28428</Amount>
  <CurrencyCode>USD</CurrencyCode>
  <FormattedPrice>$284.28</FormattedPrice>
</AmountSaved>
<PercentageSaved>69</PercentageSaved>
<Availability>In stock soon. Order now to get in line. First come,
first served.</Availability>
<AvailabilityAttributes>
  <AvailabilityType>unknown</AvailabilityType>
  <MinimumHours>672</MinimumHours>
  <MaximumHours>1008</MaximumHours>
</AvailabilityAttributes>
<IsEligibleForSuperSaverShipping>1</IsEligibleForSuperSaverShipping>

</OfferListing>
</Offer>
</Offers>
</Item>
```

VariationSummary Response Group

The VariationSummary response group provides the lowest price, highest price, lowest sale price, and highest sale price for all child ASINs in a response.

Parent ASINs do not have offers; their children do. For example, you cannot buy a shirt (the parent ASIN). You can, however, buy a shirt that is a certain color and size (the child ASIN).

Relevant Operations

Operations that can use this response group include:

- [ItemLookup \(p. 217\)](#)
- [ItemSearch \(p. 223\)](#)
- [SimilarityLookup \(p. 233\)](#)

Variation Dimensions

A variation is a child ASIN. The parent ASIN is an abstraction of the children items. For example, Shirt is a parent ASIN. Parent ASINs cannot be sold. A child ASIN of it would be a blue shirt, size 16, sold by MyApparelStore. This child ASIN is one of potentially many variations. The ways in which variations differ are called dimensions. In the preceding example, size and color are the dimensions. Parent ASINs therefore return two related elements:

- [VariationDimensions](#)
- [VariationDimension](#)

For example,

```
<VariationDimensions>
  <VariationDimension>ClothingSize</VariationDimension>
  <VariationDimension>Color</VariationDimension>
</VariationDimensions>
```

The values returned by these elements are the dimensions listed in the child ASIN's response, for example,

```
<Item>
  <ItemAttributes>
    ...
  </ItemAttributes>
  <VariationAttributes>
    <VariationAttribute>
      <Name>Color</Name>
      <Value>Black</Value>
    </VariationAttribute>
    <VariationAttribute>
      <Name>ClothingSize</Name>
      <Value>Large</Value>
    </VariationAttribute>
  </VariationAttributes>
  ...
</Item>
```

Response Elements

The following table describes the elements returned by VariationSummary.

- [Amount \(p. 319\)](#)
- [CurrencyCode \(p. 322\)](#)
- [FormattedPrice \(p. 324\)](#)

VariationSummary also returns the elements that all response groups return, as described in [Elements Common to All Response Groups \(p. 317\)](#).

Parent Response Group

The following response groups are parent response groups of VariationSummary.

- [Variations \(p. 305\)](#)

Child Response Group

The following response groups are child response groups of VariationSummary.

- None

Sample REST Use Case

The following request illustrates the XML response elements returned by VariationSummary.

```
http://webservices.amazon.com/onca/xml?  
Service=AWSECommerceService&  
AWSAccessKeyId=<replaceable>  
<replaceable>[AWS Access Key ID]</replaceable>  
</replaceable>&  
Operation=ItemLookup&  
ItemId=B00006XYAA&  
ResponseGroup=VariationSummary&  
Version=2013-08-01  
&Timestamp=[YYYY-MM-DDThh:mm:ssZ]  
&Signature=[Request Signature]
```

Sample Response Snippet

The following response snippet shows the elements returned by VariationSummary.

```
<Item>  
  <ASIN>B00006XYAA</ASIN>  
  <VariationSummary>  
    <LowestPrice>  
      <Amount>1450</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$14.50</FormattedPrice>  
    </LowestPrice>  
    <HighestPrice>  
      <Amount>1750</Amount>  
      <CurrencyCode>USD</CurrencyCode>  
      <FormattedPrice>$17.50</FormattedPrice>  
    </HighestPrice>  
  </VariationSummary>  
</Item>
```

Response Elements Common to All Response Groups

The following table describes and shows the parentage of the elements returned by all response groups.

Response Element	Definition
<i>ASIN</i>	An token distributed by Amazon that uniquely identifies an item. Type: String Ancestry: Item/ASIN
<i>Code</i>	Error code if there is an error Type: Integer Ancestry: Errors/Error/Code
<i>IsValid</i>	Is True if the request is valid Type: String Ancestry: Request/IsValid

Response Element	Definition
<i>Message</i>	Error message that corresponds with error code Type: String Ancestry: Errors/Error/Message
<i>Name</i>	Name of a parameter in the request Type: String Ancestry: Arguments/Argument/Name
<i>RequestId</i>	Unique number that identifies the request Type: String Ancestry: OperationRequest/RequestId
<i>TotalPages</i>	Number of pages found. There are up to ten items per page. Type: String Ancestry: List/TotalPages
<i>TotalResults</i>	The total number of items found. Up to ten are returned per request. . By default, the first ten items are returned. Type: String Ancestry: List/TotalResults
<i>UserAgent</i>	The name and version of the Web browser Type: String Ancestry: OperationRequest/UserAgent
<i>Value</i>	A value of a parameter in the request Type: String Ancestry: Arguments/Argument/Value

Response Elements

This chapter provides a description of all response elements. In the Ancestry paragraphs, the elements on the left side of a slash mark are the parents of the elements on the right side of the slash mark.

Response Element	Definition
<i>About</i>	Describes the seller. Ancestry: Seller/About
<i>AboutMe</i>	Information a customer supplies about themselves. Ancestry: Seller/About
<i>Actor</i>	Actor associated with the item. Ancestry: ItemAttributes
<i>AdditionalName</i>	For baby registries, this field is used for the name of the other parent. Ancestry: List/AdditionalName
<i>AlternateVersion</i>	Container for AlternateVersion information, including ASIN, Title, and Binding. Ancestry: None

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Response Elements

Response Element	Definition
Amount	<p>Price in terms of the lowest currency denomination, for example, pennies. The price, in terms of the lowest currency denomination, for example, pennies, of an item in the cart. The total price, in terms of the lowest currency denomination, of one or more of the same item in the Saved For Later area. If, for example, Saved For Later contains two orders of the same book, this amount would be the sum total of those two books.</p> <p>Ancestry: OfferSummary/LowestCollectiblePrice OfferSummary/LowestNewPrice OfferSummary/LowestRefurbished-Price/Amount Offers/Offer/OfferListing/Price/Amount Offers/Offer/OfferListing/SalePrice/Amount Transaction/TransactionItems/TransactionItem/UnitPrice VariationSummary/LowestPrice VariationSummary/HighestSalePrice</p>
Artist	<p>Artist associated with the item.</p> <p>Ancestry: ItemAttributes</p>
ASIN	<p>A positive integer distributed by Amazon that uniquely identifies an item. ASIN of the new release, item, or similar item</p> <p>Ancestry: Item/ASIN CartItem SavedForLaterItem Cart/NewReleases/NewRelease NewReleases/NewRelease/ASIN OtherCategoriesSimilarProduct/ASIN SimilarProduct SimilarViewedProduct</p>
AspectRatio	<p>The ratio of an item's length to its width.</p> <p>Ancestry: ItemAttributes</p>
AudienceRating	<p>Audience rating for a movie. The rating suggests the age for which the movie is appropriate. The rating format varies by locale.</p> <p>Ancestry: ItemAttributes</p>
AudioFormat	<p>Format, such as MP3, of the audio media.</p> <p>Ancestry: ItemAttributes/Languages/Language</p>
Author	<p>Author associated with the item.</p> <p>Ancestry: ItemAttributes</p>
Availability	<p>How soon the item can be shipped.</p> <p>Ancestry: Offers/Offer/OfferListing/Availability</p>
AvailabilityAttributes	<p>Container for availability information, including AvailabilityType, MaximumHours, and MinimumHours.</p> <p>Ancestry: Offers/Offer/OfferListing</p>
Benefit	<p>Container for information relating to a promotional benefit.</p> <p>Ancestry: Benefits</p>
Benefits	<p>Container for one or more Benefit elements.</p> <p>Ancestry: None</p>

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Response Elements

Response Element	Definition
BenefitType	Specifies the type of promotion, for example, Free, FixedAmountOff, PercentOff, and TieredFixedAmountOff. Ancestry: Benefits/Benefit/BenefitType
BenefitDescription	Text that describes the promotion. Ancestry: Offers/Offer/Promotions/Promotion/Summary
Bin	Container for Bin elements. Children: BinItemCount, BinName, BinParameter
Binding	Typically but not always similar to the product category. Ancestry: ItemAttributes
BinItemCount	Number of items in a bin. Ancestry: SearchBinSets/SearchBinSet/Bin/BinItemCount
BinName	Name of the bin. Ancestry: SearchBinSets/SearchBinSet/Bin/BinName
BinParameter	Container for the BrowseNodeID and its value. Ancestry: Bin
Brand	An item's brand. Ancestry: ItemAttributes, Large, Medium
BrowseNodeID	A positive integer that uniquely identifies a parent product category. Ancestry: BrowseNode/Ancestors/BrowseNode/BrowseNode/Children/BrowseNode
CartID	A positive integer that uniquely identifies a cart. All operations on a cart must include this value, which is generated by CartCreate. Ancestry: Cart
CartItem	A parent element for many child elements, including CartItemId, Quantity, Title, ProductGroup, Price, and ItemTotal. Ancestry: Cart/CartItems
CartItemID	A positive integer that uniquely identifies an item in a cart or in the Saved For Later area. You must use this value to modify cart items or Saved For Later items. Other identifiers, such as ASINs, do not work. Ancestry: CartItem SavedForLaterItem
CartItems	A parent element for many child elements, including SubTotal, and CartItem. Ancestry: Cart

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Response Elements

Response Element	Definition
Category	Specifies the kind of promotion. Valid values include ForEachQuantityXGetQuantityFreeX, BuyAmountXGetSimpleShippingFreeX, and BuyAmountXGetAmountOffX. For more information, see Promotion Types (p. 285) . Ancestry: Offers/Offer/Promotions/Promotion/Summary
CEROAgeRating	The Computer Entertainment Rating Organization (CERO) sets ratings, advertising guidelines, and online privacy principles for video and computer games in the United States and Canada. The value of CEROAgeRating specifies whether a video or software game (search indices Software and VideoGames) is suitable for everyone to play. Ancestry: ItemAttributes
