Ariba Analysis Advanced User Guide

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Preface

The *Ariba Analysis Advanced User Guide* describes the more advanced aspects of Ariba Analysis with an eye to tailoring the software for daily use by your organization.

This chapter includes the following sections:

- "Audience and Prerequisites" on page vii
- "Typographic Conventions" on page viii
- "Ariba Technical Support" on page viii
- "Ariba Analysis Documentation" on page ix

Audience and Prerequisites

Anyone who prepares Ariba Analysis reports or templates for themselves or others should read this guide. This audience includes but is not limited to procurement and sourcing business analysts and systems integration consultants.

Required Skills

To get the most from *Ariba Analysis Advanced User Guide*, you need to have the following:

- Familiarity with the basic features of Ariba Analysis as described in its online help and quick tours.
- Acquaintance with spreadsheet applications and the purpose and preparation of business graphs.
- Understanding of your company's data and how that data is best modelled in Ariba Analysis.

For background information about how data is modelled in Ariba Analysis, see the overview of the *Ariba Analysis Customization Guide*.

Typographic Conventions

The following table describes the typographic conventions used in this document:

| Typeface or Symbol | Meaning | Example |
|-----------------------|---|---|
| AaBbCc123 | Text you need to change is italicized. | http://server:port/app/inspector |
| AaBbCc123 | The names of user interface controls, menus, and menu items. | Choose Edit from the File menu. |
| AaBbCc123 | Files and directory names, parameters, fields in CSV files, command lines, and code examples. | There is one line in ReportMeta.csv for each report in the system. |
| AaBbCc123 | The names of books. | For more information, see the <i>Ariba Analysis Advanced User Guide</i> . |

Ariba Technical Support

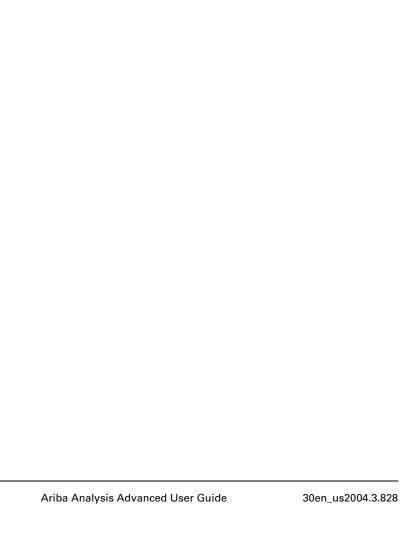
For assistance with Ariba products, Ariba Technical Support is available by phone, email, or over the Web. For information on how to contact Ariba Technical Support, refer to the following page on the Ariba Technical Support Website:

http://connect.ariba.com/TechSupport_Contacting.htm

Ariba Analysis Documentation

The Ariba Analysis documentation set contains the following books.

| Title | Audience | Purpose and contents |
|--|--|---|
| Ariba Analysis Installation Guide | System and database administrators | Planning and installing Ariba Analysis Architectural overview, software components, deployment configurations Step-by-step installation |
| Ariba Analysis Configuration Guide | System and database administrators | Configuring and administering Ariba Analysis Configuration files, command reference, parameters, administration console System security Managing users and reports |
| Ariba Analysis Customization Guide | Systems integrators and data warehouse designers | Customizing Ariba Analysis Design goals, methodologies, and best practices Working with and extending the data model. Adding facts, measures, dimensions, and materialized views. Controlling data visibility Tailoring the user interface |
| Ariba Analysis Data Load Guide | Data warehouse designers and database administrators | Loading data from Ariba applications and external systems into Ariba Analysis Configuration files Data-loading metadata XML command reference |
| Ariba Analysis Advanced User Guide | Procurement and sourcing business analysts, systems integrators | Setting-up Ariba Analysis for daily use Ariba Analysis prepackaged report models Designing compound reports, multi-source reports, and template dashboards by role Customizing Microsoft Excel templates for use with Ariba Analysis Overview to Ariba integrated Supplier Performance Management |



Overview to Advanced Use

The *Ariba Analysis Advanced User Guide* describes the more advanced aspects of Ariba Analysis with an eye to tailoring the software for daily use by your organization.

This chapter includes the following sections:

- "What's in This Guide" on page 11
- "How to Use this Guide: Working Backwards" on page 11

What's in This Guide

This guide is structured as follows.

- Chapter 3, "Dashboard Templates: Default and by Role."
- Chapter 4, "Compound Reports."
- Chapter 5, "Understanding Multiple Fact Reports."
- Chapter 6, "Customizing Microsoft Excel Templates."
- Chapter 7, "SPM Exception Management."
- Chapter 8, "Report and Template Models."

How to Use this Guide: Working Backwards

The organization of the *Ariba Analysis Advanced User Guide* is backwards from the standpoint of your design work:

- 1 Start with Chapter 8, "Report and Template Models."
- **2** Pick the chapters in the middle that detail the advanced features need to construct report models for your own organization.
- **3** End with Chapter 3, "Dashboard Templates: Default and by Role."

Report Models for Design

Perhaps the best way to find out what Ariba Analysis can do for you and your organization is to familiarize yourself with its report models.

Chapter 8, "Report and Template Models," describes example reports that you can customize for your needs. After you see the kinds of reports that have been prepared with Ariba Analysis, you'll have a better understanding of how to tailor your own report designs to meet your organization's investigative challenges.

Advanced Details for Custom Report Design

Pick chapters in this guide that detail the advanced features of the reports you have selected as models.

Prototype Ariba Analysis Users

After you have designed your reports, you can set-up Ariba Analysis so that all users have your tailored reports at their fingertips, without investing the design effort you have done for them. For details about this final, mechanical step, see Chapter 3, "Dashboard Templates: Default and by Role."

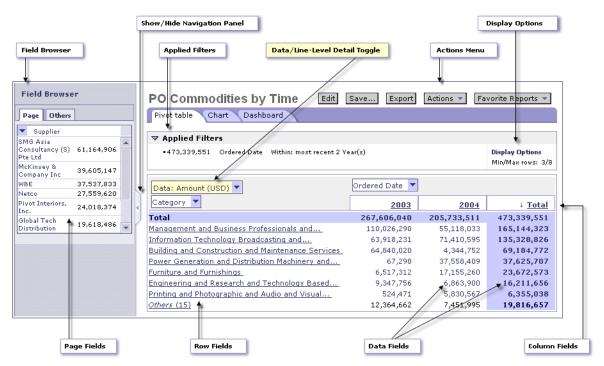
Using the Pivot Table

The Ariba Analysis pivot table UI has many ways you can view and manipulate the data.

This chapter includes the following sections:

- "Field Browser" on page 14
- "Page Field Viewer Drill-Down" on page 15
- "Actions Across the Top" on page 15
- "Other Actions" on page 16
- "Line-level Detail Directly in Pivot Table" on page 17

The following annotated diagram shows areas of the pivot table.



Field Browser

The left panel of the Ariba Analysis pivot table is the **Field Browser**. With the **Field Browser**, you can add or remove data fields directly to or from an analytical report without having to return to the Analysis Wizard.

The Field Browser has two tabs: Page and Others.

- The **Page** tab lists the page fields currently included in the analytical report. Fields that are associated with the report's facts and not currently included on a report row, column or page edge appear on the **Page** tab. Likewise, when a field is dragged off the report and dropped onto the **Page** tab, it reappears in the **Page** tab.
- The **Others** tab lists the entire set of dimensions and hierarchies associated with the report's source data. From this list you can add fields to the row or column areas of the pivot table or to the new **Page** list.

Note: Line-level detail can be added or removed from the report by changing the data level to line-level details and then clicking on the **Others** tab. The corresponding line-level details for the facts in the report appear in the pivot table.

• The **Show/Hide** tab hides or reveals the **Field Browser**. When the **Field Browser** is hidden, all page fields are shown across the top of the pivot table (as in previous releases).

Page Field Viewer Drill-Down

The location of data fields you add as page fields to an analytical report has been moved to the **Page** view area in the **Field Browser**.

Click the triangle to the left of a page field name to see useful numbers about that page field directly in the **Field Browser**.

Click the name of any of the listed hierarchies to drill-down into it.



Actions Across the Top

The actions formerly located in the navigation panel have been moved across the top of the pivot table. These actions include the following:

- Edit: invoke Step 3 of the Analysis Wizard
- Save: Save report or Save As...
- Export: one-button Excel data export
- Favorite Reports
- Actions menu: In addition to Edit, Save Changes, and Export Data, the new Actions menu includes the following:
 - · Display Options
 - · Configure Export
 - Return to Scorecard and Return to Project when Ariba Analysis is integrated with Ariba Enterprise Sourcing or Ariba Category Management.

Other Actions

This section discusses other actions of the pivot table UI.

Drill-down on Applied Filters "Breadcrumbs"

The Ariba Analysis pivot table includes information about the **Applied Filters** (constraints) in effect on the pivot table. This information (called "breadcrumbs") is displayed above the pivot table. As you drill down or collapse the data, the breadcrumbs show the location of data in the hierarchies on the pivot table.

Both the constraints and the amount of spend are displayed in the **Applied Filters**. The Amount values are hyperlinks that take you back up the levels of the **Applied Filters** to a previous view of the report. You can click any level displayed in the breadcrumbs to return the data to that pivot table view. This feature allows quick changing of views.

Display Options and Percentile Rule

The current **Display Options** settings for the analytical report, including the percentile rule, are shown in the upper right above the pivot table. To change the display options, click either the heading **Display Options** or select **Display Options** from the **Actions** menu.

Drag-and-Drop on the Pivot Table

To move fields to different locations on the pivot table, you can drag-and-drop them. For instance, from the **Others** field list of the **Field Browser**, you can drag a field to the **Page** tab of the **Field Browser** or to the row or column fields area on the pivot table. Likewise, to remove a field, drag it from the pivot table and drop it on the **Field Browser**.

ADA Compliance: Menus for Field Moves

Ariba Analysis complies with the Americans for Disabilities Act. Instead of drag-and-drop, click the name of a field to display a menu by which you can move a field to the page, row, or column areas.

Line-level Detail Directly in Pivot Table

With this release you can add line-level detail (lowest level transaction information) directly to the Ariba Analysis pivot table. Line-level details are the data loaded into Ariba Analysis from other applications before those details are summarized, aggregated, and rolled-up into data fields.

In Step 1 of the Analysis Wizard, you can add as many of the available line-level fields as you want. (You must also add at least one data field.) If you want the line-level fields to show on the resulting pivot table, click **Show line-level details in report**. Otherwise, the initial state of the pivot table shows data fields. On the pivot table, you can click one of the data fields to display a menu that lets you reveal the report's line-level details or use the data field/line-level details toggle.

You can also use the **Field Browser** to add or remove line-level details. See "Field Browser" on page 14 for details.

Dashboard Templates: Default and by Role

After you have modelled your reports, you can set-up dashboard templates that include those reports. You can tailor the dashboard templates to the needs of specific roles.

This chapter includes the following sections:

- "Setting up a Default New User: TemplateUser" on page 19
- "Creating Dashboard Templates" on page 20
- "Parameters for Defining Dashboard Templates" on page 21
- "Dashboard Template Keys" on page 21
- "Ranking Dashboard Templates" on page 21

Setting up a Default New User: TemplateUser

You can set up a prototypical user of Ariba Analysis: TemplateUser. Anything you create or modify after logging to Ariba Analysis as TemplateUser is used as the template for any new users, including the following:

- · Private folders
- Dashboard configuration, including analytical reports and Web pages

When new users are created, Ariba Analysis mirrors their accounts after the prototype user, so they can begin productively using Ariba Analysis.

Note: User names created before you make changes to the TemplateUser's dashboard do not inherit those changes.

The user name who controls the default prototypical user is defined by the parameter Application.Base.TemplateUser. For more information, see the *Ariba Analysis Configuration Guide*.

To set up a prototype user, log-in as:

User name aribasystem

Default password ariba

The default TemplateUser's dashboard includes references to the ashell user's shared reports.

Owner of the Report Models

Ariba Analysis includes a user named ashell. The report and Excel template models are stored in the ashell user's public folder.

The default password for the reports user is as follows:

User name ashell

Default Password ariba

Creating Dashboard Templates

The following is the high-level process for creating template dashboards by role.

Note: Roles themselves are defined in either Ariba Buyer or Ariba Enterprise Sourcing.

To create dashboard templates by role:

- 1 The system administrator user aribasystem creates user names whose dashboards will be templates.
- 2 aribasystem logs in as those users and sets up the dashboards,
- **3** aribasystem modifies config/Parameters.table to specify the name of the users whose dashboards are templates for any other users with the specified roles.

For more information about aribasystem, see the *Ariba Analysis Configuration Guide*.

Parameters for Defining Dashboard Templates

In the Ariba Analysis config/Parameters.table you can define role-based dashboard templates with the Application.Base.TemplateUsers parameter. The dashboard template named Default is used as the basis for the default dashboard for all users with the role Senior Analyst:

```
TemplateUsers = {
  Default = { /* This is predefined in Ariba Analysis */
    PasswordAdapter = PasswordAdapter1;
    UniqueName = TemplateUser;
    }:
  SeniorAnalystTemplate = { /* This is predefined in Ariba Analysis */
    PasswordAdapter = PasswordAdapter1;
    Rank = 1;
    Role = "Senior Analyst":
    UniqueName = TemplateUser;
  TestUserTemplate = { /* my own test template user*/
    PasswordAdapter = PasswordAdapter1;
     Rank = 1;
    Role = "Senior Analyst":
    UniqueName = reportTester;
     };
  };
```

Dashboard Template Keys

The template key, such as SeniorAnalystTemplate or AnalystTemplate can be anything as long as the key is unique.

