Perceptive Accounts Payable Invoice eForm

Virtual Tables Configuration Guide

Version: 11.0.x
Compatible with ImageNow versions: 6.5.1.149 to 6.7.x

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What are virtual tables?

Perceptive Accounts Payable (AP) Invoice eForm integrates the data from your Enterprise Resource Planning (ERP) application with ImageNow. The eForm uses this data to populate value look-ups and lists for your invoice-processing users. It also uses the data values for validation procedures.

ImageNow internally stores the extracted ERP data using virtual tables. In ImageNow 6.6.x and earlier, virtual tables are a collection of projects. In ImageNow 6.7.x and higher, virtual tables are a collection of folders. Each project or folder type represents a table. Each instance of the project or folder represents a record, or row, in that table. Update the virtual tables as often as necessary to keep the data synchronized with your ERP application.

This guide defines the fixed structure and format of the virtual tables. The ERP system administrator provides the source comma separated value (CSV) files in the defined format. This guide then describes how to load the data as virtual tables and set up a scheduled process for loading and synchronizing the data.

After the initial data loading, the administrator only needs to provide additions and updates. You will determine the upload frequency with your business process. It can vary by table.

To learn how to install AP Invoice eForm, refer to the *AP Invoice eForm Installation Guide*. For additional information on configuring the eForm, refer to the *AP Invoice eForm Supplemental Guide*. Both guides are available in the Perceptive Software Customer Portal on the Product Documentation tab.

Determine your virtual table requirements

The tables required for your implementation depend on your solution design. Both your eForm setup, and the features you use, such as value added tax (VAT), affect your requirements. To assess your virtual table requirements and prepare for configuration, complete the following general steps.

- Review the Appendix A: AP Invoice eForm virtual tables section of this document and determine which tables you require.
- Review the required fields in each of your required tables and familiarize yourself with the CSV file structure. There are sample tables provided for each table in this guide.
- Identify the ERP data source and determine how you will export it to CSV format.

About using differential data

The initial import of CSV data into the virtual tables requires a full set of active records. This first set can take many hours to export from your ERP and import into ImageNow, depending on the size of your database. We recommend scheduling the first data import during an off-peak time, such as overnight or during a weekend.

After you create the virtual tables, completely purging and reloading your data during each cycle can take extensive amounts of time. A complete reload also carries the risk of running with an incomplete data set, should a failure occur. Therefore, to protect your data during routine updates, we recommend that you import only differential data.

For example, for the Vendor table, you only need to export new vendors, inactivated vendors, or vendors with updated information from your ERP. Depending on your ERP or other data source, you can use a variety of methods to collect data that is new, updated, or inactivated since the last export.

To detect changes to a record, some AP Invoice eForm administrators add triggers directly to the database; others utilize functionality provided within the ERP.

The frequency with which you update the records varies for each specific virtual table. The Purchase Order Line table, for example, usually requires updates daily. You may only need to update the GL Account table every few days, however.

For more information on creating and scheduling data imports, consult your ERP or database management system (DBMS) documentation. For more information on indicating active versus inactive data in your tables, refer to the About setting records to active or inactive section later in this guide.

Configure the virtual tables

To configure and use the virtual tables, review and complete the following tasks as needed.

- Create and configure the CSV files
- Configure the upload process
- Import and archive the data
- Purge obsolete data

Refer to the steps and information in the following sections.

Create and configure the CSV files

To create the records that populate AP Invoice eForm fields, you must create a library of virtual tables. The AP Invoice eForm process populates each virtual table with a CSV file from your ERP application. We recommend using a separate CSV file for each virtual table you need.

File specifications

- The process you use to generate your CSV files depends on your ERP. For more information on creating your CSV files, refer to your ERP product documentation.
- You do not need to use leading zeros when you export numeric values.
- Always use a period as the decimal separator. AP Invoice eForm provides punctuation in the user interface based on your locale and currency. For more information on currency settings, refer to the "Configure AP Invoice eForm for a global environment" section in the *AP Invoice eForm Supplemental Guide*.
- **Important** The virtual tables limit string fields to 128 characters. If any value in the record exceeds 128 characters, the process does not import the record and logs an error to the log file.
- ImageNow 6.7 and previous versions support the ISO-8859-1 character set.

  ImageNow 6.8 or higher versions support UTF-8.
- To retain original text that contains your delimiter and avoid parsing issues:
  - Wrap the value, whether numeric, text, or a character, in double quotes.
  - You must use double quotes for every value within the virtual table row that includes the delimiter.
  - For more information on reserved characters in XML, refer to Appendix B.

About CSV file names

We recommend that you use the TableName value for the CSV file name, such as BUS_UNIT.csv. However, there is no required naming convention.

To add a date and time stamp automatically prior to archiving CSV files, refer to the Enable time stamps on processed CSV files section.

About the virtual table column headers

You can include optional column header rows to describe each column of the table. Examples include TableName, VendorGroup, and Jurisdiction. In this guide, the column headers provided in the example tables are only suggestions. You can use any column header description for your own reference.

Important ImageNow identifies virtual tables with the TableName key, such as BUS_UNIT for the Business Unit table.

Example:

```
TableName|Active|BusUnitId|BusUnitName|VendorGroup|VAT Jurisdiction|VAT ID
BUS_UNIT|Y|1234|ACME Construction|ACME|US|
BUS_UNIT|Y|4500|CGI Corporation|EUR|FR|FRXX999999999
```

About the delimited rows of data

Each row of data from your ERP should create one line in the CSV file. Separate each field in the row with a consistent delimiter. The default delimiter is the pipe character, “**|**”. We recommend using the pipe character because ERPs rarely use it in text values.

If you must use a common character as the delimiter, such as a comma, wrap every value in the record with double quotes. This allows you to avoid parsing issues if the delimiter appears in the value, such as in postal addresses.

In this example, the second record includes a comma inside the Address1 column.

```
TableName,Active,VendorGroup,VendorID,RemitTo,VendorName,Address1,Addres2,City,State
"VENDOR","Y","ACME","110000","2","General Supply Co","42 Douglas Dr",,"San Diego","CA"
"VENDOR","Y","ACME","110001","1","General Supply Co","1600 Main St, B",,"Chicago","IL"
```

We recommend that you use a text editor, rather than Microsoft Excel, to view the data during file preparation.

