

LinkShare Merchandiser Program Implementation Guidelines for Publishers

Introduction

This document is your guide to implementing the LinkShare Merchandiser program. It provides you with information on how to automate the process of obtaining product information from the various advertisers that are part of the LinkShare Network and have subscribed to the Merchandiser program.

In order to automate the process of obtaining product information, you must be able to

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

Overview

The LinkShare Merchandiser program allows advertisers to upload their product information to LinkShare. LinkShare processes the uploaded information and creates a corresponding publisher tracking URL for each product and makes the product information available to publishers via FTP. Advertisers are able to upload changes to their product data once each day and these changes will be processed and made available to the publishers the next day. The data file that the publishers download is a full file that contains all of an advertiser's products, not just the products that changed since the last download. Additionally, the Merchandiser program provides you with the means to download product data for a particular product category based on the categories defined by the advertisers.

Signing Up for Merchandiser

To sign up for the Merchandiser program, please complete the form in **Appendix E** and Email it to merchandiser-a@linkshare.com

Technology

FTP Setup

The Merchandiser feed is available to you via FTP. The LinkShare FTP server hostname is aftp.linksynergy.com

When you submit your application for Merchandiser, the following steps are performed:

1. LinkShare establishes a unique FTP account on our servers for you to download files from.

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2. A username and password is assigned to the FTP account. LinkShare will Email this username and password to you once the FTP account is created.
3. LinkShare deposits an initial file into the FTP account for each advertiser you have as a partner. You can get the Merchandiser file from this initial file.
4. Product files are generated dynamically at the point of retrieval. This ensures that all publishers receive the most up-to-date product information at the time that they retrieve advertisers' Merchandiser product files. The timeliness of the product information depends on the frequency with which advertisers update the information in their Merchandiser product database at LinkShare.
5. LinkShare will process the product updates by all advertisers and try to make the new files available to you by **10:00 AM EST**.

NOTE: Failure to download your product files on a regular basis could lead your Merchandiser account to be suspended.

FTP Access

You can access your Merchandiser FTP account using any FTP client. You also have the choice of automating the process of downloading the file or doing 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 FTP server at one time.

NOTE:

- Always set mode to binary before downloading files.
- No more than five concurrent connections are allowed per publisher FTP account.

FTP Account Contents

In your FTP account, you will see a file and a folder for each advertiser that you are eligible to get Merchandiser feeds from. The file is your Merchandiser file and the folder contains Merchandiser files that provide you with product data for individual product categories. The files are available in two formats: pipe-delimited text and XML. You can select the format you prefer by going to the Publisher Dashboard and clicking **Links > Data Feeds > Merchandiser** and then the Edit Settings link. If you do not select a format, your FTP account will contain two files and a folder for each advertiser that you are eligible to get Merchandiser feeds from.

NOTE: Merchandiser by Category is a new feature that allows you to download Merchandiser files for individual product categories. Please refer to the section **Merchandiser by Category** on **page 6** to obtain more details on this feature.

The Merchandiser File

As noted above, Merchandiser 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. LinkShare will populate the file with all the fields that advertisers are required to provide and with any other information provided by the advertiser. If there is no data for a field, its position is preserved in the file by its delimiter. The file has three sections: header, product data, and trailer.

Header Section

The first record in the pipe-delimited Merchandiser file is the header. The header starts with the following characters "HDR," followed by a pipe-delimiter. This record is terminated with a carriage return. The header contains the ID and name of the advertiser and a time stamp indicating when the file was deposited in your FTP account.

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

Example:

HDR|1234|CDLinkShare|2000-02-14/20:30:40

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.

Primary Section

The primary section provides basic information about each product. The first 29 fields make up this section. Eight fields in this section are required fields and will always have data. The required fields are Product ID, Product Name, SKU Number, Primary Category, Product URL, Product Image URL, Short Product Description, and Retail Price. The details of all the fields that are part of this section are explained in **Appendix A**.