Note: The key Default is a special keyword. It specifies the default template if all other templates do not apply.

Ranking Dashboard Templates

You can use the Rank parameter to specify the precedence of dashboard templates.

For example, suppose you have two templates: one for commodity manager, the other for purchasing manager. If a new user in Ariba Analysis has both roles, the dashboard template for CommodityManager takes precedence over that for PurchasingManager.

```
CommodityManager = {
    Rank = 1;
    Role = "Commodity Manager";
    };
PurchasingManager = {
    Rank = 2;
    Role = "Purchasing Manager";
    };
```

Compound Reports

This chapter describes how to create compound reports in Ariba Analysis. It contains the following sections.

This chapter includes the following topics:

- "When to Create a Compound Report" on page 23
- "Examples of Compound Reports" on page 24
- "Step 1: Configure Content" on page 25
- "Step 2: Configure Filters" on page 27
- "Step 3: Map Fields" on page 28
- "Step 4: Refine Data" on page 29
- "Working with Pivot Tables from a Compound Report" on page 30

When to Create a Compound Report

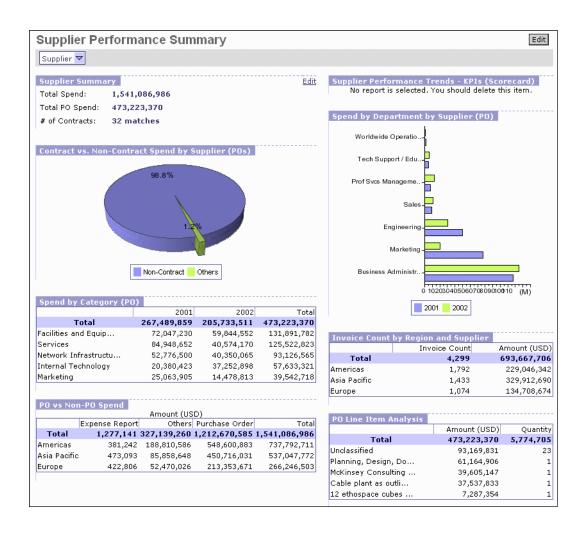
In a *compound report* you combine data from multiple reports into a single view. In practice, most of the content of a compound report is usually charts from analytical reports already created in Ariba Analysis, but you can also add *summarized views*, which are extractions of single values or totals of values from reports.

A compound report is composed of any view of the basic report types—analytical or parameterized reports—and summarized views of data from any analytical report.

Compound Reports vs. Normal Analytical Reports

Think of using a compound report when you want to see at a glance the chart views of many different reports all contained in a single report.

A compound report is similar to your Spend Management Dashboard, with common data filters applied across all the reports.



Examples of Compound Reports

Ariba Analysis includes several examples of compound reports. These are described in "Overview Compound Reports" on page 89.

▼ To create a compound report:

- 1 Create the basic reports (content) you need to construct your compound report.
- **2** Add the basic content to the compound report.

You can also create summarized views into data from many reports.

- **3** Add page fields as filters on the data.
- **4** Map page fields to report fields.
- **5** Refine the dates of data in the compound report.

Each of these steps is discussed in more detail in the following sections.

Step 1: Configure Content

Note: Before you begin the mechanics of creating a compound report, make sure that you already have the underlying analytical reports you need. You must have already set-up the reports you want to add to the compound report.

The kinds of content you can combine in a compound report are as follows:

- The pivot table or chart view of an analytical or parameterized report.
- Summarized views. See "Designing a Summarized View" on page 26

Layout of a Compound Report

A compound report has a two-column layout—a right side and a left side—to which you can add your content.

▼ To add basic content to a compound report:

- 1 On the navigation panel, click **Create Compound Report**.
- **2** Enter a title for your compound report.
- 3 For the desired column, click **Add Content**, and select the type of content you want:

Chart/Table: A previously created analytical or parameterized report in the form of a pie, bar, or line chart or a pivot table.

Summarized View: Any combination of unique values from any analytical reports. See "Designing a Summarized View" on page 26.

Others...: Same as **Chart/Table**, or any folder, your Favorites folder, or the Analysis Quick Tour.

- 4 If you select **Chart/Table**, navigate in your folders to find the specific analytical report you want to add, and click **Select**.
- **5** Select one of **Pie**, **Bar**, **Line**, or **Table** as the format for this analytical report in the compound report.
- 6 Repeat steps 2 through 5 until you have added all the basic content you want.
- 7 Use the controls to move the content up or down or from column to column.
- **8** When you are satisfied with the layout of the content, click **Next**.

Designing a Summarized View

A *summarized view* in an Ariba Analysis compound report is an extraction of single values or totals of values from previously created analytical reports. The layout of a summarized view is a two-column table. You combine values from any of your analytical reports into a single view.

For example, to summarize information about a particular supplier, you might want to design a view that shows the following values:

- Total number of contracts with the supplier
- Total number of POs in 2003
- Total number of Invoices in 2003
- Total number of departments buying from that supplier

▼ To create a summarized view

- 1 In Step 1 of creating a compound report, click **Add Content**, and from the pull-down menu, select **Summarized View**.
- **2** Enter a title for your summarized view.
- **3** Navigate your folders to find the analytical reports that contain the fields you want to include in your summarized view.

- a Click Data Field to add it to the summarized view.
- b Click Other Field to display a pull-down menu from which you can select other fields.
- 4 When you have added all the desired fields from this analytical report, you can move them up or down in the summarized view, delete them, or change their descriptive labels.
- **5** Click **OK** when you are satisfied with the design.

Note: Data fields in summarized views can be displayed only in their normal number format, not percentages of rows or columns.

Step 2: Configure Filters

Similar to page fields in an analytical report, filters in a compound report constrain all data in the individual analytical reports. For example, if you add the page field **Organization**, you can filter all the data so that only certain organizations are shown on the compound report.

Note: For filters, use only hierarchies that are in the underlying analytical reports. If the hierarchy you select to filter your compound report is not included in the analytical reports that make up the compound report, it has no effect.

▼ To a filter to a compound report:

1 Click the name of the hierarchy you want to use as a filter in your compound report.

The hierarchy is added under Filter Fields.

2 Click **Previous** to return to Step 1 or **Next** to continue.

Step 3: Map Fields

You might want some data in your compound report to represent other fields in the underlying content. Also, sometimes which fields should be used in combing multiple facts is ambiguous. For example, should a PO date be matched with an invoice's receiving date or the invoice's accounting date? You must map fields to resolve this ambiguity.

This mapping concept is similar to the field mapping in data exported to Microsoft Excel from Ariba Analysis. See "Field_Mappings Field" on page 43. For example, you might want **PO Date** to map to **Invoice Date**



▼ To map fields in a compound report to actual data fields:

- 1 Click or unclick **Apply Filter** for each filter field you added in Step 2.
- 2 Click **Previous** to return to Step 2 or **Next** to continue.

Step 4: Refine Data

You might want to constrain your compound report to reveal data in a different date range than the underlying reports were designed with. For example, suppose an analytical report deals with data about suppliers. In your compound report, you can limit the data to a single supplier.

What is the "Effective Date"?

In Ariba Analysis compound reports, the effective date acts like a "sliding scale."

For dynamically updated date ranges, **Effective Date** resets the "current date" of the database query, such that the entire range of dates is shifted into the past or future relative to the **Effective Date**.

For example, suppose your analytical reports are configured to span three complete years from today's date (say, June 1, 2005). The resulting range of years is 2003, 2004, and 2005.

When you include your analytical reports in a compound report, set **Effective Date** to alter the range. Continuing with the example:

| Effective Date | Resulting range |
|----------------|----------------------|
| June 1, 2005 | 2003, 2004, and 2005 |
| June 1, 2004 | 2002, 2003, and 2004 |
| June 1, 2003 | 2001, 2002, and 2003 |

▼ To refine the compound report data:

- 1 Set the Effective Date for the data in the compound report.
- 2 Constrain any of the hierarchies you included in Step 2 by using the pull-down menu for each. Select discrete values or **Select Others** to make other constraints.
- 3 Click **Previous** to return to Step 3, **Create** to create the compound report, or **Exit** to save or discard your compound report.

Working with Pivot Tables from a Compound Report

When you drill-down into a pivot table from a compound report, the filter is automatically applied, and Ariba Analysis displays a **Go back to Compound Report** link.

If you change a report and click **Go back to Compound Report**, you are prompted to save or discard the changes. If you save the changes, they are reflected on the chart or table of that report on the compound report page.

Understanding Multiple Fact Reports

This chapter describes analytical reports based on multiple facts (sources of data). It contains the following sections:

- "What is a Multi-fact Report?" on page 31
- "Union of Data Fields, Intersection of Dimensions" on page 32
- "Steps for Creating Multi-fact Reports" on page 32
- "Field Reference Mapping" on page 33
- "Examples of Multi-fact Reports" on page 34

What is a Multi-fact Report?

Basic analytical reports in Ariba Analysis allow you to examine a single fact, such as purchase order line items, invoice exceptions, projects, and so forth.

However, there are some important relationships in data in different facts. A multi-fact report allows you to compare data across multiple facts. Sometimes the basic data fields of a fact are sufficient for the relationships you are interested in seeing. You can also create new user-defined fields based on data fields from the different facts.

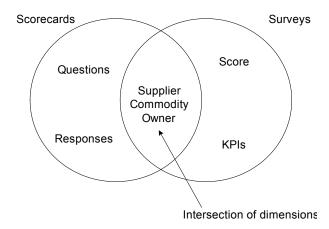
Multi-fact vs. Compound Reports

Compound reports allow you to combine different views of many different analytical reports on a single "palette." For instance, you can see the pie chart of one report, the line chart of another, or the table view of still another. In addition, compound reports can include summarized views, which are a table-view combination of values extracted from many different reports.

Multi-fact reports, on the other hand, can combine multiple facts in a single analytical report. Compound reports can include multi-fact reports.

Union of Data Fields, Intersection of Dimensions

When you compare two or more facts, all data fields from all facts are available for use in your report. But only those dimensions that are in common across the facts can be included: the intersection of the common dimensions. Consider the following diagram of two facts: surveys and scorecards. The dimensions common across the objects are the intersection.



This intersecting is important to remember when you design a multi-fact report. For instance, the degree of intersection of the dimensions between Surveys and Temporary Labor indicates that a comparison of these data might not be useful.

Steps for Creating Multi-fact Reports

Mechanically, you create an analytical report that compares multiple facts in the same way you create single fact reports: with the Analysis Wizard. The difference is in the first step.

▼ To compare multiple facts:

- 1 On Step 1 of the Analysis Wizard, from the **Source Data** pull-down menu, select **Compare Multiple Source Data**.
- **2** Click checkboxes corresponding to the facts you want to compare.
- 3 Set up field mapping, if you desire. See "Field Reference Mapping" on page 33.

4 Complete your report in the normal way. Refer to the online help for assistance.

Editing the Sources

To change the facts in your multi-fact report, click **Edit** displayed next to the **Source Data** pull-down menu in Step 1 of the Analysis Wizard.

Field Reference Mapping

You might want some fields in your multi-fact report to have a common label in the UI, or sometimes a dimension might have more than one field of a similar kind. (A similar concept is the field mapping in data exported to Microsoft Excel from Ariba Analysis. See "Field_Mappings Field" on page 43.)

For example, below is the field mapping for the PO and the Invoice facts.



Column 1 is the name of a dimension common to the facts.

Column 2 is a label for this dimension you want to see in the UI.

Column 3 is the source data (fact) for the dimension.

Column 4 allows you to resolve ambiguities in field data from the different dimensions. For example, you might want to map the PO date to the Invoice accounting date.

Examples of Multi-fact Reports

The prepackaged reports from Ariba contain many multi-fact reports. For examples, see "Report and Template Models" on page 71.

Customizing Microsoft Excel Templates

This chapter describes how to customize Microsoft Excel templates for use with Ariba Analysis. It chapter includes the following sections:

- "General Approach to Creating a Template" on page 35
- "Changing a Template's Appearance" on page 37
- "Data Worksheet Named Fields and Ranges" on page 37
- "Examples of Customized Templates" on page 47
- "Exporting Multiple Facts with a Single Template" on page 51
- "Working with Microsoft Excel Pivot Tables" on page 52

Microsoft Excel templates in Ariba Analysis are conventional, macro-less .xls files that follow certain conventions to allow them to work with Ariba Analysis. A template is a *workbook* consisting of multiple *worksheets* identified by tabs. There are two main parts to Microsoft Excel template for use with Ariba Analysis:

- 1 One or more Data worksheets that contain the raw data exported from Ariba Analysis and other named ranges. See "Data Worksheet Named Fields and Ranges" on page 37. A Data worksheet is sometimes identified by a Data tab. It is any worksheet that has the Ariba Analysis named ranges.
- 2 The user display sheets, such as Microsoft Excel pivot tables, pie charts, or bar charts. These are sometimes identified by tabs labeled **Pie Chart** or **Bar Chart**. User display sheets show a manipulated view of the raw data contain in the **Data** worksheets.

