Product Catalog Data Feed Implementation Guidelines for Publishers

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Overview

This document is your guide to implementing Rakuten Advertising Product Catalog data feeds. It provides you with information on how to automate the process of obtaining product information from your advertiser partners who are part of Rakuten Advertising and have subscribed to the Product Catalog program.

There are two levels of implementation for Product Catalog data feeds. First, you will need to be approved and set up for the technical implementation of the product data feeds, and then you will need to be approved by each of your participating advertiser partners to use their Product Catalog data feed on your website or blog.

Technical Requirements for Using Product Catalog

To automate the process of obtaining product information, you must be able to:

- Download files from an SFTP account.
- Process XML or pipe-delimited text files that contain the product information.

Product Catalog File Sections

The product files have three sections: header, product data, and trailer.

Header Section

The header contains the ID and name of the advertiser and a time stamp indicating when the file was deposited in your SFTP account. This record is terminated with a carriage return.

MID	The numeric value assigned to identify each advertiser.
Name	The name of the advertiser. This is advertiser-defined and may change.
Time	The time that the file was deposited in your SFTP account in UTC. The
Stamp	format is mm/dd/yyyy hh:mm:ss

Example:

- .txt file: HDR | 1237 | NORDSTROM.com | 09/03/2022 00:02:32
- .xml file:

<header><merchantId>1237</merchantId><merchantName>NORDSTROM.COM

</merchantName><createdOn>09/03/2022
00:02:32</createdOn></header>

Product Data Section

This section contains individual product data records. Each line has data for one product. The product data record has two parts: the primary section and the attribute section. The attribute section is optional. The primary section has 28 fields. The attribute section includes up to 10 values for all but credit card products, which can have up to 22 values. **Please note**: if an advertiser does not include the attribute section, their Product Catalog file will still include placeholders for all fields.

Primary Information

The primary section provides basic information about each product, including the SKU number, Product Name, Primary Category, Product URL, and Retail Price. The details of all the fields that are part of this section are explained in Appendix A.

Attribute Information

The attribute section comprises the last 10 fields (22 for credit cards) and provides detailed information about each product based on certain product class definitions. The fields in this section are optional. The number of field values and the contents of each field in the attribute section will depend on the Class ID for the specific product.

The Class ID identifies a product's class category and the attributes associated with that class allow the advertiser to include additional information about a product.

For example, Class ID 40 identifies the product category Computer Hardware. For this Class ID, the fields are Platform, RAM, Hard Drive, Processor, Monitor Size, Modem and Drive.

Rakuten Advertising currently has 16 predefined Class IDs available. Each Class ID has a predetermined set of attribute fields. Appendix B provides details on the fields for each Class ID.

Please note: Class IDs will not have the same number of attribute fields and not all fields are required to have data. Appendix D provides you with sample records.

Trailer Section

The last record of the Product Catalog file is the trailer that begins with the characters TRL, followed by a pipe-delimiter. The trailer provides you with the number of product records that were contained in the Product Catalog file.

Examples:

- .txt file: TRL | 45826
- .xml file: <trailer><numberOfProducts>33</numberOfProducts></trailer>

File Formats

Product Catalog files are available in two formats: pipe-delimited text and XML.

Pipe-Delimited Text File

This file uses the pipe-delimiter (|) to divide fields. Each record is terminated by a new line/carriage return. The file will be populated with all the fields that advertisers are required to provide along with other information that may have been provided by the advertiser. If there is no data for a field, its position is preserved in the file by its delimiter. Field values containing pipe delimiter will be enclosed in double quotes.

XML Product Catalog File

The XML Schema and the XML Document Type Definition that specify the XMLformatted file are available in Appendix C.

Please note: XML standards specify that all **&** characters be coded as **&**. This includes any ampersands in the product, buy, image, and impression pixel URLs. Before using a link, you must change these instances of **&** to **&**. Here's an example:

Link as it comes in the XML feed:

com/link?id=xxxxxxxxxxxx&off
erid=

90431.10000046&murl=http%3A%2F%2Fwww.examplemerchant.com%2Fa% 2Fpro ducts%2F678262</product>

Link that has & amp; encoded and is ready to be used:

http://click.linksynergy.com/link?id=xxxxxxxx&offerid=90431.1000004
6&murl=http%3A%2F%2Fwww.examplemerchant.com%2Fa%2Fproducts%2F678262

Additionally, tags for unused fields are not included in XML files.

File Names

Product Catalog file names have three parts, each separated by an underscore: Advertiser ID, Publisher Channel ID, and File Type.

- The **Advertiser ID** or **MID** is a unique ID that Rakuten Advertising Affiliate Network uses to identify the advertiser. This is always numeric.
- The **Publisher Channel ID** or **SID** is a unique ID that Rakuten Advertising Affiliate Network uses to identify the publisher channel. This is always numeric.
- The **file type "mp"** defines that the file is a Product Catalog file.

The file name extensions specify what type of Product Catalog file it is. The pipedelimited file has a .txt extension and the XML-formatted file has an .xml extension. The files are all compressed, hence there is .gz after the file type extension.

Example: 2385_112_mp.txt.gz, where:

- 2385 is the Advertiser Program ID.
- 112 is the Publisher Channel ID.
- mp indicates that it is a Product Catalog file.
- .txt indicates that this is a pipe-delimited Product Catalog file.

Product Catalog File Types

The Rakuten Advertising Product Catalog feature allows advertisers to upload their product information to us. We process the uploaded information and create a corresponding publisher tracking URL for each product and make the product information available to publishers via SFTP. You have several choices of file types you can download for each advertiser:

- **Full file**: A full file that contains all of an advertiser's products, not just the products that changed since the last download.
- **Delta file**: A delta file that only includes an advertiser's new, changed, and deleted product records.

- **Category file**: Files that contain products only from a particular product category based on the categories defined by the advertisers. Category files are also available as full and delta files.
- **Global and Additional files**: Advertisers may include upload feeds in different languages and currencies or create feeds that allow them to separate subsets of products from their main feed.

Delta Files

Delta files allow you to download smaller files that contain only product updates, including new, changed, and deleted product records. This can be useful for updating feeds for advertisers with particularly large product catalogs. The type of change made is reflected in an additional field called Modification. In pipe-delimited files, this is the last field for each product record. In XML files, this is denoted by the <modification> tag. See the Modification field in Appendix A for supported values.

The file contains all changes that were made when the advertiser's last feed was processed. Advertisers can process feeds multiple times a day, so it is recommended that you check the server often for updates, referring to the timestamp on the file to determine if changes have been made since you last pulled the file. Additionally, it is recommended that you pull a full file on a regular basis to ensure that you have the complete Product Catalog.