Attribute Section

The attribute section provides detailed information about each product based on certain product class definitions. This comprises the last 10 fields. The number of fields in the attribute section will depend on the Class ID for a specific product. The Class ID identifies a product's category and the

attributes allow the advertiser to include additional information on a product. For example, Class ID 40 identifies the product category Computer Hardware. For this Class ID, the fields are Product ID, Platform, RAM, Hard Drive, Processor, Monitor Size, and so on. LinkShare currently has 14 predefined Class IDs available and each Class ID has a predetermined set of attribute fields. **Appendix B** provides details on the fields for each Class ID.

NOTE: All Class IDs will not have 10 attribute fields and not all attribute fields are required to have data. If a field is not used then its position is preserved by its pipe-delimiter. **Appendix D** provides you with sample records.

Trailer Section

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

Example:

TRL|45826

XML Merchandiser File

As noted above, the Merchandiser file is also available as an XML-formatted file. The XML Schema and the XML Document Type Definition that specify the XML-formatted file are available in **Appendix C**.

Merchandiser File Names

All Merchandiser file name 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 LinkShare uses to identify the advertiser. This is always numeric.
- The Publisher Channel ID or SID is a unique ID that LinkShare uses to identify the Publisher Channel. This is always numeric.
- The file type "mp" defines that the file is a Merchandiser file.

The file name extensions specify what type of Merchandiser file it is. The pipe-delimited file has a .txt extension and the XML-formatted file has an .xml extension.

The files are all compressed and hence there is .gz after the file type extension. The .Imp extension at the end of the filename indicates that this is a placeholder file. In order to download a file, you must discard this part of the name.

Example:

2385_112_mp.txt.gz.Imp

2385 is the Advertiser Program ID

112 is the Publisher Channel ID

mp indicates that it is a Merchandiser file

.txt indicates that this is a pipe-delimited Merchandiser file.

Downloading Merchandiser Files

You can download the Merchandiser file from your account using any FTP client software. You must make sure that you use the get command to download the file. The mget command will not work.

Example:

```
get 2385_112_mp.txt.gz
```

NOTE: You should not attempt to download the .Imp files as these are mere placeholders.

Merchandiser by Category

Merchandiser by Category is a new feature that allows you to download Merchandiser files for specific product categories instead of downloading the full product file. This means that if you are a publisher that only needs products in the electronics product category, you can now download the feed for just this category. For each advertiser that you are eligible to get the Merchandiser files from, you will see a folder. The folder name will be the MID of the advertiser. The folder will contain three types of files: Full Merchandiser File, Product Category List File, and Category-Specific Merchandiser File.

Full Merchandiser File

This is the same Merchandiser file for the advertiser that is available in your root folder. This file contains all the products that the advertiser has. The file will be named MID_SID_mp.txt.gz.lmp for the text format and MID_SID_mp.xml.gz.lmp for the XML format.

Example:

```
2385_112_mp_txt.gz.lmp  
2385_112_mp_xml.gz.lmp
```

Product Category List File

This is a new text file that lists the ID and product category name as specified by the advertiser. The file is named as MID_category_list.txt where MID is the advertiser ID. Each product category is listed on one line and the file is pipe delimited.

Example:

```
2385_category_list.txt  
Sample contents  
10|Lawn and Garden  
11|Toys  
12|Outlet  
15|Electronics
```

Category-Specific Merchandiser File

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

Example:

2385_112_15_cmp_txt.gz.lmp
2385_112_15_cmp_xml.gz.lmp

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 Merchandiser 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 that 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.

NOTE: Products are categorized by the advertisers and there is a chance that they have placed products into the wrong categories. In these cases, please feel free to contact the advertisers to ask them to update their categories.

Merchandiser Frequently Asked Questions (FAQ)

Why can't I see the files in my FTP account? Why am I missing my advertiser files?

The advertiser file names include an ".lmp" extension. If you use a script that searches for a specific filename, you will need to append ".lmp" to the file name to find the file. Here is the format:

```
<MID>_<SID>_mp.txt.gz.lmp
```

Why do some of my files have an .lmp extension and no data?