General Approach to Creating a Template

Start with one of the Ariba Analysis templates as a basis for your own customization. Export your data with one of the predefined templates.

Microsoft Excel templates for use with Ariba Analysis can be customized in three major ways:

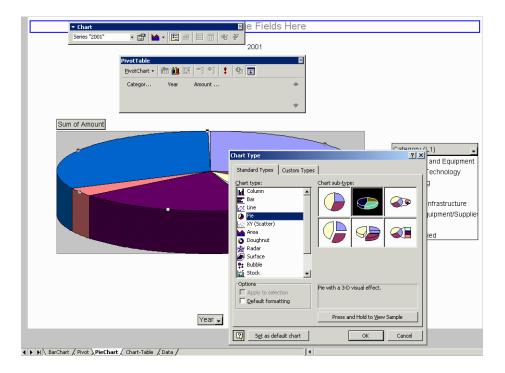
- 1 Format: the appearance of Microsoft Excel charts and pivot tables.
- 2 Data worksheet: what constraints (selection criteria) to apply to the data that the template imports from Ariba Analysis. Most customization centers on the **Data** worksheets, which is discussed in "Data Worksheet Named Fields and Ranges" on page 37.

Note: If you develop your own template, make sure that all Microsoft Excel pivot tables and charts refer to the proper names for ranges in the template. Always use the following data ranges in your **Data** worksheets to ensure that your worksheet is refreshed with data from Ariba Analysis every time you export.

- Ariba Data
- Ariba_Data_Params
- Ariba_Filter_Description
- Ariba_Data_Extra
- **3** Computed columns: additional formulas in the **Data** worksheet that compute derived values from the imported data.

Changing a Template's Appearance

To customize the appearance of a template, add the desired formatting to the downloaded .xls file in Microsoft Excel. For example, you can alter the format of a pie chart with either the Microsoft Excel menu option **Chart>Chart Type** or by right-clicking the chart and selecting the chart type.



After you have added the desired formatting, save your template, and upload it to Ariba Analysis.

Data Worksheet Named Fields and Ranges

This section describes the areas of a Microsoft Excel template used with Ariba Analysis: the various worksheets, named fields, and ranges. It includes the following sections:

• "Fields" on page 39

• "Ranges" on page 46

Microsoft Excel stores the data exported from Ariba Analysis in a **Data** worksheet.

\ BarChart / Pivot / PieChart / Chart-Table \ Data /

A **Data** worksheet is any worksheet that contains four named ranges. (A named range in Microsoft Excel is a group of cells that can be referred to by the defined name instead of the less easy-to-use range notation. See the Microsoft Excel help topic "About cell and range references.")

In addition, a **Data** worksheet has seven named fields. You can customize the purple fields on the left of your templates. The yellow fields on the right are written by Ariba Analysis. You use these fields to include exact details about the data in your Microsoft Excel reports.

| | АВ | С | D | E | F | | | |
|----|------------------------------------|---|----------|--|---|--|--|--|
| 1 | | | | | | | | |
| 2 | This Worksheet Will Contain Data F | Populated From the Ariba Analysis Applica | ntion | | | | | |
| 3 | | | | | | | | |
| 4 | Query Parameters: Range "Ariba_Da | nta_Params" | | Query Details: Range "Ariba_Filter_Description" | | | | |
| 5 | Source_Data | Invoice | | Applied_Filters | Commodity. CategoryL1 *in* ('Internal Technology'); InvoiceDate. Year *between* 2002 - 2003; | | | |
| 6 | Fixed_Columns | TRUE | | Applied_Filter_Des Commodity: 'Internal Technology' Invoice Date: 2002 2003 | | | | |
| 7 | Query_Filters | | | | | | | |
| 8 | Field_Mappings | InvoiceDate = Purchase Order.OrderedDate | | | | | | |
| 9 | Sort_Fields | | | | | | | |
| 10 | | | | | | | | |
| 11 | Data Table: Range "Ariba_Data" | | | Extra (Derived) Col | umns: Range "Ariba_Data_Extra" | | | |
| 12 | | | | | | | | |
| 13 | Supplier.CommonSupplierName | Commodity.CategoryL1 | Amount | Sample | | | | |
| 14 | AVCOM Technologies, Inc. | Internal Technology | 3,877.51 | add formula here | | | | |

Named Ranges

Microsoft Excel lists named ranges in the range pull-down menu located in the upper left corner of the worksheet.

- 1 The Ariba_Data range: raw data exported from Ariba Analysis is stored in this range.
- **2** The Ariba_Data_Params range: identified as the customizable purple fields on the left.
- 3 The Ariba_Data_Extra range: this range allows you to apply formulas to exported data. The range includes the Ariba_Data range plus additional adjacent columns to the right, where you can put formulas you may want to apply to the Ariba_Data range.
- 4 The Ariba_Filter_Description range: identified by the read-only yellow fields on the right. This range is human-readable text updated by Ariba Analysis to document the exact filters (constraints) used to export data the most recent time this template was used in export.



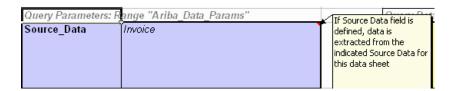
Fields

This section contains a description of all the named fields in a Microsoft Excel template used with Ariba Analysis. It includes the following topics:

- "Source_Data Field" on page 40
- "Fixed_Columns Field" on page 40
- "Query Filters Field" on page 41
- "Field Mappings Field" on page 43
- "Sort_Fields Field" on page 44
- "Applied Filters Field (Reserved)" on page 45
- "Applied Filter Description Field (Reserved)" on page 45

Source Data Field

The Source_Data field specifies the name of an Ariba Analysis fact table, such as **Invoice** or **Purchase Order**. This Source_Data value overrides the fact set in your Ariba Analysis pivot table.



For use of this field in exporting data from multiple facts, see "Exporting Multiple Facts with a Single Template" on page 51.

Fixed Columns Field

The Fixed_Columns field (also identified as the Ariba_Data_Param range) tells Ariba Analysis what columns of data to export.



The setting Fixed_Columns: FALSE tells Ariba Analysis that the data to be exported to this template can change during the export. What you specify in the Ariba Analysis export screen defines the exact data exported.

Setting Fixed_Columns: TRUE causes this template to ask Ariba Analysis for exactly those columns defined as the column headers of Ariba_Data range. Export options (such as other fields) you may have specified in the Ariba Analysis export screen are ignored. Ariba Analysis exports only the column names in the Microsoft Excel template. Setting Fixed Columns: TRUE is useful if (for example) you need to consistently export the same data to an exact column location in the Microsoft Excel worksheet. You may have formulas dependent on that location.

On the other hand, with Fixed_Columns: TRUE the constraints that you have applied in the Ariba Analysis pivot table **are** honored in the export. For example, such constrains are the hierarchical levels or individual values you have selected or the page field filtering in effect at time of export. For example, if you have selected only **Year:2001** in your Ariba Analysis pivot table, only data from that year is part of the export.

How Fixed_Columns Interact with the Other Named Fields and Ranges and the Ariba Analysis Pivot Table

If Fixed_Columns: TRUE, you must specify a fact in the Source_Data field.

If Fixed_Columns: FALSE, the Source_Data field can be empty.

If Fixed_Columns: FALSE, and the Source_Data field specifies a fact different from the Ariba Analysis pivot table, Ariba Analysis uses the fact specified in Source_Data field and assumes that Fixed Columns: TRUE.

Query Filters Field

The Query_Filters field indicates an additional selection constraint you want Ariba Analysis to apply to the data exported to this worksheet the next time this template is used to export data. You must specify your constraint using a formal language described in this section.



If there are conflicts between the filters you specify here and the current constraints in the Ariba Analysis pivot table, those in the Ariba Analysis pivot table prevail.

The general form of the Query_Filters field consists of clauses with syntax as follows:

fieldConstraint; { constraintGroup }

Each of these syntactical elements is defined below.

Syntactical Element

Description

fieldConstraint

AnalysisField

Is an Ariba Analysis database column name in dot notation, such as Account.AccountID

operator

Asterisks are required. Valid *operators* are as follows:

- *in* indicates inclusion.
- *not in* indicates an exclusion.
- *between* indicates a range.

('value')

Is either a quoted string literal when used with the *in* or *not in* operators or dates with the *between* operator.

Dates have two forms:

- A year is specified as YYYY
- With the *between* operator, a month is specified as an integer offset from January, 1970: ### -- ###

If the database you are using with Ariba Analysis is Oracle, the results of your date constraint is always displayed in this month notation (not years, as is displayed by DB2).

See the provided examples.

constraintGroup

A *constraintGroup* can be a field constraint or another *constraintGroup* separated by the operators *AND* or *OR*.

Multiple clauses must be separated with a semi-colons.

Here are some examples. The following query extracts data where the organization is only 'Corporate'.

Organization.OrganizationNameL1 *in* ('Corporate');

The following query extracts data from 1/2002 and 12/2003:

OrderedDate.Month1970 *between* 372 -- 407

The following query extracts data from 1/2002 and 12/2003, using only specific years:

InvoiceDate.Year *between* 2002 -- 2003;

A constraint group is useful for recursive path traversal, for example, to pinpoint a specific value in a hierarchy. Constraint groups are clauses are surrounded by brackets ({}), with the individual clauses separated by the operators *AND* or *OR*. The following example query extracts data from the second level of a hierarchy. The top level of the hierarchy is 'USA' and the second level is 'Mid West':

{Region.RegionNameL1 *in* ('USA') *and* Region.RegionName *in* ('Mid West')}

Field_Mappings Field

The Field_Mappings field indicates a mapping of exported columns from one fact to another.



Use the Field_Mappings field only when your template specifies a Source_Data field different from the fact used in the Ariba Analysis pivot table. The general form of a field mapping is:

targetFieldname=sourceFieldname

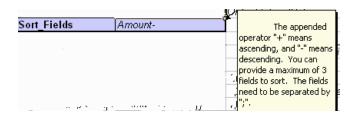
For example, to put the value of the purchase order date into the invoice date column in your spreadsheet, you can use the following Field_Mappings:

InvoiceDate=Purchase Order.OrderedDate

In this example, assume that the Ariba Analysis pivot table is dealing with the Purchase Order fact, but the Microsoft Excel template is exporting from the Invoice fact. WIth this example field mapping, if you want the constraint on the fact in the Ariba Analysis pivot table to apply as a date constraint during export, then you can map the InvoiceDate to OrderDate. This causes the dates specified in Ariba Analysis pivot table to be applied to InvoiceDate, as well.

Sort_Fields Field

The Sort_Fields field indicates how you want Microsoft Excel to sort the measures exported from Ariba Analysis.



Sort_Fields consists of names of measures, delimited by semi-colons. To determine the sort order, you must append one of the following operators to the column name:

Descending sort -Ascending sort +

Note: You can have a maximum of three sort specifications.

For example, to sort by ascending amount, you can specify:

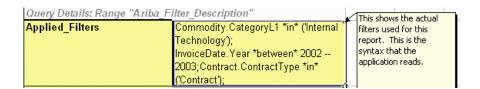
Amount+

The following example sorts first by category, then by business unit:

Category+ ; BusinessUnit+

Applied_Filters Field (Reserved)

The Applied_Filters field is a machine-readable rendition of the filters that were applied to the data set the most recent time this template was used to export data.



Note: The Applied_Filters field is reserved for use by Ariba Analysis. Do not enter anything into this field.

This field is also part one of the four named ranges in a template: the Ariba_Filter_Description range. For its use as a named range, see "Ariba_Filter_Description Range (Reserved)."

Applied Filter Description Field (Reserved)

Ariba Analysis updates the Applied_Filter_Description field with a human-readable description of the filters that were applied to the data set the most recent time this template was used to export data. Use this field on your display sheets to let your viewers know exactly what constraints were applied to the exported data.



Note: The Applied_Filter_Description field is reserved for use by Ariba Analysis. Do not enter anything into this field.

This field is also part one of the four named ranges in a template: the Ariba_Filter_Description range. For its use as a named range, see "Ariba_Filter_Description Range (Reserved)."

Ranges

This section includes descriptions of the named ranges in an Ariba Analysis template. It contains the following sections:

- "Ariba_Filter_Description Range (Reserved)" on page 46
- "Ariba_Data Range" on page 46
- "Ariba_Data_Extra Range" on page 47

Note: Microsoft Excel templates can contain multiple **Data** worksheets, each of which can contain these named ranges. Therefore, when you refer to these ranges in your display worksheets, you must also specify the worksheet name that contains the range. For example:

'Data'!Ariba Data

This specification indicates the **Ariba_Data** range on the **Data** worksheet.

Ariba_Filter_Description Range (Reserved)

The Ariba_Filter_Description range is where Ariba Analysis writes a human-readable description of the query filters used to select data the most recent time this template was used to export data from Ariba Analysis. It is identical to the reserved field Applied_Filter_Description.

You can include the contents of the Applied_Filter_Description range on your display sheets (charts or other worksheets) as a means to document or annotate the data with the exact constraints applied to the exported data.

