Oracle® E-Business Tax: Vertex Q-Series and Taxware Sales/Use Tax System
Implementation Guide
Release 12.1
Part No. E13632-03

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Note: Before sending us your comments, you might like to check that you have the latest version of the document and if any concerns are already addressed. To do this, access the new Oracle E-Business Suite Release Online Documentation CD available on My Oracle Support and www.oracle.com. It contains the most current Documentation Library plus all documents revised or released recently.

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Preface

Intended Audience


This guide assumes you have a working knowledge of the following:

- The principles and customary practices of your business area.
- Computer desktop application usage and terminology.

If you have never used Oracle Applications, we suggest you attend one or more of the Oracle Applications training classes available through Oracle University.

See Related Information Sources on page viii for more Oracle E-Business Suite product information.

Deaf/Hard of Hearing Access to Oracle Support Services

To reach Oracle Support Services, use a telecommunications relay service (TRS) to call Oracle Support at 1.800.223.1711. An Oracle Support Services engineer will handle technical issues and provide customer support according to the Oracle service request process. Information about TRS is available at http://www.fcc.gov/cgb/consumerfacts/trs.html, and a list of phone numbers is available at http://www.fcc.gov/cgb/dro/trsphonebk.html.

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Structure

1 License and Support for the Vertex Q-Series and Taxware Sales/Use Tax System
2 Installing and Implementing the Vertex Q-Series or Taxware Sales/Use Tax System
3 Business Processes
4 Technical Reference

Related Information Sources

This document is included on the Oracle Applications Document Library, which is supplied in the Release 12 DVD Pack. You can download soft-copy documentation as PDF files from the Oracle Technology Network at http://otn.oracle.com/documentation, or you can purchase hard-copy documentation from the Oracle Store at http://oraclestore.oracle.com. The Oracle E-Business Suite Documentation Library Release 12 contains the latest information, including any documents that have changed significantly between releases. If substantial changes to this book are necessary, a revised version will be made available on the online documentation CD on My Oracle Support.

If this guide refers you to other Oracle Applications documentation, use only the Release 12 versions of those guides.

For a full list of documentation resources for Oracle Applications Release 12, see Oracle Applications Documentation Resources, Release 12, My Oracle Support Document 394692.1.

Online Documentation

All Oracle Applications documentation is available online (HTML or PDF).
• **PDF** - PDF documentation is available for download from the Oracle Technology Network at http://otn.oracle.com/documentation.

• **Online Help** - Online help patches (HTML) are available on My Oracle Support.

• **My Oracle Support Knowledge Browser** - The My Oracle Support Knowledge Browser lets you browse the knowledge base, from a single product page, to find all documents for that product area. Use the Knowledge Browser to search for release-specific information, such as FAQs, recent patches, alerts, white papers, troubleshooting tips, and other archived documents.

• **Oracle eBusiness Suite Electronic Technical Reference Manuals** - Each Electronic Technical Reference Manual (eTRM) contains database diagrams and a detailed description of database tables, forms, reports, and programs for a specific Oracle Applications product. This information helps you convert data from your existing applications and integrate Oracle Applications data with non-Oracle applications, and write custom reports for Oracle Applications products. Oracle eTRM is available on My Oracle Support.

**Related Guides**

You should have the following related books on hand. Depending on the requirements of your particular installation, you may also need additional manuals or guides.

**Oracle E-Business Suite Installation Guide: Using Rapid Install:**

This book is intended for use by anyone who is responsible for installing or upgrading Oracle Applications. It provides instructions for running Rapid Install either to carry out a fresh installation of Oracle Applications Release 12, or as part of an upgrade from Release 11i to Release 12. The book also describes the steps needed to install the technology stack components only, for the special situations where this is applicable.

**Oracle E-Business Suite Maintenance Procedures:**

This guide describes how to use AD maintenance utilities to complete tasks such as compiling invalid objects, managing parallel processing jobs, and maintaining snapshot information. Part of Maintaining Oracle E-Business Suite, a 3-book set that also includes Oracle E-Business Suite Patching Procedures and Oracle E-Business Suite Maintenance Utilities.

**Oracle E-Business Suite Maintenance Utilities:**

This guide describes how to run utilities, such as AD Administration and AD Controller, used to maintain the Oracle Applications file system and database. Outlines the actions performed by these utilities, such as monitoring parallel processes, generating Applications files, and maintaining Applications database entities. Part of Maintaining Oracle E-Business Suite, a 3-book set that also includes Oracle E-Business Suite Patching Procedures and Oracle E-Business Suite Maintenance Procedures.

**Oracle E-Business Suite Patching Procedures:**

This guide describes how to patch the Oracle Applications file system and database
using AutoPatch, and how to use other patching-related tools like AD Merge Patch, OAM Patch Wizard, and OAM Registered Flagged Files. Describes patch types and structure, and outlines some of the most commonly used patching procedures. Part of Maintaining Oracle E-Business Suite, a 3-book set that also includes Oracle E-Business Suite Maintenance Utilities and Oracle E-Business Suite Maintenance Procedures.

**Oracle E-Business Suite Upgrade Guide: Release 11i to Release 12:**

This guide provides information for DBAs and Applications Specialists who are responsible for upgrading a Release 11i Oracle Applications system (techstack and products) to Release 12. In addition to information about applying the upgrade driver, it outlines pre-upgrade steps and post-upgrade steps, and provides descriptions of product-specific functional changes and suggestions for verifying the upgrade and reducing downtime.

**Oracle Alert User’s Guide:**

This guide explains how to define periodic and event alerts to monitor the status of your Oracle Applications data.

**Oracle Application Framework Developer’s Guide:**

This guide contains the coding standards followed by the Oracle Applications development staff to produce applications built with Oracle Application Framework. This guide is available in PDF format on My Oracle Support and as online documentation in JDeveloper 10g with Oracle Application Extension.

**Oracle Application Framework Personalization Guide:**

This guide covers the design-time and run-time aspects of personalizing applications built with Oracle Application Framework.

**Oracle E-Business Suite Concepts:**

This book is intended for all those planning to deploy Oracle E-Business Suite Release 12, or contemplating significant changes to a configuration. After describing the Oracle Applications architecture and technology stack, it focuses on strategic topics, giving a broad outline of the actions needed to achieve a particular goal, plus the installation and configuration choices that may be available.

**Oracle E-Business Suite Developer’s Guide:**

This guide contains the coding standards followed by the Oracle Applications development staff. It describes the Oracle Application Object Library components needed to implement the Oracle Applications user interface described in the Oracle E-Business Suite User Interface Standards for Forms-Based Products. It provides information to help you build your custom Oracle Forms Developer forms so that they integrate with Oracle Applications. In addition, this guide has information for customizations in features such as concurrent programs, flexfields, messages, and logging.

**Oracle E-Business Suite System Administrator’s Guide Documentation Set:**

This documentation set provides planning and reference information for the Oracle Applications System Administrator. Oracle E-Business Suite System Administrator's Guide
- Configuration contains information on system configuration steps, including defining concurrent programs and managers, enabling Oracle Applications Manager features, and setting up printers and online help. Oracle E-Business Suite System Administrator’s Guide - Maintenance provides information for frequent tasks such as monitoring your system with Oracle Applications Manager, administering Oracle E-Business Suite Secure Enterprise Search, managing concurrent managers and reports, using diagnostic utilities including logging, managing profile options, and using alerts. Oracle E-Business Suite System Administrator’s Guide - Security describes User Management, data security, function security, auditing, and security configurations.

Oracle E-Business Suite User’s Guide:
This guide explains how to navigate, enter data, query, and run reports using the user interface (UI) of Oracle Applications. This guide also includes information on setting user profiles, as well as running and reviewing concurrent requests.

Oracle E-Business Suite Multiple Organizations Implementation Guide:
This guide describes the multiple organizations concepts in Oracle Applications. It describes in detail on setting up and working effectively with multiple organizations in Oracle Applications.

Oracle Advanced Global Intercompany System User’s Guide:
This guide describes the self service application pages available for Intercompany users. It includes information on setting up intercompany, entering intercompany transactions, importing transactions from external sources and generating reports.

Oracle Customer Data Librarian Implementation Guide:
This guide describes how to implement Oracle Customer Data Librarian. As part of implementing Oracle Customer Data Librarian, you must also complete all the implementation steps for Oracle Customers Online.

Oracle Customer Data Librarian User Guide:
This guide describes how to use Oracle Customer Data Librarian to establish and maintain the quality of the Trading Community Architecture Registry, focusing on consolidation, cleanliness, and completeness. Oracle Customer Data Librarian has all of the features in Oracle Customers Online, and is also part of the Oracle Customer Data Management product family.

Oracle Customers Online Implementation Guide:
This guide describes how to implement Oracle Customers Online.

Oracle Customers Online User Guide:
This guide describes how to use Oracle Customers Online to view, create, and maintain your customer information. Oracle Customers Online is based on Oracle Trading Community Architecture data model and functionality, and is also part of the Oracle Customer Data Management product family.

Oracle E-Business Suite Diagnostics User’s Guide
This manual contains information on implementing, administering, and developing diagnostics tests in the Oracle E-Business Suite Diagnostics framework.


This guide describes the high level service enablement process, explaining how users can browse and view the integration interface definitions and services residing in Oracle Integration Repository.

**Oracle E-Business Suite Integrated SOA Gateway Implementation Guide**

This guide explains how integration repository administrators can manage and administer the service enablement process (based on the service-oriented architecture) for both native packaged public integration interfaces and composite services (BPEL type). It also describes how to invoke Web services from Oracle E-Business Suite by employing the Oracle Workflow Business Event System; how to manage Web service security; and how to monitor SOAP messages.

**Oracle E-Business Suite Integrated SOA Gateway Developer’s Guide**

This guide describes how system integration developers can perform end-to-end service integration activities. These include orchestrating discrete Web services into meaningful end-to-end business processes using business process execution language (BPEL), and deploying BPEL processes at run time.

It also explains in detail how to invoke Web services using the Service Invocation Framework. This includes defining Web service invocation metadata, invoking Web services, managing errors, and testing the Web service invocation.