About setting records to active or inactive

Most of the AP Invoice eForm virtual tables include an Active column. The only tables that do not include this column are the Purchase Order and Purchase Order Line tables. The Active value indicates whether the data in that row is accessible to the eForm.

To indicate active records, you can use the values Y, A, 1, or TRUE. Any other value inactivates the record.

You can also use the Active column to search for and purge inactive records from the table. For more information on scheduling this as an automated action, refer to the Purge obsolete data section.

For the initial data load, every record should be active.

Configure the upload process

To configure the CSV upload process, complete the following tasks.

- Set the CSV import, archive, and error processing paths
- Enable the virtual tables and columns
- Set the delimiter and logging

Review and complete the following tasks.

Set the CSV import, archive, and error processing paths

To map the import, archive, and error paths, complete the following steps.

1. On the ImageNow Server computer, navigate to **[*drive*:]\inserver6\etc\ap**.
2. Open **AP_VirtualTable_Updater.xml** with a text editor.
3. In the **`<configuration>`** node, in the `inputpath` attribute, verify or set the CSV import directory. For example, `C:\inserver6\temp\ap\import\*.csv`.
4. In the `<configuration>` node, in the `archivepath` attribute, verify or set the CSV archive directory.

   Note This is the directory where the eForm scripts move the CSV files after successfully processing.
5. In the `<configuration>` node, in the `errorpath` attribute, verify or set the CSV error directory.

   Note This is the directory where the eForm scripts move CSV files if the upload script encounters errors during processing.
6. Save and close **AP_VirtualTable_Updater.xml**.
7. On the ImageNow Server computer, place your CSV files in the import directory.

Enable the virtual tables and columns

The AP_VirtualTable_Updater.xml file includes a record structure for each of the virtual tables.

If needed, to review which virtual tables and columns you need, refer to the Appendix A: AP Invoice eForm virtual tables section.

In the Appendix, each example table notes required columns with an asterisk. The import process maps the CSV records to virtual tables according to the TableName column value. You cannot add new record structures or columns within a record structure. You can change the order of the record structures and the order of the existing columns.

You enable each virtual table and column that your solution requires in the AP_VirtualTable_Updater.xml file. Complete the following steps.

1. Navigate to **[*drive*:]\inserver6\etc\ap** and open **AP_VirtualTable_Updater.xml** with a text editor.
2. For each virtual table you need to enable, in the `<recordstructure>` element, set the `enabled` attribute to `"true"`.
3. For each column you use with that virtual table, in the `<column>` element, set the `enabled` attribute to **`"true"`**.

4. Optional. To configure the date format, in the `<column>` element, set the `format` attribute with a string using `MM` for month, `DD` for day, and `YY` or `YYYY` for year. Each date segment can be separated by either a slash “***/***”, a dash “**-**”, or no separator.

   If you do not specify a format, the CSV must provide the date in the format YYYY-MM-DD or YYYY-MM-DD hh:mm:ss.

   If you specify a date format, you cannot specify or provide a time format.

   Find common examples listed below.

   - `"MMDDYYYY"` or `"MM/DD/YYYY"` or `"MM-DD-YYYY"`
   - `"MMDDYY"` or `"MM/DD/YY"` or `"MM-DD-YY"`
   - `"DDMMYYYY"` or `"DD/MM/YYYY"` or `"DD-MM-YYYY"`
   - `"DDMMYY"` or `"DD/MM/YY"` or `"DD-MM-YY"`
   - `"YYYYDDMM"` or `"YYYY/DD/MM"` or `"YYYY-DD-MM"`
   - `"YYDDMM"` or `"YY/DD/MM"` or `"YY-DD-MM"`
   - `"YYYYMMDD"` or `"YYYY/MM/DD"` or `"YYYY-MM-DD"`
   - `"YYMMDD"` or `"YY/MM/DD"` or `"YY-MM-DD"`

Set the delimiter and the logging

In the AP_Config.xml file, you can set the field delimiter and configure logging for the updater script.

The default field delimiter is the pipe character, “**|**”. You can change the default to another character, such as a comma or semi-colon.

To configure the field delimiter, complete the following steps.

1. Navigate to **[*drive*:]\inserver6\etc\ap** and open **AP_Config.xml** with a text editor.
2. Under the **`<AP_VirtualTable_Updater>`** node, set the **`<DataFieldDelimiter>`** with a character, such as a comma “**,**”.
3. Under the **`<AP_VirtualTableUpdater>`** node, complete the following substeps.

   - To log to a file, set the **`<LogToFile>`** element to `true`.
   - To log to the console, set the **`<LogToFile>`** element to `false`.
   - Set the **`<DebugLevel>`** element with a number between 0 and 5, where 5 is the most verbose.

   Example:

   ```
   <AP_VirtualTable_Updater>
      <LogToFile type="boolean">true</LogToFile>
      <DebugLevel type="int">5</DebugLevel>
      <UpdaterConfigFile>AP_VirtualTable_Updater.xml</UpdaterConfigFile>
      <DataFieldDelimiter>|</DataFieldDelimiter>
      <Connector>CSV</Connector>
      <AppendDateTimeStampToFile>false</AppendDateTimeStampToFile>
   </AP_VirtualTable_Updater>
   ```

4. Save and close **AP_Config.xml**.

Import and archive the data

To populate the virtual tables, import the data in the CSV files. The upload script routes imported data into an archive directory. Review or complete the following tasks.

- Import the CSV files
- Enable time stamps on processed CSV files

Import the CSV files

The AP_VirtualTable_Updater.js script monitors the import directory for CSV files. It imports new records or updates records in the virtual tables. Administrators often schedule this script to run each night after business hours. It can be run more frequently if needed. Depending on the size of your CSV files, this update may take several hours to process.

To run the script, complete the following steps.

1. To start **INTool**, on the ImageNow Server computer, access a command prompt and change to the **[*drive:*]\inserver6\bin** directory.

   Note If you use a 64-bit operating system, access INTool at **[*drive:*]\inserver6\bin64**.