An ".lmp" file is a placeholder that dynamically generates the Merchandiser file. This feature provides on-demand data to publishers. It improves LinkShare's efficiency in file distribution and improves the overall timeliness of the data because it reflects the most current data in the Merchandiser database. Most FTP scripts that include a "Get File" function will work the exact same way and will not need to be modified. In some cases, such as script searching by file name or by new date, there may be issues and these scripts should be modified.

My script only downloads the files when the file date changes. Will this work with the new program?

Since the ".lmp" is a placeholder, its date will not change. Hence, you will need to change the script to run everyday, irrespective of the file date.

Why do I have two of each advertiser file in my account?

LinkShare offers publishers the choice of a pipe-delimited text file and an XML-formatted file. You can select your preferred format by going to **Links > Data Feeds > Merchandiser** and then clicking the link for Edit Settings. If you do not select a format, your FTP account will contain two files and a folder for each advertiser.

Why do the files seem to disappear at times?

LinkShare has setup a scheme where the “.Imp” placeholder files are deleted and re-created based on the current set of advertisers that you have as partners for Merchandiser. This will be done on a daily basis and for about an hour between 3 and 5 AM GMT you will see that there are no placeholder files in your FTP account.

What are the folders that I see in my FTP account?

The folders in your FTP account are for each advertiser that you are eligible to get Merchandiser files from. The folders contain the category-specific Merchandiser files for the advertisers.

Appendix A: Merchandiser File Field Definitions

	Name	Definition	Key
1	Product ID	Number	Unique ID that is used to identify a product. It must be an integer greater than 2 and less than 4 billion. All future references to a given product use this ID.
2	Product Name	VarChar2(255)	Product name.
3	SKU Number	VarChar2(40)	SKU Number.
4	Primary Category	VarChar2(50)	Primary product category.
5	Secondary Category(ies)	VarChar2(2000)	Secondary product categories, delimited with double tildes (~~).
6	Product URL	VarChar2(2000)	URL of the product page.
7	Product Image URL	VarChar2(2000)	URL of product image. This will be an absolute URL.
8	Buy URL	VarChar2(2000)	URL of shopping cart with product.
9	Short Product Description	VarChar2(500)	Short description of product.
10	Long Product Description	VarChar2(2000)	Long description of product.
11	Discount	Number	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.
12	Discount Type	VarChar2(255)	Values: amount or percentage.
13	Sale Price	Number	This price reflects any discounts.
14	Retail Price	Number	This price does not reflect any discounts.
15	Begin Date	Date(mm/dd/yyyy)	Date that the product becomes available.
16	End Date	Date(mm/dd/yyyy)	Date that the product ceases to be available.
17	Brand	VarChar2(255)	Brand name.
18	Shipping	Number	The cost of the default shipping option available.
19	Keyword(s)	VarChar2(500)	Keywords for searches, delimited with double tildes (~~).
20	Manufacturer Part #	VarChar2(50)	Manufacturer's part number (may sometimes be the same as SKU).
21	Manufacturer Name	VarChar2(250)	Manufacturer's name.
22	Shipping Information	VarChar2(50)	Text-based shipping information – provides details on the default shipping option.
23	Availability	VarChar2(50)	Denotes whether the product is in stock.
24	Universal Pricing Code	VarChar2(15)	Universal Pricing Code.
25	Class ID	Number	Classification ID based on product type (see class definition table).
26	Currency	VarChar2(3)	The three character ISO Currency Code. Default is USD.