ClothingSize	Size of clothes. Ancestry: ItemAttributes
Code	Number that uniquely identifies an error. Ancestry: Errors/Error
Collection	Container for items that are part of a collection. Ancestry: None
CollectionItem	An item that is part of a collection of items. Ancestry: None
CollectionParent	The parent item has an ASIN but it cannot be purchase. It names the collection. CollectionItems are children of the Collection Parent and can be purchased. Ancestry: None
Color	Color Ancestry: ItemAttributes
Comment	Comment typically about the purpose of the list. Ancestry: List
ComponentType	Specifies what the promotion applies to, for example, Shipping, ItemPrice, Subtotal. Ancestry: Benefits/Benefit
Condition	Specifies the condition of the item, such as new, used, collectible, or refurbished. Ancestry: SellerListing/Condition Offers/Offer/OfferAttributes/Condition
CorrectedQuery	A parent element that contains the elements related to a corrected keyword. See Keywords . Ancestry: Items
CouponCombinationType	Specifies the kinds of promotional coupons that can be combined, for example, Unrestricted, Preferential, and Exclusive. Ancestry: None

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Response Elements

Response Element	Definition
Creator	Creator associated with the item. Ancestry: ItemAttributes
CurrencyAmount	Price in terms of the lowest currency denomination, for example, pennies. Ancestry: EligibilityRequirements/EligibilityRequirement/
CurrencyCode	An abbreviation that specifies the format of the price for the associated locale. Ancestry: Cart/SavedForLaterItems/SubTotal Cart/CartItem/SubTotal SavedForLaterItem/ItemTotal SavedForLaterItem/Price CartItem/Price Cart/SubTotal EligibilityRequirements/EligibilityRequirement/CurrencyAmount Benefits/Benefit/FixedAmount OfferSummary/LowestCollectiblePrice/CurrencyCode OfferSummary/LowestNewPrice/CurrencyCode OfferSummary/LowestRefurbishedPrice/CurrencyCode OfferSummary/LowestUsedPrice/CurrencyCode Offers/Offer/OfferListing/Price/CurrencyCode Offers/Offer/OfferListing/SalePrice/CurrencyCode Transaction/Totals/Total VariationSummary/HighestPrice VariationSummary/LowestSalePrice VariationSummary/HighestSalePrice VariationSummary/LowestPrice
DateAdded	Date the item was added to the list. Ancestry: ListItem/DateAdded
DateCreated	Date the list was created, in the form yyyy-mm-dd. Ancestry: List/DateCreated
Department	Department Ancestry: ItemAttributes
Details	Container for all of the elements that describe a promotion. Ancestry:
Director	Director Ancestry: ItemAttributes
EAN	European Article Number, which is a number that uniquely identifies an item. Ancestry: ItemAttributes
EANList	The container for one or more EANListElement (p. 323) attributes. Ancestry: ItemAttributes/EANList

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Response Elements

Response Element	Definition
EANListElement	A possible EAN for the ASIN. Ancestry: ItemAttributes/EANList
Edition	Edition Ancestry: ItemAttributes
EditorialReviewIsLinkSuppressed	Boolean value that specifies whether or not the link to the editorial review is displayed. Ancestry: EditorialReview
EISBN	Electronic ISBN number for digital books Ancestry: ItemAttributes
EligibilityRequirement	Container for one or more EligibilityRequirementType elements. Ancestry: EligibilityRequirements
EligibilityRequirementDescription	Specifies the conditions necessary to qualify for the promotion. Ancestry: Offers/Offer/Promotions/Promotion/Summary
EligibilityRequirements	Container for one or more EligibilityRequirement elements. Ancestry: None
EligibilityRequirementType	Specifies the eligibility requirements to qualify for the promotion, for example, MinPurchase, MinQuantity, or ForEachQuantity. Ancestry: EligibilityRequirements/EligibilityRequirement
EndDate	Specifies a date when the item will stop being sold, or the last day and ending time (GMT) of the promotion. Ancestry: SellerListing/EndDate, Offers/Offer/Promotions/Promotion/Summary
EpisodeSequence	Television shows are broadcast in sequence. Each show is called an episode. EpisodeSequence specifies the number of the show in the series of episodes.
ESRBAgeRating	The Entertainment Software Rating Board (ESRB) sets ratings, advertising guidelines, and online privacy principles for video and computer games in the United States and Canada. The value of ESRBAgeRating specifies whether a video or software game (search indices Software and VideoGames) is suitable for everyone to play. Ancestry: ItemAttributes
Feature	An item's feature Ancestry: ItemAttributes
Feedback	Provides customer feedback about the seller. Ancestry:
Fitment	A part that works in (fits into/onto) a car. Children: Bed, BodyStyle, Brakes, DriveType, Engine, Make, MfrBodyCode, Model, Notes, Position, SpringTypes, Steering, Transmission, Trim, Wheelbase, Year Ancestor: FitmentAttributes: FitmentAttribute

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Response Elements

Response Element	Definition
FitmentAttribute	Container for one or more Fitment elements. Child: Fitment Ancestry: FitmentAttributes
FitmentAttributes	Container for one or more FitmentAttribute elements. Child: FitmentAttribute
FixedAmount	Specifies the price in terms of the lowest currency denomination. Ancestry: Benefits/Benefit
Format	An item's format Ancestry: ItemAttributes
FormattedPrice	The price formatted as it should be displayed to the user. The formatting is specified by CurrencyCode and varies by country. Or, the discounted price formatted for display. Ancestry: EligibilityRequirements/EligibilityRequirement/CurrencyAmount Benefits/Benefit/FixedAmount OfferSummary/LowestUsedPrice/FormattedPrice OfferSummary/LowestCollectiblePrice/FormattedPrice OfferSummary/LowestNewPrice/FormattedPrice Transaction/TransactionItems/TransactionItem/TotalPrice
Genre	Specifies the genre, such as romance, of a digital item. Ancestry: ItemAttributes
GroupClaimCode	An alphanumeric token to use to claim the promotional benefit. Ancestry: None
HardwarePlatform	Hardware Ancestry: Variations/Item/ItemAttributes
HasReviews	Boolean that specifies whether the product has one or more customer reviews. Ancestry: CustomerReviews
HazardousMaterialType	Type of hazardous material that is present in the product. Ancestry: ItemAttributes
Height	Height of an item, package, or image. Ancestry: ImageSets/ImageSet/LargeImage ImageSets/ImageSet/MediumImage ImageSets/ImageSet/SmallImage ImageSets/ImageSet/TinyImage ImageSets/ImageSet/SwatchImage/Height
HMAC	Hash-Based Message Authentication Code (HMAC) is a keyed hash function that is used with a cryptographic hash function such as SHA256 or MD5 that cannot be computed without the key. The HMAC is used to identify and secure a cart. Each cart operation must include this value. Ancestry: Cart

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Response Element	Definition
IFrameURL	<p>URL to an iframe that contains customer reviews.</p> <p>To embed the iframe on a web page, add the following to your HTML:</p> <pre><iframe src="reviews_iframe_url" /></pre> <p>Note The URL expires in 24 hours. Ancestry: CustomerReviews</p>
Image	An image associated with a seller's item. Ancestry: SellerListing/Image
IsAdultProduct	Indicates if the product is considered to be for adults only. Ancestry: ItemAttributes
IsAutographed	Specifies whether or not the item is autographed. Ancestry: ItemAttributes
ISBN	ISBN number Ancestry: ItemAttributes
IsCategoryRoot	Boolean value that specifies if the browse node is at the top of the browse node tree. Ancestry: BrowseNodes
IsEligibleForPrimeFreeDigitalVideo	Specifies whether or not an Amazon Instant Video is eligible to view for free with a Prime Subscription. If the flag is 1, the item is eligible. If the flag is 0 or missing, the item is not eligible. Ancestry: Offers/Offer/OfferListing Version: 2013-08-01 or greater
IsEligibleForSuperSaver-Shipping	Specifies whether the item is eligible for super saver shipping. Ancestry: Offers/Offer/OfferListing
IsEligibleForTradeIn	Specifies whether or not the item is eligible for trade-in. Ancestry: ItemAttributes
IsEmailNotifyAvailable	Boolean value, where 1 specifies that an email can be sent when the item is in stock, and 0 specifies when an email cannot be sent. This functionality is not available for all offers.
IsFit	YES, NO, or MAYBE values specify whether or not a part will work in a specified vehicle.
IsInBenefitSet	A boolean value. When True, the associated ASIN is what the customer receives as part of the promotion. Ancestry: ItemApplicability
IsInEligibilityRequirement-Set	A boolean value. When True, the associated ASIN is what the customer must purchase to qualify for the promotion. Ancestry: ItemApplicability

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Response Elements

Response Element	Definition
<code>IsLinkSuppressed</code>	"1" (true) if there were any HTML links in editorial reviews that have been suppressed. Ancestry: EditorialReview
<code>IsMemorabilia</code>	Specifies whether the item is considered memorabilia. Ancestry: ItemAttributes
<code>IsNext</code>	Indicates that there are more vehicle parts to return with higher ASIN values than those already returned.
<code>IsPrevious</code>	Indicates that there are more vehicle parts to return with lower ASIN values than those already returned.
<code>ItemApplicability</code>	Container for ASIN, IsInBenefitSet, and IsInEligibilityRequirementSet. This group of values specifies whether the ASIN is what the customer receives as part of the promotion, whether the ASIN is what the customer needs to purchase to qualify for the promotion, or both. Ancestry: ItemApplicability/ItemApplicability
<code>ItemDimensions</code>	Container for Height, Length, Weight, and Width. Ancestry: ItemAttributes
<code>IssuesPerYear</code>	Number of issues per year, usually, in a subscription. Ancestry: ItemAttributes
<code>IsValid</code>	Boolean value that specifies whether the request syntax was correct. Ancestry: Request
<code>ItemAttributes</code>	Container for many attributes that describe an item. Children: 88 elements.