2. To run the virtual table updater script, enter the following command:

   ```
   intool --cmd run-iscript --file AP_VirtualTable_Updater.js
   ```

3. After the command completes, to verify the script succeeded, complete the following steps.

   1. Navigate to **[*drive:*]\inserver6\log** and open **AP_VirtualTable_Updater_[*date*].log** in a text editor.

      Note In an active-active server environment, navigate to the **[*drive*:]\inserver6\log** directory on your primary node.

   2. To verify the script succeeded, look for lines similar to this example at the end of the file.

      ```
      06/13 08:55:54.729 AP_VirtualTable_Updater:0B [ NOTIFY ] Done:

      **************************************************
          2836     C:\inserver6\temp\ap\import\PO Lines.csv - ADD
             2     C:\inserver6\temp\ap\import\PO Lines.csv - CHANGE
          2838     C:\inserver6\temp\ap\import\PO Lines.csv - TOTAL
          2836     TOTAL - ADD
             2     TOTAL - CHANGE
          2838     TOTAL RECORDS

      Script run time 103 Seconds
      **************************************************

      06/13 08:55:54.729 AP_VirtualTable_Updater:0B [  INFO   ]
      06/13 08:55:54.729 AP_VirtualTable_Updater:0B [  INFO   ] Script run time:  1m
      43s (103 total seconds)
      ```

4. Create a batch file that runs the script using INTool and schedule using Windows Task Scheduler to run on a regular basis. Below is an example batch file (AP_VirutalTable_Updater.bat).

   ```
   c:
   cd c:\inserver6\bin
   intool --cmd run-iscript --file AP_VirtualTable_Updater.js
   ```

Enable time stamps on processed CSV files

Optional. The AP_VirtualTable_Updater.js script moves files processed successfully to the archive, and unsuccessful files to the error directory. In the AP_VirtualTable_Updater.xml file, you specify the archive and error directories. By default, if there is a file with the same name in the directory, the script cannot overwrite the existing file to archive the new one. In this instance, the processed file stays in the import directory.

However, you can set the updater script to append processed file names with a time stamp. This results in a unique name, such as:

> <*file name*>_YYYYMMDD_hhmmss.csv

To enable the time stamp, complete the following steps.

1. Navigate to **[*drive*:]\inserver6\etc\ap** and open **AP_Config.xml** with a text editor.
2. Under the `<AP_VirtualTable_Updater>` node, set the `<AppendDateTimeStampToFile>` element to `true`.
3. Save and close **AP_Config.xml**.

Purge obsolete data

The AP_VirtualTable_Purge.js script deletes obsolete records from the virtual tables. It deletes entries based on purge criteria you configure for each table. To configure the purge script, review or complete the following tasks.

- Configure the virtual table purge
- Schedule the virtual table purge

Configure the virtual table purge

There are three ways to specify virtual table purge criteria in AP_VirtualTable_Purge.js.

- **Number of days**. You can purge records a specified number of days after an event occurs. For example, you can purge a table 30 days after its last update. You can use this with purchase orders and purchase order lines.
- **Inactivity**. You can monitor specific fields for activity and purge inactive records. You can use this with business units, vendors, payment terms, general ledger (GL) accounts, and GL users.
- **Number of days plus inactivity**. You can monitor fields for activity, then purge the table a specified number of days after the field becomes inactive.

To configure the purge script criteria, complete the following steps.

1. Navigate to **[*drive*:]\inserver6\script** and open **AP_VirtualTable_Purge.js** with a text editor.

2. For each virtual table you want to purge, as indicated in the **`name`**, use one or both of the following methods.

   Note The `name` is the name of the virtual table project in ImageNow 6.6 and previous, or folder in ImageNow 6.7 and higher.

   - To purge a table, according to the number of days that have passed since an event, complete the following steps.
     1. Set **`date_column`** with the name of the custom property that holds the date value you want to monitor. For example,

        ```
        date_column: "Z_APW Date Last Updated"
        ```

     2. Set **`numberofdays`** with an integer representing whole days. For example,

        ```
        numberofdays: "30"
        ```

   - To purge according to a flag-type custom property switching from “active” to “inactive,” complete the following steps.
     1. Set **`active_column`** with the name of the flag-type custom property that you want to monitor. For example,

        ```
        active_column: "Z_APW Active"
        ```

     2. Set **`active`** to `"false"`.

3. Save and close **AP_VirtualTable_Pruge.js**.

Example AP_VirtualTable_Purge.js configurations

Delete inactive vendor records.

```
{
name: "Z_APW_APVendor",
active_column: "Z_APW Active",
 active: "false",
date_column: "",
 numberofdays: ""
}
```

Delete purchase orders that have been closed for 30 days.

```
{
name: "Z_APW_APPO",
active_column: "",
 active: "",
date_column: "Z_APW PO Date Closed",
 numberofdays: "30"
}
```

Delete inactive GL account records that the system has not updated for 60 days.

```
{
name: "Z_APW_APGLAccount",
active_column: "Z_APW Active",
 active: "false",
date_column: "Z_APW Date Last Updated",
 numberofdays: "60"
}
```

Schedule the virtual table purge

When used, you typically run the AP_VirtualTable_Purge.js script daily after business hours. Depending on the size of your virtual tables, this update may take several hours to process.

Complete the following steps to run the AP_VirtualTable_Purge.js.

1. To start **INTool**, on the ImageNow Server computer, access a command prompt and change to the **[*drive:*]\inserver6\bin** directory.

   Note If you use a 64-bit operating system, access INTool at **[*drive:*]\inserver6\bin64**.

2. To run the virtual table purge script, enter this command:

   ```
   intool --cmd run-iscript --file AP_VirtualTable_Purge.js
   ```

3. After the command completes, to verify the script succeeded, complete the following steps.

   1. Navigate to **[*drive:*]\inserver6\log** and open **AP_VirtualTable_Purge_[*date*].log** in a text editor.

      Note In an active-active server environment, navigate to the **[*drive*:]\inserver6\log** directory on your primary node.

