|  |  |
| --- | --- |
| **XML** | **Error/ Confirm Specification** |

Table of Contents

Table of Contents 1

Revision History 2

Interface Description 3

Functionality 3

Design Description 3

Interface Design and Implementation 4

System Requirements 4

Error Handling / Resend Process 4

Scheduling & Volume Analysis 4

General XML File Structure 5

Initial XML Declaration 5

XML Data Definition 5

Xpath Location 5

Optional/Required 5

Data Type 5

Data Length 6

WMIHEADER Element 6

FILETYPE Values 7

Confirmation XML File 8

File Naming Convention 8

WMIFILECONFIRM Element 8

Error XML File 9

File Naming Convention 9

WMIFILEERROR Element 9

Interface Description

This document describes the data format specification for the transfer of order-related information between Walmart.com and all suppliers, including Direct Ship Vendors.

**Functionality**

Response files supported by this interfaces are as follows:

*  Confirmation File – Contains a file confirmation (Sent both directions between Supplier and Walmart.com).
*  Error File – Contains a file error message (Sent both directions between Supplier and Walmart.com).

**Design Description**

Each file transfer is divided into three basic steps:

1. 1. The sender generates a data file and pushes it to the recipient’s server.
2. 2. The recipient parses the received file and validates the file format and data consistency.
3. 3. If the file parses, then the recipient replies with a Confirmation File to the sender.  Otherwise reply with an Error File. Never send Confirmation file in response for Error file.

Interface Design and Implementation

**System Requirements**

*  Messages are sent between Walmart.com and the supplier as ASCII text files in XML format.  After a file is created, the file’s creator pushes it to the recipient.

**Error Handling / Resend Process**

Will use Error Files for messaging.

There are two types of error response:

1. 1) The received file is incomplete or invalid against the v4.0 DTD.  In this case, the entire file is bad and it’s assumed that no data within the file was processed.  The sender will receive only the Error File and will resend a valid file as soon as possible. File resend is manual process on Walmart.com side.

**Scheduling & Volume Analysis**

Expected order volume is different for each supplier.  Estimates may be obtained from the Walmart.com Logistics and/or Merchandising Teams.

*  Variations on the standard schedule may be negotiated between each supplier

Inbound Walmart.com messages are processed as they are uploaded to the gateway server.  Each supplier is expected to send files as follows:

*  Initial Confirmation or Error Files – For each file transmitted to the supplier, a Confirmation or Error File response is expected within one hour of the transmission.  This acknowledges the receipt of the file and indicates whether the file passed file validation checks.
*  Processing Error Files – As the supplier processes each file, an Error File is generated if bad data is found.  This error message (if applicable) is expected within four hours of file transmission.

General XML File Structure

**Initial XML Declaration**

The first line of the file defines the XML Standard version and the character encoding used in the file.  The format for this is as follows:

<?xml version="1.0" encoding="UTF-8"?>

**XML Data Definition**

Each data element (and its component attributes and sub-elements) is described in this document with the following information.

Xpath Location

The location of the each element or attribute within the data element is defined based on Xpath notation.

*  If the Xpath begins with a “/” character, then it’s absolute within the XML message (e.g. “/WMI/WMIHEADER/FH\_TO@ID”).
*  If the Xpath begins with any other character, then it’s relative to the specified reference node (e.g. “FH\_TO@ID”, with a reference node of “/WMI/WMIHEADER”).

For further information see http://www.w3.org/TR/xpath.

Optional/Required

Specifies whether each element or attribute is required to populate its parent element.

*  If optional, then the element or attribute may be populated with no data or may be omitted entirely.  Note that most optional data must be populated based on certain conditional business rules, so this must be taken into account when validating the file.
*  If required, then the element or attribute must exist and may not be empty.

Data Type

Specifies the type of data that’s contained in an element or attribute.