<code>ItemPartNumber</code>	The item part number. Ancestry: ItemAttributes
<code>Keywords</code>	The (corrected) words used in a search. Ancestry: Items/CorrectedQuery
<code>Label</code>	Label Ancestry: ItemAttributes
<code>Language</code>	Container for the Name, Type, and AudioFormat response elements, which together describe a language. Ancestry: ItemAttributes/Languages
<code>Languages</code>	Container for one or more Language response elements. Ancestry: ItemAttributes
<code>LargeImage</code>	Container for a large image Ancestry: ImageSets/ImageSet
<code>LastModified</code>	Date when the list was last modified Ancestry: List/LastModified

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Response Element	Definition
LegalDisclaimer	Legal disclaimer Ancestry: ItemAttributes
Length	Length Ancestry: ItemAttributes/ItemDimensions ItemAttributes/Length ItemAttributes
ListItemId	A number that uniquely identifies an item on a list. Ancestry: ListItem/ItemId
ListPrice	The manufacturer's suggested retail price for a product. Ancestry: ItemAttributes
LoyaltyPoints	In the JP locale only, loyalty points are returned. Loyalty points are used to generate sales. Ancestry: Offers/Offer
LoyaltyPoints	The number of points awarded as part of a purchase. Points translate into rewards. Ancestry: Offers, VariationOffers
Manufacturer	Manufacturer Ancestry: ItemAttributes
ManufacturerMaximumAge	Defines the maximum age in months the user should be to enjoy the use of the item. For example, for a toy targeted at kids from ages 2 to 4, 4 would be the value for the ManufacturerMaximumAge. Ancestry: ItemAttributes
ManufacturerMinimumAge	Defines the minimum age in months the user should be to enjoy the use of the item. For example, for a toy targeted at kids from ages 2 to 4, 2 would be the value for the ManufacturerMinimumAge. Ancestry: ItemAttributes
ManufacturerPartsWarranty-Description	Describes the manufacturer's parts warranty Ancestry: ItemAttributes
MaterialType	The type of material used in the item. Ancestry: ItemAttributes
MaximumHours	The maximum number of hours for which the item might be available. Ancestry: Offers/Offer/OfferListing/AvailabilityAttributes
MediaType	The type of media used by a recording device. Ancestry: ItemAttributes
MediumImage	Container for a medium image Ancestry: ImageSets/ImageSet
MerchandisingMessage	MerchandisingMessage contains text entered by a merchant that describes a promotion. Ancestry: None

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Response Elements

Response Element	Definition
MerchantId	A positive integer distributed by Amazon that uniquely identifies a merchant. Ancestry: CartItem SavedForLaterItem
Message	Message, or, a description of an error. Ancestry: Items/CorrectedQuery, Errors/Error
MetalType	The type of metal used in the item. Ancestry: ItemAttributes
MinimumHours	The minimum number of hours for which the item is available. Ancestry: Offers/Offer/OfferListing/AvailabilityAttributes
Model	Model Ancestry: ItemAttributes
MoreOffersUrl	The URL where all offers for an item are displayed. The URLs provided on the page are the exact ones that you should use when you link back to Amazon.com. They are tagged with your Associate tag and contain other tracking information to increase your hourly request limit as the sales that you generate increase. Ancestry: OfferFull, OfferListing, Offers
MPN	Manufacturer's part number. Ancestry: ItemAttributes
Name	Name of Search BinParameter, BrowseNode, Language, Variation-Attribute, or Merchant. Ancestry: SearchBinSets/SearchBinSet/Bin/BinParameter, BrowseNode, BrowseNode/Ancestors/BrowseNode, BrowseNode/Children/BrowseNode, ItemAttributes/Languages/Language, VariationAttributes/VariationAttribute, Offers/Offer/Merchant
Nickname	Seller's nickname Ancestry: SellerListing/Seller
Number	An attribute in the Disc tag that denotes the CD number in the item, for example, <Disc Number="1">. Items with multiple CDs would have multiple values for Disc, or an attribute in the Track tag that denotes the track number on the CD, for example, <Track Number="9">Now Or Never</Track>. Ancestry: Tracks/Disc Tracks/Disc/Track
NumberOfDiscs	Number of discs an item can hold or use. Ancestry: ItemAttributes
NumberOfIssues	Number of issues in a subscription. Ancestry: ItemAttributes

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Response Elements

NumberOfItems	Number of items. Ancestry: ItemAttributes
NumberOfPages	Number of pages. Ancestry: ItemAttributes
NumberOfTracks	Number of recorded track on a CD. Ancestry: ItemAttributes
OccasionDate	Specifies the date of an occasion, such as a wedding or birthday. Ancestry: List/OccasionDate
OfferListingId	A number that uniquely identifies an offer listing. This number represents a sales offer from a specific merchant. Ancestry: Offers/Offer/OfferListing
OperatingSystem	Specifies the name of the operating system on a computer. Ancestry: ItemAttributes, VariationMatrix
OtherCategoriesSimilar-Products	Parent element for Title and ASIN of similar products in other product groups Ancestry: Cart
PackageQuantity	Quantity of items in a package Ancestry: Variations/Item/ItemAttributes/
ParentASIN	A parent ASIN for an item in Saved For Later or the Active areas of a cart.. Ancestry: CartItem SavedForLaterItem
PartBrandBins	Container for one or more Bin elements.
PartBrowseNodeBins	Container for one or more Bin elements.
PartNumber	The part number. Ancestry: ItemAttributes
PartnerName	For wedding registries, this is the name of the bride or groom. Ancestry: List/PartnerName
Platform	Operating system. Ancestry: ItemAttributes
Price	A parent element for Amount, CurrencyCode, and FormattedPrice. In this case, the price is for an item in the Active or Saved For Later areas, respectively. Ancestry: CartItem SavedForLaterItem

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ProductGroup	The product category an item belongs to. The name of a category, such as sporting goods, to which an item in the cart belongs. The name of a category, such as sporting goods, to which an item in Saved For Later belongs. Ancestry: ItemAttributes/ProductGroup CartItem/ProductGroup SavedForLaterItem
ProductTypeSubcategory	Subcategory of product type Ancestry: Variations/Item/ItemAttributes
Promotion	Container for one or more Details elements. Ancestry: Offers/OfferPromotions
PromotionId	An alphanumeric token that uniquely identifies a promotion. Ancestry: Offers/Offer/Promotions/Promotion/Summary
Promotions	A container for one or more Promotion elements. Ancestry: Offers/Offer
PublicationDate	Publication date. Ancestry: ItemAttributes
Publisher	Publisher Ancestry: ItemAttributes
PurchaseURL	A URL that the customer must use to purchase the items in their cart. Ancestry: Cart
Quantity	The number of a particular item in a cart. Or, the number of items in stock.Or, the number of a particular item in Saved For Later. Ancestry: CartItem, SellerListing SavedForLaterItem
RegionCode	A code that specifies a region. Ancestry: ItemAttributes
RegistryName	Name of a wedding or baby registry. Ancestry: List/RegistryName
RelatedItem	Container for an item that is related to the one specified in the ItemLookup request. Ancestry: RelatedItems Children: Item, ASIN , ItemAttributes
RelatedItems	A container for one or more items that are related to the one specified in an ItemLookup request. This value is only returned with the Relateditems response group. Children: Relationship, Relationshiptype, RelatedItemCount, RelatedItemPageCount, RelatedItemPage, RelatedItem.
RelatedItemsCount	Specifies the number of related items found. This number, however, can be larger than the actual number returned because not all related items found are available.

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RelatedItemPage	Specifies which page of related items has been returned. Ancestry: RelatedItems
RelatedItemCount	Specifies the number of pages of related items found. There are up to ten items per page. Ancestry: RelatedItems
Relationship	Child or parent. Relationships are uni-directional: either parent to child, or child to parent. Ancestry: RelatedItems
RelationshipType	Specifies how the related item relates to the specified item in the ItemLookup request, for example, Tracks. For more information, go to the ItemLookup page. Ancestry: RelatedItems
ReleaseDate	Date on which the item was latest released. Items that have been released multiple times have both release dates and original release dates. See ReleaseDate. Ancestry: ItemAttributes
RequestId	A number that uniquely identifies a request Ancestry: OperationRequest
Role	Role Ancestry: ItemAttributes/Creator
RunningTime	The duration of a presentation. Ancestry: ItemAttributes
SalesRank	Indicates how well an item is selling within its product category. The lower the number, the better the item has sold. Ancestry: Item
SavedForLaterItem	A positive integer that uniquely identifies an item in Saved For Later. Ancestry: Cart/SavedForLaterItems Cart
SearchBinSet	A means by which to categorize results, such as price range. Ancestry: SearchBinSets
SearchBinSets	Parent element for SearchBins element. Ancestry: SearchBinSets
SeikodoProductCode	The Seikodo catalog number (JP only). Ancestry: ItemAttributes
ShipmentItems	The items in a specific shipment. Ancestry: Transaction/Shippments/Shipments
Shipments	The shipments Ancestry: Transaction

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SimilarProducts	Parent element for Title and ASIN of similar products in the same product group Ancestry: Cart
SimilarViewedProducts	Parent element for Title and ASIN of similar products in the same product group that have been viewed Ancestry: Cart
Size	Size Ancestry: ItemAttributes
SKU	Stock Keeping Unit (SKU) is a number that uniquely identifies an item. Ancestry: ItemAttributes SellerListing
SmallImage	Container for a small image. Thumbnail and Small images are the same size. Ancestry: ImageSets/ImageSet
Source	Where the review was entered. Typically, this is Amazon.com. It is possible, however, for customers to enter reviews from other sites. Ancestry: EditorialReviews/EditorialReview
StartDate	The date an item goes on sale, or the first day and beginning time (GMT) of the promotion. Ancestry: SellerListing, Offers/Offer/Promotions/Promotion/Summary
StoreId	A number that uniquely identifies the seller's store. Ancestry: SellerListing/Seller
StoreName	The name of the seller's store. Ancestry: SellerListing/Seller
Studio	The name of the studio, such as Warner Brothers, that produced a digital item. Ancestry: ItemAttributes
SubscriptionLength	The duration of a subscription. Ancestry: ItemAttributes
Summary	A short summary of the content of the review. Or, a container for all promotion information, including the elements BenefitDescription, Category, EndDate, EligibilityRequirementsDescription, PromotionId, StartDate, and TermsAndConditions. Ancestry: Offers/Offer/Promotions/Promotion
SwatchImage	Container for a swatch image, which is smaller than a Small image. Ancestry: ImageSets/ImageSet
TermsAndConditions	Specifies the terms and conditions of the promotion. Ancestry: Offers/Offer/Promotions/Promotion/Summary

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ThumbnailImage	Container for a Thumbnail image. Thumbnail and Small images are the same size. Ancestry: ImageSets/ImageSet
TinyImage	Container for a tiny image Ancestry: ImageSets/ImageSet
Title	Title or the name of the accessory, item, new release, similar products in other product groups, similar products in the same product group, similar products in the same product group that have been viewed Ancestry: ItemAttributes Accessories/Accessory SavedForLaterItem Cart/NewReleases/NewRelease/Title CartItem OtherCategoriesSimilarProduct SimilarProduct SimilarViewedProduct TopSellers/TopSeller
TopItem	Container object for information related to ranked responses, including MostGifted, MostWishedFor, TopSellers, and NewReleases. Information contained includes ASIN, Title, ProductGroup, Author, Artist, and Actor. Ancestry: MostGifted, MostWishedFor, TopSellers, NewReleases Children: ASIN, Title, ProductGroup, Actor, Artist, Author
TopItemSet	Container for one or more TopItem elements.