The delta file name is the same as the one used to download the full Product Catalog file, except that it has the word **delta** appended to it:

Examples:

- .txt file: 2385_112_mp_delta.txt.gz
- .xml file: 2385_112_mp_delta.xml.gz

The header for the Delta file is the same as the one for the full file and includes MID, Advertiser Name, and Time Stamp in the format shown above.

Category Files

Product Catalog by Category is a feature that allows you to download files for specific advertiser product categories instead of downloading the full product file. This means that if you only need products in the electronics product category, you can download the feed for just this category.

For each advertiser who has approved you for access to their Product Catalog feed, you will see a folder. The folder name will be the MID of the advertiser. The folder will contain two types of files: Product Category List File, and Category-Specific Product Catalog File.

Product Category List File

This is a pipe-delimited text file that lists the ID and product category name as specified by the advertiser. Category IDs are unique to each advertiser and are subject to change. The file is named MID_category_list.txt, where MID is the Advertiser ID. Each product category is listed on one line.

```
Example: 2385_category_list.txt
```

Sample Contents:

10|Lawn and Garden|525 rows 11|Toys|625 rows 12|Outlet|1024 rows 15|Electronics|23 rows

Category-Specific Product Catalog File

This is a Product Catalog file for a specific advertiser product category. This file is named MID_SID_XX_cmp.txt.gz for the text format and MID_SID_XX_cmp.xml.gz for the XML format. XX is the numeric ID for the specific product category.

Example:

2385_112_15_cmp.txt.gz 2385_112_15_cmp.xml.gz

Based on the sample product category list above, these files are for the electronics product category. The contents of the file are formatted identically to the full Product Catalog files.

We suggest that you download the product category file first and use it to determine the categories that you are interested in downloading. Once you have determined the ID of the categories you want to download, you should be able to create a script that will download the files for just those categories by automatically replacing the XX with the product category ID. **Please note**: Products are categorized by the advertisers and there is a chance that they have placed products into the wrong categories. In these cases, contact the advertisers to ask them to update their categories.

Global and Additional Files

Rakuten Advertising permits advertisers to submit multiple files per account. If an advertiser chooses to make more than one Product Catalog file available, you will find these files nested under either a "GLOBAL" folder or an "ADDITIONAL" folder in the root directory of your SFTP account. "Global" files contain products in a different language and/or currency than the main feed file. "Additional" files have the same language and currency as the main feed file.

Global Files: Directory and File Naming Conventions

You must follow the specified directory structure and file naming conventions to browse and download your desired Global feeds. The GLOBAL directory contains subdirectories for each supported country-language-currency combination. Within each of these, you will find directories for each MID as well as the global feed files in both full and delta versions. The MID subdirectories include category-specific files in both full and delta formats for that specific country-language-currency combination, and a category list text file that provides the list of primary categories and category IDs that you can use to determine which categories are in each file. See the previous section on Product Category Files for more information on category files.

```
root
GLOBAL (folder)
FR-FR_EUR (folder - language-locale_currency)
12345 (folder - the number here is the Advertiser ID, or MID)
12345_678_mp_FR-FR_EUR.txt.gz
12345_678_mp_delta_FR-FR_EUR.txt.gz
FR-CA_CAD (folder - language-locale_currency)
12345 (folder)
12345_678_mp_FR-CA_CAD.txt.gz
12345_678_mp_delta_FR-CA_CAD.txt.gz
```

Additional Files: Naming Conventions

You must follow the specified naming convention to browse and download your desired additional feeds. The ADDITIONAL directory contains subdirectories for each MID providing an additional feed. Within each of these, you will find directories for each additional feed provided. Within those subdirectories, you will find the additional feed files in both full and delta formats for that specific additional feed. Category specific files are not available for additional feeds.

```
root
ADDITIONAL (folder)
12345 (folder - the number here is the Advertiser ID, or MID)
    2017Summer (folder - name of the Additional file, as
specified by the Advertiser)
        12345_678_mp_2017Summer.txt.gz
        12345_678_mp_delta_2017Summer.txt.gz
        Back2School (folder - name of the Additional file, as
        specified by the Advertiser)
        12345_678_mp_Back2School.txt.gz
        12345_678_mp_delta_Back2school.txt.gz
```

Downloading Product Catalog Files

You can download the Product Catalog file from your account using any SFTP client software. View instructions below to request enablement.

Example: get 2385_112_mp.txt.gz

Downloading Delta Files:

If you download Product Catalog files frequently, or if you work with an advertiser with an especially large Product Catalog, you can download a Delta file that only includes an advertiser's new and changed product records from their most recent upload. This file downloads faster than the full Product Catalog file.

The delta file name is the same as the one used to download the full Product Catalog file, except that it has the word delta appended to it:

2385_112_mp_delta.txt.gz (for the text file)
2385_112_mp_delta.xml.gz (for the XML file)

The header for the Delta file is the same as the one for the full file and includes MID, Advertiser Name, and Time Stamp in format shown above.

Product files are generated dynamically at the time of retrieval. This ensures that all publishers receive the most up-to-date product information when they retrieve advertisers' Product Catalog files. The timeliness of the product information depends on the frequency with which advertisers update the information in their Product Catalog database.

Note: Our servers process the advertiser's product updates shortly after upload. The time to process the file will depend on the file size. The updated information is available to publishers immediately after processing is complete.

Getting Started

All Product Catalog publishers must first register to become a member of Rakuten Affiliate. If your company has yet to do so, please sign up by going to <u>https://rakutenadvertising.com/</u> and clicking **Become a Publisher**. Once registered, you will receive an email with registration approval and your new publisher account information, along with your Site ID.

You will then need to follow **Step 1** to obtain FTP access and **Step 2** to obtain advertiser approval to use their Product Catalog feeds, as outlined below.

Step 1: Technical Set Up Process

SFTP Set Up

The Product Catalog feed is available to you via SFTP. The Rakuten Affiliate SFTP server hostname is aftp.linksynergy.com.

To get started, send an email to <u>pubsupport@rakuten.com</u> with your Rakuten Affiliate username and site ID (SID). When you submit your application for Product Catalog, these steps are performed:

- We establish a unique SFTP account on our servers from which you can download files.
- A username and password are assigned to the SFTP account.

Within one business day, a Customer Support representative will respond to your request with your username, password, and the URL of your SFTP account.

SFTP Access

You can access your SFTP account using any SFTP client. You can also automate the process of downloading the file or do it manually. You should set the transfer mode to binary before you start downloading files, as the files are stored in a compressed format. Using ASCII mode will corrupt the data in the file and render it useless. If you are using a script to automate the process of downloading the files, ensure that you do not open more than five connections to the SFTP server at one time.