27	M1	VarChar2(2000)	Blank field unless other arrangements have been made.
28	Pixel	VarChar2(128)	1x1 pixel tag used to track impression data for the link. This is a full tag with all appropriate attributes. See Appendix C for a sample record.
29	Miscellaneous Attribute	VarChar2(128)	See Attribute definitions in Appendix B
30	Attribute 2	VarChar2(128)	See Attribute definitions in Appendix B
31	Attribute 3	VarChar2(128)	See Attribute definitions in Appendix B
32	Attribute 4	VarChar2(128)	See Attribute definitions in Appendix B
33	Attribute 5	VarChar2(128)	See Attribute definitions in Appendix B
34	Attribute 6	VarChar2(128)	See Attribute definitions in Appendix B
35	Attribute 7	VarChar2(128)	See Attribute definitions in Appendix B
36	Attribute 8	VarChar2(128)	See Attribute definitions in Appendix B
37	Attribute 9	VarChar2(128)	See Attribute definitions in Appendix B
38	Attribute 10	VarChar2(128)	See Attribute definitions in Appendix B

Note: Bold-faced entries indicate required fields.

Appendix B: Attribute File Class Definitions

Class ID	Class Name	Attribute Name	Definition	Key
10	<i>Books</i>	Miscellaneous	VarChar2(128)	Extraneous Information
		Title	VarChar2(128)	Title of Book
		Author	VarChar2(128)	Name of Author
		ISBN	VarChar2(13)	An ISBN number (13 characters long; ignore dashes, spaces, etc. when processing; first 9 are always numeric)
		Publisher	VarChar2(128)	Publisher
		Publish Date	VarChar2(128)	Publish Date
20	Music	Miscellaneous	VarChar2(128)	Extraneous Information
		Genre	VarChar2(128)	Jazz, Blues, etc.
		Artist	VarChar2(128)	Artist
		Format	VarChar2(128)	CD, Cassette, or LP
		Album	VarChar2(128)	Album Title
		Song Title	VarChar2(128)	Titles of Songs on Album
		Label	VarChar2(128)	Record Label
		Release Date	VarChar2(128)	Date Album was released
30	Movies	Miscellaneous	VarChar2(128)	Extraneous Information
		Genre	VarChar2(128)	Movie category – horror, sci-fi, etc.
		Title	VarChar2(128)	Movie title
		Format	VarChar2(128)	DVD, VHS
		Director	VarChar2(128)	Director
		Actor	VarChar2(128)	Lead Actors in cast
		Rating	VarChar2(128)	MPAA rating
		Studio	VarChar2(128)	Studio
		Release Date	VarChar2(128)	Date movie was released
40	Computer Hardware	Miscellaneous	VarChar2(128)	Extraneous Information
		Platform	VarChar2(128)	Mac, Windows, or Unix
		Ram	VarChar2(128)	Amount of RAM in MB
		Hard Drive	VarChar2(128)	Available memory in MB
		Processor	VarChar2(128)	Speed in MHZ
		Monitor Size	VarChar2(128)	Size in inches. 0 if no screen
		Modem	VarChar2(128)	Speed in kbps. 0 if no modem
		Drive	VarChar2(128)	CD DVD Floppy Zip
50	Computer Software	Miscellaneous	VarChar2(128)	Extraneous Information
		Platform	VarChar2(128)	Platform – Windows, Mac, etc.
		Category	VarChar2(128)	Category – accounting, educational, etc.
		Age	VarChar2(128)	Adult or Kids