*  “STR” – A string value that can contain alphanumeric characters and punctuation.  This is parsed data, so any XML markup delimiters must be escaped with a character string as follows:
  + o Replace greater than (>) with “&gt;”
  + o Replace less than (<) with “&lt;”
  + o Replace ampersand (&) with “&amp;”
  + o Replace double-quote (”) with “&quot;”
  + o Replace apostrophe (‘) with “&apos;”

For more information, see http://www.w3.org/TR/REC-xml

* +  “DEC” – A decimal value that contains only numeric data and a decimal point.  If the decimal is not present, it’s implied at the end.
  +  “NUM” – Numeric data that can’t contain any alphabetic characters or punctuation.
  +  “DTM” – A formatted date/time value that contains only numeric and punctuation characters.  It’s formatted as “MM/DD/CCYY.hh24.mi”, where “MM/DD/CCYY” is the date and “hh24.mi” is the 24-hour time (e.g. “12/11/2001.17.01”).
  +  “FID” – A formatted File ID that contains only numeric and punctuation characters.  It is built from the file generation date and time, the WMFC vendor number and a six-digit random number (to guarantee uniqueness).  The format is:

VVVVVVVVV.YYYYMMDD.HHMMSS.NNNNNN

Using the following notation:

VVVVVVVVV is the Vendor ID assigned by Walmart.com (1 to 9 digits)

YYYYMMDD is an eight-digit file creation date (GMT date)

HHMMSS is a six-digit file creation time (24-hour GMT time)

NNNNNN is a six-digit random number.

Note that these are the same fields used to generate an XML filename.  The filename and the File ID will use the same date, time and random number values.

Data Length

Specifies the maximum length of the data as follows:

* +  “STR” – Number of character digits.  Note: When a character is escaped, the length of the data string expands.  The length of the data string may be up to 6 times the number of string characters (for a case with all double-quote characters).
  +  “DEC” – Expressed as “N.D” notation, where “N” is the number of characters allowed to the left of the decimal and “D” is the number of digits to the right.  Note: Leading zeros are not required.
  +  “NUM” – Number of numeric digits.
  +  “DTM” – Number of characters in the formatted string.
  +  “FID” – Number of characters in the formatted string.

**WMIHEADER Element**

The WMIHEADER element is the first element in any file.  It contains a unique file ID, the sender's name, the sender's vendor number and information for the contacting the sender.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Xpath** | **Opt** | **Type** | **Length** | **Description** |
| /WMI/WMIHEADER  (Reference Node) | R | - | - | File descriptor with the following attributes: FILEID, FILETYPE and VERSION.  Also contains one each of the following elements: FH\_TO and FH\_FROM |
| @FILEID | R | FID | 24 to 32 | Unique ID for this file.  See naming convention above. |
| @FILETYPE | R | STR | 3 | File type code, see table below for values. |
| @VERSION | R | STR | 5 | Version level of the XML format used.  The value is “4.0.0” for files using this specification. |
| FH\_TO | R | - | - | Recipient information, containing the following attributes: ID and NAME. |
| FH\_TO@ID | R | NUM | 1 to 9 | Supplier number of the recipient.  The value is “2677” for files sent to Walmart.com. |
| FH\_TO@NAME | R | STR | 1 to 30 | Text name of the recipient.  The value is "Walmart.com" for files sent to Walmart.com. |
| FH\_FROM | R | - | - | Sender information, containing the following attributes: ID and NAME.  Also contains a FH\_CONTACT element. |
| FH\_FROM@ID | R | NUM | 1 to 9 | Supplier number of the sender.  The value is “2677” for files from Walmart.com. |
| FH\_FROM@NAME | R | STR | 1 to 30 | Text name of the sender.  The value is "Walmart.com" for files from Walmart.com. |
| FH\_FROM/FH\_CONTACT | R | - | - | Operations support contact information, with attributes NAME, EMAIL, PHONE and PHONEEXT. |
| FH\_FROM/FH\_CONTACT@NAME | R | STR | 1 to 30 | Name of the operations support contact. |
| FH\_FROM/FH\_CONTACT@EMAIL | R | STR | 1 to 50 | Operations contact email address |
| FH\_FROM/FH\_CONTACT@PHONE | R | NUM | 1 to 10 | Operations contact phone number (10-digit string containing no punctuation or spaces). |
| FH\_FROM/FH\_CONTACT@PHONEEXT | O | NUM | 1 to 5 | Operations contact phone extension (if applicable). |

FILETYPE Values

|  |  |
| --- | --- |
| **Code Value** | **Description** |
| FFC | File contains WMIFILECONFIRM data element |
| FFE | File contains WMIFILEERROR data element |

      Confirmation XML File

The Confirmation File is sent to confirm the receipt of a complete and valid data file.  This file doesn’t confirm the data in the file, just the file itself.  If the file is incomplete or invalid against the v4.0 DTD then no confirmation file is sent, only an Error File.