**Oracle E-Business Tax Implementation Guide:**

This guide provides a conceptual overview of the E-Business Tax tax engine, and describes the prerequisite implementation steps to complete in other applications in order to set up and use E-Business Tax. The guide also includes extensive examples of setting up country-specific tax requirements.

**Oracle E-Business Tax Reporting Guide:**

This guide explains how to run all tax reports that make use of the E-Business Tax data extract. This includes the Tax Reporting Ledger and other core tax reports, country-specific VAT reports, and Latin Tax Engine reports.

**Oracle E-Business Tax User Guide:**

This guide describes the entire process of setting up and maintaining tax configuration data, as well as applying tax data to the transaction line. It describes the entire regime-to-rate setup flow of tax regimes, taxes, statuses, rates, recovery rates, tax jurisdictions, and tax rules. It also describes setting up and maintaining tax reporting codes, fiscal classifications, tax profiles, tax registrations, configuration options, and third party service provider subscriptions. You also use this manual to maintain migrated tax data for use with E-Business Tax.

**Oracle Financials and Oracle Procurement Functional Upgrade Guide: Release 11i to Release 12:**

**Oracle Financials Concepts Guide:**

This guide describes the fundamental concepts of Oracle Financials. The guide is intended to introduce readers to the concepts used in the applications, and help them compare their real world business, organization, and processes to those used in the applications.

**Oracle Financials Country-Specific Installation Supplement:**

This guide provides general country information, such as responsibilities and report security groups, as well as any post-install steps required by some countries.

**Oracle Financials for the Americas User Guide:**

This guide describes functionality developed to meet specific business practices in countries belonging to the Americas region. Consult this user guide along with your financial product user guides to effectively use Oracle Financials in your country.

**Oracle Financials for Asia/Pacific User Guide:**

This guide describes functionality developed to meet specific business practices in countries belonging to the Asia/Pacific region. Consult this user guide along with your financial product user guides to effectively use Oracle Financials in your country.

**Oracle Financials for Europe User Guide:**

This guide describes functionality developed to meet specific business practices in countries belonging to the European region. Consult this user guide along with your financial product user guides to effectively use Oracle Financials in your country.

**Oracle Financials for India User Guide:**

This guide provides information on how to use Oracle Financials for India. Use this guide to learn how to create and maintain setup related to India taxes, defaulting and calculation of taxes on transactions. This guide also includes information about accounting and reporting of taxes related to India.

**Oracle Financials for India Implementation Guide:**

This guide provides information on how to implement Oracle Financials for India. Use this guide to understand the implementation steps required for application use, including how to set up taxes, tax defaulting hierarchies, set up different tax regimes, organization and transactions.

**Oracle Financials Glossary:**

The glossary includes definitions of common terms that are shared by all Oracle Financials products. In some cases, there may be different definitions of the same term for different Financials products. If you are unsure of the meaning of a term you see in an Oracle Financials guide, please refer to the glossary for clarification. You can find the
glossary in the online help or in the Oracle Financials Implementation Guide.

**Oracle Financials Implementation Guide:**

This guide provides information on how to implement the Oracle Financials E-Business Suite. It guides you through setting up your organizations, including legal entities, and their accounting, using the Accounting Setup Manager. It covers intercompany accounting and sequencing of accounting entries, and it provides examples.

**Oracle Financials RXi Reports Administration Tool User Guide:**

This guide describes how to use the RXi reports administration tool to design the content and layout of RXi reports. RXi reports let you order, edit, and present report information to better meet your company’s reporting needs.

**Oracle General Ledger Implementation Guide:**

This guide provides information on how to implement Oracle General Ledger. Use this guide to understand the implementation steps required for application use, including how to set up Accounting Flexfields, Accounts, and Calendars.

**Oracle General Ledger Reference Guide**

This guide provides detailed information about setting up General Ledger Profile Options and Applications Desktop Integrator (ADI) Profile Options.

**Oracle General Ledger User’s Guide:**

This guide provides information on how to use Oracle General Ledger. Use this guide to learn how to create and maintain ledgers, ledger currencies, budgets, and journal entries. This guide also includes information about running financial reports.

**Oracle Internet Expenses Implementation and Administration Guide:**

This book explains in detail how to configure Oracle Internet Expenses and describes its integration with other applications in the E-Business Suite, such as Oracle Payables and Oracle Projects. Use this guide to understand the implementation steps required for application use, including how to set up policy and rate schedules, credit card policies, audit automation, and the expenses spreadsheet. This guide also includes detailed information about the client extensions that you can use to extend Oracle Internet Expenses functionality.

**Oracle Payables User Guide:**

This guide describes how to use Oracle Payables to create invoices and make payments. In addition, it describes how to enter and manage suppliers, import invoices using the Payables open interface, manage purchase order and receipt matching, apply holds to invoices, and validate invoices. It contains information on managing expense reporting, procurement cards, and credit cards. This guide also explains the accounting for Payables transactions.

**Oracle Payables Implementation Guide:**

This guide provides you with information on how to implement Oracle Payables. Use this guide to understand the implementation steps required for how to set up suppliers,
payments, accounting, and tax.

**Oracle Payables Reference Guide:**

This guide provides you with detailed information about the Oracle Payables open interfaces, such as the Invoice open interface, which lets you import invoices. It also includes reference information on purchase order matching and purging purchasing information.

**Oracle Projects Documentation Set**

**Oracle Projects Implementation Guide:**

Use this manual as a guide for implementing Oracle Projects. This manual also includes appendixes covering security functions, menus and responsibilities, and profile options.

**Oracle Projects Fundamentals:**

Oracle Project Fundamentals provides the common foundation shared across the Oracle Projects products (Project Costing, Project Billing, Project Resource Management, Project Management, and Project Portfolio Analysis). Use this guide to learn fundamental information about the Oracle Projects solution. This guide includes a Navigation Paths appendix. Use this appendix to find out how to access each window in the Oracle Projects solution.

**Oracle Project Costing User Guide:**

Use this guide to learn detailed information about Oracle Project Costing. Oracle Project Costing provides the tools for processing project expenditures, including calculating their cost to each project and determining the GL accounts to which the costs are posted.

**Oracle Project Billing User Guide:**

This guide shows you how to use Oracle Project Billing to define revenue and invoicing rules for your projects, generate revenue, create invoices, and integrate with other Oracle Applications to process revenue and invoices, process client invoicing, and measure the profitability of your contract projects.

**Oracle Project Management User Guide:**

This guide shows you how to use Oracle Project Management to manage projects through their lifecycles -- from planning, through execution, to completion.

**Oracle Project Portfolio Analysis User Guide:**

This guide contains the information you need to understand and use Oracle Project Portfolio Analysis. It includes information about project portfolios, planning cycles, and metrics for ranking and selecting projects for a project portfolio.

**Oracle Project Resource Management User Guide:**

This guide provides you with information on how to use Oracle Project Resource Management. It includes information about staffing, scheduling, and reporting on project resources.
Oracle Projects Glossary:

This glossary provides definitions of terms that are shared by all Oracle Projects applications. If you are unsure of the meaning of a term you see in an Oracle Projects guide, please refer to the glossary for clarification. You can find the glossary in the online help for Oracle Projects, and in the Oracle Projects Fundamentals book.

Oracle Purchasing User's Guide:

This guide describes how to create and approve purchasing documents, including requisitions, different types of purchase orders, quotations, RFQs, and receipts. This guide also describes how to manage your supply base through agreements, sourcing rules, and approved supplier lists. In addition, this guide explains how you can automatically create purchasing documents based on business rules through integration with Oracle Workflow technology, which automates many of the key procurement processes.

Oracle Subledger Accounting Implementation Guide:

This guide provides setup information for Oracle Subledger Accounting features, including the Accounting Methods Builder. You can use the Accounting Methods Builder to create and modify the setup for subledger journal lines and application accounting definitions for Oracle subledger applications. This guide also discusses the reports available in Oracle Subledger Accounting and describes how to inquire on subledger journal entries.

Oracle Receivables Implementation Guide:

This guide provides you with information on how to implement Oracle Receivables. Use this guide to understand the implementation steps required for application use, including how to set up customers, transactions, receipts, accounting, tax, and collections. This guide also includes a comprehensive list of profile options that you can set to customize application behavior.

Oracle Receivables Reference Guide:

This guide provides you with detailed information about all public application programming interfaces (APIs) that you can use to extend Oracle Receivables functionality. This guide also describes the Oracle Receivables open interfaces, such as AutoLockbox which lets you create and apply receipts and AutoInvoice which you can use to import and validate transactions from other systems. Archiving and purging Receivables data is also discussed in this guide.

Oracle Receivables User Guide:

This guide provides you with information on how to use Oracle Receivables. Use this guide to learn how to create and maintain transactions and bills receivable, enter and apply receipts, enter customer information, and manage revenue. This guide also includes information about accounting in Receivables. Use the Standard Navigation Paths appendix to find out how to access each Receivables window.

Oracle Trading Community Architecture Administration Guide:
This guide describes how to administer and implement Oracle Trading Community Architecture (TCA). You set up, control, and manage functionality that affects data in the TCA Registry. It also describes how to set up and use Resource Manager to manage resources.

**Oracle Trading Community Architecture Technical Implementation Guide:**

This guide explains how to use the public Oracle Trading Community Architecture application programming interfaces (APIs) and develop callouts based on Oracle Workflow Business Events System (BES). For each API, this guide provides a description of the API, the PL/SQL procedure, and the Java method, as well as a table of the parameter descriptions and validations. For each BES callout, this guide provides the name of the logical entity, its description, and the ID parameter name. Also included are setup instructions and sample code.

**Oracle Trading Community Architecture Reference Guide:**

This guide contains seeded relationship types, seeded Data Quality Management data, D and B data elements, Bulk Import interface table fields and validations, and a comprehensive glossary. This guide supplements the documentation for Oracle Trading Community Architecture and all products in the Oracle Customer Data Management family.

**Oracle Trading Community Architecture User Guide:**

This guide describes the Oracle Trading Community Architecture (TCA) and how to use features from the Trading Community Manager responsibility to create, update, enrich, and cleanse the data in the TCA Registry. It also describes how to use Resource Manager to define and manage resources.