Please note:

- Always use passive connections when connected to aftp.linksynergy.com with plain FTP.
- Always set mode to binary before downloading files with plain FTP.
- No more than five concurrent connections are allowed per publisher SFTP account.
- File sizes shown are estimates. Actual file sizes will vary. Therefore, you are advised to NOT use file size as a check to ensure successful downloads. Downloads should be considered successful if the file extracts correctly and ends with a trailer record indicating the number of products in the file.
- If you are using a script to retrieve the files, wget is preferred over curl. If using curl, you must use the **--ignore-content-length** option.
- While plain FTP is currently supported, it is strongly recommended that you use SFTP instead. Support for plain FTP will be deprecated later this year.

SFTP Account Contents

In the root directory of your SFTP account, you will see files and a folder for each advertiser that has approved you for access to their Product Catalog feed. You may also see folders titled "GLOBAL" and "ADDITIONAL" if any of your advertiser partners have more than one product feed.

The files in the root directory are your Product Catalog files and the numbered folders contain files that provide you with product data for individual product categories. The folder name corresponds to the MID of the advertiser and the files are available in two formats: pipe-delimited text and XML.

You can select the format you prefer in your Publisher Dashboard:

• From the new Publisher Dashboard "Beta": go to Links and click Product Feeds:

Feed Settings	Auto enrollment When partnering with a new Advertiser you will
	automatically request product feed access.
	Preferred feed format
	This is the format the data feeds will be uploaded into your FTP server.
	 .txt .xml

• From the legacy Publisher Dashboard: go to Links, select Data Feeds, click Product Catalog, and click Edit Settings:

Auto-apply (automatically ap	oply for Product Cat	alog when applying to advertisers)	
File Format:	• тхт	Oxml	Cancel OK
Decimal Symbols For Price	s: Period	Comma	
Date Format:	dd/mm/yyyy ~		

If you do not select a format, your SFTP account will contain two files and a folder for each advertiser who has approved you for access to their Product Catalog feed. From the Edit Settings page, you can also select whether price fields are separated by a decimal point (24.50) or a comma (24,50) and the format of the date. If you do not select a format for the price and date fields, the defaults are a decimal point and mm/dd/yyyy.

Step 2. Advertiser Product Catalog Approval Process

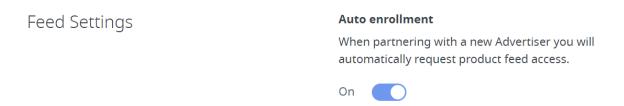
Once you have completed the technical setup of Product Catalog, you will need to request access from the participating advertisers with whom you are already partnered. You can see a listing of advertisers who offer Product Catalog in your Publisher Dashboard:

• From the new Publisher Dashboard "Beta": go to Links, click Product Feeds and scroll down to search for advertisers by name. This displays the list of advertisers among your partners who offer Product Catalog.

From there, you can apply for access, remove yourself from access, and view the status of your application:

Search by Keyword	
Q Search by Advertiser name Filters	
Advertisers 🗑	
Timberland C Timberland EU	Apply
THE WEBSTER The Webster	💼 Remove
NO LOGO Shiseido EU	Apply
NO LOGO Rakuten Marketing UK Test Account	Pending Approval

You can automatically request Product Catalog approval when you apply to a new participating advertiser's program with our Auto enrollment option. You can turn Auto enrollment on or off in the "Feed Settings" section of the Product Feeds page:



• From the legacy Publisher Dashboard: go to Links, select Data Feeds, click Product Catalog, and click See all advertisers offering Product Catalog. This displays all Rakuten Affiliate Advertisers who offer Product Catalog.

To apply for Product Catalog access from existing advertiser partners who offer it, click on the Available tab, then click **Apply**.

Active	Pending	Available	Declined
		(Apply
		(Apply
		(Apply
		ſ	Apply

You can automatically request Product Catalog approval when you apply to a new advertiser partner who offers it with our auto-reply option, which you can find on the **Edit Settings** section of the Product Catalog page:

		22224775-40
ile Format:	●TXT	OXML
Decimal Symbols For Prices:	Period	OComma
Date Format:	dd/mm/yyyy 🗸	Ĩ

Product Catalog Frequently Asked Questions

Q: My script only downloads the files when the file date changes. Will this work with Product Catalog?

A: Yes, you should be able to use the date stamp of the file in the directory (which indicates the creation time in UTC) to see what's been changed and pull only the newest items.

Q: Why do I have multiple advertiser files in my account?

A: You have the choice of a pipe-delimited text file and an XML-formatted file. You can select your preferred format by going to your Publisher Dashboard, as outlined in the "SFTP Account Contents" section of this document. If you do not select a format, your SFTP account will contain .txt and .xml versions of each file type.

Q: What are the folders that I see in my SFTP account?

A: The folders in your SFTP account are for each advertiser that you are eligible to get Product Catalog files from. The folders contain the category-specific Product Catalog files for the advertisers.

Q: Do I need to be approved by each advertiser for use of their Product Catalog product data feed?

A: Yes, there are two levels of approval for Product Catalog. First, you receive technical approval and then you will need advertiser approval. You will need to request Product Catalog approval when you apply to a new advertiser program, and/or request it separately from existing advertiser partners.

Q: What do I do if an advertiser's Product Catalog data is stale?

A: It is best to let the advertiser know directly. You can find an advertiser's contact information in the dashboard:

- From the Publisher Dashboard "Beta": click Search in the navigation header and select **Advertisers** from the index drop-down menu. Enter the advertiser's name or MID, then click **View full details** to access their details page.
- From the legacy Publisher Dashboard: enter the advertiser's name or MID in the Advertiser Search box, then click their logo to access their program page.

If you are not sure if what you are concerned about is a stale data issue, feel free to contact Customer Support.

Appendix A: Product Catalog File Field Definitions

Product Field #	Name	Data Type (Max Length)	Required/Optional	Кеу
1	Product ID	Number	Optional	Unique ID that is used to identify a product. It will be an integer greater than 2 and have less than 31 total characters.
2	Product Name	Text (255)	Required	Product name.
3	SKU Number	Text (64)	Required	SKU Number. Majority of advertisers provide a unique value in this field. Some advertisers provide duplicate SKU values and as such duplicate SKUs for select advertisers will be available in some Product Catalog feed files.
4	Primary Category	Text (50)	Required	Primary product category.
5	Secondary Category	Text (500)	Optional	Secondary product categories, delimited with double tildes (~~).
6	Product URL	Text (2000)	Required	URL of the product page.
7	Product Image URL	Text (2000)	Required	URL of product image. This will be an absolute URL.
8	Buy URL	Text (2000)	Optional	URL of shopping cart with product.
9	Short Product Description	Text (500)	Optional	Short description of the product.
10	Long Product Description	Text (2000)	Optional	Long description of product.
11	Discount	Number	Optional	Relies on discount type (below) to determine how to apply. If Discount Type is amount, then discount is deducted. If it is percentage, then percentage is deducted. The format uses either a decimal point or a comma. You can select your preferred format in your Publisher Dashboard, as outlined in the "SFTP Account Contents" section of this document.
12	Discount Type	Text (10)	Optional	Values: amount of percentage.