Ariba_Data Range

The Ariba_Data range is where Ariba Analysis stores the data it exports from your analytical report, which is usually the current pivot table view of your report. The range is called Ariba_Data range so that you can easily identify the data in formulas or when you build pivot tables or charts in Microsoft Excel based on the exported data.

You should not alter the contents of the Ariba_Data range except through exporting selected data from Ariba Analysis.

Ariba_Data_Extra Range

The Ariba_Data_Extra range is a combination of the Ariba_Data range and additional adjacent columns to the immediate right of that range. Ariba_Data_Extra is where you can apply formulas that affect all rows exported to the Ariba_Data range or where you can add extra data for use in other calculations.

Examples of Customized Templates

This section describes customizations using the Ariba_Data_Extra range:

- "Simple Percentage with Formula" on page 47
- "Creating Derived Fields" on page 50
- "Creating a Microsoft Excel Pivot Table from Ariba_Data_Extra" on page 50

In addition, Ariba Analysis includes several examples of compound reports. These are described in "Overview Compound Reports" on page 89.

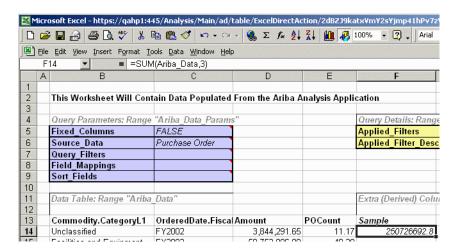
Simple Percentage with Formula

This example shows how to use the Ariba_Data_Extra range to apply a simple formula to calculate a percentage based on the data exported from Ariba Analysis.

This same calculation can be achieved in Ariba Analysis by selecting percentage as a field setting, as described in the online help.

Suppose you want to see what percentage of the total spend for both FY2001 and FY2002 a single row represents. First, you can set up a calculation of the entire money amount, as shown in cell F14 in the following illustration, which is the sum of

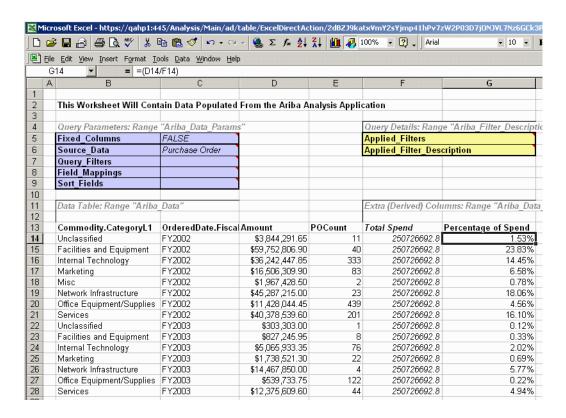
cells in column D (as specified by the offset into the Ariba_Data range). This example assumes that the D column contains only data cells, not subtotals:



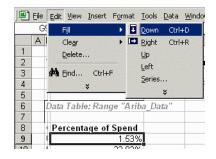
Now, you want to see what percentage of that total the cells in column D represent. You can apply the formula shown in cell G14. In addition, note the following points:

- 1 The formula in F Fills down the entire F column. Likewise, the formula in G fills down the entire column. The formulas need only to be put in the first cell of the column, because Ariba Analysis fills in the remaining rows during export.
- **2** Column headings for F and G are more descriptive.

3 The format of the cells better shows what the values represent: percentages and currency amounts.



See "Other Microsoft Excel Pivot Table Functions" on page 62 for information about changing number formats.



The formulas from the first two cells of the Extra (Derived) Columns range are copied to all rows in the Ariba_Data range. You need specify the formula only in the first cell. To apply the percentage formula to the entire E column, position the cursor in cell E11, extend the selection (shift-click) to cover all data cells you want to include, and then from the Edit menu select Fill and Down.

An alternative to using a formula to calculate a percentage is to set up a calculation using the Microsoft Excel pivot wizard. See "Working with Microsoft Excel Pivot Tables" on page 52.

Creating Derived Fields

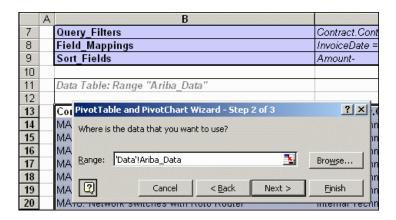
You can also include non-Ariba Analysis data in your formulas in the Extra (derived) Columns range. Here is an example. You have created **AvgPerLine** and **DiscountedAmt** in the Extra (Derived) Columns range. The field **DiscountedAmt** does a lookup for a discount percentage from an associated table (from the rightmost set of cells):

| lata | Amount | Linaltam | AvqPerLine | DiscountedAmt | | | |
|-------|-------------|----------|---------------------|-------------------------|-----|----------------|------------|
| vate. | | rineitem | ~/ | Discounteanin | | | |
| | 1,273 | 1 | 1,273 | 0 | | | |
| | 84,692,110 | 72 | 1,176,279 | 846921 01 | | | |
| | 1,297,161 | 25 | 51,886 | 129710 1 | • | | |
| | 19,341,190 | 471 | 41,064 | 3868238.01 | | CommodityD | tscounts |
| | 8,799,814 | 240 | 36,666 | 1759962.84 | | | |
| | 46,603,599 | 133 | 350,403 | 11650899.64 | | Commodity | Discount 9 |
| | 11,057,135 | 6 | 172,768 | 2764283.7 | | Services | 0% |
| | 23,378 | 1 | 11,689 | 4 | 7 | Network Infra: | 15% |
| | 1,967,429 | 2 | 983,714 | þ | Τ | Facilities and | 10% |
| | 511,146,500 | 22 | 23, 233, 932 | 766719 <mark>7</mark> 5 | Т | Internal Techr | 20% |
| | 273,216,250 | 14 | 19,515,446 | 40982437.5 | 1 | Marketing | 25% |
| | 7,682,347 | 852 | 9,017 | 845058.1755 | - 1 | Office Equipm | 11% |
| | 2,874,798 | 548 | 5,246 | 316227.7305 | | Misc | 0% |
| | 81,534,809 | 213 | 382,793 | 0 | | Unclassified | /0% |
| | 23,685,764 | 116 | 204, 188 | 0 | | | |

Creating a Microsoft Excel Pivot Table from Ariba_Data_Extra

Continuing the example, the Ariba_Data_Extra range can be the basis for a new Microsoft Excel pivot table. First, select the Ariba_Data and Ariba_Data_Extra ranges. Then from the **Data** menu, select **Pivot Table and Pivot Chart Report**. (For other details on starting the Microsoft Excel pivot table wizard, see "Creating a New Microsoft Excel Pivot Table with the Wizard" on page 57.) In step 2 of the Microsoft Excel pivot table

wizard, replace the hard-coded column numbers with the name of the Ariba_Data_Extra range.



Using this named range for your pivot table ensures that the next time you export more rows from Ariba Analysis, your pivot table will include them.

Exporting Multiple Facts with a Single Template

Using just a single template, Ariba Analysis can export data from many different facts or from the same fact multiple times.

A **Data** worksheet by definition contains the named field and ranges:

- The ranges Ariba_Data, Ariba_Data_Extra, Ariba_Data_Param, and Ariba_Filter_Description
- The fields Source_Data, Fixed_Columns, Query_Filters, Field_Mappings, Sort_Fields, Applied_Filters, and others.

To export data from multiple facts with a single template, create as many **Data** worksheets as you have facts from which you wish to export and ensure that each **Data** worksheet contains the required named fields and ranges. Then, in the Source_Data field of each **Data** worksheet, specify the name of a fact.

You can also export data from a single fact multiple times, specifying different constraints for each export.

Working with Microsoft Excel Pivot Tables

Some of the most powerful investigations can be done with Microsoft Excel pivot tables, which are similar in purpose to Ariba Analysis pivot tables. The strength of Ariba Analysis pivot tables is to allow you to manipulate large sets of data to isolate the specific data you are interested in. Once you have those data, you can work with them in a Microsoft Excel pivot table for speedy analysis and operations independent of Ariba Analysis.

In Microsoft Excel, a pivot table report is an interactive table that you can use to summarize data. You can rotate its rows and columns to see different summaries of the source data, filter the data by displaying different pages, or display the details for areas of interest. The Microsoft Excel pivot table wizard is an easy way to work with the data exported from Ariba Analysis.

This section discusses some useful features of Microsoft Excel pivot tables:

- "Common Spend-related Calculations" on page 52
- "Calculated Items and Calculated Fields" on page 58
- "Other Microsoft Excel Pivot Table Functions" on page 62

For complete, in-depth information about Microsoft Excel pivot tables, see Microsoft's documentation (help or printed books). For instance, the Microsoft Excel pivot table wizard is documented in Microsoft Excel's help under the topic PivotTable_wizard.

Common Spend-related Calculations

You can perform many functions and calculations in a Microsoft Excel pivot table. This section discusses some common calculations useful in spend investigation and how to use Microsoft Excel pivot table formatting to create one of them. This section is not intended as a complete reference manual for Microsoft Excel, but to give a representative glimpse of some effects that you can accomplish in Microsoft Excel.

Some useful spend-related calculations in Microsoft Excel are as follows:

- · Percentage of catalog vs. non-catalog spend
- Average size of purchase orders or invoices
- Percentage of spend by accounting group or by supplier

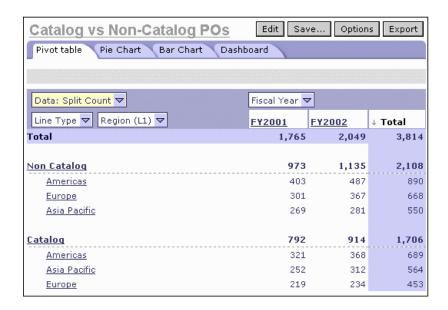
The complete example in the following sections shows how to use the Microsoft Excel pivot table wizard to create the first calculation: percentage of catalog vs. non-catalog spend.

Setting up the Analytical Report for Data Export

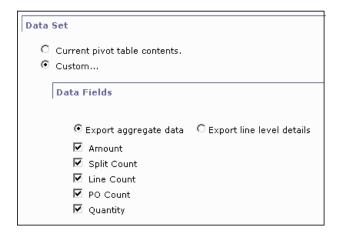
In Ariba Analysis, this sample analytical report of purchase order lines includes the following measures and hierarchies:

- Split Count (number of split lines)
- Line type
- Region
- · Fiscal years

The Ariba Analysis pivot table looks like this:

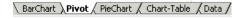


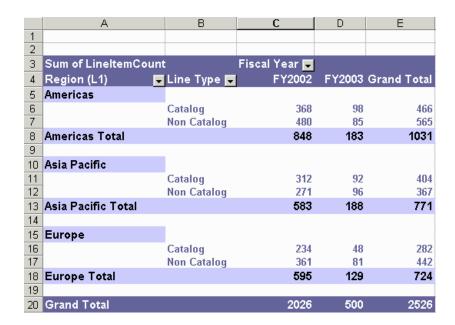
In configuring the data export, all data fields (measures) are included.



Default Microsoft Excel Pivot Table

A Microsoft Excel file created by Ariba Analysis already contains a Microsoft Excel pivot table, which you can see by clicking the **Pivot** tab.



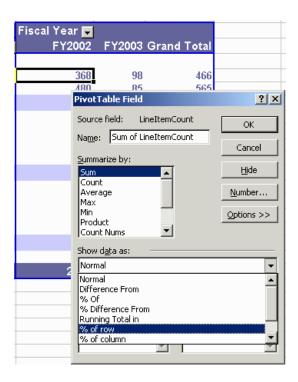


The default pivot table for the example analytical report looks like this:

Setting up Percentage of Row

In and of itself, the raw count of number of lines shown in the default pivot table is not the most useful measurement. More interesting is to see the number of lines as a percentage of the total, a visual change easily accomplished in the Microsoft Excel pivot table.

Select one of the data cells, and right-click the mouse. On the displayed pull-down menu, click **Field Settings**. In the displayed dialog, click **Options**. From the menu beneath **Show data as**, select **% of row**:



Amount LineItemCount Sample 18 add formula here 3844291.65 59 Format Cells ? X 8 Number Alignment Font Border Patterns Protection 362 Sample Category: 50 \$3,844,291.65 General 16 Number ÷ Currency Decimal places: 2 Accounting Symbol: Date Time Percentage Negative numbers: 114 Fraction Scientific -\$1,234,10 5 Text 40 Special (\$1,234.10) 12 Custom (\$1,234.10) Currency formats are used for general monetary values. Use Accounting

The result is that the catalog vs. non-catalog spend is now shown as a percentage, which is a useful interpretation of the measure **Number of Lines**.

▼ To start the Microsoft Excel pivot table wizard for an existing pivot table:

1 Position your cursor anywhere on the pivot table.

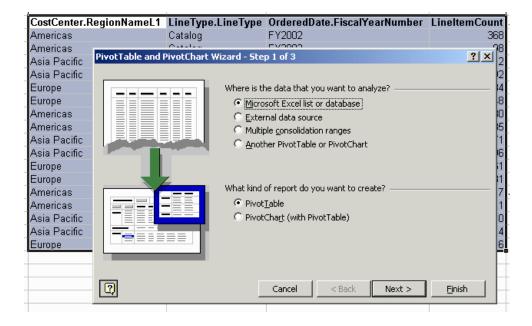
formats to align decimal points in a column.