**Integration Repository**

The Oracle Integration Repository is a compilation of information about the service endpoints exposed by the Oracle E-Business Suite of applications. It provides a complete catalog of Oracle E-Business Suite's business service interfaces. The tool lets users easily discover and deploy the appropriate business service interface for integration with any system, application, or business partner.

The Oracle Integration Repository is shipped as part of the E-Business Suite. As your instance is patched, the repository is automatically updated with content appropriate for the precise revisions of interfaces in your environment.

**Do Not Use Database Tools to Modify Oracle E-Business Suite Data**

Oracle STRONGLY RECOMMENDS that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle E-Business Suite data unless otherwise instructed.

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as
SQL*Plus to modify Oracle E-Business Suite data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle E-Business Suite tables are interrelated, any change you make using an Oracle E-Business Suite form can update many tables at once. But when you modify Oracle E-Business Suite data using anything other than Oracle E-Business Suite, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle E-Business Suite.

When you use Oracle E-Business Suite to modify your data, Oracle E-Business Suite automatically checks that your changes are valid. Oracle E-Business Suite also keeps track of who changes information. If you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL*Plus and other database tools do not keep a record of changes.
License and Support for the Vertex Q-Series and Taxware Sales/Use Tax System

License

Vertex Q-Series

If you wish to implement the Vertex Q-Series with Oracle E-Business Suite, you must obtain a license from Vertex, Inc.

Visit the Vertex website at http://www.vertexinc.com for further information. All support for the Vertex Q-Series is provided by Vertex Inc.

Taxware Sales/Use Tax System

If you wish to implement Taxware Sales/Use Tax System with Oracle E-Business Suite, you must obtain a license from Taxware, LP - A First Data Company.

Visit the Taxware website at http://www.taxware.com for further information. All support for the Taxware Sales/Use Tax System is provided by Taxware.

Support

The integrations with Vertex Q-Series and Taxware Sales/Use Tax System are supported by Oracle for US state and local sales taxes only within the order-to-cash business flows. For a complete list of the order-to-cash application products supported by Oracle E-Business Tax, see: E-Business Tax and Transaction Taxes, Oracle E-Business Tax User Guide.
Installing and Implementing the Vertex Q-Series or Taxware Sales/Use Tax System

Installing the Tax Service Provider Product

The latest Oracle certified versions of tax service providers products are available prepackaged with Oracle E-Business Suite Release 12. The product database objects of each tax service provider reside on the Oracle installation CD as a single zip file. A one-step automated process facilitates the installation without any user intervention, which replaces the multi-step process previously required but still supported as an alternative.

**Prerequisites**

- Execute a license agreement with a tax service provider.
- Provide Oracle SQL*Plus access to the APPS schema.

Setup for Prepackaged Tax Service Provider Integration

Tax service provider database server-side software, residing on the Oracle CD, is manually installed after the Oracle E-Business suite Release 12 is successfully installed. To find the version of the latest prepackaged tax service provider software, review the documentation included with your software. The prepackaged installation process will automatically upgrade the existing database server-side tax service provider software, if any. The main components of prepackaged tax service provider software are:

- An installation driver script.
- A zipped tax service provider software file consisting of database server-side objects.

Where appropriate, Oracle may certify a more recent version of tax service provider
software than the version included with the Oracle CD. Users can download the prepackaged tax service provider software from My Oracle Support. Contact your Oracle support representative for more information.

**Note:** This section does not describe the process of the installation and upgrade steps required by tax service providers. Contact tax service provider support for the details.

Complete the following steps in the order shown to implement the prepackaged version of a tax service provider product:

1. Run the installation driver script.
2. Set profile options.
3. Set up lookup codes for tax exemption reason.
4. Set up provider-specific tax regime and taxes.
5. Set up service subscriptions.
6. Install client-side tax service provider software.
7. Load tax jurisdictions and rates.
8. Set up tax accounts.
9. Turn on address validation.
10. Set up jurisdiction codes and other optional fields (optional).
11. Verify the tax service provider implementation.

**Step 1 Run the Installation Driver Script**

The installation driver script (UNIX Shell script for UNIX-based systems) unzips the tax service provider software zip file, installs the database server-side software, and integrates tax service provider software with E-Business Tax. After a successful installation of Release 12, run the driver script at the command prompt as follows:

```
cd $ZX_TOP/bin
zxtxptnr.sh <parameter1> <parameter2> <parameter3> <parameter4> <parameter5> <parameter6>
```

This table contains parameters passed to the driver script:
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Parameter Name</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>parameter1</td>
<td>Provider Name</td>
<td>Yes</td>
</tr>
<tr>
<td>parameter2</td>
<td>System User (Database)</td>
<td>Yes</td>
</tr>
<tr>
<td>parameter3</td>
<td>Provider Schema Name</td>
<td>Yes</td>
</tr>
<tr>
<td>parameter4</td>
<td>Tablespace Name for Provider Schema</td>
<td>Yes</td>
</tr>
<tr>
<td>parameter5</td>
<td>Temporary Tablespace Name for Provider Schema</td>
<td>Yes</td>
</tr>
<tr>
<td>parameter6</td>
<td>SQL*Loader Executable (sqlldr) for loading sample Taxware Data</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The parameters in this table are required and must be passed in the order listed. An example driver script run command based on this table for Vertex is (note that Taxware has an additional parameter):

```
$ZX_TOP/bin/zxtxptnr.sh vertex system vertex USER_DATA TEMP
```

Other relevant information for the driver script includes:

- Location of the driver script: $ZX_TOP/bin.
- Location of the execution log file: $APPLTMP.
- Name of the execution log file: zxtxptnr.log.

Step 2 Set Profile Options

Set the relevant profile options for your tax service provider. See: Setting Profile Option Values, *Oracle E-Business Tax Implementation Guide*.

Step 3 Set Up Lookup Code Tax Exemption Reason

When storing tax exemptions in E-Business Tax, use the Lookups window to set up the Tax Exemption Reason lookup code. The lookup type for this lookup code is ZX_EXEMPTION_REASON. These reason codes are used by tax service providers to determine the exemption reason. The reason codes are restricted in the number of characters that are used by a provider. See: Setting Up Lookup Codes, *Oracle E-Business Tax Implementation Guide*.
Important: Vertex exemption reasons are restricted to one alphanumeric character. Define Vertex exemption reasons so that the first character of the Exemption Reason Name is unique.

Important: Taxware exemption reasons are restricted to two alphanumeric characters. Define Taxware exemption reasons so that the first two characters of the Exemption Reason Name are unique.

Step 4 Set Up Provider-Specific Tax Regime and Taxes
To implement a tax service provider, you need to create a tax regime and taxes. You typically create three taxes: state, county, and city. See: United States Sales and Use Tax, Oracle E-Business Tax Implementation Guide.

Step 5 Set Up Service Subscriptions
After creating a tax regime, create service subscription for your operating unit or legal entity to the tax regime you just created for your tax service provider. If your installation uses multiple organizations for United States, you may use a tax service provider only for some specific operating units or legal entities. See: Setting Up Service Subscriptions, Oracle E-Business Tax User Guide.

Step 6 Install Client-Side Tax Service Provider Software
Install all necessary client-side tax service provider software. Refer to the user guides of your tax service provider.

Step 7 Load Tax Jurisdictions and Rates
Obtain and load the tax jurisdictions and rates from your tax service provider. Load this data into both the tax service provider system and E-Business Tax.

Step 8 Set Up Tax Accounts
Define tax accounts in E-Business Tax. If you define separate tax liability accounts for each ship-to state, it is easier for you to reconcile total tax amounts for each state in General Ledger with tax service provider reports. See: Setting Up Tax Accounts, Oracle E-Business Tax User Guide.

Step 9 Turn on Address Validation
Ensure that address validation is turned on before creating customer addresses. See: Real-Time Address Validation, Oracle Trading Community Architecture User Guide.
Step 10 Set Up Jurisdiction Codes and Other Optional Fields

You can optionally implement descriptive flexfields and use the standard fields available in Oracle Receivables windows to extend the basic functionality of this integration. Use the Warehouse Jurisdiction Code, Salesperson Jurisdiction Code, and Customer Addresses Jurisdiction Code to support tax calculations using Ship To, Ship From, Point of Order Origin, and Point of Order Acceptance addresses.


You can set an option in the User Defined Receivables Activity Information descriptive flexfield to indicate whether you want to post adjustment information to the tax service provider audit table.

Step 11 Verify the Tax Service Provider Implementation

Perform these steps to verify that your tax service provider is successfully integrated:

1. Create customer addresses.
   Verify that the customer addresses are validated against the loaded geography data.

2. Create a sales order.
   Verify that the estimated tax is calculated using the tax service.

3. Import a sales order with AutoInvoice.
   Verify that tax is calculated using the tax service provider on invoices imported from Oracle Order Management or other feeder systems.

   Verify that tax is calculated using the tax service provider on manual invoices created in Oracle Receivables.

5. Update or delete an invoice line.
   When you update or delete an invoice line, tax amounts should reconcile to your tax service provider tax reports.

6. Credit an invoice.
   When you create credit memos, tax amounts should reconcile to your tax service provider tax reports.

7. Copy an invoice.
   Verify that tax is calculated using the tax service provider on the copied invoice.
8. Create an exempt order.
   Verify that Oracle Receivables exemptions are used in calculating tax with the tax service provider.

9. Adjust an invoice.
   Verify that tax adjustments reconcile with your service provider tax reports. Only approved adjustments of type Tax are reflected in your provider tax reports, which lets you control which write-offs have recoverable sales tax from the state, county, and city.

Setup for Non-Prepackaged Tax Service Provider Integration

Complete these steps in the order shown to implement a tax service provider product:

1. Install database server-side software.
2. Provide grants to the APPS schema.
3. Recreate synonyms.
4. Set profile options.
5. Set up lookup code tax exemption reason.
6. Set up provider-specific tax regime and taxes.
7. Set up service subscriptions.
8. Create index on Vertex audit file.
9. Install client-side tax service provider software.
10. Load tax jurisdictions and rates.
11. Set up tax accounts.
12. Turn on address validation.
14. Verify the tax service provider implementation.