Class ID	Class Name	Attribute Name	Definition	Key
60	Clothing & Accessories	Miscellaneous	VarChar2(128)	Extraneous Information
		Product Type	VarChar2(128)	Type of clothing or accessory
		Size	VarChar2(128)	U.S. Sizes
		Material	VarChar2(128)	Material
		Color	VarChar2(128)	Color
		Gender	VarChar2(128)	Male or Female
		Style	VarChar2(128)	Style
70	Art	Age	VarChar2(128)	Adult, Kids, Infant
		Miscellaneous	VarChar2(128)	Extraneous Information
		Product Type	VarChar2(128)	Type of art work
		Artist	VarChar2(128)	Artist
		Title	VarChar2(128)	Title of work
		Dimensions	VarChar2(128)	L x W or L x W x H
90	Pets	Miscellaneous	VarChar2(128)	Extraneous Information
		Pet Type	VarChar2(128)	Dogs, Cats, Lizards, etc.
		Product Type	VarChar2(128)	Toys, treats, etc.
100	Games	Miscellaneous	VarChar2(128)	Extraneous Information
		Format	VarChar2(128)	Format or Platform
		Title	VarChar2(128)	Game Title
		Publisher	VarChar2(128)	Publisher
		Age	VarChar2(128)	Age Range
		Release Date	VarChar2(128)	Release Date
110	Food & Drink	Miscellaneous	VarChar2(128)	Extraneous Information
		Product type	VarChar2(128)	Type of food or drink
		Region	VarChar2(128)	Origin of product
		Size	VarChar2(128)	Volume in oz., fl oz., grams, etc
120	Gifts & Flowers	Miscellaneous	VarChar2(128)	Extraneous Information
		Occasion	VarChar2(128)	Occasion – Mother’s Day, Valentine’s, etc.
		Recipient	VarChar2(128)	Intended recipient – mother, father, spouse, friend, etc.
130	Auto	Miscellaneous	VarChar2(128)	Extraneous Information
		Make	VarChar2(128)	Make
		Model	VarChar2(128)	Model
		Part Number	VarChar2(128)	Manufacturer’s part number
		Category	VarChar2(128)	Product subcategory – type of part
		Color	VarChar2(128)	Color
140	Electronics	Miscellaneous	VarChar2(128)	Extraneous Information

	Category	VarChar2(128)	Product sub-category – type of product (CD/DVD player, PDA, etc.)
	Model	VarChar2(128)	Model
	Features/Specs	VarChar2(128)	Features and Specifications
	Color	VarChar2(128)	Color
	Dimensions	VarChar2(50)	L x W or L x W x H
	Power Type	VarChar2(128)	AC/DC, battery, solar
	Warranty	VarChar2(128)	Length of Warranty

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>
  <xsd: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:element ref="currency"/>
      </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="currency" 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="merchantId"/>
      <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="merchandise">
  <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="merchantId" 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:choice>
  </xsd:complexType>

```

```

    <xsd:element ref="upc"/>
    <xsd:element ref="m1"/>
    <xsd:element ref="pixel"/>
    <xsd:element ref="attributeClass"/>
  </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:element ref="numberOfProducts"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="type" type="xsd:string"/>
<xsd:element name="upc" type="xsd:string"/>
</xsd:schema>

```

XML Document Type Definition (DTD)

```

<!ELEMENT Actor ( #PCDATA ) >
<!ELEMENT Age ( #PCDATA ) >
<!ELEMENT Album ( #PCDATA ) >
<!ELEMENT Artist ( #PCDATA ) >
<!ELEMENT Author ( #PCDATA ) >
<!ELEMENT Category ( #PCDATA ) >
<!ELEMENT Color ( #PCDATA ) >
<!ELEMENT Dimensions ( #PCDATA ) >
<!ELEMENT Director ( #PCDATA ) >
<!ELEMENT Drive ( #PCDATA ) >
<!ELEMENT Features_Specs ( #PCDATA ) >
<!ELEMENT Format ( #PCDATA ) >
<!ELEMENT Gender ( #PCDATA ) >
<!ELEMENT Genre ( #PCDATA ) >

```