Product Field #	Name	Data Type (Max Length)	Required/Optional	Кеу
13	Sale Price	Number	Optional	This price reflects any discounts. The format uses either a decimal point or a comma. You can select your preferred format in your Publisher Dashboard, as outlined in the "SFTP Account Contents" section of this document.
14	Retail Price	Number	Required	The format uses either a decimal point or a comma. You can select your preferred format in your Publisher Dashboard, as outlined in the "SFTP Account Contents" section of this document.
15	Begin Date	Date (mm/dd/yyyy hh:mm:ss)	Optional	Date and time that the product becomes available. The format uses either a decimal point or a comma. You can select your preferred format in your Publisher Dashboard, as outlined in the "SFTP Account Contents" section of this document.
16	End Date	Date (mm/dd/yyyy hh:mm:ss)	Optional	Date and time that the product ceases to be available. The format uses either a decimal point or a comma. You can select your preferred format in your Publisher Dashboard, as outlined in the "SFTP Account Contents" section of this document.
17	Brand	Text (255)	Optional	Brand name.
18	Shipping	Number	Optional	The cost of the default shipping option available. The format uses either a decimal point or a comma. You can select your preferred format in your Publisher Dashboard, as outlined in the "SFTP Account Contents" section of this document.
19	Keyword(s)	Text (500)	Optional	Keywords for searches, delimited with double tildes (~~).
20	Manufacturer Part #	Text (50)	Optional	Manufacturer's part number (may sometimes be the same as SKU).
21	Manufacturer Name	Text (250)	Optional	Manufacturer's name.

Product Field #	Name	Data Type (Max Length)	Required/Optional	Кеу
22	Shipping Information	Text (50)	Optional	Text-based shipping information - provides details on the default shipping option.
23	Availability	Text (50)	Optional	Denotes whether the product is in stock. Values will be one of 'in- stock', 'out-of-stock', 'preorder' or 'backorder'.
24	Universal Product Code	Text (15)	Optional	Universal Product Code. May be UPC, EAN or JAN.
25	Class ID	Number	Optional	Classification ID based on product type (see class definition table).
26	Currency	Text (3)	Required	The 3-character ISO Currency Code. Use ('USD', 'CAD', 'GBP', 'JPY', 'AUD', or 'EUR') for U.S. dollar, Canadian dollar, British pound, Japanese yen, Australian dollar, or Euro. USD is default.
27	M1	Text (2000)	Optional	Blank field unless other arrangements have been made.
28	Pixel	Text (128)	Optional	1x1 pixel tag used to track impression data for the link. This is a full tag with all appropriate attributes. See Appendix D for a sample record.
29	Attribute 1	See Attribute definitions in Appendix B.	Optional	See Attribute definitions in Appendix B.
30	Attribute 2	See Attribute definitions in Appendix B.	Optional	See Attribute definitions in Appendix B.
31	Attribute 3	See Attribute definitions in Appendix B.	Optional	See Attribute definitions in Appendix B.
32	Attribute 4	See Attribute definitions in Appendix B.	Optional	See Attribute definitions in Appendix B.
33	Attribute 5	See Attribute definitions in Appendix B.	Optional	See Attribute definitions in Appendix B.
34	Attribute 6	See Attribute definitions in Appendix B.	Optional	See Attribute definitions in Appendix B.

Product Field #	Name	Data Type (Max Length)	Required/Optional	Кеу
35	Attribute 7	See Attribute definitions in Appendix B.	Optional	See Attribute definitions in Appendix B.
36	Attribute 8	See Attribute definitions in Appendix B.	Optional	See Attribute definitions in Appendix B.
37	Attribute 9	See Attribute definitions in Appendix B.	Optional	See Attribute definitions in Appendix B.
38	Attribute 10	See Attribute definitions in Appendix B.	Optional	See Attribute definitions in Appendix B.
39-50	Attribute 11- 12	See Attribute definitions in Appendix B.	Optional	Only applicable for Credit Cards ClassID 150. See Attribute definitions in Appendix B.
39(51)	Modification	Char(1)	Required (for delta files)	Available only in Delta files I = Insert U = Update D = Delete

Please note: Certain entries are required fields. If an advertiser does not submit attribute data, their Product Catalog file still contains 38 fields (39 fields in delta files).

Appendix B: Attribute File Class Definitions

Class ID	Class Name	Product Catalog Field #	Attribute Name	Definition	Кеу
		29	Miscellaneous	Text (128)	Extraneous Information
		30	Title	Text (128)	Title of Book
		31	Author	Text (128)	Name of Author
10	Books	32	ISBN	Text (128)	An ISBN number
		33	Publisher	Text (128)	Publisher
		34	Publish Date	Text (128)	Publish Date
					·
		29	Miscellaneous	Text (128)	Extraneous Information
		30	Genre	Text (128)	Jazz, Blues, etc.
		31	Artist	Text (128)	Artist
		32	Format	Text (128)	CD, Cassette, or LP
20	Music	33	Album	Text (128)	Album Title
		34	Song Title	Text (128)	Titles of Songs on Album
		35	Label	Text (128)	Record Label
		36	Release Date	Text (128)	Date Album was released
				10/11 (120)	
		20	Miccollorssus	Tout (400)	
		29	Miscellaneous	Text (128)	Extraneous Information
		30	Genre	Text (128)	Movie category – horror, sci-fi, etc.
		31	Title	Text (128)	Movie title
		32	Format	Text (128)	DVD, VHS
30	Movies	33	Director	Text (128)	Director
		34	Actor	Text (128)	Lead Actors in cast
		35	Rating	Text (128)	MPAA rating
		36	Studio	Text (128)	Studio
		37	Release Date	Text (128)	Date movie was released
		29	Miscellaneous	Text (128)	Extraneous Information
		30	Platform	Text (128)	Mac, Windows, or Unix
	Computer Hardware	31	Ram	Text (128)	Amount of RAM in MB
40		32	Hard Drive	Text (128)	Available memory in MB
40		33	Processor	Text (128)	Speed in MHZ
		34	Monitor Size	Text (128)	Size in inches. 0 if no screen
		35	Modem	Text (128)	Speed in kbps. 0 if no modem
		36	Drive	Text (128)	CD DVD Floppy Zip
		29	Miscellaneous	Text (128)	Extraneous Information
	Computer Software	30	Platform	Text (128)	Platform – Windows, Mac, etc.
50		31	Category	Text (128)	Category – accounting, educational, etc.
		32	Age	Text (128)	Adult or Kids
				- (-)	
		29	Miscellaneous	Text (128)	Extraneous Information
	Clothing & Accessories				
60		30	Product Type	Text (128)	Type of clothing or accessory
		31	Size	Text (128)	U.S. Sizes
		32	Material	Text (128)	Material
		33	Color	Text (128)	Color
		34	Gender	Text (128)	Male or Female or Unisex
		35	Style	Text (128)	Style
		36	Age	Text (128)	Adult, Kids, Infant