Step 1 Install Database Server-Side Software

Install the latest Oracle-certified version of your tax service provider product. Provider-specific database objects should all be created in a separate schema.
Step 2 Provide Grants to the APPS Schema

Once a service provider software is installed, give the following grants to the APPS schema in order to execute the service provider APIs:

**Vertex**

```
CONNECT <Vertex schema>/<Vertex password>
GRANT ALL ON QSU TO <APPS Schema>
  WITH GRANT OPTION;
GRANT ALL ON GEO TO <APPS Schema>
  WITH GRANT OPTION;
GRANT ALL ON REGPRERETURNSTBL TO <APPS Schema>
  WITH GRANT OPTION;
```

**Taxware**

```
CONNECT <Taxware schema>/<Taxware password>
GRANT ALL ON TAXPKG_GEN TO <APPS Schema>
  WITH GRANT OPTION;
GRANT ALL ON TAXPKG_10 TO <APPS Schema>
  WITH GRANT OPTION;
GRANT DELETE ON TAXAUDIT_HEADER to <APPS Schema>;
GRANT DELETE ON TAXAUDIT_DETAIL to <APPS Schema>;
GRANT DELETE ON TAXAUDIT_TAX to <APPS Schema>;
GRANT DELETE ON TAXAUDIT_JURIS to <APPS Schema>;
```

Step 3 Recreate Synonyms

Once the packages are installed, you must recreate the following synonyms to point to the correct service provider packages:

**Vertex**

```
CONNECT <APPS_Schema>/<APPS_Password>
DROP SYNONYM ZX_TAX_VERTEX_QSU;
DROP SYNONYM ZX_TAX_VERTEX_GEO;
DROP SYNONYM ZX_TAX_VERTEX_AUDIT;
CREATE SYNONYM ZX_TAX_VERTEX_QSU FOR <Vertex Schema>.QSU;
CREATE SYNONYM ZX_TAX_VERTEX_GEO FOR <Vertex Schema>.GEO;
CREATE SYNONYM ZX_TAX_VERTEX_AUDIT FOR <Vertex Schema>.REGPRERETURNSTBL;
```