- 2 Right-click your mouse.
- 3 Select Wizard....
- 4 Select Layout.
- **5** Move the fields you want.
- 6 Click OK.
- 7 Click Finish.

Creating a New Microsoft Excel Pivot Table with the Wizard

You may want to run the Microsoft Excel pivot table wizard, for example, if you want to move fields or rearrange columns, for example.

To start the pivot table wizard in Microsoft Excel, first select the cell range you want to work with, which is the Ariba_Data range, then from the **Data** menu select the option **PivotTable and PivotChart Report**. The default action is to create a new worksheet and present the column names from the selected cell range for you to drop onto the new pivot table. In the example, the screen looks like this:

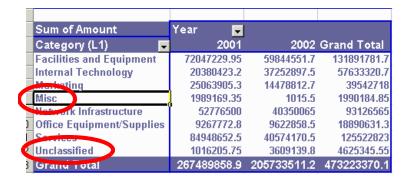


In the second step of the Microsoft Excel pivot table wizard, be sure to specify the Ariba_Data range and not the presented hard-coded row and column coordinates.

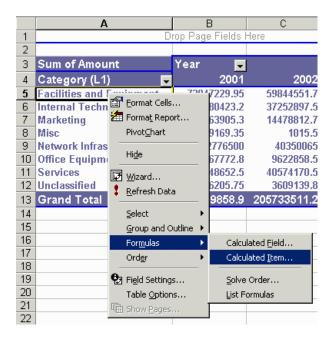
Calculated Items and Calculated Fields

Microsoft Excel pivot tables have two kinds of derived fields: **Calculated Items** and **Calculated Fields**, which are the same as dimensions.

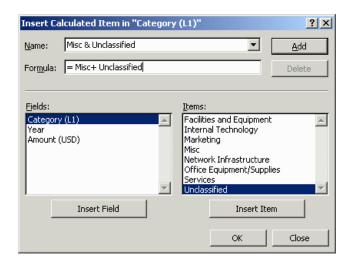
For instance, in this pivot table in Microsoft Excel you might want to compute the sum of Misc and Unclassified data:



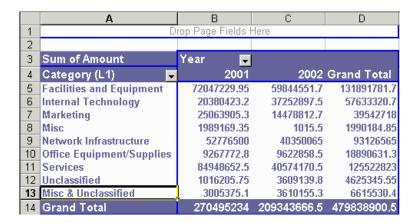
You can do this with a Calculated Item.



Here the formula must be in terms of multiple items (for example, dimension values) on the same field:



The result is a new row for the computed item:

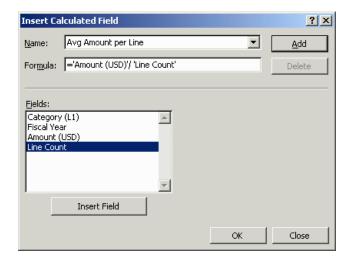


60

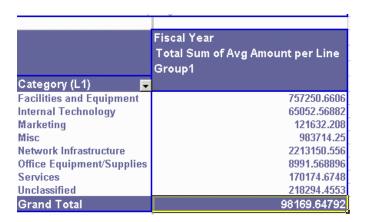
Computed fields in Microsoft Excel are essentially the same as user-defined fields in Ariba Analysis (also referred to as *derived measures*). For instance, assume that you had exported **Amount** and **NumLineItems** as separate measures from Ariba Analysis:



Now you want to compute an Avg Amt per Line.



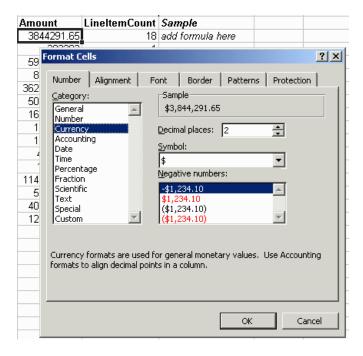
After you add the **Avg Amt per Line** computed field and hide the other original measures (**Amount** and **NumLineItems**), the result is a display of only the average amount per line.



Other Microsoft Excel Pivot Table Functions

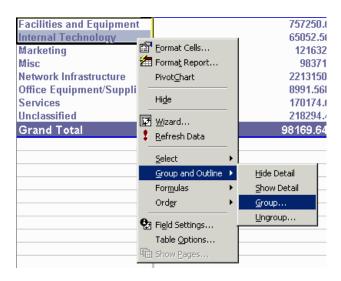
Other useful functions in the Microsoft Excel pivot table include grouping and ungrouping data or hiding and revealing data.

Microsoft Excel also has a large assortment of number formats, for currency, internationalization, and much more. For example, to display a cell in currency format, select the cell, and right-click to display menu from which you can select the desired number format.



To alter the displayed currency symbol (\$), select the appropriate symbol from the pull-down menu under **Symbol**.

Another example is to group cells. If you want to group measures in order to summarize them (say), you can select the measures you want to combine, and then right-click your mouse to display the formatting pull-down menu.



For complete, in-depth information about Microsoft Excel pivot tables, see Microsoft's documentation (help or printed books). For instance, the Microsoft Excel pivot table wizard is documented in Microsoft Excel's help under the topic PivotTable_wizard.

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Chapter 7

SPM Exception Management

This chapter is an overview of the use of integrated Ariba applications for Supplier Performance Management (SPM) exception management.

This chapter includes the following sections:

- "Transaction-based KPIs in Ariba Enterprise Sourcing" on page 67
- "SPM Data Aggregation in Ariba Analysis" on page 67
- "Exception Visibility in Ariba Category Management" on page 68
- "Cross-product Data Transfers" on page 69
- "Actions on Notifications" on page 70

Ariba Applications for SPM

SPM as a whole uses three Ariba products, known collectively when integrated as *Strategic Sourcing*.

- Ariba Enterprise Sourcing
- Ariba Analysis
- Ariba Category Management

More Information about SPM in Ariba Documentation

Ariba offers the following sources of information for other specific aspects of SPM.

| Topic | See | | | |
|---|---|--|--|--|
| Basics of supplier performance management | Ariba Enterprise Sourcing RFX Owner Guide | | | |
| Creating supplier scorecards and templates for scorecards and surveys | Ariba Enterprise Sourcing online help | | | |
| Running a supplier survey | Ariba Enterprise Sourcing RFX Owner Guide and online help | | | |
| SPM data aggregation | Ariba Analysis Data Load Guide | | | |
| Designing and running SPM-related projects | Ariba Category Management Advanced User Guide and online help | | | |
| Using Ariba SPM | Ariba Analysis quick tour "Supplier Performance Management: Invoice Exceptions" | | | |

About Exception Management?

With Ariba applications, managing exceptions in supplier performance is a five part process:

- 1 Designing transaction-based *Key Performance Indicators (KPIs)* to augment your supplier scorecards survey data
- 2 Creating grade user-defined fields in Ariba Analysis as the foundation for those transactional KPIs
- **3** Synchronizing data among the applications
- 4 Receiving notifications of exceptions to those KPIs
- **5** Taking action on those notifications

Exactly what transaction-based KPIs you want to create depends on your organization's business logic: what conditions are exceptional?

How your organization responds to suppliers who do not meet your expectations is up to your organization's business logic, policies, and processes.

Transaction-based KPIs in Ariba Enterprise Sourcing

For a background on Scorecards, surveys, and KPIs, see the *Ariba Enterprise Sourcing RFX Owner Guide* and the Ariba Enterprise Sourcing online help.

SPM Data Aggregation in Ariba Analysis

This section highlights the features of Ariba Analysis that support SPM:

- "SPM-related Facts" on page 67
- "Calculated Grade Fields" on page 67
- "Threshold Alerts" on page 68

SPM-related Facts

In its demonstration configuration, Ariba Analysis includes facts for SPM-related information, as follows:

- Surveys and scorecards: supplier evaluation data from Ariba Enterprise Sourcing
- RFX summaries and awards: Ariba Enterprise Sourcing requests for proposal or information
- Sourcing projects, Supplier Performance Management projects and tasks: Ariba Category Management-related facts
- Invoice exceptions and PO information from Ariba Buyer

Calculated Grade Fields

In Ariba Analysis a grade is a numeric score calculated from a transactional data field's value. You can define a grade in a variety of ways. See the online help topic "Assigning Grades to Data Values" in Ariba Analysis.

With Ariba Analysis integrated with Ariba Enterprise Sourcing, a grade created as part of analytical report can be added as a KPI to a supplier scorecard. For more information about scorecards, see "SPM Data Aggregation in Ariba Analysis" on page 67.

In Ariba Analysis, you should save any report associated with an Ariba Enterprise Sourcing scorecard as a special user for this purpose.

Threshold Alerts

In Ariba Analysis alerts are visual highlights of data fields in the pivot table.

When Ariba Analysis is integrated with Ariba Category Management, users can add analytical reports to their projects. Associating an analytical report that has defined alerts causes notifications on threshold violations to be recorded as tasks in the project in Ariba Category Management, which in turn triggers messages to be sent to project owners or other users. The message text you associate with an alert is also visible in the Ariba Analysis pivot table when your mouse rolls over the trigger alert area.

Exception Visibility in Ariba Category Management

Ariba Category Management is the hub for notifications related to SPM. This sections overviews the SPM-related features of Ariba Category Management:

- "Notification of Exceptions" on page 68
- "Triggering Notifications" on page 69
- "Retransmitting Failed Notification Messages" on page 69

Notification of Exceptions

When the Ariba applications are integrated, notifications on exceptions can come from a variety of sources:

- 1 The Ariba Enterprise Sourcing scorecard always had a visual alert if a KPI is out of tolerance. This exception also triggers a task in any associated Ariba Category Management project.
- **2** In Ariba Analysis, an alert can be associated with a grade, and this can trigger a task in any associated Ariba Category Management project.
- **3** An Ariba Category Management user can himself assign or associate an alert with a task in a project.

Triggering Notifications

No special system administrative action is required to trigger notifications of exceptions. Triggering is done as a part of loading data among the applications.

EMail

For information about how notifications can be sent to you in email, see *Ariba Category Management Advanced User Guide*.

Dashboard

The Ariba Category Management dashboard portlet "Tasks" shows highlighted tasks created as a result of scorecards being out-of-bounds.

Retransmitting Failed Notification Messages

FailedDocumentMessages scheduled task in Ariba Analysis

Cross-product Data Transfers

Synchronizing the scorecard and other data among the Ariba applications is essential for SPM. This section briefly discusses the following topics:

- "Data Loading in Ariba Analysis" on page 69
- "Scorecard Refresh in Ariba Enterprise Sourcing" on page 69

Data Loading in Ariba Analysis

See the Ariba Analysis Data Load Guide and the Ariba Enterprise Sourcing Data Load Guide.

Scorecard Refresh in Ariba Enterprise Sourcing

In Ariba Enterprise Sourcing, scorecard data can be refreshed in two ways:

· by the user of a scorecard

· by the system administrator

User-Initiated Scorecard Data Refresh

For the user of a scorecard, on a scorecard that contains a transactional KPI, from the **Actions** menu, select **Synch with Analysis**.

SPMPeriodicPull

For the system administrator, data synchronization between Ariba Enterprise Sourcing and Ariba Analysis consists of the Ariba Enterprise Sourcing scheduled task SPMPeriodicPull, which synchronizes data between all Ariba Enterprise Sourcing scorecards and their associated Ariba Analysis analytical reports.

For more information about the SPMPeriodicPull scheduled task, see the *Ariba Spend Management Data Load Guide*.

Actions on Notifications

How your organization responds to suppliers who do not meet your expectations is up to your organization's business logic. The precise action you take depends on your business policies and practices.

Chapter 8

Report and Template Models

This chapter describes the collection of model reports and Microsoft Excel templates that come with Ariba Analysis. These analytical, parameterized, and compound reports are delivered with Ariba Analysis as a basis for your own customization or adaptation for your particular organization's needs. The chapter includes the following sections:

- "Working with the Models" on page 72
- "Ariba Buyer Operational Reports" on page 75
- "Contingent Labor Analysis" on page 77
- "Contract Analysis" on page 81
- "Contract Projects Analysis" on page 82
- "Contract Savings Analysis" on page 83
- "Demand Aggregation" on page 85
- "Invoice Exception Analysis" on page 86
- "Invoice Processing Analysis" on page 87
- "Overview Reports" on page 88
- "PO Analysis" on page 92
- "PO vs. Non-PO Spend Analysis" on page 93
- "Payment Analysis" on page 94
- "Performance Management Grades" on page 95
- "Price Variance Analysis" on page 97
- "Project Analysis (All Project Types)" on page 98
- "Project Task Analysis" on page 99
- "Sourcing Analysis" on page 100
- "Sourcing Project Analysis" on page 102
- "Supplier Analysis" on page 102
- "Supplier Order Delivery Status" on page 104
- "Supplier Performance Analysis" on page 105
- "Total Visibility (Invoice)" on page 107
- "Travel and Expense Analysis" on page 108

Working with the Models

The report and template models are most useful if you install the demonstration configuration of Ariba Analysis (also sometimes called the "demo config"), because the reports rely on that data. However, the report models can still be used without the demo config data. For details about how to install the demo config, see *Ariba Analysis Installation Guide*.