Class ID	Class Name	Product Catalog Field #	Attribute Name	Definition	Кеу
		29	Miscellaneous	Text (128)	Extraneous Information
		30	Product Type	Text (128)	Type of art work
70	Art	31	Artist	Text (128)	Artist
		32	Title	Text (128)	Title of work
		33	Dimensions	Text (128)	L x W or L x W x H
		29	Miscellaneous	Text (128)	Extraneous Information
	Tevra	30	Age	Text (128)	Age range
80	Toys	31	Gender	Text (128)	Male or Female
		32	Theme	Text (128)	Theme or character
		29	Miscellaneous	Text (128)	Extraneous Information
90	Pets	30	Pet Type	Text (128)	Dogs, Cats, Lizards, etc.
		31	Product Type	Text (128)	Toys, treats, etc.
		29	Miscellaneous	Text (128)	Extraneous Information
		30	Format	Text (128)	Format or Platform
100	Games	31	Title	Text (128)	Game Title
100	Games	32	Publisher	Text (128)	Publisher
		33	Age	Text (128)	Age Range
		34	Release Date	Text (128)	Release Date
		29	Miscellaneous	Text (128)	Extraneous Information
110	Food & Drink	30	Product type	Text (128)	Type of food or drink
110	T OOU & DITIIK	31	Region	Text (128)	Origin of product
		32	Size	Text (128)	Volume in oz., fl oz., grams, etc
		29	Miscellaneous	Text (128)	Extraneous Information
120	Gifts & Flowers	30	Occasion	Text (128)	Occasion – Mother's Day, Valentine's, etc.
120		31	Recipient	Text (128)	Intended recipient – mother, father, spouse, friend, etc.
	II				eic.
		29	Miscellaneous	Text (128)	Extraneous Information
	Auto	30	Make	Text (128)	Make
		31	Model	Text (128)	Male
130		32	Part Number	Text (128)	Manufacturer's part number
		33	Category	Text (128)	Product sub-category – type of part
		34	Color	Text (128)	Color
		01	00101	10/1 (120)	
	Electronics	29	Miscellaneous	Text (128)	Extraneous Information
		30	Category	Text (128)	Product sub-category – type of product (CD/DVD player, PDA, etc.)
		31	Model	Text (128)	Model
140		32	Features/Specs	Text (128)	Features and Specifications
140		33	Color	Text (128)	Color
		34	Dimensions	Text (128)	L x W or L x W x H
		35	Power Type	Text (128)	AC/DC, battery, solar

Class ID	Class Name	Product Catalog	Attribute Name	Definition	Кеу
		Field #			· ·
		29	Card Type	Text (128)	Business or Consumer Card
		30	Intro Purchase APR	Text (128)	Introductory Purchase APR & Period
		31	Ongoing Purchase APR	Text (128)	APR after Intro Period (if applicable)
		32	Ongoing Annual Fee	Text (128)	Ongoing Annual Fees (if applicable)
		33	Intro Bonus	Text (128)	Introduction Bonus
		34	Ongoing Balance Transfer APR	Text (128)	Ongoing Balance Transfer Details
		35	Rewards Earned	Text (1024)	Rewards Earned
		36	Terms URL	Text (1024)	Link to Terms and Conditions
		37	Intro Purch APR Duration	Text (128)	Intro Purchase APR Duration
		38	Ongoing Purch APR	Text (128)	Ongoing Purchase APR
450	Credit Cards	39	Intro BalanceTransfer APR	Text (128)	Intro Balance Transfer APR
150		40	Intro BalanceTransfer APR Duration	Text (128)	Intro Balance Transfer APR Duration
		41	Intro BalanceTransfer Fee	Text (128)	Intro Balance Transfer Fee
		42	Ongoing BalanceTransfer Fee	Text (128)	Ongoing Balance Transfer Fee
		43	ForeignTrans Fee	Text (128)	Foreign Transfer Fee
		44	CashAdvance APR	Text (128)	Cash Advance APR
		45	CashAdvance Fee	Text (128)	Cash Advance Fee
		46	Penalty APR	Text (128)	Penalty APR
		47	Intro Annual Fee	Text (128)	Intro Annual Fee
		48	Intro Annual Fee Duration	Text (128)	Intro Annual Fee Duration
		49	Marketing Bullets	Text (1024)	Marketing Bullets
		50	Bonus Other	Text (1024)	Bonus Other
	Consumer Banking	29	Marketing Bullets	Text (1024)	Bulleted product information, formatted as HTML, and copy
		30	APY	Text (128)	APY for said product with percentage followed by effective as of DATE. Note that some products do not have an APY.
		31	Min Balance to Open	Text (128)	Dollar value of Minimum balance to open the account.
160		32	Monthly Service Fee	Text (128)	Dollar value of Monthly Service Fee
		33	NSF Fee	Text (128)	Dollar Value for Non Sufficient Funds Fee
		34	ATM Surcharge	Text (128)	Dollar Value for ATM Surcharge, will have US Dollar amount followed by Outside US in format : \$X.XX (in US), \$Y (outside US), with some exceptions if dollar amount is only until a specific date and must be noted.
		35	Teaser Copy	Text (1024)	Consumer Bonus for said product and action that must be taken to receive bonus