   2. To verify the script succeeded, look for lines similar to this example at the end of the file.

      ```
      06/13 08:55:54.729 AP_VirtualTable_Purge:0C [ NOTIFY ] Done:

      **************************************************
            9707          Z_APW_APVendor
            9707    RECORDS PURGED - TOTAL

      Script run time 103 Seconds
      **************************************************

      06/13 08:55:54.729 AP_VirtualTable_Purge:0C [  INFO  ]
      06/13 08:55:54.729 AP_VirtualTable_Purge:0C [  INFO  ] Script run time:  1m 43s
      (103 total seconds)
      ```

4. Optional. Create a batch file that runs the script using INTool, and schedule it to run daily using Windows Task Scheduler. A sample of batch file content:

   ```
   c:
   cd c:\inserver6\bin
   intool --cmd run-iscript --file AP_VirtualTable_Purge.js
   ```

Appendix A: AP Invoice eForm virtual tables

This appendix lists each possible AP Invoice eForm virtual table and defines the required CSV file structure. This section identifies each required table, in alphabetical order, as well as any required columns within the table.

AOC GL Account

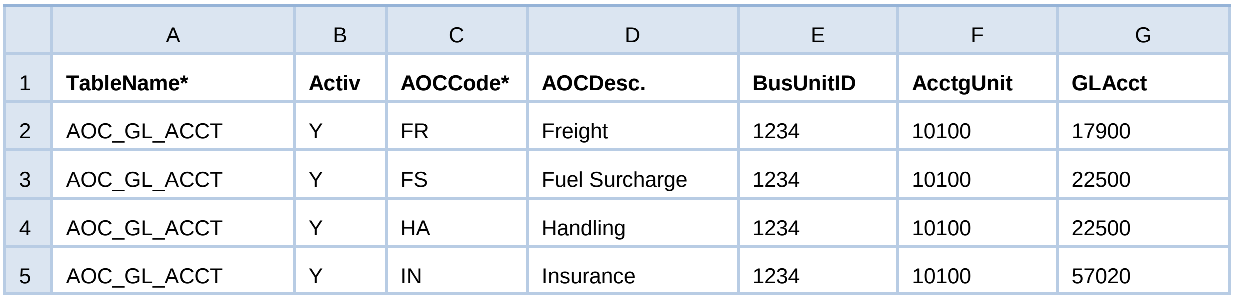
The AOC_GL_ACCT table contains an entry for each add on cost (AOC) code and GL account code combination, for use with distributed additional amounts. This table stores the AOC code and optional default values for the business unit, accounting unit, and up to six additional GL Account fields.

When using AOC GL account codes in the eForm, this table provides the default values for populating the GL Distributions section for purchase order invoices. In the eForm, the user may manually key in alternate values.

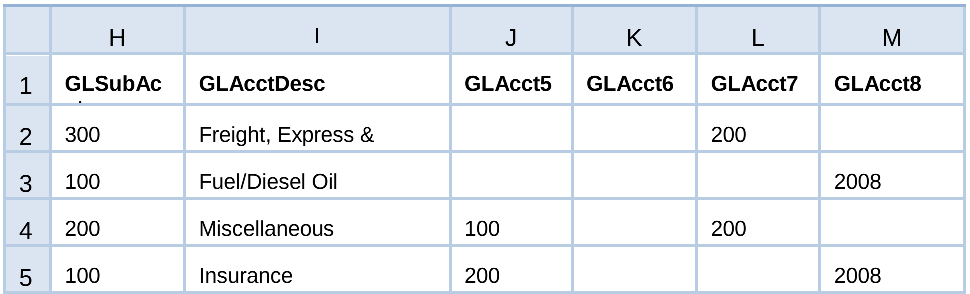
You can set a default AOC code in the AP_Skin.xml file for the Sales Tax, Freight, Misc., and Additional Amounts <*1-8*> fields. A default AOC code is not required.

Notes

- The combination of GL Account fields (BusUnitID through GLAcct8) in this table should correspond with a matching entry in the GL Account table with the same field names.
- The table inserts a zero as the placeholder for any enabled, but blank, GL Account fields.



	A	B	C	D	E	F	G
1	**TableName***	**Activ**	**AOCCode***	**AOCDesc.**	**BusUnitID**	**AcctgUnit**	**GLAcct**
2	AOC_GL_ACCT	Y	FR	Freight	1234	10100	17900
3	AOC_GL_ACCT	Y	FS	Fuel Surcharge	1234	10100	22500
4	AOC_GL_ACCT	Y	HA	Handling	1234	10100	22500
5	AOC_GL_ACCT	Y	IN	Insurance	1234	10100	57020



	H	I	J	K	L	M
1	**GLSubAc**	**GLAcctDesc**	**GLAcct5**	**GLAcct6**	**GLAcct7**	**GLAcct8**
2	300	Freight, Express &			200	
3	100	Fuel/Diesel Oil				2008
4	200	Miscellaneous	100		200	
5	100	Insurance	200			2008

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

AOC GL Code

The AOC_GL_CODE table contains an entry for each add on cost (AOC) code and up to 24 optional GL Codes and descriptions.

When using AOC GL codes in AP Invoice eForm, this table provides the default values for populating the GL Distributions section for purchase order invoices. In the eForm, the user may manually key in alternate values.

You can set the default AOC code in the AP_Skin.xml file for the Sales Tax, Freight, Misc, and Additional Amounts <*1-8*> fields. A default AOC code is not required.

Note Each GL Code value in this table (GLCode1 - GLCode24) should correspond with a matching entry in the GL Code table. For example, if the AOC_GL_CODE table has a value of 200 for GLCode1, then the GLCODE table should have an entry with GLNumber = 1 and GLCode = 200.

	A	B	C	D	E	F
1	**TableName***	**Active***	**AOCCode***	**AOCDesc**	**GLCode1**	**GLCodeDesc1**
2	AOC_GL_ CODE	Y	FR	Freight	100	Company A
3	AOC_GL_ CODE	Y	FS	Fuel Surcharge	100	Company A
4	AOC_GL_ CODE	Y	HA	Handling	200	Company B
5	AOC_GL_ CODE	Y	IN	Insurance	200	Company B

	G	H	I	J	K	L
1	**GLCode 2**	**GLCodeDesc2**	**GLCode3**	**GLCodeDesc3**	**GLCode<*4-24*>**	**GLCode<*4-24*>**
2	1105	Freight, Express & Postage	240006	Misc Expense	…	…
3	1106	Fuel/Diesel Oil	240007	Service	…	…
4	1107	Miscellaneous			…	…
5	1108	Insurance	240006	Misc Expense	…	…

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Business Unit – *required*

The required BUS_UNIT table contains an entry for every business unit, company, or entity.