TotalCollectible	The total number of collectible items for sale. Ancestry: OfferSummary
TotalItems	The total number of items found on the list. Each page holds up to ten items. Ancestry: Items/TotalItems
TotalNew	The total number of new items for sale. Ancestry: OfferSummary
TotalOfferPages	Number of pages of offers. By default, the first ten offers are returned in the response. Ancestry: Offers
TotalOffers	Total number of offers. Ancestry: Offers
TotalPages	The total number of pages found in a response. Each page holds up to ten items. Type: nonNegativeInteger Ancestry: Items, Fitment
TotalRefurbished	The total number of refurbished items for sale. Ancestry: OfferSummary
TotalResults	Total number of items found by the request. Only ten are returned at a time. Ancestry: Items, List

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Totals	Container object for all other Total* elements, including Total, SubTotal, Tax, ShippingCharges, Promotion, and so forth. Ancestry: Transaction
TotalTimesRead	The number of times a list has been viewed. Ancestry: List
TotalUsed	The total number of used items for sale. Ancestry: OfferSummary
TotalVotes	The total number of review votes cast. Ancestry: CustomerReviews/Review/TotalVotes
Track	Refers to each track on a CD. On a music CD, each track corresponds to a song. Ancestry: Tracks/Disc
TradeInValue	The trade-in value of this item. Ancestry: ItemAttributes
TransactionDate	The date on which the transaction began of the form yyyy-mm-ddThh.mm.ss, for example, 2014-09-24T19:19:27. Ancestry: Transaction
TransactionDateEpoch	The date on which the transaction began in the form of epoch seconds. Ancestry: Transaction
TransactionId	A series of dash-separated integers, such as 111-222-333, that uniquely identify a transaction. Ancestry: Transaction
TransactionItem	Container for all of the information related to a specified transaction. Ancestry: Transaction
TransactionItemId	A string that uniquely identifies a transaction item. Ancestry: Transaction/TransactionItems/TransactionItem
TransactionItems	Container for TransactionItem Ancestry: Transaction
Type	Type, depending on the context. If the ancestor is TopItemSet, the Type is the ranking criteria, such as MostGifted. Ancestry: ItemAttributes/Languages/Language, TopItemSet
UPC	Universal Product Code, which is a 12 digit number, 6 of which represents an item's manufacturer. These numbers are translated into a bar code that is printed on an item or its packaging. Ancestry: ItemAttributes SellerListing
UPCList	The container for one or more UPCListElement (p. 335) attributes. Ancestry: ItemAttributes

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UPCListElement	A possible UPC for the ASIN. Ancestry: ItemAttributes/UPCList
URL	URL of an image. Ancestry: Variations/Item/ImageSets/ImageSet/LargeImage Variations/Item/ImageSets/ImageSet/SwatchImage Variations/Item/ImageSets/ImageSet/MediumImage Variations/Item/ImageSets/ImageSet/SmallImage
URLEncodedHMAC	A URL-encoded version of the HMAC that can be used directly in a request. Ancestry: Cart
UserAgent	The client application, for example, web browsers, search engine crawlers, mobile phones, screen readers and braille browsers. The text associated with UserAgent contains the application name, version, host operating system, and language. Ancestry: OperationRequest
UserId	An alphanumeric token that uniquely identifies the customer that tagged the entity. Ancestry:
VariationAttribute	Container for a variation name and value. Ancestry: Item/VariationAttributes/
VariationDimension	Container for dimensions Ancestry: Variations/VariationDimensions/
Warranty	Warranty terms Ancestry: ItemAttributes
WEEETaxValue	The Waste Electrical and Electronic Equipment tax for the item. Ancestry: ItemAttributes
Weight	Weight Ancestry: ItemAttributes/ItemDimensions
Width	Width Ancestry: ItemAttributes/ItemDimensions Variations/Item/ImageSets/ImageSet/SwatchImage Variations/Item/ImageSets/ImageSet/LargeImage Variations/Item/ImageSets/ImageSet/SmallImage Variations/Item/ImageSets/ImageSet/MediumImage
Year	Year, for example, 2008.

Locale Reference

Operations are the same for all locales but valid search indices, browse node IDs, sort values, and ItemSearch parameters vary from one locale to another. For more information about general differences, see [Locale Considerations \(p. 189\)](#).

- Search index

Some search operations require a search index to limit the scope of the search. Specifying a browse node in addition to a search index returns more targeted search results. The search index values that can be used in an ItemSearch request vary by locale. For example, the Baby and Beauty search indices are available in the US but not in the UK locale. An error is returned if you use a search index value that is not supported in a locale. The limitations on the use of search indices by locale therefore also limits the use of ItemSearch parameters.

- Browse node ID

These IDs represent the top level browse nodes only, and do not attempt to cover the thousands of possible nodes. For more targeted results, you can use these IDs in a BrowseNodeLookup request to get additional browse node IDs. For more information, see [BrowseNodeLookup](#).

- Sort values

The Sort parameter enables you to choose the order of the items in a response. There are many sort values, and availability varies by locale and search index. The majority are not applied unless the Sort parameter is included in the request. There are two sort values, however, that are used by default:

- For ItemSearch requests that do not use the BrowseNode parameter, results are sorted by Relevance.
 - For ItemSearch requests that do use the BrowseNode parameter, results are sorted by BestSeller ranking.
- ItemSearch parameters

For a given search index, only some ItemSearch parameters are valid. Also, each locale supports only a subset of all search index values. For example, in the US locale, when SearchIndex is "Blended," the only parameter that can be used in an ItemSearch request is Keywords.

Topics

- [Locale Information for the BR Marketplace \(p. 337\)](#)
- [Locale Information for the CA Marketplace \(p. 338\)](#)
- [Locale Information for the CN Marketplace \(p. 352\)](#)
- [Locale Information for the DE Marketplace \(p. 364\)](#)
- [Locale Information for the ES Marketplace \(p. 385\)](#)
- [Locale Information for the FR Marketplace \(p. 397\)](#)
- [Locale Information for the IN Marketplace \(p. 414\)](#)
- [Locale Information for the IT Marketplace \(p. 425\)](#)
- [Locale Information for the JP Marketplace \(p. 438\)](#)
- [Locale Information for the UK Marketplace \(p. 462\)](#)
- [Locale Information for the US Marketplace \(p. 481\)](#)

Locale Information for the BR Marketplace

BR Marketplace

Search index	Browse node	Sort values	ItemSearch parameters
All			Availability ItemPage Keywords MaximumPrice MerchantId MinimumPrice
Books		-price (p. 511) daterank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Condition ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
KindleStore	5308308011	-price (p. 511) daterank (p. 511) paidsalesrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Locale Information for the CA Marketplace

CA Marketplace

Search index	Browse node	Sort values	ItemSearch parameters
All			Availability ItemPage Keywords MaximumPrice MerchantId MinimumPrice

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Locale Information for the CA Marketplace

Search index	Browse node	Sort values	ItemSearch parameters
Automotive	6948389011	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Baby	3561347011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Beauty	6205125011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Blended			Availability ItemPage Keywords
Books	927726	daterank (p. 511) inverse-pricerank (p. 511) pricerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Classical	962454	-orig-rel-date (p. 511) -releasedate (p. 511) orig-rel-date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Availability Composer Conductor ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Orchestra Sort Title
DVD	14113311	salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Electronics	677211011	-price (p. 511) -titlerank (p. 511) price (p. 511) relevancerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
ForeignBooks	927726	daterank (p. 511) inverse-pricerank (p. 511) pricerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Grocery	6967216011	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
HealthPersonalCare	6205178011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Product Advertising API Developer Guide
Locale Information for the CA Marketplace

Search index	Browse node	Sort values	ItemSearch parameters
Jewelry		-price (p. 511) -release-date (p. 511) popularityrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
KindleStore	2972706011	-price (p. 511) daterank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Kitchen	2206276011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
LawnAndGarden	6299024011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Luggage	6205506011	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Music	962454	-orig-rel-date (p. 511) -releasedate (p. 511) orig-rel-date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Musicallnstruments		-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
OfficeProducts	6205512011	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
PetSupplies	6291628011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Software	3234171	-daterank (p. 511) inverse-pricerank (p. 511) pricerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
SoftwareVideoGames	3323751	-daterank (p. 511) inverse-pricerank (p. 511) pricerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
SportingGoods	2242990011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Search index	Browse node	Sort values	ItemSearch parameters
Tools	3006903011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Toys	6205517011	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
VHS	962072	-titlerank (p. 511) salesrank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Video	962454	-titlerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
VideoGames	110218011	-titlerank (p. 511) inverse-pricerank (p. 511) pricerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Watches	2235621011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Apparel	2016157051	-launch-date (p. 511) -pct-off (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Appliances	80208071	-launch-date (p. 511) -pct-off (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Search index	Browse node	Sort values	ItemSearch parameters
Automotive	1947900051	-launch-date (p. 511) -pct-off (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Baby	42693071	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Beauty	746777051	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Books	658391051	-price (p. 511) -publication_date (p. 511) -titlerank (p. 511) -unit-sales (p. 511) daterank (p. 511) inverse-pricerank (p. 511) price (p. 511) pricerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Electronics	2016117051	-price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Grocery	2127216051	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Search index	Browse node	Sort values	ItemSearch parameters
HealthPersonalCare	852804051	-price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Home	2016127051	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Neighborhood Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
HomeImprovement	1952921051	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Jewelry	816483051	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title
KindleStore	116088071	-price (p. 511) daterank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

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Music	754387051	-orig-rel-date (p. 511) -price (p. 511) -pricerank (p. 511) -releasedate (p. 511) -titlerank (p. 511) orig-rel-date (p. 511) price (p. 511) pricerank (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice ReleaseDate Sort Title
MusicalInstruments	2127219051	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
OfficeProducts	2127222051	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
PetSupplies	118864071	-launch-date (p. 511) -pct-off (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Photo	755653051	-launch-date (p. 511) -pct-off (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Shoes	2029190051	-launch-date (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Search index	Browse node	Sort values	ItemSearch parameters
Software	863873051	-price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
SportingGoods	836313051	-price (p. 511) -release-date (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Toys	647071051	-price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Video	2016137051	-orig-rel-date (p. 511) -price (p. 511) -pricerank (p. 511) -releasedate (p. 511) -titlerank (p. 511) orig-rel-date (p. 511) price (p. 511) pricerank (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
VideoGames	897416051	-price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice ReleaseDate Sort Title
Watches	1953165051	-price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

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Apparel	78689031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Appliances	931573031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Automotive	78193031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Baby	357577011	-price (p. 511) price (p. 511) psrank (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Beauty	64257031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Blended			Availability ItemPage Keywords