Appendix C: XML Formatting Standards

```
XML Schema
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">
   <xsd:element name="url">
       <xsd:complexType>
           <xsd:sequence>
              <xsd:element ref="product"/>
              <xsd:element ref="productImage"/>
              <xsd:element ref="buy"/>
           </xsd:sequence>
       </xsd:complexType>
   </xsd:element>
   <rsd:element name="amount" type="xsd:string"/>
   <xsd:element name="attribute1" type="xsd:string"/>
   <xsd:element name="attributeClass">
       <xsd:complexType>
           <xsd:sequence>
              <xsd:element maxOccurs="unbounded" minOccurs="1" ref="attribute1"/>
           </xsd:sequence>
           <xsd:attribute name="class_id" type="xsd:string" use="optional"/>
       </xsd:complexType>
   </xsd:element>
   <xsd:element name="availability" type="xsd:string"/>
   <xsd:element name="brand" type="xsd:string"/>
   <xsd:element name="buy" type="xsd:string"/>
   <xsd:element name="category">
       <xsd:complexType>
           <xsd:sequence>
              <xsd:element ref="primary"/>
              <xsd:element ref="secondary"/>
           </xsd:sequence>
       </xsd:complexType>
   </xsd:element>
   <xsd:element name="cost">
       <xsd:complexType>
           <xsd:sequence>
              <xsd:element ref="amount"/>
           </xsd:sequence>
           <xsd:attribute name="currency" type="xsd:string" use="optional"/>
       </xsd:complexType>
   </xsd:element>
   <xsd:element name="createdOn" type="xsd:string"/>
   <xsd:element name="description">
       <xsd:complexType>
```

```
<xsd:sequence>
              <xsd:element ref="short"/>
              <xsd:element ref="long"/>
           </xsd:sequence>
       </xsd:complexType>
   </xsd:element>
   <xsd:element name="discount">
       <xsd:complexType>
           <xsd:sequence>
              <xsd:element ref="amount"/>
              <xsd:element ref="type"/>
           </xsd:sequence>
           <xsd:attribute name="currency" type="xsd:string" use="optional"/>
       </xsd:complexType>
   </xsd:element>
   <xsd:element name="header">
       <xsd:complexType>
           <xsd:sequence>
              <xsd:element ref="merchantld"/>
              <xsd:element ref="merchantName"/>
              <xsd:element ref="createdOn"/>
           </xsd:sequence>
       </xsd:complexType>
   </xsd:element>
   <xsd:element name="information" type="xsd:string"/>
   <xsd:element name="keywords" type="xsd:string"/>
   <xsd:element name="long" type="xsd:string"/>
   <xsd:element name="m1" type="xsd:string"/>
<xsd:element name="modification" type="xsd:string"/>
   <xsd:element name="merchandiser">
       <xsd:complexType>
           <xsd:sequence>
              <xsd:element ref="header"/>
              <xsd:element ref="product"/>
              <xsd:element ref="trailer"/>
           </xsd:sequence>
       </xsd:complexType>
   </xsd:element>
   <xsd:element name="merchantld" type="xsd:string"/>
   <xsd:element name="merchantName" type="xsd:string"/>
   <xsd:element name="numberOfProducts" type="xsd:string"/>
   <xsd:element name="pixel" type="xsd:string"/>
   <xsd:element name="price">
       <xsd:complexType>
           <xsd:sequence>
              <xsd:element ref="sale"/>
```

<xsd:element ref="retail"/> </xsd:sequence> <xsd:attribute name="currency" type="xsd:string" use="optional"/> </xsd:complexType> </xsd:element> <xsd:element name="primary" type="xsd:string"/> <xsd:element name="product"> <xsd:complexType mixed="true"> <xsd:choice maxOccurs="unbounded" minOccurs="0"> <xsd:element ref="category"/> <xsd:element ref="url"/> <xsd:element ref="description"/> <xsd:element ref="discount"/> <xsd:element ref="price"/> <xsd:element ref="brand"/> <xsd:element ref="shipping"/> <xsd:element ref="keywords"/> <xsd:element ref="upc"/> <xsd:element ref="m1"/> <xsd:element ref="pixel"/> <xsd:element ref="attributeClass"/> <xsd:element ref="modification"/> </xsd:choice> <xsd:attribute name="manufacturer_name" type="xsd:string" use="optional"/> <xsd:attribute name="name" type="xsd:string" use="optional"/> <xsd:attribute name="part_number" type="xsd:string" use="optional"/> <xsd:attribute name="product_id" type="xsd:string" use="optional"/> <xsd:attribute name="sku_number" type="xsd:string" use="optional"/> </xsd:complexType> </xsd:element> <xsd:element name="productImage" type="xsd:string"/> <xsd:element name="retail" type="xsd:string"/> <xsd:element name="sale"> <xsd:complexType> <xsd:attribute name="begin_date" type="xsd:string" use="optional"/> <xsd:attribute name="end_date" type="xsd:string" use="optional"/> </xsd:complexType> </xsd:element> <xsd:element name="secondary" type="xsd:string"/> <xsd:element name="shipping"> <xsd:complexType> <xsd:sequence> <xsd:element ref="cost"/> <xsd:element ref="information"/> <xsd:element ref="availability"/>

```
</xsd:sequence>
```

```
</xsd:complexType>
</xsd:element>
<xsd:element name="short" type="xsd:string"/>
<xsd:element name="trailer">
<xsd:complexType>
<xsd:sequence>
</xsd:sequence>
</xsd:sequence>
</xsd:complexType>
</xsd:complexType>
</xsd:element>
<xsd:element name="type" type="xsd:string"/>
<xsd:element name="type" type="xsd:string"/>
</xsd:schema>
```