Notes

- The VendorGroup field corresponds to the VendorGroup field in the Vendor table and allows you to associate a group of vendors with each business unit.
- If all business units share the same vendor pool, use ALL as the value.

Value added tax (VAT)

For solutions that implement value added tax (VAT), review the following information.

- To provide a default Jurisdiction or VAT registration number (VAT ID) value for each business unit, populate the Jurisdiction and VAT ID fields.
- If you do not provide a default and leave the value blank, the user can manually key the Jurisdiction and VAT ID values into the eForm as necessary.
- For an overview of incorporating VAT into the eForm, refer to the “Configure value added tax (VAT)” section in the *AP Invoice eForm Supplemental Guide*.

	A	B	C	D	E	F	G
1	**TableName***	**Active***	**BusUnitID***	**BusUnitName***	**VendorGroup***	**Jurisdiction**	**VAT ID**
2	BUS_UNIT	Y	1234	ACME	ACME	US	
3	BUS_UNIT	Y	4500	CGI Europe	EUR	FR	FRXX999999999
4	BUS_UNIT	Y	9001	International Retail	EUR	FR	FR1234567890
5	BUS_UNIT	Y	4321	LGE Corporation	EUR	DE	DE123456789
6	BUS_UNIT	Y	9000	UK Retail Ltd	UKLTD	GB	GB999 9999 73

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Currency

The optional CURRENCY table contains an entry for each currency code, by Business Unit.

The eForm uses the optional Variance Amount and Variance Percent columns to determine tolerance levels when validating value added tax (VAT) totals. If specifying a tolerance level, you can only use one of the two columns per currency. If you do not specify a variance amount or percent and you enable validation, the Vat Total must match the sum of the line item VAT exactly.

Using this table as an example:

- The Variance Amount on British Pounds is .05. If a user processes an invoice with British Pounds as the currency, and the invoice VAT Total Amount is £100, then the VAT Total in the summary section must be between £99.95 and £100.05 to pass validation.
- The Variation Percent on Euros is 1.5%. If a user processes an invoice with Euros as the currency, and the VAT Total Amount is €10, then the VAT Total in the summary must be between €9.85 and €10.15 to pass validation.

Notes

- The BusUnitID field corresponds to the BusUnitID field in the Business Unit table.
- The PayGroup field is optional. If used, it exports with invoice information.

	A	B	C	D	E	F	G	H
1	**TableName***	**BusUnitID***	**CurrencyCode***	**CurrencyName***	**PayGroup**	**Active***	**Variance Amount**	**Variance Percent**
2	CURRENCY	1234	USD	US Dollar	7000	Y		
3	CURRENCY	1234	GBP	Pound	8100	Y	.05	
4	CURRENCY	1234	EUR	Euro	7000	Y		1.5
5	CURRENCY	1234	MXN	Peso		Y	12.5	

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Currency Country

The COUNTRYCURRENCY table contains an entry for each unique country and currency pair. It ties each pair to a locale for number and percentage formatting. This table is optional. However, if the table is blank, the eForm follows the language formatting rules for the operating system locale.

Notes

- The CurrencyCode field corresponds to the CurrencyCode field in the Currency and Vendor tables.
- The LocaleCode field requires the 2-character or 4-character language and country codes available for the supported languages. For more information, refer to the “Configure AP Invoice eForm for a global environment” section of the *AP Invoice eForm Supplemental Guide*.

	A	B	C	D	E
1	**TableName***	**CurrencyCode***	**CountryCode***	**LocaleCode***	**Active***
2	COUNTRYCURRENCY	USD	US	en-US	Y
3	COUNTRYCURRENCY	EUR	FR	en-FR	Y
4	COUNTRYCURRENCY	EUR	DE	de-DE	Y
5	COUNTRYCURRENCY	BRL	BR	pt-BR	Y

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

GL Account - *required*

The GL_ACCT table includes an entry for every general ledger (GL) account code combination. This table represents one option for coding non-PO invoices. The other option is to use the GL Code table.

Notes

- This table supports two to six elements.
- The eForm requires this table for non-purchase order processing, if you do not use the GL Code table.
- This table provides combination validation, without the need for custom development. Implementations with Lawson often use this table.
- The table inserts a zero as the placeholder for any enabled, but blank, GL Account fields.

	A	B	C	D	E	F	G
1	**TableName***	**Active***	**BusUnitID***	**AcctgUnit***	**GLAcct**	**GLSubAcct**	**GLAcctDesc**
2	GL_ACCT	Y	1234	101	17900	100	Office Supplies - Misc.
3	GL_ACCT	Y	1234	101	17900	200	Office Supplies - Copiers
4	GL_ACCT	Y	1234	101	17900	300	Office Supplies - Printers
5	GL_ACCT	Y	1234	101	22500	100	Maintenance – Buildings
6	GL_ACCT	Y	1234	101	22500	200	Maintenance – Grounds
7	GL_ACCT	Y	1234	101	22500	100	Maintenance – HVAC

	H	I	J	K
1	**GLAcct5**	**GLAcct6**	**GLAcct7**	**GLAcct8**
2	3370	7071	39000	
3	3370	7071	39000	
4	3370	7071	39000	
5	3375	7072	45001	10000
6	3375	7072	45001	10001
7	3375	7072	45001	10002

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

GL Code - *required*

The GLCODE table includes an entry for every general ledger code. This table represents one option for use in coding Non PO invoices. The other option is to use the GL Account table.