Books	541686	-price (p. 511) -pubdate (p. 511) -publication_date (p. 511) -titlerank (p. 511) -unit-sales (p. 511) inverse-pricerank (p. 511) price (p. 511) pricerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Classical	542676	-price (p. 511) -pubdate (p. 511) -publication_date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) pubdate (p. 511) publication_date (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Availability Composer Conductor ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Orchestra Sort Title
DVD	547664	-price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Electronics	569604	-price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
ForeignBooks	54071011	-price (p. 511) -pubdate (p. 511) -publication_date (p. 511) -titlerank (p. 511) -unit-sales (p. 511) inverse-pricerank (p. 511) price (p. 511) pricerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
GiftCards		-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Artist Availability Keywords MaximumPrice MerchantId MinPercentageOff MinPercentageOff MinimumPrice

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Grocery	344162031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
HealthPersonalCare	64257031	-price (p. 511) -titlerank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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HomeGarden	10925241	-price (p. 511) -titlerank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
HomeImprovement		-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Jewelry	327473011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

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KindleStore	530485031	-edition-sales-velocity (p. 511) -price (p. 511) daterank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Kitchen	3169011	-price (p. 511) -titlerank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Lighting	213084031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Luggage	2454119031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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MP3Downloads	180529031	-albumrank (p. 511) -artistalbumrank (p. 511) -price (p. 511) -releasedate (p. 511) -runtime (p. 511) -titlerank (p. 511) albumrank (p. 511) artistalbumrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) runtime (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Magazines	1161660	-price (p. 511) -titlerank (p. 511) -unit-sales (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

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MobileApps	1661650031	-price (p. 511) pmrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Music	542676	-price (p. 511) -pubdate (p. 511) -publication_date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) pubdate (p. 511) publication_date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
MusicTracks	542676	-titlerank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinPercentageOff MinimumPrice Sort
Musicallnstruments	340850031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
OfficeProducts	192417031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
OutdoorLiving	10925051	-price (p. 511) -titlerank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Outlet	245405031		Availability ItemPage Keywords MerchantId MinPercentageOff

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PCHardware	569604	-price (p. 511) launch_date (p. 511) price (p. 511) psrank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
PetSupplies	427727031	-price (p. 511) -price-new-bin (p. 511) price (p. 511) price-new-bin (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Photo		-price (p. 511) -titlerank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Shoes	362995011	-launch-date (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Software	542064	-date (p. 511) -price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
SoftwareVideoGames	541708	-date (p. 511) -price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
SportingGoods	16435121	-price (p. 511) -release-date (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Tools	235002011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Actor Artist AudienceRating Author Availability Brand Composer Conductor Director ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Neighborhood Orchestra Publisher ReleaseDate Sort Title
Toys	12950661	-date (p. 511) -price (p. 511) -titlerank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
UnboxVideo		date-desc-rank (p. 511) popularity-rank (p. 511) price-asc-rank (p. 511) price-desc-rank (p. 511) relevancerank (p. 511) review-rank (p. 511)	SearchIndex Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
VHS		-price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Video	547664	-price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
VideoGames	541708	-date (p. 511) -price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Watches	193708031	-price (p. 511) -titlerank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

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All			Availability ItemPage Keywords MerchantId
Apparel		-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Automotive	1951052031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Baby	1703496031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Books	599365031	-price (p. 511) -pubdate (p. 511) -publication_date (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
DVD	599380031	-price (p. 511) -releasedate (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Electronics	667050031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
ForeignBooks	599368031	-price (p. 511) -pubdate (p. 511) -publication_date (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
GiftCards		-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Artist Availability Keywords MaximumPrice MerchantId MinPercentageOff MinPercentageOff MinimumPrice

Search index	Browse node	Sort values	ItemSearch parameters
HealthPersonalCare		-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand Director ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Jewelry	2454127031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
KindleStore		-edition-sales-velocity (p. 511) -price (p. 511) daterank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Kitchen	599392031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Lighting		-price (p. 511) -release-date (p. 511) popularityrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Luggage	2454130031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
MP3Downloads	1748201031	-albumrank (p. 511) -artistalbumrank (p. 511) -price (p. 511) -releasedate (p. 511) -runtime (p. 511) -titlerank (p. 511) albumrank (p. 511) artistalbumrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) runtime (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
MobileApps	1661651031	-price (p. 511) pmrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Music	599374031	-price (p. 511) -releasedate (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Artist Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
MusicallInstruments		-price (p. 511) -release-date (p. 511) popularityrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
OfficeProducts		-price (p. 511) -release-date (p. 511) popularityrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Shoes	1571263031	-launch-date (p. 511) -price (p. 511) popularity-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Software	599377031	-price (p. 511) -releasedate (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
SportingGoods	2665403031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Tools	2454134031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Actor Artist AudienceRating Author Availability Brand Composer Conductor Director ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Neighborhood Orchestra Publisher ReleaseDate Sort Title
Toys	599386031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
VideoGames	599383031	-price (p. 511) -releasedate (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Watches	599389031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

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Search index	Browse node	Sort values	ItemSearch parameters
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Search index	Browse node	Sort values	ItemSearch parameters
Apparel	340856031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Appliances	908827031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Automotive	1571266031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Baby	206618031	-price (p. 511) price (p. 511) relevancerank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Beauty	197859031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Blended			Availability ItemPage Keywords
Books	468256	-daterank (p. 511) -price (p. 511) -titlerank (p. 511) -unit-sales (p. 511) inverse-pricerank (p. 511) price (p. 511) pricerank (p. 511) publication_date (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Classical	537366	-price (p. 511) -titlerank (p. 511) inverse-pricerank (p. 511) price (p. 511) pricerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Availability Composer Conductor ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Orchestra Sort Title
DVD	578608	-titlerank (p. 511) amzrank (p. 511) availability (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Electronics	14011561	-price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
ForeignBooks	69633011	-daterank (p. 511) -price (p. 511) -titlerank (p. 511) -unit-sales (p. 511) inverse-pricerank (p. 511) price (p. 511) pricerank (p. 511) publication_date (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
GiftCards		-price (p. 511) -reviewrank_authority (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability Brand Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice

Search index	Browse node	Sort values	ItemSearch parameters
HealthPersonalCare	197862031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
HomeImprovement	590749031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Jewelry	193711031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
KindleStore		-edition-sales-velocity (p. 511) -price (p. 511) daterank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Kitchen	57686031	-price (p. 511) price (p. 511) relevancerank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
LawnAndGarden		-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Lighting	213081031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Luggage	2454146031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
MP3Downloads	206442031	-albumrank (p. 511) -artistalbumrank (p. 511) -price (p. 511) -releasedate (p. 511) -runtime (p. 511) -titlerank (p. 511) albumrank (p. 511) artistalbumrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) runtime (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
MobileApps	1661655031	-price (p. 511) pmrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Music	537366	-price (p. 511) -pricerank (p. 511) -releasedate (p. 511) -titlerank (p. 511) availability (p. 511) price (p. 511) pricerank (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
MusicTracks	301164	-titlerank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort
MusicalInstruments	340862031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
OfficeProducts	192420031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
PCHardware		-price (p. 511) launch_date (p. 511) price (p. 511) psrank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
PetSupplies	1571269031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Shoes	248812031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Software	548012	-date (p. 511) -pricerank (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
SoftwareVideoGames	548014	-date (p. 511) -pricerank (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
SportingGoods	325615031	-launch-date (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

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Toys	548014	-price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title
VHS	578610	-titlerank (p. 511) amzrank (p. 511) availability (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Video	578608	-price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
VideoGames	548014	-date (p. 511) -price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Watches	60937031	-price (p. 511) -titlerank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

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Apparel		-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511)	Author Availability ItemPage Keywords MerchantId

Search index	Browse node	Sort values	ItemSearch parameters
Automotive		-price (p. 511) -release-date (p. 511) popularityrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Baby	1571275031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Beauty	1355017031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Books	976390031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
DVD	976417031	-price (p. 511) daterank (p. 511) inverse-pricerank (p. 511) price (p. 511) releasedate (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Electronics	976420031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
GiftCards		-price (p. 511) -reviewrank_authority (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability Brand Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice
Grocery		-price (p. 511) -release-date (p. 511) popularityrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
HealthPersonalCare		-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MerchantId Sort Title

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HomeGarden	2454176031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Jewelry	1951049031	-price (p. 511) popularity-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
KindleStore		-price (p. 511) -release-date (p. 511) popularityrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Luggage	2454170031	-price (p. 511) date-desc-rank (p. 511) popularity-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Music	976446031	-price (p. 511) -releasedate (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
MusicalInstruments		-price (p. 511) -release-date (p. 511) popularityrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
OfficeProducts		-price (p. 511) -release-date (p. 511) popularityrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
PCHardware	976393031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
PetSupplies		-price (p. 511) -titlerank (p. 511) price (p. 511) relevance (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Shoes		-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
SportingGoods		-price (p. 511) date-desc-rank (p. 511) popularity-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511)	Author Availability ItemPage Keywords MerchantId

Search index	Browse node	Sort values	ItemSearch parameters
Toys	1350381031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
VideoGames	976461031	-price (p. 511) -releasedate (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Watches	1350388031	-price (p. 511) popularity-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Apparel		-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Automotive	1571281031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Baby	1571287031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Books	411664031	-price (p. 511) -pubdate (p. 511) -publication_date (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
DVD	412607031	-price (p. 511) -releasedate (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Electronics	412610031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
ForeignBooks	433843031	-price (p. 511) -pubdate (p. 511) -publication_date (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Garden	635017031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Neighborhood Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
GiftCards		-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Artist Availability Keywords MaximumPrice MerchantId MinPercentageOff MinPercentageOff MinimumPrice
Jewelry	2454164031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title
KindleStore	1331141031	-edition-sales-velocity (p. 511) -price (p. 511) daterank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Kitchen	524016031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Lighting	1571293031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Luggage	2454149031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
MP3Downloads	1748204031	-albumrank (p. 511) -artistalbumrank (p. 511) -price (p. 511) -releasedate (p. 511) -runtime (p. 511) -titlerank (p. 511) albumrank (p. 511) artistalbumrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) runtime (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
MobileApps	1661661031	-price (p. 511) pmrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Music	412601031	-price (p. 511) -releasedate (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Artist Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Musicallnstruments		-price (p. 511) -release-date (p. 511) popularityrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
OfficeProducts		-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
PCHardware	425917031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Shoes	524007031	-launch-date (p. 511) -price (p. 511) inverse-pricerank (p. 511) price (p. 511) pricerank (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Software	412613031	-price (p. 511) -releasedate (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
SportingGoods	524013031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Tools	2454161031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Actor Artist AudienceRating Author Availability Brand Composer Conductor Director ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Neighborhood Orchestra Publisher ReleaseDate Sort Title
Toys	523998031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
VideoGames	412604031	-price (p. 511) -releasedate (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Watches	524010031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

Locale Information for the JP Marketplace

JP Marketplace

Search index	Browse node	Sort values	ItemSearch parameters
All			Availability ItemPage Keywords MerchantId

Search index	Browse node	Sort values	ItemSearch parameters
Apparel	361299011	relevancerank (p. 511) -price (p. 511) price (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Appliances	2277725051	relevancerank (p. 511) -price (p. 511) price (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Automotive	2017305051	relevancerank (p. 511) -price (p. 511) price (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Baby	13331821	psrank (p. 511) -price (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Beauty		relevancerank (p. 511) -price (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Blended			Availability ItemPage Keywords
Books	465610	salesrank (p. 511) -price (p. 511) -publication_date (p.511) -titlerank (p. 511) -unit-sales (p. 511) daterank (p. 511) inverse-pricerank (p.511) price (p. 511) pricerank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Classical	562032	-orig-rel-date (p. 511) -price (p. 511) -pricerank (p. 511) -releasedate (p. 511) -titlerank (p. 511) orig-rel-date (p. 511) price (p. 511) pricerank (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Availability Composer Conductor ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Orchestra Sort Title
DVD	562002	salesrank (p. 511) -orig-rel-date (p. 511) -price (p. 511) -pricerank (p. 511) -releasedate (p. 511) -titlerank (p. 511) orig-rel-date (p. 511) price (p. 511) pricerank (p. 511) releasedate (p. 511) titlerank (p. 511)	Actor Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher ReleaseDate Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Electronics	3210991	relevancerank (p. 511) -price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
ForeignBooks	388316011	salesrank (p. 511) -price (p. 511) -publication_date (p. 511) -titlerank (p. 511) -unit-sales (p. 511) daterank (p. 511) inverse-pricerank (p. 511) price (p. 511) pricerank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
GiftCards		-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice
Grocery	57240051	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
HealthPersonalCare	161669011	-price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Hobbies	13331821	relevancerank (p. 511) -mfg-age-min (p. 511) -price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) mfg-age-min (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
HomeImprovement		relevancerank (p. 511) -price (p. 511) price (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Jewelry	85896051	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title
KindleStore	2250739051	relevancerank (p. 511) -price (p. 511) daterank (p. 511) price (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Kitchen		-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Brand ItemPage Keywords Manufacturer MaximumPrice MaximumPrice MerchantId MinPercentageOff Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
MP3Downloads	2129039051	-albumrank (p. 511) -artistalbumrank (p. 511) -price (p. 511) -price-new-bin (p. 511) -runtime (p. 511) -titlerank (p. 511) albumrank (p. 511) artistalbumrank (p. 511) price (p. 511) price-new-bin (p. 511) releasedate (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511) runtime (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
MobileApps	2381131051	-price (p. 511) pmrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Music	562032	-orig-rel-date (p. 511) -price (p. 511) -pricerank (p. 511) -releasedate (p. 511) -titlerank (p. 511) orig-rel-date (p. 511) price (p. 511) pricerank (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice ReleaseDate Sort Title
MusicTracks	562032	-titlerank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort

Search index	Browse node	Sort values	ItemSearch parameters
Musicallnstruments	2123630051	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
OfficeProducts	86732051	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
PCHardware		-price (p. 511) -price-new-bin (p. 511) price (p. 511) price-new-bin (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
PetSupplies		-price (p. 511) -price-new-bin (p. 511) price (p. 511) price-new-bin (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Shoes		-launch-date (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Software		-price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
SportingGoods		-price (p. 511) -release-date (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Toys		-price (p. 511) -price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
VHS		-orig-rel-date (p. 511) -price (p. 511) -pricerank (p. 511) -releasedate (p. 511) -titlerank (p. 511) orig-rel-date (p. 511) price (p. 511) pricerank (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Video		-orig-rel-date (p. 511) -price (p. 511) -pricerank (p. 511) -releasedate (p. 511) -titlerank (p. 511) orig-rel-date (p. 511) price (p. 511) pricerank (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
VideoDownload		date-desc-rank (p. 511) popularity-rank (p. 511) price-asc-rank (p. 511) price-desc-rank (p. 511) relevancerank (p. 511) review-rank (p. 511)	Actor Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
PetSupplies	2127213051	-price (p. 511) -price-new-bin (p. 511) price (p. 511) price-new-bin (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Shoes	2016926051	-launch-date (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Software	637630	-price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
SportingGoods	14315361	-price (p. 511) -release-date (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Toys	13331821	-price (p. 511) -price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
VHS	2130989051	-orig-rel-date (p. 511) -price (p. 511) -pricerank (p. 511) -releasedate (p. 511) -titlerank (p. 511) orig-rel-date (p. 511) price (p. 511) pricerank (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Video	561972	-orig-rel-date (p. 511) -price (p. 511) -pricerank (p. 511) -releasedate (p. 511) -titlerank (p. 511) orig-rel-date (p. 511) price (p. 511) pricerank (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
PetSupplies		-price (p. 511) -price-new-bin (p. 511) price (p. 511) price-new-bin (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Shoes		-launch-date (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Software		-price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
SportingGoods		-price (p. 511) -release-date (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Toys		-price (p. 511) -price (p. 511) -release-date (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
VHS		-orig-rel-date (p. 511) -price (p. 511) -pricerank (p. 511) -releasedate (p. 511) -titlerank (p. 511) orig-rel-date (p. 511) price (p. 511) pricerank (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Video		-orig-rel-date (p. 511) -price (p. 511) -pricerank (p. 511) -releasedate (p. 511) -titlerank (p. 511) orig-rel-date (p. 511) price (p. 511) pricerank (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
VideoDownload		date-desc-rank (p. 511) popularity-rank (p. 511) price-asc-rank (p. 511) price-desc-rank (p. 511) relevancerank (p. 511) review-rank (p. 511)	Actor Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
VideoGames	637872	-price (p. 511) -releasedate (p. 511) -releasedate (p. 511) -titlerank (p. 511) price (p. 511) release-date (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice ReleaseDate Sort Title
Watches	331952011	-price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

Locale Information for the UK Marketplace

UK Marketplace

Search index	Browse node	Sort values	ItemSearch parameters
All			Availability ItemPage Keywords MerchantId

Search index	Browse node	Sort values	ItemSearch parameters
Apparel	83451031	-launch-date (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Appliances	908799031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Automotive	248878031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Baby	60032031	-price (p. 511) price (p. 511) relevancerank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Beauty	66280031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Blended			Availability ItemPage Keywords
Books	1025612	-price (p. 511) -publication_date (p. 511) -titlerank (p. 511) -unit-sales (p. 511) daterank (p. 511) inverse-pricerank (p. 511) price (p. 511) pricerank (p. 511) pubdate (p. 511) publication_date (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Classical	505510	-price (p. 511) -titlerank (p. 511) inverse-pricerank (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Availability Composer Conductor ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Orchestra Sort Title