```

<!ELEMENT Hard_Drive ( #PCDATA ) >
<!ELEMENT ISBN ( #PCDATA ) >
<!ELEMENT Label ( #PCDATA ) >
<!ELEMENT Make ( #PCDATA ) >
<!ELEMENT Material ( #PCDATA ) >
<!ELEMENT Miscellaneous ( #PCDATA ) >
<!ELEMENT Model ( #PCDATA ) >
<!ELEMENT Modem ( #PCDATA ) >
<!ELEMENT Monitor_Size ( #PCDATA ) >
<!ELEMENT Occasion ( #PCDATA ) >
<!ELEMENT Part_Number ( #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 Size ( #PCDATA ) >
<!ELEMENT Song_Title ( #PCDATA ) >
<!ELEMENT Studio ( #PCDATA ) >
<!ELEMENT Style ( #PCDATA ) >
<!ELEMENT Theme ( #PCDATA ) >
<!ELEMENT Title ( #PCDATA ) >
<!ELEMENT URL ( productLink, productImage, buyLink ) >
<!ELEMENT Warranty ( #PCDATA ) >
<!ELEMENT amount ( #PCDATA ) >
<!ELEMENT attributes ( Actor | Age | Album | Artist | Author | Category | Color | Dimensions | Director |
    Drive | Features_Specs | Format | Gender | Genre | Hard_Drive | ISBN | Label | Make |
    Material | Miscellaneous | Model | Modem | Monitor_Size | Occasion | Part_Number |
    Pet_Type | Platform | Power_Type | Processor | Product_Type | Publish_Date |
    Publisher | Ram | Rating | Recipient | Region | Release_Date | Size | Song_Title | Studio
    | Style | 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 #FIXED "USD" >
<!ELEMENT createdOn ( #PCDATA ) >
<!ELEMENT description ( short, long ) >
<!ELEMENT discount ( amount, type ) >
<!ATTLIST discount currency NMTOKEN #FIXED "USD" >

```

```
<!ELEMENT header ( merchantId, merchantName, createdOn ) >
<!ELEMENT information EMPTY >
<!ELEMENT keywords ( #PCDATA ) >
<!ELEMENT long ( #PCDATA ) >
<!ELEMENT m1 EMPTY >
<!ELEMENT merchandiser ( header, product+, trailer ) >
<!ELEMENT merchantId ( #PCDATA ) >
<!ELEMENT merchantName ( #PCDATA ) >
<!ELEMENT numberOfProducts ( #PCDATA ) >
<!ELEMENT pixel ( #PCDATA ) >
<!ELEMENT price ( sale, retail ) >
<!ATTLIST price currency NMTOKEN #FIXED "USD" >
<!ELEMENT primary ( #PCDATA ) >
<!ELEMENT product ( category, URL, description, discount, price, brand, shipping, keywords, upc, m1,
    pixel, attributes ) >
<!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 productLink ( #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 Merchandiser File

Note: **^S = space character** (used here for representation purposes)

```
HDR|1234|CDLinkShare|2000-02-14/20:30:40
2|Great^SExpectations|A01245|books|Classics|http://click.linksynergy.com/fs-
bin/click?id=xxxxxxxxxx&offerid=xxxxx.xxxxxxxxxx&type=15&subid=0|http://www.merchantsite.co
m/images/AO1245.gif|http://click.linksynergy.com/fs-
bin/click?id=xxxxxxxxxx&offerid=xxxxx.xxxxxxxxxx&type=15&subid=0|Charles^SDickens^SMaster
piece|What^Sthis^Scautionary^Stale^Sof^Sa^Syoung^Sman^Sraised^Shigh^Sabove^Sthis^S
station^Sby^Sa^Smysterious^Sbenefactor^Sslacks^Sin^Slength,^Sit^Smore^Sthan^Smakes^
Sup^Sfor^Sin^Sits^Sremarkable^Scharacters^Sand^Scompelling^Sstory.|0|Amount|29.95|29.9
5|04/11/2000|12/31/2000||4.00|Dickens~~Expectations|CU12345||Overnight/UPS|IN|788334995|10
|USD||<img^Ssrc="http://ad.linksynergy.com/fs-
bin/show?id=xxxxxxxxxx&bids=xxxxx.xxxxxxxxxx&type=15&subid=0^Swidth=1"^Sheight="1"^Sa
lt="">|hardcover|Great^SExpectations|Charles^SDickens|023119240|Columbia^SUniversity^SPres
s|10/25/1998|||
5|Power^SMacintosh^SG4|HX5678|Computers|Macintosh|http://click.linksynergy.com/fs-
bin/click?id=xxxxxxxxxx&offerid=xxxxx.xxxxxxxxxx&type=15&subid=0|http://www.computermercha
nt.com/images/HX5678.gif|http://click.linksynergy.com/fs-
bin/click?id=xxxxxxxxxx&offerid=xxxxx.xxxxxxxxxx&type=15&subid=0|High^Sperformance^Sperso
nal^Scomputer|Two^Sbrains^Sare^Sbetter^Sthan^Sone.|10|Percentage|1350.00|1500.00|06/01
/2000|09/30/2000|Apple|30.00|Computers~~Apple~~Macintosh|MC3456|MOD4321|Overnight/FedE
x|OUT|564930229|40|USD||<img^Ssrc="http://ad.linksynergy.com/fs-
bin/show?id=xxxxxxxxxx&bids=xxxxx.xxxxxxxxxx&type=15&subid=0^Swidth=1"^Sheight="1"^Sa
lt="">|Tangerine|Mac|128|2|400|17|56|CD^SFLOPPY^SZIP^SDVD||
TRL|2
```