**Taxware**

```
CONNECT <apps schema>/<apps password>
DROP SYNONYM ZX_TAX_TAXWARE_010;
DROP SYNONYM ZX_TAX_TAXWARE_GEN;
DROP SYNONYM ZX_TAX_TAXWARE_AUDIT_HEADER;
DROP SYNONYM ZX_TAX_TAXWARE_AUDIT_DETAIL;
DROP SYNONYM ZX_TAX_TAXWARE_AUDIT_JURIS;
DROP SYNONYM ZX_TAX_TAXWARE_AUDIT_TAX;
CREATE SYNONYM ZX_TAX_TAXWARE_010 FOR <Taxware Schema>.TAXPKG_10;
CREATE SYNONYM ZX_TAX_TAXWARE_GEN FOR <Taxware Schema>.TAXPKG_GEN;
CREATE SYNONYM ZX_TAX_TAXWARE_AUDIT_HEADER FOR <Taxware Schema>.TAXAUDIT_HEADER;
CREATE SYNONYM ZX_TAX_TAXWARE_AUDIT_DETAIL FOR <Taxware Schema>.TAXAUDIT_DETAIL;
CREATE SYNONYM ZX_TAX_TAXWARE_AUDIT_JURIS FOR <Taxware Schema>.TAXAUDIT_JURIS;
CREATE SYNONYM ZX_TAX_TAXWARE_AUDIT_TAX FOR <Taxware Schema>.TAXAUDIT_TAX;

Step 4 to Step 7
See: Step 2 to Step 5 in the Setup Checklist for PrePackaged Tax Service Provider Integration, page 2-1 for details of these setup steps.

Step 8 Create Index on Vertex Audit Table (Vertex only)
During the rollback phase of AutoInvoice, the program deletes invalid transactions from the Oracle Receivables interface tables. You need to create an index for the TRANSUSERAREA column in the REGPRERETURNSTBL Vertex table so that Vertex can identify the invoices to delete much more quickly.

To create this index:

1. Login to SQLPLUS in the Vertex Schema.

2. Enter the following SQL command:

   ```sql
   CREATE INDEX <INDEX_NAME> ON REGPRERETURNSTBL (TRANSUSERAREA);
   ```

   where `<INDEX_NAME>` is unique within the Vertex schema.

Step 9 to Step 14
See: Step 6 to Step 11 in the Setup Checklist for PrePackaged Tax Service Provider Integration, page 2-1 for details of these setup steps.
Transaction Options in Oracle Receivables

If you have integrated with a tax service provider, these actions are not required for Receivables transactions:

- Entering tax classification codes on transaction lines.
- Entering transaction line attributes in the Additional Tax Determining Factors window.

Working with Service Provider Tax Jurisdiction Codes

Service providers may use their own tax jurisdiction code to identify a taxing jurisdiction. A service provider jurisdiction code is typically needed when the zip code of an address does not uniquely identify the exact taxing jurisdiction. For example, the same city and zip code may have two or more different taxing jurisdictions in different geographical areas within the same zip code. For such zip codes, you should enter the service provider tax jurisdiction codes when you enter your customer addresses.


Vertex

Vertex uses the term geocode for tax jurisdiction codes. The geocode is an internal code that is understood by the Vertex integration. The geocode is a nine-digit numeric code that is composed of a two-digit state code, followed by a three-digit county code, followed by a four-digit code to identify a tax jurisdiction within a city. For example: 12-345-6789.

The Vertex integration uses the Vertex GeoCoder API to retrieve the geocode for a ship-to customer address, if a geocode is not available on the customer address and cannot be retrieved from the E-Business Tax jurisdiction setup. If the GeoCoder API
cannot find a geocode, an error is raised.

**Taxware**

The Taxware jurisdiction code is a nine-digit alphanumeric code. It is composed of the two-character state code, the five-digit zip code, and a unique two-digit numeric code. For example, the code CA9411401 is composed of the state code CA for California, the zip code 94114, and the Taxware jurisdiction code 01.

The Taxware integration retrieves the jurisdiction code either from the customer address or the E-Business Tax jurisdiction setup. If a jurisdiction code is not found, then 00 is passed as the jurisdiction code to the tax calculation API.

**Monthly Procedures**

Each month tax service providers send an updated version of their data file. You need to upload the data file into both the tax service provider system and the E-Business Tax system. This will ensure that E-Business Tax has the latest information for address validation and tax jurisdiction code/geocode retrieval during tax calculation.

**E-Business US Sales and Use Tax Import Program**

Use the E-Business US Sales and Use Tax Import Program to upload US sales and use tax updates from your tax service provider. The E-Business US Sales and Use Tax Import Program imports tax content for US sales tax rates at various jurisdiction levels. For example, at the state, county, city, and zip code or zip code range levels. The program also supports the import of incremental tax content.

The system loads the data into the TCA Geography model and into all related E-Business Tax entities, including taxes, tax statuses, tax rates, tax jurisdictions, and accounts. The data the system loads into the TCA Geography model includes master geography data, such as state, county, city, zip or postal code, and their relationships and hierarchy. The system also creates the geography identifiers for alternate city names apart from the geography types and geography nodes.

**To upload US sales and use tax data:**

1. Copy the data file from your external service provider (Taxware, LP – A First Data Company or Vertex, Inc.) to a Linux or UNIX directory.

   **Note:** E-Business Tax loads the data file into the interface table as part of the Request Set, so you do not need to load the data file manually.

2. Navigate to the Schedule Request Set page.

3. In the Request Set Name field, select *E-Business US Sales and Use Tax Import Program.*

5. Enter the directory where you have placed the data file and the file name (for example, /home/user/zx/filename.dat).

6. In the Tax Content Source field, select:
   - 1 - Vertex, Inc.
   - 2 - Taxware, LP – A First Data Company

7. In the Tax Content Source Tax Regime Code field, select the tax regime code to which the data should be imported.

   **Note:** The data loaded can be shared by other tax regimes. The E-Business US Sales and Use Tax Import Program does not load some entities, such as geography, tax zones, and tax jurisdictions, to specific tax regimes.

8. Enter the service request schedule parameters.

9. Submit the request.

### Exemption Handling

You can define your customer and product exemptions using a tax service provider, E-Business Tax, or both. At transaction time, if an applicable E-Business Tax exemption or non-jurisdiction based tax exception is found, it is passed to the tax service provider API and applied to the tax calculation. The tax service provider tax repository includes the exempt tax line for complete audit and reconciliation.

If you decide to build your own logic to pass exemptions to the tax service provider, for example, by making use of E-Business Tax fiscal classifications, you can write your own code using PL/SQL. See: Customizable Tax Functions, page 4-1 for information customizing the exemption and exception values passed by E-Business Tax.

If the Tax Handling field is enabled on an Oracle Order Management or Oracle Receivables transaction line, you can override the tax service provider setup and identify a transaction as exempt, according to your tax exemption setup in E-Business Tax. See: Setting Up Tax Exemptions, *Oracle E-Business Tax User Guide* for more information.

Set the eBTax: Allow Override of Customer Exemptions profile option to control the display of the Tax Handling field. See: Setting Profile Option Values, *Oracle E-Business Tax Implementation Guide*. 
Reconciliation and Audit Procedures

Tax service providers return the calculated tax lines to E-Business Tax. The tax lines for Oracle Receivables transactions returned by tax service providers are stored in E-Business Tax similar to the way tax lines calculated by E-Business Tax itself are stored.

Due to the limitations of Vertex and Taxware APIs in accepting the transaction line update details, whenever a user updates a transaction line in Oracle Receivables, two lines are passed to Vertex or Taxware for tax calculation. For example, if the line amount is changed from $100 to $200, because of either quantity or price change, the tax service provider API is called for a transaction line with line amount as -$100 and another line with line amount as $200. The taxes for transaction line of line amount -$100 back out the original tax amounts calculated for the original line amount of $100.

Only approved adjustments of type Tax are synchronized with the tax service providers. This gives you greater control over which adjustments should reduce the sales tax liability. If you have adjustments of type Tax that you do not want to post to the tax service provider repository, see: Using Flexfields and Fields in Other Applications, page 4-22 for more information.

Before completing your tax returns using the tax service provider reports, you should reconcile the total tax amounts held in E-Business Tax, Oracle General Ledger, and a tax service provider repository. All Oracle Receivables transactions get stored in the tax service provider repository at the time of tax calculation. Thus, the tax details in E-Business Tax and in a tax service provider repository are always the same. The Oracle Receivables transactions are posted to General Ledger only when they are completed and posted to General Ledger from the Subledger Accounting application. Therefore, before reconciliation with General Ledger, all transactions must be completed and posted to the General Ledger.

You can reconcile the total tax amounts of Oracle Receivables transactions by state to Oracle General Ledger. The total tax amounts by state reported by the Tax Reconciliation Report should reconcile to each state tax liability account held in Oracle General Ledger.

Reconcile total tax amounts by state to the tax service provider repository by running the Vertex Sales Tax Register or Taxware Sales/Use Tax report.

The tax service providers and Oracle Receivables use different terms when referring to the tax calculation date and the accounting date for transactions. This table summarizes these terminology differences:

<table>
<thead>
<tr>
<th>Value</th>
<th>Oracle Receivables</th>
<th>Vertex Q-Series</th>
<th>Taxware SUTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Date</td>
<td>GL Date</td>
<td>Transaction Date</td>
<td>Fiscal Date</td>
</tr>
</tbody>
</table>
**Support Procedures**

Begin with E-Business Tax debug messages to review issues that arise with tax calculation by tax service providers. The debug log contains all the input and output parameters sent and received to and from a tax service provider. The tax service provider returned messages are printed in the debug log after this E-Business Tax introductory message:

An error has occurred in the tax service provider API. Please review the following messages and contact tax service provider support for further action.

This guide does not describe the process of the installation required by tax service providers, reports provided by tax service providers, or upgrades to newer releases. You should refer to the tax service provider’s manuals and documents and contact tax service provider support for details.

**Related Topics**

Available Parameters

The tax service providers tax calculation APIs get the input from the view ZX_O2C_CALC_TXN_INPUT_V. For the list of available attributes refer to the view description in the Oracle E-Business Suite Electronic Technical Reference Manual.

Customizable Tax Functions

Tax service providers require some attributes that do not exist as standard columns in the E-Business Suite tables or can be mapped to an attribute out of two or more potential attribute in E-Business Suite. To achieve this, view ZX_O2C_CALC_TXN_INPUT_V has some extra columns. There are tax functions that populate the values of these extra columns in the tables ZX_PRVDR_HDR_EXTNS_GT and ZX_PRVDR_LINE_EXTNS_GT used for the view.

The packages ARP_TAX_VIEW_TAXWARE and ARP_TAX_VIEW_VERTEX contain the tax functions for Taxware and Vertex respectively. These tax functions contain default logic that can be re-written for an installation. The tax functions are called from the procedures in the packages ZX_TAXWARE_USER_PKG and ZX_VERTEX_USER_PKG, which insert records in ZX_PRVDR_HDR_EXTNS_GT and ZX_PRVDR_LINE_EXTNS_GT tables.

The table below contains the tax functions contained in ARP_TAX_VIEW_TAXWARE ARP_TAX_VIEW_VERTEX packages and the values assigned to Vertex and Taxware API parameters by the calling procedures in the packages ZX_TAXWARE_USER_PKG and ZX_VERTEX_USER_PKG.