DVD	573406	-price (p. 511) -titlerank (p. 511) daterank (p. 511) inverse-pricerank (p. 511) price (p. 511) releasedate (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Electronics	560800	-titlerank (p. 511) daterank (p. 511) inverse-pricerank (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Grocery	344155031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
HealthPersonalCare	66280031	-price (p. 511) -titlerank (p. 511) daterank (p. 511) price (p. 511) releasedate (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
HomeGarden	11052591	-price (p. 511) -titlerank (p. 511) daterank (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
HomeImprovement	79904031	-price (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Jewelry	193717031	-launch-date (p. 511) -price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title
KindleStore	341677031	-edition-sales-velocity (p. 511) -price (p. 511) daterank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Kitchen	11052591	-price (p. 511) -titlerank (p. 511) daterank (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Lighting	213078031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Luggage	2454167031	-price (p. 511) date-desc-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
MP3Downloads	77925031	-price (p. 511) -releasedate (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
MobileApps	1661658031	-price (p. 511) pmrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Music	520920	-price (p. 511) -releasedate (p. 511) -titlerank (p. 511) inverse-pricerank (p. 511) price (p. 511) releasedate (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
MusicTracks	520920	-titlerank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort
MusicallInstruments	340837031	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
OfficeProducts	560800	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
OutdoorLiving	11052591	-price (p. 511) -titlerank (p. 511) daterank (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Outlet	245408031		Availability ItemPage Keywords MerchantId MinPercentageOff MinPercentageOff

Search index	Browse node	Sort values	ItemSearch parameters
PCHardware	340832031	-price (p. 511) launch_date (p. 511) price (p. 511) psrank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
PetSupplies	340841031	-price (p. 511) -price-new-bin (p. 511) price (p. 511) price-new-bin (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Shoes	362350011	-launch-date (p. 511) -price (p. 511) pmrank (p. 511) price (p. 511) reviewrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Software	1025614	-titlerank (p. 511) daterank (p. 511) inverse-pricerank (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
SoftwareVideoGames	1025616	-titlerank (p. 511) daterank (p. 511) inverse-pricerank (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
SportingGoods	319530011	-price (p. 511) -titlerank (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Tools	11052591	-price (p. 511) -titlerank (p. 511) daterank (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor Artist AudienceRating Author Availability Brand Composer Conductor Director ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Neighborhood Orchestra Publisher ReleaseDate Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Toys	712832	-mfg-age-min (p. 511) -price (p. 511) mfg-age-min (p. 511) price (p. 511) salesrank (p. 511)	Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
UnboxVideo		date-desc-rank (p. 511) popularity-rank (p. 511) price-asc-rank (p. 511) price-desc-rank (p. 511) relevancerank (p. 511) review-rank (p. 511)	SearchIndex Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
VHS	125556011	-price (p. 511) -titlerank (p. 511) daterank (p. 511) inverse-pricerank (p. 511) price (p. 511) releasedate (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Video	283926	-price (p. 511) -titlerank (p. 511) daterank (p. 511) inverse-pricerank (p. 511) price (p. 511) releasedate (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
VideoGames	1025616	-titlerank (p. 511) daterank (p. 511) inverse-pricerank (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Watches	328229011	-launch-date (p. 511) -price (p. 511) -titlerank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MerchantId MinPercentageOff Sort Title

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Search index	Browse node	Sort values	ItemSearch parameters
All			Availability ItemPage Keywords MaximumPrice MerchantId MinimumPrice

Search index	Browse node	Sort values	ItemSearch parameters
Apparel	1036592	-launch-date (p. 511) inverseprice (p. 511) pricerank (p. 511) relevancerank (p. 511) sale-flag (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Appliances	2619526011	-price (p. 511) pmrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
ArtsAndCrafts	2617942011	-price (p. 511) pmrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Automotive	15690151	-price (p. 511) -titlerank (p. 511) price (p. 511) relevancerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Baby	165797011	-price (p. 511) price (p. 511) psrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Beauty	11055981	-launch-date (p. 511) -price (p. 511) pmrank (p. 511) price (p. 511) sale-flag (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Blended			Availability ItemPage Keywords

Search index	Browse node	Sort values	ItemSearch parameters
Books	1000	-price (p. 511) -publication_date (p. 511) -titlerank (p. 511) -unit-sales (p. 511) daterank (p. 511) inverse-pricerank (p. 511) price (p. 511) pricerank (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Classical	301668	-orig-rel-date (p. 511) -price (p. 511) -releasedate (p. 511) -titlerank (p. 511) orig-rel-date (p. 511) price (p. 511) psrank (p. 511) releasedate (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Author Availability Composer Conductor ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Orchestra Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Collectibles	4991426011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Artist Author Availability Composer Conductor ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Orchestra Sort Title
DVD	2625374011	-price (p. 511) -releasedate (p. 511) -video-release-date (p. 511) price (p. 511) relevancerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
DigitalMusic	624868011	songtitlerank (p. 511) uploaddaterank (p. 511)	Artist Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Electronics	493964	-price (p. 511) pmrank (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Fashion		-price (p. 511) launch-date (p. 511) popularity-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
FashionBaby		-price (p. 511) launch-date (p. 511) popularity-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
FashionBoys		-price (p. 511) launch-date (p. 511) popularity-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
FashionGirls		-price (p. 511) launch-date (p. 511) popularity-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
FashionMen		-price (p. 511) launch-date (p. 511) popularity-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
FashionWomen		-price (p. 511) launch-date (p. 511) popularity-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
GiftCards	2864120011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords MaximumPrice MerchantId MinimumPrice Neighborhood Sort Title
GourmetFood	16310211	inverseprice (p. 511) launch-date (p. 511) pricerank (p. 511) relevancerank (p. 511) sale-flag (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Grocery	16310211	inverseprice (p. 511) launch-date (p. 511) pricerank (p. 511) relevancerank (p. 511) sale-flag (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
HealthPersonalCare	3760931	inverseprice (p. 511) launch-date (p. 511) pmrank (p. 511) pricerank (p. 511) sale-flag (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
HomeGarden	1063498	-price (p. 511) -titlerank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Neighborhood Sort Title
Industrial	16310161	-price (p. 511) -titlerank (p. 511) pmrank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Jewelry	2516784011	inverseprice (p. 511) launch-date (p. 511) pmrank (p. 511) pricerank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
KindleStore	133141011	-edition-sales-velocity (p. 511) -price (p. 511) daterank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Kitchen	284507	-price (p. 511) -titlerank (p. 511) pmrank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
LawnAndGarden	3238155011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Luggage		-price (p. 511) launch-date (p. 511) popularity-rank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511)	Availability Brand Condition ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
MP3Downloads	624868011	-price (p. 511) -releasedate (p. 511) price (p. 511) relevancerank (p. 511) salesrank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Magazines	599872	-price (p. 511) -publication_date (p.511) -titlerank (p. 511) -unit-sales (p. 511) daterank (p. 511) price (p. 511) reviewrank (p. 511) subslot-salesrank (p.511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
Miscellaneous	10304191	-price (p. 511) -titlerank (p. 511) pmrank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
MobileApps	2350150011	-price (p. 511) pmrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Music	301668	-orig-rel-date (p. 511) -price (p. 511) -releasedate (p. 511) -titlerank (p. 511) artistrank (p. 511) orig-rel-date (p. 511) price (p. 511) psrank (p. 511) release-date (p. 511) releasedate (p. 511) relevancerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Artist Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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MusicTracks	301668	-titlerank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort
MusicallInstruments	11965861	-launch-date (p. 511) -price (p. 511) pmrank (p. 511) price (p. 511) sale-flag (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Search index	Browse node	Sort values	ItemSearch parameters
OfficeProducts	1084128	-price (p. 511) pmrank (p. 511) price (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
OutdoorLiving	2972638011	-price (p. 511) -titlerank (p. 511) price (p. 511) psrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Search index	Browse node	Sort values	ItemSearch parameters
PCHardware	541966	-price (p. 511) price (p. 511) psrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
PetSupplies	2619534011	-price (p. 511) -titlerank (p. 511) price (p. 511) relevance (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Search index	Browse node	Sort values	ItemSearch parameters
Photo	502394	-price (p. 511) -titlerank (p. 511) pmrank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Shoes	672124011	-launch-date (p. 511) -price (p. 511) pmrank (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) reviewrank_authority (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Software	409488	-price (p. 511) pmrank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
SportingGoods	3375301	-price (p. 511) inverseprice (p. 511) launch-date (p. 511) price (p. 511) pricerank (p. 511) relevance-fs-rank (p. 511) relevancerank (p. 511) reviewrank_authority (p. 511) sale-flag (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Tools	468240	-price (p. 511) -titlerank (p. 511) pmrank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Toys	165795011	-age-min (p. 511) -price (p. 511) pmrank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
UnboxVideo	2858778011	-launch-date (p. 511) -price (p. 511) -video-release-date (p. 511) price (p. 511) relevancerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
VHS	2625374011	-price (p. 511) -releasedate (p. 511) -video-release-date (p. 511) price (p. 511) relevancerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
Video	404276	-price (p. 511) -releasedate (p. 511) -video-release-date (p. 511) price (p. 511) relevancerank (p. 511) salesrank (p. 511) titlerank (p. 511)	Actor AudienceRating Availability Director ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Publisher Sort Title
VideoGames	11846801	-price (p. 511) pmrank (p. 511) price (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

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Search index	Browse node	Sort values	ItemSearch parameters
Watches	378516011	-price (p. 511) price (p. 511) relevancerank (p. 511) reviewrank (p. 511) salesrank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title
Wireless	2335753011	-titlerank (p. 511) daterank (p. 511) inverse-pricerank (p. 511) pricerank (p. 511) reviewrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability ItemPage Keywords MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

Search index	Browse node	Sort values	ItemSearch parameters
WirelessAccessories	13900851	-titlerank (p. 511) psrank (p. 511) salesrank (p. 511) titlerank (p. 511)	Author Availability Brand ItemPage Keywords Manufacturer MaximumPrice MerchantId MinPercentageOff MinimumPrice Sort Title

ItemSearch Sort Values

The `ItemSearch Sort` parameter enables you to choose the order of the items in a response. Available sort values vary by locale and search index.

There are many sort values. The majority are not applied unless the `Sort` parameter is included in the request. There are two sort values, however, that are used by default:

- For ItemSearch requests that do not use the `BrowseNode` parameter, results are sorted by relevance ([relevancerank \(p. 511\)](#)).
- For ItemSearch requests that do use the `BrowseNode` parameter, results are sorted by bestseller ranking ([psrank \(p. 511\)](#)).