Note: Never send a Confirmation or Error File in response to a Confirmation File.

**File Naming Convention**

The file name contains the file type, creation date and time, the Supplier ID and a six-digit random number.  All filenames are case-sensitive.

The naming convention is:

WMI\_Confirm\_VVVVVVVVV\_YYYYMMDD\_HHMMSS\_NNNNNN.xml

Using the following notation:

* +  VVVVVVVVV is the Supplier ID assigned by Walmart.com (up to 9 digits)
  +  YYYYMMDD is a formatted file creation date (GMT date)
  +  HHMMSS is a formatted file creation time (24-hour GMT time)
  +  NNNNNN is a six-digit random number to guarantee uniqueness.

Example: WMI\_Confirm\_999999\_20010418\_163108\_097981.xml

**WMIFILECONFIRM Element**

This element contains only the ID and type of the file that is being confirmed.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Xpath** | **Opt** | **Type** | **Length** | **Description** |
| /WMI/WMIFILECONFIRM  (Reference Node) | R | - | - | File confirmation, with attributes FILEID and FILETYPE. |
| @FILEID | R | FID | 24 to 32 | FILEID from the WMIFILEHEADER of the confirmed file. |
| @FILETYPE | R | STR | 3 | FILETYPE code from WMIFILEHEADER of the confirmed file. Values “FOR”, “FOC”, “FUS”, “FFC”, “FFE”,”FOI”,”FII” |

Error XML File

The Error File is sent when an error is detected in the structure or content of a received file.

Note: A Confirmation File is expected in response to an Error File.  However, never send an Error File in response to an Error File.

**File Naming Convention**

The file name contains the file type, creation date and time, the Supplier ID and a six-digit random number.  All filenames are case-sensitive.

The naming convention is:

WMI\_Error\_VVVVVVVVV\_YYYYMMDD\_HHMMSS\_NNNNNN.xml

Using the following notation:

* +  VVVVVVVVV is the Supplier ID assigned by Walmart.com (up to 9 digits)
  +  YYYYMMDD is a formatted file creation date (GMT date)
  +  HHMMSS is a formatted file creation time (24-hour GMT time)
  +  NNNNNN is a six-digit random number to guarantee uniqueness.

Example: WMI\_Error\_999999\_20010418\_163108\_097981.xml

**WMIFILEERROR Element**

Contains the File ID of the received file, a readable error message and detailed debugging information about the error.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Xpath** | **Opt** | **Type** | **Length** | **Description** |
| /WMI/WMIFILEERROR  (Reference Node) | R | - | - | Has FILEID and FILETYPE attributes and contains one or more FE\_ERROR elements |
| @FILEID | R | FID | 24 to 32 | FILEID from the WMIFILEHEADER of the file that contained the error. |
| @FILETYPE | R | STR | 3 | FILETYPE code from WMIFILEHEADER of the file that contained the error.  Values “FOR”, “FOC”, “FUS”, “FFC”, “FFE””,”FOI”, “FII” |
| FE\_ERROR | R | - | - | Has ERRORCODE attribute and contains one each of the following elements: FE\_MESSAGE and FE\_DATA. |
| FE\_ERROR@ERRORCODE | R | NUM | 5 | Numeric reference code (defined in separate document).  If the value is zero, then use FE\_MESSAGE and FE\_DATA for error information. |
| FE\_ERROR/FE\_MESSAGE | R | STR | 1 to 100 | A human-readable message that describes the error. |
| FE\_ERROR/FE\_DATA | R | STR | 1 to 2000 | Detailed debugging information or the data that contained the error. |