<table>
<thead>
<tr>
<th>Function/Procedure Name</th>
<th>Column Name in ZX_O2C_CALC_TXN_INPUT_V</th>
<th>Default Value</th>
<th>Mapped Attribute of Taxware API</th>
<th>Mapped Attribute of Vertex API</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSACTION_DATE</td>
<td>LINE_EXT_DATE_ATTRIB_E_ATTRIBUTE1</td>
<td>TRX_LINE_GL_DATE of ZX_LINES_DET_FACTORS</td>
<td>TaxLink.FiscalDate</td>
<td>fTransDate</td>
</tr>
<tr>
<td>PRODUCT_CODE</td>
<td>LINE_EXT_VAR_ATTRIB_CHAR_ATTRIBUTE2</td>
<td>SEGMENT1 of MTL_SYSTEM_ITEMS</td>
<td>TaxLink.ProdCode</td>
<td>fTDMProdCd</td>
</tr>
<tr>
<td>AUDIT_FLAG</td>
<td>LINE_EXT_VAR_ATTRIB_CHAR_ATTRIBUTE8</td>
<td>ATTRIBUTE15 of AR_RECEIVABLES_TRX</td>
<td>TaxLink.ReptInd</td>
<td>Not mapped directly, but determines if the transaction should be recorded in the Vertex repository.</td>
</tr>
<tr>
<td>SHIP_TO_ADDRESS_CODE</td>
<td>LINE_EXT_VAR_ATTRIB_CHAR_ATTRIBUTE9</td>
<td>1. Ship-to address jurisdiction code</td>
<td>TaxLink.StateCode = substr(SHIP_TO_ADDRESS_CODE,2,9)</td>
<td>.fJurisSTGeoCd = substr(SHIP_TO_ADDRESS_CODE,2,9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. TAX_JURISDICTION_CODE from ZX_JURISDICTIONS_B</td>
<td>TaxLink.PriZip = substr(SHIP_TO_ADDRESS_CODE,4,5)</td>
<td>.fJurisSTInCi = substr(SHIP_TO_ADDRESS_CODE,1,1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TaxLink.PriGeo = substr(SHIP_TO_ADDRESS_CODE,9,2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function/Procedure Name</td>
<td>Column Name in ZX_O2C_CALC_TXN_INPUT_V</td>
<td>Default Value</td>
<td>Mapped Attribute of Taxware API</td>
<td>Mapped Attribute of Vertex API</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------------</td>
<td>---------------</td>
<td>---------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>SHIP_FROM_ADDRESS_CODE</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE10</td>
<td>Warehouse address jurisdiction code</td>
<td>JurLink.ShipFr.State = substr(SHIP_FROM_ADDRESS_CODE,2,2)</td>
<td>.fJurisSFGeoCd = substr(SHIP_FROM_ADDRESS_CODE,2,9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>JurLink.ShipFr.Zip = substr(SHIP_FROM_ADDRESS_CODE,4,5)</td>
<td>.fJurisSFInCi = substr(SHIP_FROM_ADDRESS_CODE,1,1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>JurLink.ShipFr.Geo = substr(SHIP_FROM_ADDRESS_CODE,9,2)</td>
<td></td>
</tr>
<tr>
<td>POA_ADDRESS_CODE</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE11</td>
<td>Taxware: Organization jurisdiction code</td>
<td>JurLink.POA.State = substr(POA_ADDRESS_CODE,2,2)</td>
<td>.fJurisOAGeoCd = substr(POA_ADDRESS_CODE,2,9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vertex: Salesperson jurisdiction code</td>
<td>JurLink.POA.Zip = substr(POA_ADDRESS_CODE,4,5)</td>
<td>.fJurisOAInCi = substr(POA_ADDRESS_CODE,1,1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>JurLink.POA.Geo = substr(POA_ADDRESS_CODE,9,2)</td>
<td></td>
</tr>
<tr>
<td>CUSTOMER_CODE</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE12</td>
<td>Bill To Party Number (PARTY_NUMBER of HZ_PARTIES)</td>
<td>TaxLink.CustNo .fTDMCustCd</td>
<td></td>
</tr>
<tr>
<td>Function/Procedure Name</td>
<td>Column Name in ZX_O2C_CALC_TXN_INPUT_V</td>
<td>Default Value</td>
<td>Mapped Attribute of Taxware API</td>
<td>Mapped Attribute of Vertex API</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------------</td>
<td>---------------</td>
<td>----------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>COMPANY_COODE</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE14</td>
<td>01</td>
<td>TaxLink.CompanyID</td>
<td>.fTDMCompCd</td>
</tr>
<tr>
<td>DIVISION_CODE</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE15</td>
<td>01</td>
<td>TaxLink.DivCode</td>
<td>.fTDMDivCd</td>
</tr>
<tr>
<td>SERVICE_INDICATOR</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE1</td>
<td>Profile: ZX_TAXVDR_SERVICEIND</td>
<td>JurLink.ServInd</td>
<td>N/A</td>
</tr>
<tr>
<td>TAX_SEL_PARM</td>
<td>LINE_EXT_NUMBER_ATTRIBUTE6</td>
<td>Profile: ZX_TAXVDR_T AXSELPARAM</td>
<td>TaxSelParm</td>
<td>N/A</td>
</tr>
<tr>
<td>CUSTOMER_NAME</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE13</td>
<td>Bill To Party Name (PARTY_NAME of HZ_PARTIES)</td>
<td>TaxLink.CustName</td>
<td>N/A</td>
</tr>
<tr>
<td>VENDOR_CONTROL_EXEMPTIONS</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE16</td>
<td>Job Number (ATTRIBUTE1 from RA_CUST_TRX_TYPES)</td>
<td>TaxLink.JobNo</td>
<td>N/A</td>
</tr>
<tr>
<td>USE_NEXPRO</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE17</td>
<td>Profile: ZX_TAXVDR_U SENEXPRO</td>
<td>TaxLinkUseNexPro</td>
<td>N/A</td>
</tr>
<tr>
<td>Function/Procedure Name</td>
<td>Column Name in ZX_O2C_CALC_TXN_INPUT_V</td>
<td>Default Value</td>
<td>Mapped Attribute of Taxware API</td>
<td>Mapped Attribute of Vertex API</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------------</td>
<td>---------------</td>
<td>---------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>POO_ADDRESS_CODE</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE20</td>
<td>Salesperson jurisdiction code</td>
<td>JurLink.PO0.State = substr(POO_ADDRESS_CODE,2,2)</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>JurLink.PO0.Zip = substr(POO_ADDRESS_CODE,4,5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>JurLink.PO0.Ge0 = substr(POO_ADDRESS_CODE,9,2)</td>
<td></td>
</tr>
<tr>
<td>CALCULATION_FLAG</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE21</td>
<td>00000 (Calculate tax at all jurisdiction levels)</td>
<td>TaxLink.NoStaTax</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TaxLink.StaExempt</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TaxLink.NoCnTax</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TaxLink.CnExempt</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TaxLink.NoLoTax</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TaxLink.LoExempt</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TaxLink.NoSecCnTax</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TaxLink.SecCnExempt</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TaxLink.NoSecLoTax</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TaxLink.SecLoExempt</td>
<td></td>
</tr>
<tr>
<td>Function/Procedure Name</td>
<td>Column Name in ZX_O2C_CALC_TXN_INPUT_V</td>
<td>Default Value</td>
<td>Mapped Attribute of Taxware API</td>
<td>Mapped Attribute of Vertex API</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------------</td>
<td>---------------</td>
<td>--------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>TRX_LINE_TYP E</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE1</td>
<td>SALE</td>
<td>N/A</td>
<td>.fTransType</td>
</tr>
<tr>
<td>CUSTOMER_CLASS</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE13</td>
<td>Null</td>
<td>N/A</td>
<td>.fTDMCustClass Cd</td>
</tr>
<tr>
<td>GET_EXEMPTIONS</td>
<td>LINE_EXT_NUMBER_ATTRIBUTE1</td>
<td>RATE_MODIFIER of ZX_EXEMPTIONS for STATE Tax</td>
<td>TaxLink.StExemptAmount = TaxLink.GrossAmount * (GET_EXEMPTIONS.state_exempt_percent)</td>
<td>.fPriStExmtAmt = fTransExtendedAmt * (GET_EXEMPTIONS.state_exempt_percent)</td>
</tr>
<tr>
<td>GET_EXEMPTIONS</td>
<td>LINE_EXT_NUMBER_ATTRIBUTE2</td>
<td>RATE_MODIFIER of ZX_EXEMPTIONS for COUNTY Tax</td>
<td>TaxLink.CntyExemptAmount = TaxLink.GrossAmount * (GET_EXEMPTIONS.county_exempt_percent)</td>
<td>.fPriCoExmtAmt = fTransExtendedAmt * (GET_EXEMPTIONS.county_exempt_percent)</td>
</tr>
<tr>
<td>GET_EXEMPTIONS</td>
<td>LINE_EXT_NUMBER_ATTRIBUTE3</td>
<td>RATE_MODIFIER of ZX_EXEMPTIONS for CITY Tax</td>
<td>TaxLink.CityExemptAmount = TaxLink.GrossAmount * (GET_EXEMPTIONS.city_exempt_percent)</td>
<td>.fPriCiExmtAmt = fTransExtendedAmt * (GET_EXEMPTIONS.city_exempt_percent)</td>
</tr>
<tr>
<td>GET_EXEMPTIONS</td>
<td>LINE_EXT_VAR CHAR_ATTRIBUTE4</td>
<td>NULL</td>
<td>TaxLink.StReasonCode</td>
<td>.fPriStExmtRsnCode</td>
</tr>
<tr>
<td>Function/Procedure Name</td>
<td>Column Name in ZX_O2C_CALC_TXN_INPUT_V</td>
<td>Default Value</td>
<td>Mapped Attribute of Taxware API</td>
<td>Mapped Attribute of Vertex API</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------</td>
<td>---------------</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>GET_EXEMPTIONS (parameter city_exempt_reason)</td>
<td>LINE_EXT_VAR CHAR_ATTRIB UTE6</td>
<td>NULL</td>
<td>TaxLink.CityReasonCode</td>
<td>.fPriCiExmtRsnC</td>
</tr>
<tr>
<td>GET_EXEMPTIONS (parameter use_step)</td>
<td>LINE_EXT_VAR CHAR_ATTRIB UTE3</td>
<td>Taxware: 'Y'</td>
<td>TaxLink.UseStep</td>
<td>N/A</td>
</tr>
<tr>
<td>GET_EXEMPTIONS (parameter step_proc_flag)</td>
<td>LINE_EXT_VAR CHAR_ATTRIB UTE7</td>
<td>Taxware: 1</td>
<td>TaxLink.StepProcFlag</td>
<td>N/A</td>
</tr>
<tr>
<td>GET_EXEMPTIONS (parameter crit_flag)</td>
<td>LINE_EXT_VAR CHAR_ATTRIB UTE19</td>
<td>'R'</td>
<td>TaxLink.CritFlag</td>
<td>N/A</td>
</tr>
<tr>
<td>GET_EXEMPTIONS (parameter sec_county_exempt_percent)</td>
<td>LINE_EXTNUMBER_ATTRIB UTE4</td>
<td>RATE_MODIFIER of ZX_EXEMPTIONS for SECONDARY COUNTY Tax</td>
<td>TaxLink.SecCntExemptAmt = TaxLink.GrossAmount * (GET_EXEMPTIONS.sec_county_exempt_percent)</td>
<td>N/A</td>
</tr>
<tr>
<td>GET_EXEMPTIONS (parameter sec_city_exempt_percent)</td>
<td>LINE_EXTNUMBER_ATTRIB UTE5</td>
<td>RATE_MODIFIER of ZX_EXEMPTIONS for SECONDARY CITY Tax</td>
<td>TaxLink.SecLoExemptAmt = TaxLink.GrossAmount * (GET_EXEMPTIONS.sec_city_exempt_percent)</td>
<td>N/A</td>
</tr>
<tr>
<td>GET_EXEMPTIONS (parameter state_certificate_number)</td>
<td>LINE_EXT_VAR CHAR_ATTRIB UTE22</td>
<td>EXEMPT_CERTIFICATE_NUMBER of ZX_EXEMPTIONS for STATE Tax</td>
<td>TaxLink.StTaxCertNo</td>
<td>N/A</td>
</tr>
</tbody>
</table>
The tax functions are included in the E-Business Tax files $ZX_TOP/patch/115/sql/zxtxvwab.pls and ztxxvwvb.pls.

The value of the eBTax Vertex: Case Sensitive profile option is assigned to the header_ext_varchar_attribute1. This profile option is used by Vertex to indicate whether information retrieval is performed using case-sensitive searches.
All tax functions have a parameter named p_view_name. This parameter identifies the transaction source context for rewriting the body of a tax function. Based on the transaction source, the table below identifies the table from where you can fetch transaction line attributes and join with other E-Business Suite tables.

<table>
<thead>
<tr>
<th>Transaction Source</th>
<th>p_view_name value for Vertex</th>
<th>p_view_name value for Taxware</th>
<th>Table Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AutoInvoice - Invoice/Debit</td>
<td>TAX_LINES_INVOICE E_IMPORT_V_V</td>
<td>TAX_LINES_INVOICE E_IMPORT_V_A</td>
<td>RA_CUSTOMER_TR X_LINES_ALL</td>
</tr>
<tr>
<td>Memo/On Account Credit Memo</td>
<td>INVOICE</td>
<td>INVOICE</td>
<td></td>
</tr>
<tr>
<td>AutoInvoice - Applied Credit Memo</td>
<td>TAX_LINES_RMA_I MPORT_V_V</td>
<td>TAX_LINES_RMA_I MPORT_V_A</td>
<td>RA_CUSTOMER_TR X_LINES_ALL</td>
</tr>
<tr>
<td></td>
<td>CREDITMEMO</td>
<td>CREDITMEMO</td>
<td></td>
</tr>
<tr>
<td>Recurring Invoice</td>
<td>TAX_LINES_RECUR R_INVOICE_V_V</td>
<td>TAX_LINES_RECUR R_INVOICE_V_A</td>
<td>RA_CUSTOMER_TR X_LINES_ALL</td>
</tr>
<tr>
<td>Manual Entry &amp; Update - Invoice/Debit</td>
<td>TAX_LINES_CREAT E_V_V INVOICE</td>
<td>TAX_LINES_CREAT E_V_A INVOICE</td>
<td>RA_CUSTOMER_TR X_LINES_ALL</td>
</tr>
<tr>
<td>Memo/On Account Credit Memo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manual Entry &amp; Update - Applied Credit Memo</td>
<td>TAX_LINES_CM_V_V CREDITMEMO</td>
<td>TAX_LINES_CM_V_A CREDITMEMO</td>
<td>RA_CUSTOMER_TR X_LINES_ALL</td>
</tr>
<tr>
<td>Override Tax Lines</td>
<td>TAX_LINES_DELETE _V_V</td>
<td>TAX_LINES_DELETE _V_A</td>
<td>RA_CUSTOMER_TR X_LINES_ALL</td>
</tr>
<tr>
<td>Delete Invoice/Debit Memo/On Account</td>
<td>TAX_LINES_CREAT E_V_V</td>
<td>TAX_LINES_CREAT E_V_A</td>
<td>RA_CUSTOMER_TR X_LINES_ALL</td>
</tr>
<tr>
<td>Credit Memo/Applied Credit Memo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax Adjustment</td>
<td>TAX_ADJUSTMENT S_V_V</td>
<td>TAX_ADJUSTMENT S_V_A</td>
<td>RA_ADJUSTMENTS_ ALL</td>
</tr>
<tr>
<td>Order Management</td>
<td>OE_TAX_LINES_SUMMARY_V_V</td>
<td>OE_TAX_LINES_SUMMARY_V_A</td>
<td>OE_ORDER_LINES_ ALL</td>
</tr>
<tr>
<td>Transaction Source</td>
<td>p_view_name value for Vertex</td>
<td>p_view_name value for Taxware</td>
<td>Table Name</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Order Capture</td>
<td>ASO_TAX_LINES_SUMMARY_V_V</td>
<td>ASO_TAX_LINES_SUMMARY_V_A</td>
<td>ASO_QUOTE_LINES_ALL</td>
</tr>
</tbody>
</table>

**FUNCTION TRANSACTION_DATE(**