Note: Selected here are only a few representative examples. The complete set of report and template models is in the **Ariba Prepackged Reports** folder, available through the folder view.

The best way to become familiar with the report and template models is to work with them. In addition to the standard data fields associated with each of the supplied facts, many of the reports contain user-defined fields based on these data fields. In addition, the data in some report models has been constrained to illustrate a type of analytical report. For example, sometimes unclassified data has been excluded from the pivot table view for easier recognition of other trends.

The model reports and templates are stored in the **Public** folder of the ashell user. The default password for the ashell user is as follows:

User name ashell
Default Password ariba

Location and Behavior of Default Excel Templates

The default pie and bar chart templates used during data export to Microsoft Excel are in the folder **General Templates** in **Ariba Prepackaged Reports** to give you greater control over their behavior and availability.

The default templates are named as follows:

- Pivot_Area_Pie.xls
- Pivot Area PieExcel97.xls for use with Microsoft Excel 97
- Pivot_Bar_Pie.xls
- Pivot Bar PieExcel97.xls for use with Microsoft Excel 97

Excel 97 and Excel 2000 Templates

All Excel 97-compatible templates have the suffix _Excel97.xls in their names.

Note: Excel 97 templates work only with Excel 97, not other versions, just as Excel 2000 templates work only with Excel 2000 or greater.

If your organization uses only one version of Excel, you might want to delete the unnecessary templates to simplify the choices for your Ariba Analysis users.

Indication of Default Template

In the scrolling list of templates displayed when a user configures the data export to Excel, the default preselected template is indicated by parentheses, like the following:

(Pivot_Bar_Pie).xls

Report/Template Naming Convention

The title of model report that has an associated Excel template ends with the word "(XLS)". The associated template is located in a folder named Excel Templates in the same folder as the model that uses it.

Some of the models are configured to work with large sets of data. If you export from Ariba Analysis, be patient. The export might take some time to finish, depending on the amount of data.

Report Folders and Associated Facts

The following table correlates the folders of report models with the Ariba Analysis fact from which their data is drawn.

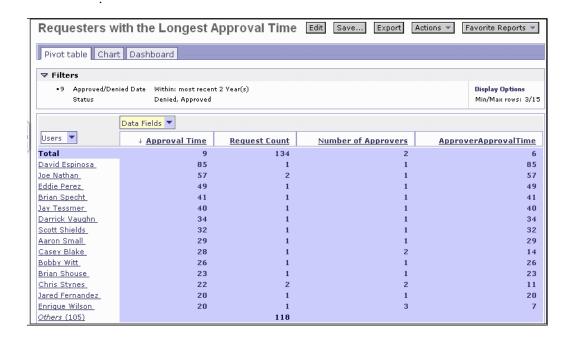
| Folder Name | Fact |
|---------------------------------|---|
| Ariba Buyer Operational Reports | Mix of Fact Tables: Invoice, Expense Report, Purchase Order, Request, User Activity |
| Requisition Approval Cycle Time | Request |
| User Activity | User Activity |
| Contract Analysis | Mix of Fact Tables: PO, Contract |
| Demand Aggregation | Invoice |
| Invoice Processing Analysis | Invoice |
| PO Analysis | Mix of Fact Tables: PO, Invoice |

| Folder Name | Fact |
|--------------------------------------|---|
| PO vs. Non-PO Spend Analysis | Invoice |
| Price Variance Analysis | PO |
| Project Analysis (All Project Types) | Project. Relies on integration with Ariba Category Management. |
| Project Task Analysis | Project Task. Relies on integration with Ariba Category Management. |
| Overview Reports | Mix of Fact Tables: PO, Invoice |
| Sourcing Project Analysis | Sourcing Project. Relies on integration with Ariba Category Management. |
| Supplier Analysis | Mix of Fact Tables: PO, Invoice |
| Total Visibility | Invoice |
| Travel and Expense Analysis | Expense |

Ariba Buyer Operational Reports

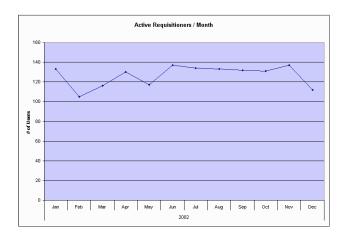
Requesters with Longest Approval Time

The analytical report **Requesters with Longest Approval Time** shows requesters whose requisitions took the longest to approve



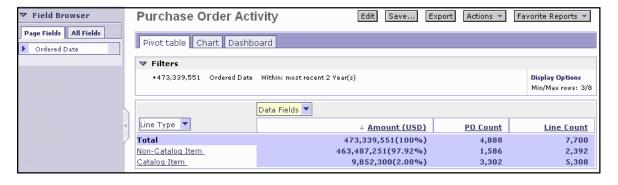
Active Requisitioners by Month (XLS)

The parameterized report **Active Requisitioners by Month (XLS)** helps monitor Ariba Buyer usage. The Excel template **Active requisitioners by month.xls** associated with this analytical report produces the following chart in Excel.



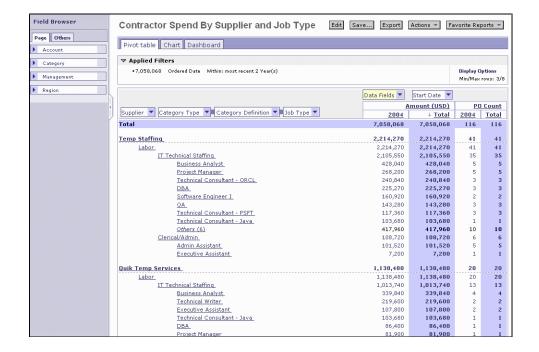
Purchase Order Activity

The **Purchase Order Activity** analytical report can help you monitor the number of purchase orders processed in your system.

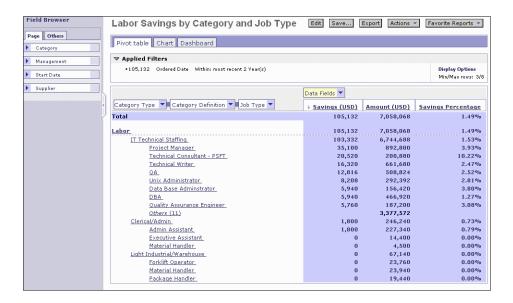


Contingent Labor Analysis

Contract Spend by Supplier and Job Type

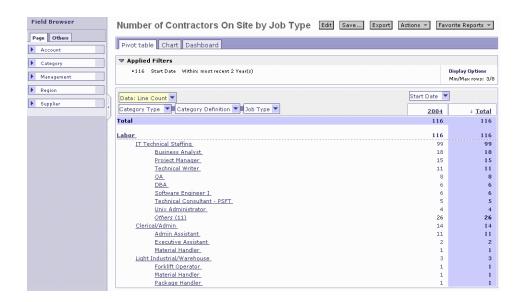


Labor Savings by Category and Job Type



Contractor Analysis

Number of Contractors on Site by Job Type



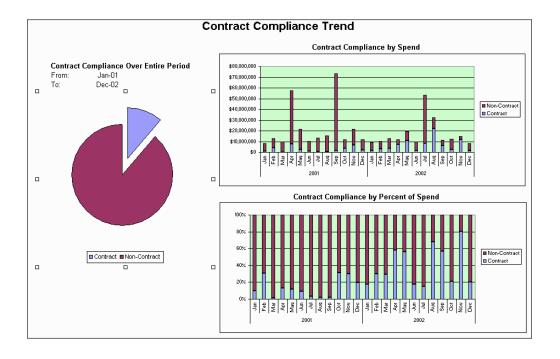
Supplier Order Request Fill Rate



Contract Analysis

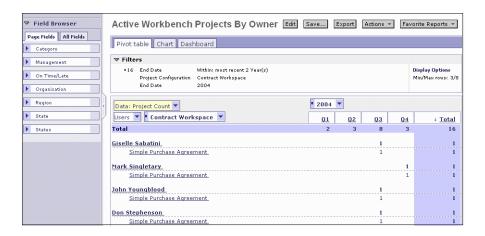
Contract Compliance Trend (PO) (XLS)

Contract Compliance Trend (PO) (XLS) allows you to the amount of spend on and off contract. This report can be used for all spend or spend for specific categories. The Excel template **Contract Compliance Trend.xls** associated with this analytical report produces the following chart in Excel.



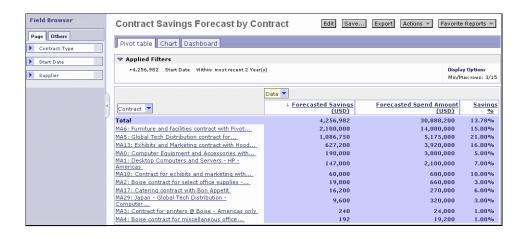
Contract Projects Analysis

Active Workbench Projects by Owner



Contract Savings Analysis

Contract Savings Forecast by Contract



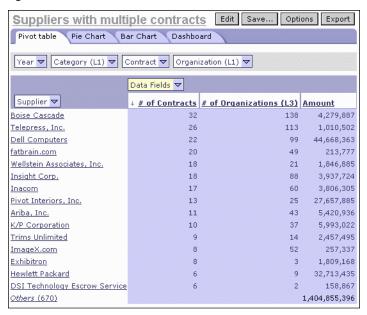
Realized Savings vs. Forecast Savings by Contract



Demand Aggregation

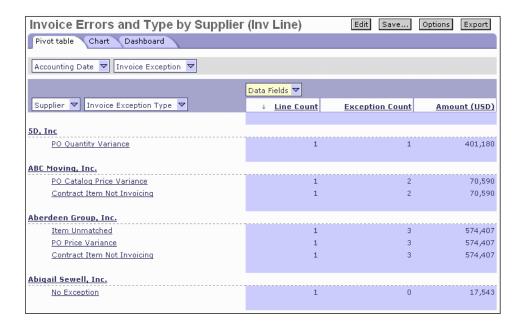
Suppliers with Multiple Contracts

The **Suppliers with Multiple Contracts** analytical report can help you spot suppliers who "divide and conquer" within your organization. Combine the total spend into a single contract.



Invoice Exception Analysis

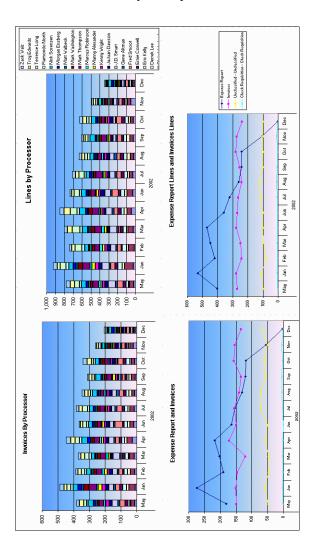
Invoice Errors and Type by Supplier (Invoice Line Items)



Invoice Processing Analysis

Accounts Payable Metrics (XLS)

Accounts Payable Metrics (XLS) provides a series of statistics on invoices and expense reports processed by processor. The Excel template **AP Metrics.xls** is associated with this analytical report.



Overview Reports

Category Report (PO) (XLS)

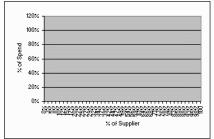
The multiple-fact sample **Category Report (PO) (XLS)** is an analysis of the IT department's purchases through supplier contracts.

Category Overview for Internal Technology

Report parameters: Ordered Date: 2002 -- 2003

Total Invoice Spend: \$ 34,385,349 Humber of Contracts: 26 Humber of Invoice Suppliers: 50

Supplier Efficiency (Invoice)

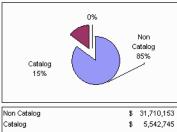


Note: Shows the % of suppliers making up % of spend

Spend by Business Unit (Invoice)

| | Data | 9 ▼ | , and the second |
|--------------------------------|------|------------|------------------|
| CostCenter.OrganizationNameL 🕶 | | Amount | % |
| Business Administration | \$ | 16,218,797 | 47.17% |
| Engineering | \$ | 11,914,596 | 34.65% |
| Tech Support / Education | \$ | 2,597,660 | 7.55% |
| Sales | \$ | 1,942,600 | 5.65% |
| Marketing | \$ | 1,073,179 | 3.12% |
| Prof Svcs Management | \$ | 596,982 | 1.74% |
| Worldwide Operations Mgmt | \$ | 41,536 | 0.12% |
| Grand Total | \$ | 34,385,349 | 100.00% |

Catalog vs. Non-Catalog Spend (PO)



Top 15 Suppliers by Spend (Invoice)

| Sum of Amount | |
|--------------------------------|--------------|
| Supplier.CommonSupplierHame ▼ | Total |
| Dell Computers | \$11,681,709 |
| Hewlett Packard | \$4,864,394 |
| OpenSystems.com | \$2,237,605 |
| Optimum Solutions Group,LLC | \$2,144,618 |
| Avaya | \$2,131,133 |
| Symantec Corporation | \$1,465,868 |
| Network America, Inc | \$1,198,044 |
| Yegwa Communications LLC | \$1,176,817 |
| Inacom | \$894,704 |
| Insight Corp. | \$780,134 |
| Daycom Systems, Inc | \$609,932 |
| Sun Microsystems | \$567,684 |
| NEC Business Network Solutions | \$553,292 |
| Callidus Software, Inc. | \$551,257 |
| J-List, Inc | \$531,769 |
| Grand Total | \$31,388,960 |