Notes

- This table supports one to 24 elements. Define each number with the GL Number value.
- The eForm requires this table for non-purchase order processing, if the GL Account table is not used.
- The GLNumber column groups a set of values, which you define in the GLCode column. You use these GLNumber sets to populate lists in the GL Distribution section of the eForm user interface. In AP_Skin.xml, in the `<glline>` elements, you refer to the GLNumber set with the `source` attribute. Using this example table, if you wanted the GL1 field in the eForm to display a list with the values 100 and 200 as options, you would set the `source` to `1`.

  ```
  <glline label="lblGL1" field="txtGL1" showdesc="true" searchable="true"
  freeform="false" source="1" line="1" typeaheadchars="2" visible="true"
  disabled="false" required="true" width="50px" captionkey="LBL_GLLINE_GL1"
  descriptionkey="LBL_GLLINE_GL1_DESC"/>
  ```

  Using this table again, if you wanted the GL field in the eForm to display a list with the values 1101, 1102, 1103 and 1104, you would set the `source` to `2`.

- Constraint1 and 2, in conjunction with the GL User table, control which GL codes are available for specific users. If you do not use constraints to limit the GL codes per user, both Constraint1 and Constraint2 values should be set to ALL.

	A	B	C	D	E	F	G
1	**TableName***	**Constraint1***	**Constraint2***	**GLNumber***	**GLCode***	**Description**	**Active***
2	GL CODE	ALL	ALL	1	100	Company A	Y
3	GL CODE	ALL	ALL	1	200	Company B	Y
4	GLCODE	Department_01	KCMO	2	1101	Petty Cash	Y
5	GLCODE	Department_01	KCMO	2	1102	Travel Advances	Y
6	GLCODE	ALL	ALL	2	1103	Livestock	Y
7	GLCODE	ALL	ALL	2	1104	Laptops	Y
8	GLCODE	ALL	ALL	3	240006	Acct Unit 1	Y
9	GLCODE	ALL	ALL	3	240007	Acct Unit 2	Y

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

GL User

The GLUSER table includes an entry for every general ledger user. It provides the values used to filter the GL Code list described above and is optional. Each GL User has access to GL Codes based on the constraints defined in this table.

Notes

- If you need to limit GL codes on a user-by-user basis, use this table. If all entries in the GLCODE table have constraints set to ALL, the GLUSER table is not necessary.
- The UserName field corresponds to an existing ImageNow User Name and is case-sensitive. You must explicitly define all users with restricted GL Code access in this table. This table does not support groups.

	A	B	C	D	E
1	**TableName***	**UserName***	**Constraint1**	**Constraint2**	**Active**
2	GLUSER	JDOE	Department_01	KCMO	Y
3	GLUSER	JJONES	Department_05	KCMO	Y

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Location - *required*

The LOCATION table contains an entry for every tax jurisdiction or geocode between which an invoice is paid. It then sets the default Sales Use Tax (SUT) code and Ultimate Use Tax (UUT) codes for that location.

Notes

- The table reserved the SetID field for future use. The current value is always SHARE.
- The SUTCode field corresponds to the TaxCode field in the SUT Code table.

	A	B	C	D	E	F	G
1	**TableName***	**SetID***	**LocCode***	**LocName***	**SUTCode**	**UUTCode**	**Active***
2	LOCATION	SHARE	KC01	CARTER PLANT – KC	10100	A02	Y
3	LOCATION	SHARE	DEN01	SMITH WHSE - DENVER	15600	B14	Y

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Payment Terms

The PAYMENTTERMS table calculates the voucher payment due date based on the vendor's payment terms criteria and calculation method.

Notes

- The PaymentTermsCode field corresponds to the PaymentTerms field in the Vendor table.
- The eForm calculates the payment due date based on the formula you designate in the PaymentCalcMethod field and the value you define in the PaymentDay field. The options include:
  - **FROM_INV_DT** = Calculate due date based on invoice date

    Due Date = Invoice Date + Number of Days [PaymentDay value]
  - **FROM_EOM** = Calculate due date based on end of the month date

    Due Date = Last day of the month, based on the invoice date + Number of Days [PaymentDay value]
  - **DAY_CURR** = Due date is a specified day of the current month

    Due Date = Day of the month [PaymentDay value] for the current month (based on invoice date)
  - **DAY_NEXT** = Due date is a specified day of the next month

    Due Date = Day of the month [PaymentDay value] for the following month (based on invoice date)

	A	B	C	D	E
1	**TableName***	**PaymentTermCode***	**PaymentCalcMethod***	**PaymentDay***	**Active***
2	PAYMENTTERMS	Net 10	FROM_INV_DT	10	Y
3	PAYMENTTERMS	Net 30	FROM_INV_DT	30	Y
4	PAYMENTTERMS	Fixed 15	DAY_CURR	15	Y

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Purchase Order - *required*

The PO table contains an entry for every open purchase Order. The eForm requires this table to process purchase order-based invoices.

Notes

- The VendorID and RemitTo fields correspond to the VendorID and RemitTo fields in the Vendor table.
- The PODate field is the purchase order creation or issue date.
- The CloseDate field is the date the user marked purchase order fully received and paid. After a line indicates a CloseDate, the PO number is no longer available to users in the eForm.

	A	B	C	D	E	F	G	H	I
1	**Table Name***	**BusUnitID ***	**PONumber***	**VendorID***	**RemitTo***	**PO Amount***	**Currency**	**PODate**	**CloseDate**
2	PO	1234	650000109	4500	2	127.30	USD	20130615	
3	PO	1234	650000110	4500	1	158.17	USD	20130609	20130621
4	PO	1234	650000201	4500	2	584.17	EUR	20130611	
5	PO	1234	650001001	1000	1	7300.8	GBP	20130612	
6	PO	1234	650001012	1000	1	538.80	EUR	20130619	
7	PO	1234	650000920	4500	1	1150.00	CAD	20130620	

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Purchase Order Line - *required*

The PO_LINE table contains a line item entry for every open purchase order. The eForm requires this table to process purchase order-based invoices.

Notes

- The BusUnitID field corresponds to the BusUnitID field in the Business Unit table.
- The Jurisdiction field corresponds to the Jurisdiction field in the Business Unit table.
- The POItemQty column reflects one of the following states, depending on the matching type:

  2-way: quantity ordered. The PO_LINE table initially loads with the quantity ordered on the original purchase order. The POItemQty does not reduce as the vendor or supplier invoices each line.