XML Document Type Definition (DTD) <!ELEMENT Actor (#PCDATA) > <!ELEMENT Age (#PCDATA) > <!ELEMENT Album (#PCDATA) > <!ELEMENT APY (#PCDATA) > <!ELEMENT Artist (#PCDATA) > <!ELEMENT ATM Surcharge (#PCDATA) > <!ELEMENT Author (#PCDATA) > <!ELEMENT Bonus_Other (#PCDATA) > <!ELEMENT Card_Type (#PCDATA) > <!ELEMENT CashAdvance APR (#PCDATA) > <!ELEMENT CashAdvance_Fee (#PCDATA) > <!ELEMENT Category (#PCDATA) > <!ELEMENT Color (#PCDATA) > <!ELEMENT Dimensions (#PCDATA) > <!ELEMENT Director (#PCDATA) > <!ELEMENT Drive (#PCDATA) > <!ELEMENT Features_Specs (#PCDATA) > <!ELEMENT ForeignTrans_Fee (#PCDATA) > <!ELEMENT Format (#PCDATA) > <!ELEMENT Gender (#PCDATA) > <!ELEMENT Genre (#PCDATA) > <!ELEMENT Hard Drive (#PCDATA) > <!ELEMENT Intro_Annual_Fee (#PCDATA) > <!ELEMENT Intro_Annual_Fee_Duration (#PCDATA) > <!ELEMENT Intro_BalanceTransfer_APR (#PCDATA) > <!ELEMENT Intro_BalanceTransfer_APR_Duration (#PCDATA) > <!ELEMENT ISBN (#PCDATA) > <!ELEMENT Label (#PCDATA) > <!ELEMENT Make (#PCDATA) > <!ELEMENT Marketing Bullets (#PCDATA) > <!ELEMENT Material (#PCDATA) > <!ELEMENT Min_Balance_To_Open (#PCDATA) > <!ELEMENT Miscellaneous (#PCDATA) > <!ELEMENT Model (#PCDATA) > <!ELEMENT Modem (#PCDATA) > <!ELEMENT Monitor Size (#PCDATA) > <!ELEMENT Monthly_Service_Fee (#PCDATA) > <!ELEMENT NSF_Fee (#PCDATA) > <!ELEMENT Occasion (#PCDATA) > <!ELEMENT Ongoing_Annual_Fee (#PCDATA) > <!ELEMENT Ongoing_Balance_Transfer_ARP (#PCDATA) > <!ELEMENT Ongoing_BalanceTransfer_Fee (#PCDATA) > <!ELEMENT Ongoing_Purchase_APR (#PCDATA) >

```
<!ELEMENT Ongoing Purch APR Duration (#PCDATA)>
<!ELEMENT Part_Number ( #PCDATA ) >
<!ELEMENT Penalty APR ( #PCDATA ) >
<!ELEMENT Pet_Type ( #PCDATA ) >
<!ELEMENT Platform ( #PCDATA ) >
<!ELEMENT Power Type ( #PCDATA ) >
<!ELEMENT Processor ( #PCDATA ) >
<!ELEMENT Product Type ( #PCDATA ) >
<!ELEMENT Publish_Date ( #PCDATA ) >
<!ELEMENT Publisher ( #PCDATA ) >
<!ELEMENT Ram ( #PCDATA ) >
<!ELEMENT Rating ( #PCDATA ) >
<!ELEMENT Recipient ( #PCDATA ) >
<!ELEMENT Region ( #PCDATA ) >
<!ELEMENT Release Date ( #PCDATA ) >
<!ELEMENT Rewards_Earned ( #PCDATA ) >
<!ELEMENT Size ( #PCDATA ) >
<!ELEMENT Song_Title ( #PCDATA ) >
<!ELEMENT Studio ( #PCDATA ) >
<!ELEMENT Style ( #PCDATA ) >
<!ELEMENT Teaser_Copy ( #PCDATA ) >
<!ELEMENT Theme ( #PCDATA ) >
<!ELEMENT Title ( #PCDATA ) >
<!ELEMENT URL ( product, productImage, buyLink ) >
<!ELEMENT Warranty ( #PCDATA ) >
<!ELEMENT amount ( #PCDATA ) >
<!ELEMENT attributes ( Actor | Age | Album | APY | Artist | ATM_Surcharge | Author | Bonus_Other |
              Card_Type | CashAdvance_APR | CashAdvance_Fee | Category | Color | Dimensions |
              Director | Drive | Features_Specs | ForeignTrans_Fee | Format | Gender | Genre |
              Hard_Drive | Intro_Annual_Fee | Intro_Annual_Fee_Duration | Intro_BalanceTransfer_APR|
              Intro_BalanceTransfer_APR_Duration | Intro_BalanceTransfer_Fee | Intro_Purchase_APR|
              Intro_Purch_APR_Duration | ISBN | Label | Make | Marketing_Bullets | Material |
              Min Balance To Open | Miscellaneous | Model | Modem | Monitor Size |
              Monthly_Service_Fee | NSF_Fee | Occasion | Ongoing_Annual_Fee |
              Ongoing_Balance_Transfer_ARP | Ongoing_BalanceTransfer_Fee |
              Ongoing_Purchase_APR | Ongoing_Purch_APR_Duration | Part_Number | Penalty_APR |
              Pet_Type | Platform | Power_Type | Processor | Product_Type | Publish_Date | Publisher |
              Ram | Rating | Recipient | Region | Release_Date | Rewards_Earned | Size | Song_Title |
              Studio | Style | Teaser_Copy | Terms URL | Theme | Title | Warranty )* >
<!ATTLIST attributes class_id NMTOKEN #REQUIRED >
<!ELEMENT availability ( #PCDATA ) >
<!ELEMENT brand EMPTY >
<!ELEMENT buyLink ( #PCDATA ) >
<!ELEMENT category ( primary, secondary ) >
```

<!ELEMENT cost (amount) > <!ATTLIST cost currency NMTOKEN #REQUIRED> <!ELEMENT createdOn (#PCDATA) > <!ELEMENT description (short, long) > <!ELEMENT discount (amount, type) > <!ATTLIST discount currency NMTOKEN #REQUIRED> <!ELEMENT header (merchantld, merchantName, createdOn) > <!ELEMENT information EMPTY > <!ELEMENT keywords (#PCDATA) > <!ELEMENT long (#PCDATA) > <!ELEMENT m1 EMPTY > <!ELEMENT modification (#PCDATA) > <!ELEMENT merchandiser (header, product+, trailer) > <!ELEMENT merchantld (#PCDATA) > <!ELEMENT merchantName (#PCDATA) > <!ELEMENT numberOfProducts (#PCDATA) > <!ELEMENT pixel (#PCDATA) > <!ELEMENT price (sale, retail) > <!ATTLIST price currency NMTOKEN #REQUIRED> <!ELEMENT primary (#PCDATA) > <!ELEMENT product (category, URL, description, discount, price, brand, shipping, keywords, upc, m1, pixel, attributes, modification?) > <!ATTLIST product manufacturer_name CDATA #FIXED "" > <!ATTLIST product name CDATA #REQUIRED > <!ATTLIST product part_number CDATA #FIXED "" > <!ATTLIST product product_id NMTOKEN #REQUIRED > <!ATTLIST product sku_number ID #REQUIRED > <!ELEMENT productImage (#PCDATA) > <!ELEMENT product (#PCDATA) > <!ELEMENT retail (#PCDATA) > <!ELEMENT sale EMPTY > <!ATTLIST sale begin_date CDATA #FIXED "" > <!ATTLIST sale end_date CDATA #FIXED "" > <!ELEMENT secondary (#PCDATA) > <!ELEMENT shipping (cost, information, availability) > <!ELEMENT short (#PCDATA) > <!ELEMENT trailer (numberOfProducts) > <!ELEMENT type (#PCDATA) > <!ELEMENT upc EMPTY >