Note: The first entry (first nine lines) is an appropriate record for the book *Great Expectations*. Data items have been omitted for brand, manufacturer name, M1, and M2. Data items omitted are represented by consecutive pipe-delimiters.

XML Merchandiser File

```
<?xml version="1.0" encoding="UTF-8"?>
<merchandiser>
  <header>
    <merchantId>3354</merchantId>
    <merchantName>LinkSquare, Inc.</merchantName>
    <createdOn>2005-05-19/22:03:34</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>
```

```

<productLink>http://click.linksynergy.com/fs-
  bin/click?id=KgGH00LswUU&offerid=90431.10000046&subid=0&type
  =15</productLink>

  <productImage>http://m.banner.linksynergy.com/fs/banners/2385/2385_10000046.
  gif</productImage>
<buyLink>http://click.linksynergy.com/fs-
  bin/click?id=KgGH00LswUU&offerid=90431.10000046&subid=0&type
  =15&lsnurltype=1</buyLink>
</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/fs-
  bin/show?id=wYeATVOgEnE&bids=80126.2&type=15&subid=0</pixe
  l>
  <attributes class_id="1"></attributes>
</product>
<product product_id="101" name="Sample Book" sku_number="SKU-SIM10101"
  manufacturer_name="" part_number="" >
  <category>
    <primary>Primary Category</primary>
    <secondary>Secondary Category</secondary>
  </category>
</URL>
  <productLink>http://click.linksynergy.com/fs-
    bin/click?id=KgGH00LswUU&offerid=90431.10000046&subid=0&type
    =15</productLink>

    <productImage>http://m.banner.linksynergy.com/fs/banners/2385/2385_10000046.
    gif</productImage>

```

```
<buyLink>http://click.linksynergy.com/fs-
    bin/click?id=KgGH00LswUU&offerid=90431.10000046&subid=0&type
    =15&lsnurltype=1</buyLink>
</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/fs-
    bin/show?id=wYeATVOgEnE&bids=80126.2&type=15&subid=0</pixe
    l>
<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>
</product>
<trailer>
  <numberOfProducts>2</numberOfProducts>
</trailer>
</merchandiser>
```

Appendix E: Merchandiser Publisher Enabling Form

As a prerequisite, all Merchandiser publishers must first register to become a member of the LinkShare Network. If your company has yet to do so please click on the following URL and sign up, <http://www.linkshare.com/join>.

Please complete the form below. LinkShare will supply the SID.

Once the form is complete, please **Email your information to merchandiser-a@linkshare.com**. LinkShare will process the form within 7 business days of receiving it. When the FTP account is set up, the contact Email address you have provided will receive a confirmation Email containing the user name, password, and the URL of your FTP account at LinkShare.

Thank you for joining LinkShare's Merchandiser program!

Publisher Site Name	LinkShare Username	Channel Name (Internal Use Only)

Site URL
Brief Site Description
Main Contact Name
Main Contact Phone
Main Contact Fax
Main Contact Address
Email Address
SID
(LinkShare will Provide)