```sql
FUNCTION TRANSACTION_DATE(
p_view_name IN VARCHAR2,
p_header_id IN NUMBER,
p_line_id IN NUMBER) RETURN DATE;
```

**Input** | **Description**  |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores the GL Date value on the transaction line in the LINE_EXT_DATE_ATTRIBUTE1 column of the ZX_PRVDR_LINE_EXTNS_GT table. This value is used for reporting purposes.

**FUNCTION PRODUCT_CODE(**

```sql
FUNCTION PRODUCT_CODE(
p_view_name    IN VARCHAR2,
p_header_id    IN NUMBER,
p_line_id    IN NUMBER,
p_item_id    IN NUMBER,
p_memo_line_id    IN NUMBER) RETURN VARCHAR2;
```

**Input** | **Description**  |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
<tr>
<td>p_item_id</td>
<td>ID of inventory item</td>
</tr>
</tbody>
</table>
### Function: Input Description

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_memo_line_id</td>
<td>ID of memo line</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores the SEGMENT1 value from the MTL_SYSTEM_ITEMS table (System Items key flexfield) in the LINE_EXT VARCHAR_ATTRIBUTE2 column of the ZX_PRVDR_LINE_EXTNS_GT table. If a memo line is passed instead of an inventory item, then a NULL value is stored. The part number is used to determine exemptions.

#### Function: ALTER_FLAG

```sql
FUNCTION AUDIT_FLAG(
    p_view_name IN VARCHAR2,
    p_header_id IN NUMBER,
    p_line_id IN NUMBER) RETURN VARCHAR2;
```

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores the value Y in the LINE_EXT VARCHAR_ATTRIBUTE8 column of the ZX_PRVDR_LINE_EXTNS_GT table.

The value is used as an indicator for the auditing of tax adjustments. If Y, the tax adjustment is posted to the tax service provider repository.

#### Function: SHIP_TO_ADDRESS_CODE

```sql
FUNCTION SHIP_TO_ADDRESS_CODE(
    p_view_name       IN VARCHAR2,
    p_header_id       IN NUMBER,
    p_line_id       IN NUMBER,
    p_ship_to_address_id        IN NUMBER,
    p_ship_to_location_id   IN NUMBER,
    p_trx_date     IN NUMBER,
    p_ship_to_state     IN VARCHAR2,
    p_postal_code     IN VARCHAR2) RETURN VARCHAR2;
```

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
<tr>
<td>p_ship_to_address_id</td>
<td>ID of transaction line</td>
</tr>
<tr>
<td>p_ship_to_location_id</td>
<td>ID of transaction line</td>
</tr>
<tr>
<td>p_trx_date</td>
<td>Transaction date</td>
</tr>
<tr>
<td>p_ship_to_state</td>
<td>Ship to state</td>
</tr>
<tr>
<td>p_postal_code</td>
<td>Ship to postal code</td>
</tr>
</tbody>
</table>
The function returns NULL by default and the calling procedure stores the value in the ZX_PRVDR_LINE_EXTNS_GT table as per the description below.

The first character represents the In/Out City Limits flag. If this value is 1, then the Ship-to address is within the city limits; if this value is 0, then it is outside the city limits. The rest of the string is the jurisdiction code for the Ship-to address.

The In/Out City Limits is derived from the SALES_TAX_INSIDE_CITY_LIMITS column of the HZ_LOCATIONS table. If the In/Out City Limits flag is not found in the SALES_TAX_INSIDE_CITY_LIMITS column of the HZ_LOCATIONS table, the default value is within the city limits (1). For Taxware, the value of the first character is always 1.

The jurisdiction code is obtained from the SALES_TAX_GEOCODE column of the HZ_LOCATIONS table. If SALES_TAX_GEOCODE is NULL, the ZX_JURISDICTION_CODE column of the ZX_JURISDICTIONS_B table is returned for the ship-to city and zip code.

```
FUNCTION SHIP_FROM_ADDRESS_CODE(
    p_view_name   IN VARCHAR2,
    p_header_id   IN NUMBER,
    p_line_id     IN NUMBER,
    p_warehouse_id IN NUMBER
) RETURN VARCHAR2;
```
Input Description

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
<tr>
<td>p_warehouse_id</td>
<td>ID of warehouse of the ship-from</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores the value in the ZX_PRVDR_LINE_EXTNS_GT table as per the description below.

The first character represents the In/Out City Limits flag. If this value is 1, then the Ship-from address is within the city limits; if this value is 0, then it is outside the city limits. The rest of the string is the jurisdiction code for the Ship-from address. For Taxware, the value of the first character is always 1.

The In/Out City Limits is derived from LOC_INFORMATION14 of the Location Address descriptive flexfield. The jurisdiction code is derived from LOC_INFORMATION13 of the Location Address descriptive flexfield.

**FUNCTION POA_ADDRESS_CODE**

```sql
FUNCTION POA_ADDRESS_CODE(
p_view_name IN VARCHAR2,
p_header_id IN NUMBER,
p_line_id IN NUMBER,
p_salesrep_id IN NUMBER) RETURN VARCHAR2;
```

Input Description

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
<tr>
<td>p_salesrep_id</td>
<td>ID of the primary sales representative</td>
</tr>
</tbody>
</table>

The function uses all four parameters for Vertex. The function does not use the p_salesrep_id parameter for Taxware.

The function returns NULL by default and the calling procedure stores the value in the ZX_PRVDR_LINE_EXTNS_GT table as per the description below.

The first character represents the In/Out City Limits flag. If this value is 1, then the Point
of Order Acceptance is within the city limits; if this value is 0, then it is outside the city limits. For Taxware, the value of the first character is 1.

The rest of the string is the jurisdiction code for the Point of Order Acceptance.

For Vertex, the In/Out City Limits is derived from the SALES_TAX_INSIDE_CITY_LIMITS column of the RA_SALESREPS view. The jurisdiction is derived from the SALES_TAX_GEOCODE column of the RA_SALESREPS view.

For Taxware, the jurisdiction code is derived from SALES_TAX_GEOCODE of the ZX_PRODUCT_OPTIONS_ALL table.

### FUNCTION CUSTOMER_CODE

```sql
FUNCTION CUSTOMER_CODE(
p_view_name IN VARCHAR2,
p_header_id IN NUMBER,
p_line_id IN NUMBER) RETURN VARCHAR2;
```

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores the bill to party PARTY_NUMBER from the HZ_PARTIES table in the LINE_EXT_VARCHAR_ATTRIBUTE12 column of the ZX_PRVDR_LINE_EXTNS_GT table. This value is used to determine the taxability of the individual customer.

### FUNCTION COMPANY_CODE

```sql
FUNCTION COMPANY_CODE(
p_view_name    IN VARCHAR2,
p_header_id    IN NUMBER,
p_line_id    IN NUMBER) RETURN VARCHAR2;
```

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores 01 for both
Taxware and Vertex in the LINE_EXT_VARCHAR_ATTRIBUTE14 column of the ZX_PRVDR_LINE_EXTNS_GT table. This value is used to control the tax reporting level and identifies exemptions defined in the tax service provider system.

**FUNCTION DIVISION_CODE**(

<table>
<thead>
<tr>
<th>p_view_name</th>
<th>IN VARCHAR2,</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_header_id</td>
<td>IN NUMBER,</td>
</tr>
<tr>
<td>p_line_id</td>
<td>IN NUMBER) RETURN VARCHAR2;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores 01 for both Taxware and Vertex in the LINE_EXT_VARCHAR_ATTRIBUTE15 column of the ZX_PRVDR_LINE_EXTNS_GT table. This value is used to control the tax reporting level and identifies exemptions defined in the tax service provider system.

**FUNCTION SERVICE_INDICATOR**(

<table>
<thead>
<tr>
<th>p_view_name</th>
<th>IN VARCHAR2,</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_header_id</td>
<td>IN NUMBER,</td>
</tr>
<tr>
<td>p_line_id</td>
<td>IN NUMBER) RETURN NUMBER;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores 1, 2, or 3 in the LINE_EXT_VARCHAR_ATTRIBUTE1 column of the ZX_PRVDR_LINE_EXTNS_GT table. 1 indicates service; 2 indicates rental; 3 indicates non-service. The value is taken from the eBTax Taxware: Service Indicator profile option.
FUNCTION TAX_SEL_PARM(
    p_view_name    IN VARCHAR2,
    p_header_id    IN NUMBER,
    p_line_id      IN NUMBER) RETURN NUMBER;

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores the value 2 or 3 in the LINE_EXT_NUMBER_ATTRIBUTE6 column of the ZX_PRVDR_LINE_EXTNS_GT table. 2 means use only the ship-to address in the tax calculation; 3 means use all jurisdiction information in the tax calculation. The value is taken from the eBTax Taxware: Tax Selection profile option.

FUNCTION CUSTOMER_NAME(
    p_view_name IN VARCHAR2,
    p_header_id IN NUMBER,
    p_line_id IN NUMBER) RETURN VARCHAR2;

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores the bill to party PARTY_NAME from the HZ_PARTIES table in the LINE_EXT_VARCHAR_ATTRIBUTE13 column of the ZX_PRVDR_LINE_EXTNS_GT table. This value is used on the Sales/Use Tax Report to report by customer name.

FUNCTION VENDOR_CONTROL_EXEMPTIONS(
    p_view_name    IN VARCHAR2,
    p_header_id    IN NUMBER,
    p_line_id      IN NUMBER,
    p_trx_type_id  IN NUMBER) RETURN VARCHAR2;
Input Description

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
<tr>
<td>p_trx_type_id</td>
<td>ID of the transaction type</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores ATTRIBUTE1 of the RA_CUST_TRX_TYPES_ALL table in the LINE_EXTVARCHAR_ATTRIBUTE16 column of the ZX_PRVDR_LINE_EXTNS_GT table. The value corresponds to the job number which is used to determine exemptions.

FUNCTION USE_NEXPRO(
    p_view_name   IN VARCHAR2,
    p_header_id   IN NUMBER,
    p_line_id     IN NUMBER) RETURN VARCHAR2

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure assigns the value Y or N to the LINE_EXTVARCHAR_ATTRIBUTE17 column of the ZX_PRVDR_LINE_EXTNS_GT table.

The value indicates whether Taxware uses the Nexpro functionality: Y = Use Nexpro; N = Do not use Nexpro. The value is taken from the eBTax Taxware: Use Nexpro profile option.

FUNCTION POO_ADDRESS_CODE(
    p_view_name    IN VARCHAR2,
    p_header_id    IN NUMBER,
    p_line_id      IN NUMBER,
    p_salesrep_id  IN NUMBER) RETURN VARCHAR2;
<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
<tr>
<td>p_salesrep_id</td>
<td>ID of the primary sales representative</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores the value in the ZX_PRVDR_LINE_EXTNS_GT table as per the description below. This function is only for Taxware.

The value of the first character is always 1. The rest of the string is the jurisdiction code for the Point of Order Origin. It is derived from the SALES_TAX_GEOCODE column of the RA_SALESREPS view.