Contract vs. Non-Contracted Spend (Invoice)

| | | Data ▼ | |
|-----------------------|---|--------------|---------|
| Contract.ContractType | • | Amount | % |
| Non-Contract | | \$22,102,687 | 64.28% |
| Contract | | \$12,282,663 | 35.72% |
| Grand Total | | \$34,385,349 | 100.00% |

Top 8 Business Units with Non-Contracted Spend (Inv)

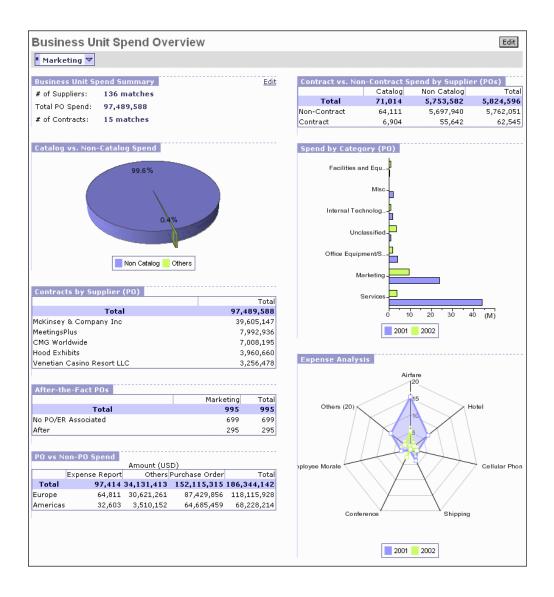
| | Data ▼ | |
|-------------------------------|--------------|--------|
| CostCenter.0rganizationName ▼ | Amount | % |
| Business Administration | \$12,030,066 | 54.43% |
| Engineering | \$6,302,605 | 28.52% |
| Sales | \$1,594,580 | 7.21% |
| Tech Support / Education | \$1,411,063 | 6.38% |
| Marketing | \$703,704 | 3.18% |
| Prof Svcs Management | \$60,668 | 0.27% |

Top 8 Business Units with Non-Catalog Spend (PO)

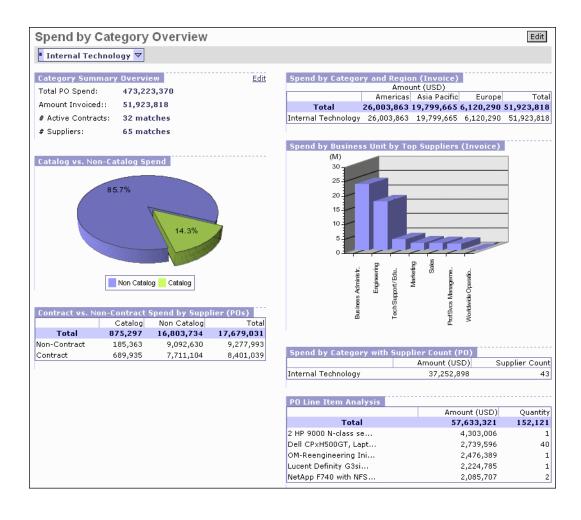
| | Dar | ta ▼ | |
|-------------------------------|-----|------------|--------|
| CostCenter.OrganizationHame ▼ | | Amount | % |
| Business Administration | \$ | 15,373,980 | 48.48% |
| Engineering | \$ | 12,610,371 | 39.77% |
| Sales | \$ | 1,650,750 | 5.21% |
| Marketing | \$ | 974,491 | 3.07% |
| Tech Support / Education | \$ | 930,088 | 2.93% |
| Prof Svcs Management | \$ | 124,832 | 0.39% |
| Worldwide Operations Mgmt | \$ | 45,641 | 0.14% |

Overview Compound Reports

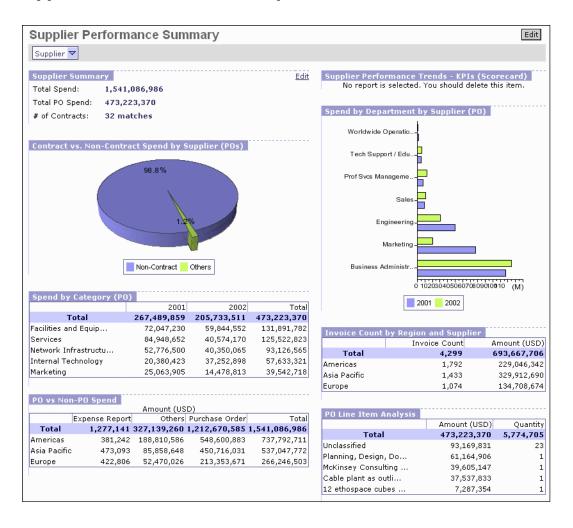
Business Unit Spend Overview



Spend by Category Overview



Supplier Performance Summary



PO Analysis

The **PO** Line Item Analysis shows how to select a supplier or category for which to analyze line item detail. Drill down by user and region to understand by whom and where the items are purchased. The quantity is useful in negotiating new contracts or monitoring rebates based on quantity

Edit Save... Options Export **PO Line Item Analysis** Pivot table Pie Chart Bar Chart Dashboard Year ♥ Category (L1) ♥ Manufacturer ♥ Region (L1) ♥ Supplier ♥ User ♥ Data Fields 🔻 Supplier Part 🗸 Unit of Measure 🗸 Quantity ↓ Amount 473,223,370 5,774,705 1-1/2 Semi Trucks of California Brown Rice, Approx. 62,000 pounds 248,048,562 5,445,852 248,048,562 5,445,852 216,536,650 322,825 **Unclassified** 93,127,090 <u>Unclassified</u> Batch Lot 61,457,253 Work Month 39,838,791 3,221 <u>Each</u> 11,273,831 154,100 7,841,041 164,330 <u>Hour</u> 1,543,557 25 Work Week Day 1,100,978 25 354,109 Others (10) 1,122 Laptop: Dell Latitude CPxJ650GT, Pentium III, 14.1", 24x cd-rom, spare battery, 512mb memory, 12qb hard drive; Xircom combo card 2,042,207 23 2,042,207 23 DELL Laptop; 366XT, 256mb memory 1,510,673 19 1,510,673 19 HP Kayak PIII, 500mHz, 256MB RAM, 10GB Hard drive, 32x CD, 3Com 10/100 card 1,357,685 <u>Each</u> 1,357,685

PO vs. Non-PO Spend Analysis

The **PO vs. non-PO Spend** parameterized report gives you an overall view of PO vs. non-PO spend by region. The purpose is to determine if there are opportunities to place non-PO spend on POs to enable procurement automation and control

| PO vs Non-PO Spend | | | | | | | | Edit | Save Options | Export |
|---|--------------------|----------|----------------------------------|-------------------------------|-----------------|---------|---------------------|---------|--------------------------------|---------|
| Pivot table Pie Chart Bar Chart Dashboard | art Dashbo | ard | | | | | | | | |
| Report Type ▼ Year ▼ Categor | Category (L1) 🔽 Su | Supplier | | | | | | | | |
| | Invoice Type | | Data Fields ▼ | | | | | | | |
| | Unclassified | | Check Requisition Expense Report | uisition | Expense R | | Purchase Order | | Total | |
| Region (L1) | Amount (USD) | Invoice | Invoice Amount Count (USD) | Invoice Amount Count (USD) | Amount (USD) | Invoice | Amount (USD) Count | Invoice | Invoice ↓ Amount Count (USD) | Invoice |
| Total | 321,632,020 | 1,424 | 1,424 5,507,240 | | 78 1,277,141 | | 3,692 1,212,670,585 | 3,481 | 3,481 1,541,086,986 | 8,674 |
| Americas | 184.328.577 | 658 | 658 4.482.009 | 5 | 381.242 | 1.27.1 | 548.600.883 | 1.622 | 737.792.711 | 3.602 |
| ω) | 166,395,946 | 544 | 3,016,463 | 39 | 269,676 | 1 | 502,430,267 | 1,365 | 672,112,351 | 2,784 |
| Atlanta | 9,758,485 | 21 | 20,413 | 0 | 890 | 00 | 15,154,276 | 31 | 24,934,064 | 61 |
| Burlington | 4,412,502 | 28 | 56,477 | 2 | 1,671 | 17 | 11,727,292 | 73 | 16,197,942 | 120 |
| Tampa | 689,342 | 26 | 66,425 | 4 | 1,320 | 7 | 10,690,750 | 52 | 11,447,837 | 89 |
| Other USA | 3,067,803 | 32 | 1,322,213 | 4 | 88,358 | 352 | 6,923,429 | 83 | 11,401,802 | 471 |
| Americas HR | 1,311 | 0 | | | 5,035 | IO. | 871,381 | e | 877,727 | 00 |
| Latin America | 358 | e | 18 | 1 | 14,292 | 45 | 799,916 | 11 | 814,583 | 61 |
| Others (1) | 2,831 | ιn | | | | | 3,573 | 4 | 6,404 | 0 |
| Asia Pacific | 85,858,648 | 438 | | | 473,093 | 1,346 | 450,716,031 | 955 | 537,047,772 | 2,739 |
| China | 12,455,390 | 113 | | | 26,939 | 93 | 118,455,305 | 213 | 130,937,634 | 419 |
| Japan | 46,534,919 | 153 | | | 228,026 | 586 | 68,828,239 | 320 | 115,591,184 | 1,059 |
| Supplier Enablement AsiaPac- XTL | | | | | | | 98,882,746 | 2 | 98,882,746 | 2 |
| Facilities - Asia Pac | | | | | | | 68,789,818 | П | 68,789,818 | 1 |
| India | 24,777,898 | 89 | | | 5,360 | 15 | 19,400,159 | 193 | 44,183,417 | 297 |
| IT Global Ops - Asia Pac | | | | | 19 | e | 31,577,402 | 2 | 31,577,421 | ro. |
| Prof Svcs, Asia Pacific | | | | | 099 | 17 | 25,402,602 | m | 25,403,263 | 20 |
| Others (6) | 2,090,441 | 83 | | | 212,089 | 632 | 19,379,759 | 221 | 21,682,289 | 935 |

Payment Analysis

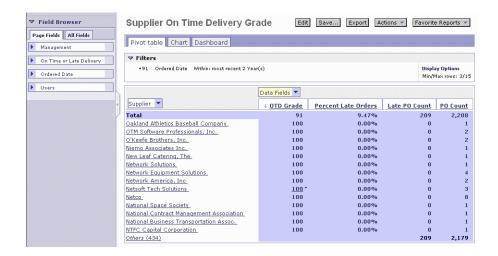
The analytical report **Payment Discount Earned vs. Lost** shows alerts triggered when loss is not acceptable.



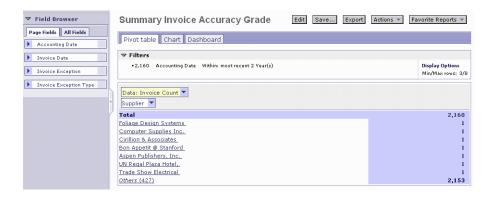
Performance Management Grades

Supplier On Time Delivery Grade

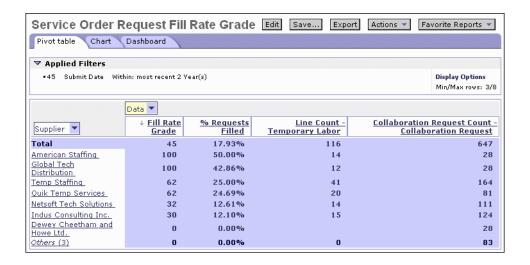
This report shows user-defined grades based on suppliers' on-time delivery (OTD) performance.



Summary Invoice Accuracy Grade

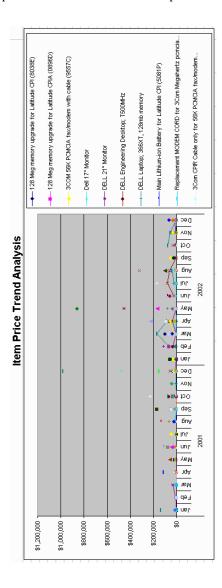


Service Order Request Fill Rate Grade



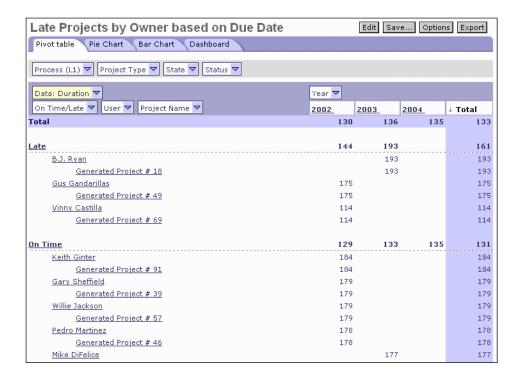
Price Variance Analysis

With the **Price Trend Analysis (XLS)**, you can select key data to export using the associated Excel template (**Price Trend Analysis.xls**) to see the average monthly price trend over the select time period.