  3-way: quantity received but not invoiced. The PO_LINE table loads with quantity received at the time of receipt. The total quantity reduces as the vendor or supplier invoices each line. Assuming that you continuously update the PO_LINE table data, the field only reflects open purchase order quantities. You can achieve an indirect 3-way match using AP Invoice eForm or a direct 3-way match if the user performs the matching in the ERP.

  4-way: quantity received in good condition but not invoiced. The PO_LINE table loads with quantity received at the time of receipt. As with 3-way matching, the quantity reduces as the vendor or supplier invoices each line and the field only reflects open purchase order quantities. You can achieve an indirect 4-way match using AP Invoice eForm or a direct 4-way match if the user performs the matching in the ERP.

  Note Best practice is to use either 3-way or 4-way matching.

- The CloseDate field is the date the ERP marks the purchase order as fully received and matched. After a line indicates a CloseDate, it is no longer available to users for matching in the eForm.

(Purchase Order Line - continued)

Value added tax (VAT)

For solutions that implement value added tax (VAT), review the following information.

To provide a default Jurisdiction and VAT code for each purchase order line, populate the Jurisdiction and VATCode fields. If left blank, the user can manually key the Jurisdiction and select a VAT code in the eForm, as necessary. For an overview of incorporating VAT into the eForm, refer to the Configure value added tax (VAT) within the eForm section of the AP Invoice eForm Supplemental Guide.

	A	B	C	D	E	F	G	H	I
1	**Table Name***	**Bus Unit ID***	**PO Number***	**PO Line Number**	**PO Item Number***	**PO Item Desc***	**PO Item Quantity**	**PO Item UOM***	**PO Item Unit Price***
2	PO_LINE	1234	650000109	1	B100	Binder Clips	20	BOX	2.49
3	PO_LINE	1234	650000110	2	CPW 16X	Copier Paper 200 Sheets	5	BOX	15.50
4	PO_LINE	1234	650000201	1	AAG-Desk	At-A-Glace Desk Pack	10	BOX	6.39
5	PO_LINE	1234	650001001	2	PPCAC	Plastic Paper Clips	20	BOX	3.19
6	PO_LINE	1234	650001012	3	TTD114	Things to Do Pads	5	BOX	3.89
7	PO_LINE	1234	650000920	1	1-PN	10 Penny Nails	10	BOX	1.88

	J	K	L	M	N	O	P	Q
1	**PO Item Ext Amt***	**Taxable**	**Date Closed**	**Jurisdiction**	**VAT Code**	**GR Document**	**GR Fiscal Year**	**GR Item**
2	49.80	Y		FR	V0	GRDocument _Id1	2011	GR_Item1
3	77.5	Y		FR	V1	GRDocument _Id2	2011	GR_Item2
4	63.9	N		FR	V2	GRDocument _Id3	2011	GR_Item3
5	63.8	N		FR	V3	GRDocument _Id4	2011	GR_Item4
6	19.45	Y		FR	V4	GRDocument _Id5	2011	GR_Item5
7	18.8	Y		FR	V5	GRDocument _Id6	2011	GR_Item6

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Sales Use Tax (SUT) Codes

The SUT_CODE table contains an entry for all the Sales Use Tax (SUT) codes.

	A	B	C
1	**TableName***	**Active***	**TaxCode***
2	SUT_CODE	Y	10100
3	SUT_CODE	Y	11200

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Sales Use Tax (SUT) Apply Codes

The SUT_APPLY table contains an entry for the status of the SUT code application. It indicates whether to apply the SUT code to the current invoice.

	A	B	C
1	**TableName***	**Active***	**ApplyCode***
2	SUT_APPLY	Y	YES
3	SUT_APPLY	Y	NO

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Special Handling

The SPEC_HANDLING table contains an entry for each special handling instruction that the user can apply to the current invoice. The options in this table appear in AP Invoice eForm, in the header section, in the Special Handling list.

	A	B	C	D
1	**TableName***	**Active**	**SpecHandlingCod**	**SpecHandlingDesc***
2	SPEC_HANDLING	Y	EXP	Expedite Payment
3	SPEC_HANDLING	Y	HOLD	Hold for Supplier Pickup
4	SPEC_HANDLING	Y	ATT	Attach Supporting Documentation

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

VAT Code

The VAT_CODE table provides a mapping between the Jurisdiction, the VAT Code and the VAT Rate. Each rate requires a combination of Jurisdiction and VAT Code. Jurisdiction is not optional, but you may use a default value if the Jurisdiction never varies. For example, if your solution only processes local invoices, you could provide a single default value throughout the Jurisdiction column. Provide VAT rates in the table as a percentage between 0 and 100. For example, enter 7.5% as 7.5, rather than .75.

	A	B	C	D	E
1	**TableName***	**Jurisdiction***	**VATCode***	**VATRate***	**Description**
2	VAT_CODE	FR	V0	0	France zero tax rate
3	VAT_CODE	FR	V1	19.6	France full tax rate
4	VAT_CODE	FR	V2	7	France reduced tax rate
5	VAT_CODE	FR	V7	0	France tax exempt, foreign vendor

*Indicates a required column

VAT Registration Number (VAT ID) Vendor

The VAT_ID_VENDOR table contains an entry for each vendor VAT registration number (VAT ID) and provides the ability to relate one or more VAT IDs to each vendor.

Notes

- The BusUnitID field corresponds to the BusUnitID field in the Business Unit table.
- The VendorID field corresponds to the VendorID field in the Vendor table.

	A	B	C	D	E
1	**TableName***	**Active***	**BusUnitId***	**VendorID***	**VATID***
2	VAT_ID_VENDOR	Y	4500	113000	FR1X624486189
3	VAT_ID_VENDOR	Y	4500	113000	FR5232587290
4	VAT_ID_VENDOR	Y	4321	114000	DE947362067
5	VAT_ID_VENDOR	Y	4321	114001	DE295091634
6	VAT_ID_VENDOR	Y	9000	115000	GB346 5860 73

*Indicates a required column

VAT Registration Number (VAT ID) Business Unit

The VAT_ID_BUS_UNIT table contains an entry for each business unit's VAT registration number (VAT ID) and provides the ability to relate one or more VAT IDs to each business unit.