Appendix D: Sample Records

Pipe-Delimited Product Catalog File

HDR|1234|CDLinkShare|03/14/2013/20:30:40 202232415|GreatExpectations|A01245|books|Classics|http://click.links ynergy.com/link?id=xxxxxxx xxx&offerid=xxxxx.xxxxxxx&type=15&murl=http %3A%2F%2Fwww.examplemerchant.com%2Fa%2Fproducts%2F1000 3|http://www.merchantsite.com/images/ AO1245.gif|http://click.linksynergy.co m/link?id=xxxxxxx&offerid=xxxxx.xxxxx&type=15&murl=http% 3A%2F%2Fwww.examplem erchant.com%2Fa%2Fproduct s%2F10003|Charles Dickens Masterpiece|What this cautionary tale of a young man raised high above his station by a mysterious benefactor lacks in length, it more than makes up for in its remarkable characters and compelling story.|0|Amount|29.95|29.95|01/01/2013|01/01/2013||4.00|Dickens~~Ex pectations|CU12345||Overni gh t/UPS|IN|788334995|10|USD||http://ad.linksynergy.com/fsbin/show?id=xxxxxxx&bids=xxxxx.xxxx&type=15&subid=0|ha rdcover|Great Expectations|Charles Dickens|023119240|Columbia University Press 10/25/1998

201132306|Akadema APM-42 Praying Mantis Series 32.5 Inch Baseball Catcher's Mitt |201132306|Sports |Sports~~Baseball Gloves Catchers

Mitts|http://affiliate.buy.com/link?id=xxxxxxx&offerid=xxxxxx.xxxxx&type=15 &murl=http%3

A%2F%2Fwww.examplemerchant.com%2Fa%2Fproducts%2F10002|http://ak.buy.co m/PI/0/500/20

1132306.jpg|http://affiliate.buy.com/link?id=xxxxxxxx&offerid=xxxxx.xxxxx&ty pe=15&murl=

http%3A%2F%2Fwww.examplemerchant.com%2Fa%2Fproducts%2F10002||Akadema

APM-42 Praying Mantis Series 32.5 Inch Baseball Catcher's Mitt|The Akadema(r) APM-42 Praying Mantis Series 32.5 in baseball catcher's mitt uses Stress Wedge technology with shock-absorbing protection for the hand against injury and sting when receiving the ball. Double-sided Slim Padding allows for increased pocket size and easier ball retention and the unique shape gives the throwing hand easier access into the pocket, resulting in a quicker glove-to-hand transfer and faster times to second base.||amount|149.44|199.99|05/01/2013|12/30/2013|Akadema|0.00||APM-42REG|Akademia|Overnight/FedEx|yes|008962990||USD||http://ad.linksynergy.com/fs bin/show?id=xxxxxxxx&bids=xxxxx.xxxxx&type=15&subid=0|U

TRL|2

Please note: The first entry is an appropriate record for the book Great Expectations. Data items have been omitted for brand, manufacturer name, and M1. Omitted data items are represented by consecutive pipe-delimiters. Field values containing pipe delimiter will be enclosed in double quotes.

XML Product Catalog File

```
<?xml version="1.0" encoding="UTF-8"?>
<Product Catalog>
  <header>
   <merchantId>3354</merchantId>
   <merchantName>LinkSquare, Inc.</merchantName>
   <createdOn>01/01/2013/22:03:34</createdOn>
  </header>
  <product product_id="1" name="A Simple Product" sku_number="SKU-
                SIM10001" manufacturer_name="" part_number="" >
   <category>
    <primary>Primary Category</primary>
    <secondary>Secondary Category</secondary>
   </category>
   <url>
   cproduct>http://click.linksynergy.com/link?id=xxxxxxxxx&offerid=904
   31.10000046&murl=htt p%3
   A%2F%2Fwww.examplemerchant.com%2Fa%2Fproducts%2F678262</product>
   com/fs/banners/2385/2385_10000046.gif/prod
   uctImage>
   <buyLink>http://click.linksynergy.com/link?id=xxxxxxxx&amp;offerid=90
   431.10000046&murl=htt p%3
   A%2F%2Fwww.examplemerchant.com%2Fa%2Fproducts%2F678263</buy
   Link>
   </url>
   <description>
    <short>This is the Short Description of the Product</short>
    <long>This is the Long Description of the Product</long>
   </description>
   <discount currency="USD">
    <amount>0</amount>
```

```
<type>amount</type>
   </discount>
   <price currency="USD">
    <sale begin_date="" end_date=""></sale>
    <retail>2.5</retail>
   </price>
   <brand></brand>
   <shipping>
    <cost currency="USD">
     <amount></amount>
    </cost>
    <information></information>
    <availability>AVAILABLE</availability>
   </shipping>
   <keywords>Simple~~Simple Product</keywords>
   <upc></upc>
   <m1></m1>
                <pixel>http://ad.linksynergy.com/fsbin/show?id=wYeATVO
                gEnE&bids=80126.2&a
                mp;type=15&subid=0</pixel>
   <attributes class_id="1"></attributes>
   <modification>l</modification>
</product>
  <product product_id="101" name="Sample Book" sku_number="SKU-SIM10101"</pre>
                manufacturer_name="" part_number="" >
   <category>
    <primary>Primary Category</primary>
    <secondary>Secondary Category</secondary>
   </category>
   <url>
      com/link?id=xxxxxxxxx&offeri
      d=90431.10000046&mur l=htt
      p%3A%2F%2Fwww.examplemerchant.com%2Fa%2Fproducts%2F6782
      62</product>
 <productlmage>http://m.banner.linksynergy.com/fs/banners/2385/2385_10000046.gif</product
Image>
   <buyLink>http://click.linksynergy.com/link?id=xxxxxxxx&amp;offerid=90
   431.10000046&murl=htt p%3
   A%2F%2Fwww.examplemerchant.com%2Fa%2Fproducts%2F678263</buy
   Link>
   </url>
  <description>
```

```
<short>This is the Short Description</short>
```

```
<long>This is the Long Description of the Product</long>
</description>
<discount currency="USD">
 <amount>0</amount>
 <type>amount</type>
</discount>
<price currency="USD">
 <sale begin_date="" end_date=""></sale>
 <retail>2.5</retail>
</price>
<brand></brand>
<shipping>
 <cost currency="USD">
  <amount></amount>
 </cost>
 <information></information>
 <availability>AVAILABLE</availability>
</shipping>
<keywords>Simple~~Simple Product</keywords>
<upc></upc>
<m1></m1>
               <pixel>http://ad.linksynergy.com/fsbin/show?id=wYeATVO
               gEnE&bids=80126.2&a
               mp;type=15&subid=0</pixel>
```

```
<attributes class_id="10">
```

```
<Miscellaneous>Extraneous Information</Miscellaneous>
```

```
<Title>Title of Book</Title>
```

```
<Author>Name of Author</Author>
```

```
<ISBN>An ISBN number (13 characters long; ignore dashes, spaces, etc.
when processing; first 9 are always numeric)</ISBN>
```

```
<Publisher>Publisher</Publisher>
```

```
<Publish_Date>Publish Date</Publish_Date>
```

</attributes>

```
<modification>U</modification>
```

```
</product>
```

<trailer>

```
<numberOfProducts>2</numberOfProducts>
```

</trailer>

</Product Catalog>