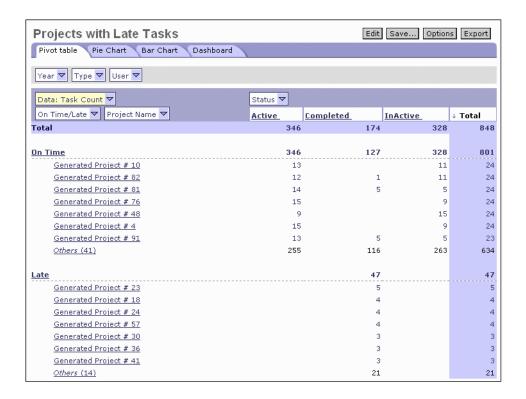
Project Analysis (All Project Types)

Late Projects by Owner based on Due Date



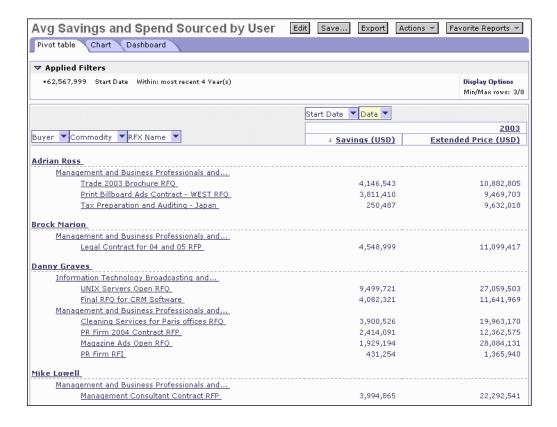
Project Task Analysis

Projects with Late Tasks

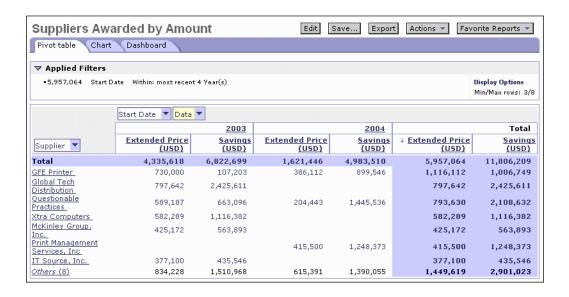


Sourcing Analysis

Average Savings and Spend Sourced by User

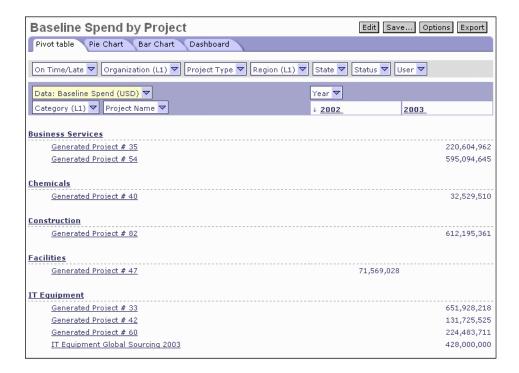


Suppliers Awarded by Amount



Sourcing Project Analysis

Baseline Spend by Project



Supplier Analysis

Multiple Business Units Buying with the Same Supplier

For companies without contract information, the parameterized report **Multiple Business Units Buying with the Same Supplier** can reveal suppliers who "divide and conquer" within your organization. Combine the total spend into a single contract

.



Supplier Order Delivery Status

Supplier Order Delivery Status

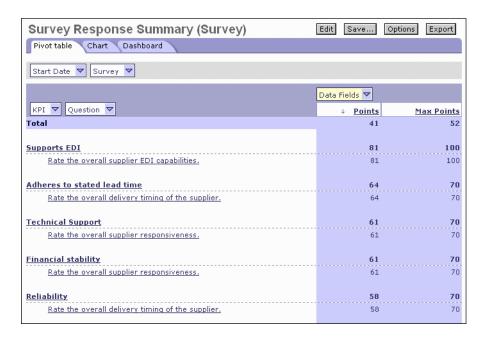


Supplier Performance Analysis

Category Performance Trend (Scorecard)



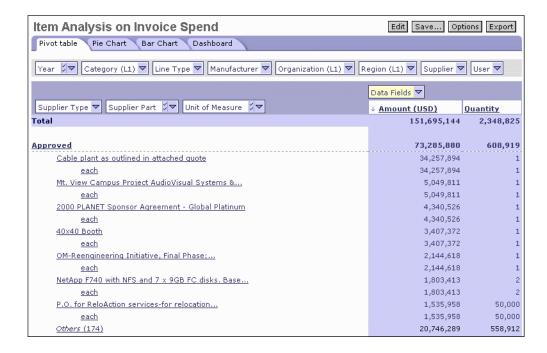
Survey Response Summary (Survey)



Total Visibility (Invoice)

Item Analysis on Invoice Spend

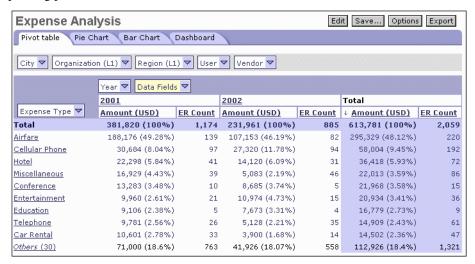
The analytical report **Item Analysis on Invoice Spend** may show that Invoices often do not have item level information.



Travel and Expense Analysis

Expense Analysis

The **Expense Analysis** gives the overall view of your Travel and Expense spend by category. Drill down into any category by organization and region to better understand spending patterns.



Ariba Analysis Glossary

These are definitions of commonly used terms in Ariba Analysis.

| Term | Definition | |
|-------------------------------|---|--|
| 80/20 rule | A widely used Pareto analysis that divides data into a ratio of most/least. For example, 80% of your spend may be accounted for by only a handful of suppliers, while the remaining 20% may represent a large number of suppliers. | |
| AML | See metadata XML. | |
| analysis | See analytical report. | |
| analytical report | An organized collection of measures and hierarchies designed to investigate particular aspects spend-related facts. An analytical report is manifested as a <i>pivot table</i> . See also <i>reports</i> . | |
| Applied Filters | The area across the top of the <i>pivot table</i> of an analytical report that shows what constraints have been imposed on the data and what level of data is currently displayed in the pivot table. Click any level in the Applied Filters to return the pivot table to trat level. | |
| bucket | A defined grouping of data. For example, a range of dates or of amounts. | |
| calculated field | See derived measure. | |
| collapse | To view less data by hiding a level in a hierarchy. | |
| column edge, column fields | The area across the top of a <i>pivot table</i> directly above the data fields where <i>data fields</i> or <i>line-level detail</i> are placed. Column fields correspond to the columns in a traditional spreadsheet. | |
| compound report | In Ariba Analysis, a compound report is a user-defined composite of pivot tables, charts, and summarized views from existing analytical reports. Compound reports allow you to view many different charts and tables at a single glance. | |

| Term | Definition | |
|-----------------|--|--|
| computed field | See derived measure. | |
| constrain | To reduce the amount of data actively being investigated in an analytical report by applying some exclusion, for example, selecting a particular level of a hierarchy or a particular value in a hierarchy, or selecting a range of dates. | |
| data fields | The area in the middle of a <i>pivot table</i> holds the data fields. Also called <i>measures</i> , data fields are created in several ways: | |
| | • Pre-defined data fields are created by summing or aggregating line-level details, which are transaction data. | |
| | • <i>User-defined fields</i> are created by you by calculating them based on other data fields. | |
| | The data field area of the pivot table also holds <i>line-level details</i> , the basic accounting transactions from which all other fields are derived. | |
| derived measure | A measure computed from some other measures, called <i>user-defined fields</i> . | |
| dimension | An aspect of a fact that is of some interest and has some useful purpose in an analytical report. For example, Supplier and Commodity are dimensions of purchase orders and invoices, just as start date is a dimension of a project or end date is a dimension of a contract. | |
| drill-down | To show finer detail by going to the next level of a hierarchy. | |
| edge | Term referring to the underlying structure of an <i>OLAP</i> hypercube represented by the <i>pivot table</i> . A hypercube has <i>row</i> , <i>column</i> , and <i>page</i> edges. | |
| expand | To view more data by exposing the next lower <i>level</i> of a <i>hierarchy</i> . | |
| export | To extract data from Ariba Analysis and download it to your personal computer. | |

| Term | Definition | |
|---------------|--|--|
| fact | In traditional OLAP terminology, facts represent the subject—the interesting pattern or event in the enterprise that must be analyzed to understand its behavior. They represent the subject of your investigation. The following are the pre-defined facts in Ariba Analysis: | |
| | Purchase orders and PO delivery information: commodity purchasing patterns | |
| | • Expense reports, expense report lines and violations: travel expense spending patterns | |
| | Invoices, invoice lines and exceptions: supplier billing patterns | |
| | Contracts and contract clauses: agreements established with suppliers from Ariba Contract Workbench | |
| | Requests: a general term for employee requisitions, travel requests, and similar data, including collaborative requisitions | |
| | • User activity: Ariba Buyer usage and information | |
| | Projects: Ariba Category Management- and Ariba Contract Workbench-related facts | |
| | Contract projects | |
| | Sourcing projects | |
| | • Supplier Performance Management projects and tasks: | |
| | RFX summaries and awards: Ariba Enterprise Sourcing requests for proposal or information | |
| | Surveys and scorecards Ariba Enterprise Sourcing supplier evaluation data | |
| | Temporary labor and time sheets: services spend informationProposals | |
| | • | |
| Field Browser | The palette on the left of an Ariba Analysis pivot table that lists fields that have been added to or can be edited from an analytical report. | |
| grade | A specialized form of <i>user-defined field</i> that calculates a numerical score based on the value of the data. | |

| Term | Definition | |
|----------------------|--|--|
| hierarchy | A stratified collection of data characterized by <i>levels</i> . Any particular level has finer-grained data than the level above it and coarser-grained data than the levels beneath it, unless the level is at the top or bottom of the hierarchy. | |
| inline dimension | A <i>fact</i> in Ariba Analysis that can be placed on the row, column, or page edges of the Ariba Analysis pivot table, just like a dimension. | |
| interval | A period of time between two events. For example, Ariba Analysis calculates the PO-to-Invoice Interval as the number of days between the PO or ER date and the corresponding invoice date. A negative number means the invoice was created before the PO, which is not desirable. This calculated interval of days is used to classify invoices into several buckets of time ranges, such as 3 to 6 weeks. | |
| KPI | Key Performance Indicator | |
| level | A stratum of a certain granularity of the data in a hierarchy. For example, "month" is a level lower in the time hierarchy than "year." | |
| line-level detail | The lowest level of detail in a fact. That is, the individual transactions. See also <i>data field</i> . | |
| measure | A numerical property of a fact or a calculation based on such a property. For example, Amount is a measure of a purchase order. Measures are also known as <i>data fields</i> . | |
| metadata XML | Data structures and data loading are defined in Ariba Analysis with metadata XML. For data structures, this XML is contained in files ending with *.aml. For data-loading definitions, files end with *.xml. | |
| non-rollup hierarchy | A <i>hierarchy</i> in which the total is not represented by a straight sum of the levels, such as a score of "Pass" or "Fail." | |

| Term | Definition |
|--|--|
| OLAP | On Line Analytical Processing, a specialized architecture of databases for dealing with aggregation of large datasets. OLAP systems are characterized by <i>facts</i> , <i>measures</i> , <i>dimensions</i> , and <i>hierarchies</i> , represented by fields on a hypercube or <i>pivot table</i> . For a comprehensive discussion of OLAP, see (for example): |
| | http://infolab.usc.edu/csci585/Spring2002/den_ar/pederson _p40.pdf |
| page edge, page field The area across the top of a <i>pivot table</i> directly above the column fields where <i>data fields</i> (or <i>measures</i>) are placed that can act as a filter on the other fields. | |
| parameterized report | An analytical report that allows parameters to constrain the data. You set parameters such as dates, money amounts, or hierarchies and levels to specific values you are interested in. |
| pivot table | A spreadsheet-like structure consisting of page fields, row fields, column fields, and data fields that allows you to manipulate the view of the data. It is the end-product of creating an analytical report. See also <i>Field Browser</i> . |
| ragged hierarchy | A <i>hierarchy</i> in which the top-level contains data that must be summed to make an accurate total. |
| range | In a spreadsheet, a collection of cells. |
| report | Ariba Analysis has three kinds of reports: |
| | analyticalparameterizedcompound |
| | See the definitions of these terms for distinctions. |
| row edge, row fields | The area down the left side of a <i>pivot table</i> next to the data fields where <i>dimensions</i> are placed. Row fields correspond to the rows in a traditional spreadsheet. |
| slice and dice | See constrain. |

| Term | Definition | |
|---------------------------|---|--|
| slowly changing dimension | A dimension whose individual values might change over time. Also called <i>versions</i> or <i>versioning</i> . The values of the dimension that change are recorded for auditing. | |
| split line-item | A single line of a purchase order or expense report that is charged to more than one General Ledger account. | |
| summarized view | In an Ariba Analysis compound report, a summarized view is a user-created table that extracts specific values or totals of values from analytical reports to reveal relationships about multiple facts that might not otherwise be readily visible. | |
| UNSPSC | The Universal Standard Products and Services Classification code is a scheme that classifies and identifies commodities. It is used in sell-side and buy-side catalogs and as a standardized account code in analyzing expenditure (Spend Analysis). See http://eccma.org/unspsc/ | |
| UOM | Unit (or units) of measure | |
| user-defined field | See derived measure. | |
| versioning | See slowly changing dimension. | |

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