Sort Values

Value	Description
-age-min	Age: high to low
albumrank	Album: A to Z
-albumrank	Album: Z to A
amzrank	Alphabetical: A to Z
artistalbumrank	Artist: A to Z
-artistalbumrank	Artist: Z to A
artistrank	Artist name: A to Z

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Sort Values

Value	Description
availability	Most to least available
-date	Publication date: old to new
daterank	Publication date: new to old
-daterank	Publication date: old to new
date-desc-rank	Publication date: new to old
-edition-sales-velocity	Quickest to slowest selling products.
inverseprice	Price: high to low
inverse-price	Price: high to low
inverse-pricerank	Price: high to low
launchdate	Launch date: newer to older
launch-date	Launch date: newer to older
-launch-date	Launch date: older to newer
mfg-age-min	Age: low to high
-mfg-age-min	Age: high to low
orig-rel-date	Original release date: earliest to latest
-orig-rel-date	Original release date: latest to earliest
paidsalesrank	Bestseller ranking taking into consideration projected sales. The lower the value, the better the sales.
pct-off	Discount: high to low
-pct-off	Discount: low to high
pmrank	Featured items
popularityrank	Items ranked by popularity
popularity-rank	Items ranked by popularity
price	Price: low to high
-price	Price: high to low
price-asc-rank	Price: low to high
price-desc-rank	Price: high to low
price-new-bin	Price: low to high
-price-new-bin	Price: high to low
pricerank	Price: low to high
-pricerank	Price: high to low
psrank	Bestseller ranking taking into consideration projected sales. The lower the value, the better the sales.

Product Advertising API Developer Guide
Sort Values

Value	Description
pubdate	Publication date: newest to oldest
-pubdate	Publication date: oldest to most recent
publicationdate	Publication date: newest to oldest
publication_date	Publication date: newest to oldest
-publicationdate	Publication date: oldest to most recent
-publication_date	Publication date: oldest to most recent
releasedate	Release date: older to newer
release-date	Release date: older to newer
-releasedate	Release date: newer to older
-release-date	Release date: newer to older
relevance	Items ranked according to the following criteria: how often the keyword appears in the description, where the keyword appears (the ranking is higher when keywords are found in titles and—if there are multiple keywords—how closely they occur in descriptions), and how often customers purchased the products they found using the keyword.
relevance-fs-rank	
relevancerank	Items ranked according to the following criteria: how often the keyword appears in the description, where the keyword appears (the ranking is higher when keywords are found in titles and—if there are multiple keywords—how closely they occur in descriptions), and how often customers purchased the products they found using the keyword.
reviewrank	Highest to lowest ratings in customer reviews.
review-rank	Highest to lowest ratings in customer reviews.
reviewrank_authority	Review rank: high to low
-reviewrank_authority	Review rank: low to high
runtime	Track length: high to low
-runtime	Track length: low to high
sale-flag	On sale
salesrank	Bestselling
songtitlerank	Most popular
subslot-salesrank	Bestselling
titlerank	Alphabetical: A to Z
-titlerank	Alphabetical: Z to A
-unit-sales	
uploaddaterank	Date added

Value	Description
-video-release-date	Release date: newer to older
xsrelevancerank	

MarketplaceDomain Parameter

The *MarketplaceDomain* parameter directs a request for products and offers to the marketplace domain that you specify. A marketplace domain is a website that is powered by Amazon.com and that supports the Amazon Associates program.

The following table shows valid values for *MarketplaceDomain*. These values are locale-specific.

Locale	Marketplace domain
DE	www.javari.de
JP	www.javari.jp
UK	www.javari.co.uk
US	www.amazonsupply.com

If an ItemSearch request includes the *MarketplaceDomain* parameter, SearchIndex must be set to *Marketplace*.

Cart operations cannot include the *MarketplaceDomain* parameter.

If a request includes the *MarketplaceDomain* parameter, the following elements are not returned:

- MoreOffersUrl
- IFrameUrl
- ItemLinks

Glossary

Access Key ID	An alphanumeric token that uniquely identifies a request sender. This ID is associated with your Secret Access Key.
accessory	An related items, such as a camera, its carrying case and USB cord.
active area	In a shopping cart, this area contains the items that are ready to be purchased.
Amazon marketplace	The feature by which Amazon relates seller items directly to retail catalog items and content. This feature leverages the retail buying experience and content to third-party seller items. .
ASIN	(Amazon Standard Item Number) An alphanumeric token generated and assigned by Amazon that uniquely identifies an item for sale by Amazon. ASINs are unique within a locale, not across locales..
Associate ID	An automatically generated unique identifier for a member of the Amazon Associates program. Also known as Associate tag.
Associate tag	An automatically generated unique identifier for a member of the Amazon Associates program. Also known as Associate ID.
buyer	A person(s) agreeing to exchange money for an item delivered by a seller.
collection	An ensemble of related items, such as a coordinated set of sheets, pillow cases, and curtains.
EISBN	(Electronic International Standard Book Number) A token that uniquely identifies a digital book.
ISBN	(International Standard Book Number) An alphanumeric token that uniquely identifies a book. A book's EAN is typically set equal to the book's ISBN
JAN	(Japanese Article Number) The equivalent of the EAN that is used in Japan for products and barcodes.
locale	A region in which Product Advertising API is offered. In each locale, Product Advertising API offers support in the local language, currency, customs, and local shipping. Currently, there are seven locales: CA, DE, FR, JP, UK, and US.
merchant	For the purposes of this document, a merchant is a third party who is selling on the Amazon.com web site but handles their own fulfillment. Merchants help expand the Amazon.com catalog of sellable items by providing Product Data for products Amazon.com currently has no data on, or relate their products to products already

identified in the Amazon retail catalogs. Examples include Circuit City (both from a drop ship and in-store pickup point of view) and Ingram Micro (PC Store). For the purposes of the Bulk DP Creation project, "Merchant" does not include Toys R Us (since we carry all of their online inventory in our DCs).

marketplace	a place, physical or otherwise, where merchants offer goods for sale, and customers accept offers, place orders and make purchases. It is the logical container for all data and attributes associated with an eCommerce site. A marketplace is identified by a globally unique MarketplaceId. Marketplaces may be specific to data centers, but they should be considered global. They have a default language code and currency code, but they should be considered capable of multi-lingual and multi-currency support in designs. Only Amazon's Marketplaces are country-specific due to legacy reasons.
MarketplaceId	An alphanumeric token that identifies a locale, for example, DE: A1PA6795UKMFR9, FR: A13V1IB3VIYZZH, or a large merchant, for example, Amazon: ATVPDKIKX0DER.
minimum advertised price (MAP)	The minimum price that a manufacturer allows a product to be advertised at.
offer	Item offered for sale. An offer is not associated with a merchant.
Offering	Offerings are the specific instances of a Merchant's possible stock items. A Merchant "can" have unique offerings for each product they carry and have either. A specific quantity associated with each product A stock availability state {In-Stock, Out-Of-Stock, Back-Ordered, Discontinued, Obsolete, On-Order, etc?} Saleable status is determined by positive inventory states of available quantity > 0, or ?In stock?. Offerings will have transactional rules (max quantity purchasable), condition types ('new', 'used'), and tax codes associated with them An offering is not a buyable entity on its own. An offering with an immediate availability relationship can be purchased. An Offering with a delayed availability relationship can only be ordered.
OfferListing	An item offered for sale by a specific seller or merchant. This is the inventory level specific buyable entity. It ties the merchant/customer, item, item location, pricing, and availability together. These currently represent items ?in-stock? that are essentially shipped at point of sale.
Product	Something offered for sale. Each product has an ASIN. There may be many offerings for a particular product. Product is synonymous with "item".
SaveForLater	Contains items that a customer has chosen to buy but are currently unavailable, or items that a customer has designated they want to save and buy later.
Secret Access Key	A key assigned to you by Amazon Web Services (AWS) when you sign up for an AWS account. Used for request authentication.
seller	Sellers are individuals or companies that sell their own items. For most sellers, the items they sell must already be for sale on Amazon. The exception is the Amazon Advantage seller, who sells items that are not on Amazon.
Seller Central	A web site that allows merchants to manage their web sites and listings. Go to http://sellercentral.amazon.com
Single Detail Page (SDP)	The purpose of Single Detail Page is to expose, for any given retail ASIN, all instances of a product that can be purchased from the Amazon.com site. The display for an ASIN would incorporate links to alternate purchase channels for the same item. For example a books detail page would list a new book from

	Amazon.com and used/rare/collectable editions from fixed price MarketPlace sellers.
SKU	(Stock Keeping Unit) A merchant-specific identifier for a purchasable good, like a shirt or chair. Amazon's version of the SKU is the ASIN.
UPC	(Universal Product Code) A 12-digit item identifier used in the US and CA locales. The UPC is identifier used in barcodes.
variant	A single version of a given product that has variations. A variant is an item defined by its product, and the unique set of property values from each property in the full set of required properties for that item.
variation	Different versions of a given product. If a pair of pants is available in khaki and olive, then the pants are said to have two variations. Variations are one of the two types of product relationships we support (ensembles is the other).

Document History

The following table describes the important changes since the last release of the *Product Advertising API Developer Guide*.

API version:2013-08-01

Latest documentation update:June 24, 2014

Change	Description	Release Date
New OfferListing flag	The IsEligibleForPrimeFreeDigitalVideo flag indicates whether an Amazon Instant Video is eligible to view for free with a Prime Subscription.	24 June 2014
New Marketplace	The IN (India) marketplace was added.	6 June 2013
Added MarketplaceDomain support for www.amazonsupply.com	We added MarketplaceDomain support for a new URL, www.amazonsupply.com.	25 July 2012
New SearchIndex values	We added support for two SearchIndex values: HomeImprovement (FR) and Collectibles (US)	16 July 2012
Support for music in AlternateVersions	We've added support for additional product categories. SearchIndex values for AlternateVersions now include Music, KindleStore, and MP3Downloads.	20 June 2012
New SearchIndex values	We added two new SearchIndex values: LawnAndGarden (US) and Appliances (JP)	4 April 2012
New Marketplace	The ES (Spain) marketplace was added.	20 September 2011
New Marketplace	The IT (Italy) and CN (China) marketplaces were added.	1 August 2011
Changes to Operations and Response Groups	As part of our efforts to streamline the Product Advertising API, we will be making changes to the currently supported operations and response groups. This guide will be updated to reflect these changes in the next few weeks. For more details about these changes, go to Changes to the Product Advertising API .	26 July 2011

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