```sql
FUNCTION CALCULATION_FLAG(
    p_view_name   IN VARCHAR2,
    p_header_id   IN NUMBER,
    p_line_id     IN NUMBER) RETURN VARCHAR2;
```

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores a 5-character string, to represent the five jurisdiction level calculation flags, in the LINE_EXT_VARCHAR_ATTRIBUTE21 column of the ZX_PRVDR_LINE_EXTNS_GT table. The first character is for the state tax; the second for the county tax; the third for the city tax; the fourth for the secondary county tax; and the fifth for the secondary city tax.

Each character identifies whether tax should be calculated at a particular jurisdiction level. 1 indicates that tax should not be calculated for this level; 0 indicates that tax should be calculated.
FUNCTION TRX_LINE_TYPE(
  p_view_name   IN VARCHAR2,
  p_header_id   IN NUMBER,
  p_line_id     IN NUMBER) RETURN  VARCHAR2;

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure stores the value SALE in the LINE_EXT VARCHAR_ATTRIBUTE1 column of the ZX_PRVDR_LINE_EXTNS_GT table. Valid values are PURCHASE, RENTAL, SALE, and SERVICE.

FUNCTION CUSTOMER_CLASS(
  p_view_name   IN VARCHAR2,
  p_header_id   IN NUMBER,
  p_line_id     IN NUMBER,
  p_customer_id IN NUMBER) RETURN  VARCHAR2;

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_view_name</td>
<td>Name of view calling this function</td>
</tr>
<tr>
<td>p_header_id</td>
<td>ID of transaction header</td>
</tr>
<tr>
<td>p_line_id</td>
<td>ID of transaction line</td>
</tr>
<tr>
<td>p_customer_id</td>
<td>ID of customer (ship-to, bill-to, or other)</td>
</tr>
</tbody>
</table>

The function returns NULL by default and the calling procedure also stores the value NULL in the LINE_EXT VARCHAR_ATTRIBUTE13 column of the ZX_PRVDR_LINE_EXTNS_GT table. You can customize the function to return a customer class code to use to determine exemptions.
PROCEDURE GET_EXEMPTIONS(
  p_exemption_id IN NUMBER,
  p_state_exempt_percent OUT NUMBER,
  p_state_exempt_reason OUT VARCHAR2,
  p_state_cert_no OUT VARCHAR2,
  p_county_exempt_percent OUT NUMBER,
  p_county_exempt_reason OUT VARCHAR2,
  p_county_cert_no OUT VARCHAR2,
  p_city_exempt_percent OUT NUMBER,
  p_city_exempt_reason OUT VARCHAR2,
  p_city_cert_no OUT VARCHAR2,
  p_sec_county_exempt_percent OUT NUMBER,
  p_sec_city_exempt_percent OUT NUMBER,
  p_use_step OUT VARCHAR2,
  p_step_proc_flag OUT VARCHAR2,
  p_crit_flag OUT VARCHAR2)

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_exemption_id</td>
<td>ID of exemption record</td>
</tr>
<tr>
<td>p_&lt;juris&gt;_exempt_percent</td>
<td>Exemption percent for jurisdiction</td>
</tr>
<tr>
<td>p_&lt;juris&gt;_exempt_reason</td>
<td>Exemption reason for jurisdiction</td>
</tr>
<tr>
<td>p_&lt;juris&gt;_cert_no</td>
<td>Exemption certificate number for jurisdiction</td>
</tr>
<tr>
<td>p_use_step</td>
<td>Use STEP90 flag</td>
</tr>
<tr>
<td>p_step_proc_flag</td>
<td>STEP processing flag</td>
</tr>
<tr>
<td>p_crit_flag</td>
<td>Criterion flag</td>
</tr>
</tbody>
</table>

The procedure returns NULL values by default for all output parameters and the calling procedure assigns the value as per the description below. This procedure is called for Taxware integration only.

E-Business Tax stores exemptions for each jurisdiction individually in the ZX_EXEMPTIONS table. Therefore, this procedure may get called five times if the exemptions are defined for each of the five jurisdiction levels. E-Business Tax assigns the values stored in the ZX_EXEMPTIONS table for each jurisdiction. Only the first two characters of the exemption reason stored in ZX_EXEMPTIONS are passed to Taxware.

If ZX_EXEMPTIONS does not have exemption records for all five jurisdictions, Taxware is passed Y for p_use_step, 1 for p_step_proc_flag, and R for p_crit_flag.

If this procedure is re-written at an installation, E-Business Tax passes the values of the flags p_use_step, p_step_proc_flag and p_crit_flag to Taxware from the last call.
E-Business Tax makes to the GET_EXEMPTION procedure for a transaction line. Each call to GET_EXEMPTION should return a jurisdiction-specific exempt percentage, exempt reason, and exempt certificate number that is passed to Taxware.

**PROCEDURE GET_EXEMPTIONS**

```sql
PROCEDURE GET_EXEMPTIONS(
p_exemption_id IN NUMBER,
p_cert_no OUT VARCHAR2,
p_state_exempt_percent OUT NUMBER,
p_state_exempt_reason OUT VARCHAR2,
p_county_exempt_percent OUT NUMBER,
p_county_exempt_reason OUT VARCHAR2,
p_city_exempt_percent OUT NUMBER,
p_city_exempt_reason OUT VARCHAR2,
p_district_exempt_percent OUT NUMBER,
p_district_exempt_reason OUT VARCHAR2)
```

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_exemption_id</td>
<td>ID of exemption record</td>
</tr>
<tr>
<td>p_&lt;juris&gt;_exempt_percent</td>
<td>Exemption percent for jurisdiction</td>
</tr>
<tr>
<td>p_&lt;juris&gt;_exempt_reason</td>
<td>Exemption reason for jurisdiction</td>
</tr>
<tr>
<td>p_cert_no</td>
<td>Exemption certificate number</td>
</tr>
</tbody>
</table>

The procedure returns NULL values by default for all output parameters and the calling procedure assigns the value as per the description below. This procedure is called for Vertex integration only.

E-Business Tax stores exemptions for each jurisdiction individually in the Zx_EXEMPTIONS table. Therefore, this procedure may get called four times if the exemptions are defined for each of the four jurisdiction levels. E-Business Tax assigns the values stored in the Zx_EXEMPTIONS table for each jurisdiction. Only the first character of the exemption reason stored in Zx_EXEMPTIONS is passed to Vertex.

If this procedure is re-written at an installation, each call to GET_EXEMPTION should return a jurisdiction-specific exempt percentage and exempt reason that is passed to Vertex. The certificate number received from the last call to this function for a transaction line is passed to Vertex for that transaction line.

**Related Topics**

Tax Partner Services Plug-In, *Oracle E-Business Tax Reporting Guide*
Using Flexfields and Fields in Other Applications

Some descriptive flexfields and fields in other applications are used specifically for service provider integration. The following tables list all such fields. Note that all fields are optional.

Predefined Descriptive Flexfields for Storing Tax Information

The table below shows the predefined descriptive flexfields that you can use to enter ship-from information.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Column</th>
<th>Window</th>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRLOCATION</td>
<td>LOC_INFORMATION 1 3</td>
<td>Location Address</td>
<td>Sales Tax Override</td>
<td>Ship-From jurisdiction code.</td>
</tr>
<tr>
<td>HRLOCATION</td>
<td>LOC_INFORMATION 1 4</td>
<td>Location Address</td>
<td>Inside City Limits</td>
<td>Indicates whether the address is considered inside or outside the city limits (Vertex only).</td>
</tr>
</tbody>
</table>

User-Defined Descriptive Flexfields Used to Store Tax Information

If you want to use any of the following descriptive flexfields to store tax information, you must register each flexfield as required.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Field Name</th>
<th>Column</th>
<th>Description</th>
<th>Value Set Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR RECEIVABLESTRX</td>
<td>Receivables Activity Information</td>
<td>ATTRIBUTE15</td>
<td>Post Adjustment to Service Provider</td>
<td>AR_TAXVDR YES_NO</td>
</tr>
<tr>
<td>RA_CUST_TRXTYPES_ALL</td>
<td>Transaction Type Information</td>
<td>ATTRIBUTE1</td>
<td>Job Number (Taxware Only)</td>
<td>AR_TAXVDR CHAR10</td>
</tr>
</tbody>
</table>
Important: Use of user-defined descriptive flexfields is considered a customization. Functions supplied by Oracle may change in future releases to support these fields in core tables. Additionally, if these columns are in use by your customizations, you may need to either redefine the tax functions so that they look in other attribute columns, or your customizations may need to be changed.

Other Application Fields Used to Store Tax Information

The table below lists fields in other applications that you can use to enter point of order acceptance (POA), point of order origin (POO), and ship-to information.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Column</th>
<th>Window</th>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>JTF_RS_SALESREPS</td>
<td>SALES_TAX_GEOCODE</td>
<td>Sales Force</td>
<td>Geo Override</td>
<td>Point of Order Origin jurisdiction code (Taxware)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SALES_TAX_INSIDE_CITY_</td>
<td>Sales Force</td>
<td>Inside City</td>
<td>Indicates whether the POA address is inside the city limits (Vertex Only)</td>
</tr>
<tr>
<td></td>
<td>LIMITS</td>
<td></td>
<td>Limits</td>
<td></td>
</tr>
<tr>
<td>HZ_LOCATION</td>
<td>SALES_TAX_GEOCODE</td>
<td>Customer Addresses</td>
<td>Geo Override</td>
<td>Ship-to GeoCode</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SALES_TAX_INSIDE_CITY_</td>
<td>Customer Addresses</td>
<td>Inside City</td>
<td>Indicates whether the ship-to address is inside the city limits (Vertex Only)</td>
</tr>
<tr>
<td></td>
<td>LIMITS</td>
<td></td>
<td>Limits</td>
<td></td>
</tr>
<tr>
<td>AR_SYSTEM_PARAMETERS_ALL</td>
<td>SALES_TAX_GEOCODE</td>
<td>System Options</td>
<td>Geo Override</td>
<td>Point of Order Acceptance jurisdiction code (Taxware Only)</td>
</tr>
</tbody>
</table>
Related Topics

Defining Descriptive Flexfields, *Oracle Applications Flexfields Guide*