Note

- The BusUnitID field corresponds to the BusUnitID field in the Business Unit table.

	A	B	C	D
1	**Table Name***	**Active***	**BusUnitID***	**VATID***
2	VAT_ID_BUS_UNIT	Y	4500	FRXX999999999
3	VAT_ID_BUS_UNIT	Y	4500	FR999999999
4	VAT_ID_BUS_UNIT	Y	9001	FR1234567890
5	VAT_ID_BUS_UNIT	Y	4321	DE123456789
6	VAT_ID_BUS_UNIT	Y	4321	DE234567891
7	VAT_ID_BUS_UNIT	Y	9000	GB999 9999 73

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Vendor - *required*

The VENDOR table contains an entry for every Vendor.

Notes

- The VendorGroup field corresponds to the VendorGroup field in the Business Unit table and allows you to associate a group of vendors with each Business Unit. If all Business Units share the same vendor pool, use ALL as the value.
- The combination of VendorID and RemitTo make up the unique vendor number. The RemitTo value is an address sequence number.
- The PaymentTerms field corresponds to the PaymentTermCode in the Payment Terms table. The value specified for each vendor is the default value.
- The VATID field stores the tax identification number, which includes the TIN number for US Vendors and VAT Registration number for European vendors. The value specified for each vendor is the default value.
- Field1 and Field2 are optional fields used for storing additional vendor information. Display these values on the eForm by activating the appropriate value in the eForm.

Value added tax (VAT)

For solutions that implement value added tax (VAT), review the following information.

To provide a default VAT registration number (VAT ID) for each vendor, populate the VAT field. If left blank, the user can manually key a VAT registration number into the eForm. For an overview of incorporating VAT into the eForm, refer to the “Configure value added tax (VAT)” section in the *AP Invoice eForm Supplemental Guide*.

	A	B	C	D	E	F	G	H
1	**Table Name***	**Active***	**Vendor Group***	**VendorID***	**Remit To***	**VendorName***	**Address1**	**Address2**
2	VENDO	Y	ACME	110001	1	General Supply Co	1600 Main St, B	
3	VENDO	Y	ACME	110002	2	General Supply Co	2626 Broadway Ave	Suite 100
4	VENDO	Y	EUR	113000	1	Le Zèbre	2 Avenue Gabriel	

	I	J	K	L	M	N	O	P	Q
1	**City**	**State**	**Postal Code**	**Country Code**	**VendorShortName**	**Payment Terms**	**VATID**	**Field1**	**Field2**
2	Chicago	IL	60600	US	GENSUP	Net 30			
3	New York	NY	86888	US	GENSUP	Net 30			
4	Paris		75008	FR	LZEBRE	Net 45	FR1X123456		

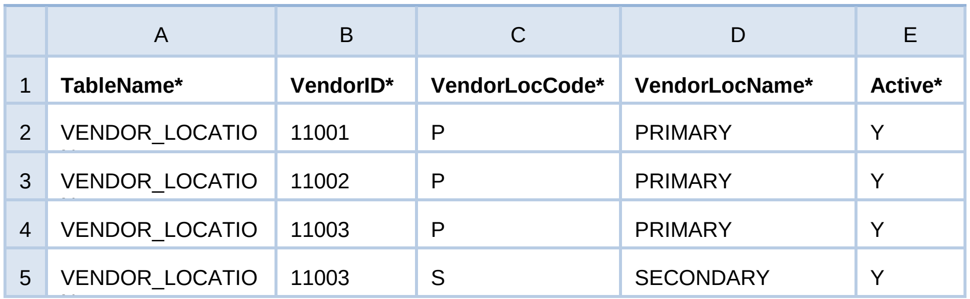
*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Vendor Location

The VENDOR_LOCATION table contains one or more location values that relate to the selected vendor. PeopleSoft implementations most commonly use this table.

Note

- The VendorID field corresponds to the VendorID field in the Vendor table.



	A	B	C	D	E
1	**TableName***	**VendorID***	**VendorLocCode***	**VendorLocName***	**Active***
2	VENDOR_LOCATIO	11001	P	PRIMARY	Y
3	VENDOR_LOCATIO	11002	P	PRIMARY	Y
4	VENDOR_LOCATIO	11003	P	PRIMARY	Y
5	VENDOR_LOCATIO	11003	S	SECONDARY	Y

*Indicates a required column. Each combination of required columns must be unique. ImageNow uses these values, separated by a dash, to create the project or folder name for the record.

Appendix B: Reserved characters in XML and forms

We do not recommend using special characters in queue names.

XML reserves some characters commonly used as markup delimiters. These reserved characters cannot appear as a literal string in XML character data, such as the text value of an element.

Sometimes it is necessary to display XML reserved characters as text. To do this, you must use an escape sequence. XML provides standard escape sequences, called character entity references, for these reserved characters. These entity references provide a way to refer to a character that is not universally encodable.

The following table illustrates these reserved characters and their replacement entity references.

Reserved Character	Meaning	Entity Reference/ Escape Sequence	Comments/What to use when coding a form
>	Greater than	$gt;	For compatibility, this character must be escaped using the entity reference or as a character reference when it appears in the string "]]>" in content and when that string is not marking the end of a CDATA section.
<	Less than	&lt;	This character should always appear in content as an escape character so that it does not interact with the syntax of the markup.
&	Ampersand	&amp;	This character should always appear in content as an escape character so that it does not interact with the syntax of the markup.
'	Apostrophe	&apos;	You can symbolize the apostrophe or single-quote character (') with this character entity reference when you need to embed a single-quote or apostrophe inside a string that is already single-quoted. Although &apos; is part of the XML language, it is not defined in HTML. Use &#39; if text is passed to an HTML user agent.
"	Quotation mark	&quot;	You can symbolize the double-quote character (") with this character entity reference when you need to embed a double-quote inside a string that is already double-quoted. **Note** Use \" when writing unparsed data to XML.
%	Percent	&#37;	The Notification Services XML vocabulary reserves the percent sign (%) for denoting parameters. **Note** &#37 is an escape sequence, but not an entity reference defined by XML.
\	Slash	None required	**Note** Use \\ when writing unparsed data to XML.