Data Warehouse User Guide

Document History

This is an on-line document. Paper copies are only valid on the day they are printed. Refer to the on-line version of this document or the document’s author if you doubt the accuracy of your printed document.

Revision History

<table>
<thead>
<tr>
<th>Last Update</th>
<th>Revision</th>
<th>Created By</th>
<th>Last Modified By</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 July 2014</td>
<td>38</td>
<td>Art Pagano</td>
<td>Art Pagano</td>
</tr>
</tbody>
</table>
Table of Contents

Introduction ..................................................................................................................................... 1
  Data Warehouse .......................................................................................................................... 1
  A Note About “Official” University Data vs. Certified Information ........................................ 1
Support ............................................................................................................................................ 2
  Technical Assistance .................................................................................................................. 2
  Report and Usability Assistance ............................................................................................... 2
  Online Assistance ..................................................................................................................... 2
Getting Started ................................................................................................................................ 2
  Logging On .................................................................................................................................. 3
  Landing Page .............................................................................................................................. 4
Enterprise Reporting Personal User Space ..................................................................................... 4
  Navigation .................................................................................................................................. 4
  Workspace Tools ......................................................................................................................... 5
  Anatomy of A Template’s Report Area ....................................................................................... 6
  Drag and Drop From Where? ..................................................................................................... 7
Creating a Report Using a Template ............................................................................................... 8
  Select Template or Report ......................................................................................................... 8
  Make A Personalized Copy ....................................................................................................... 10
  Building “My First Report” ....................................................................................................... 12
Drilling Down into My First Report ............................................................................................. 20
  Using Fields to View Subset of Data ......................................................................................... 20
Save, Retrieve, or Delete a Report ............................................................................................... 26
  Retrieve Report ......................................................................................................................... 27
  Saving Changes to a Saved Report ........................................................................................... 28
  Delete a Report ......................................................................................................................... 29
 Formatting Elements.................................................................................................................. 57
  How To Select Elements .......................................................................................................... 57
Number formats ..................................................................................................................... 59
Customize Total Fields ........................................................................................................... 61

Appendices

Appendix A – Internet Explorer Settings ............................................................................. 31
  OWC Installation .................................................................................................................. 31
  Internet Explorer Settings .................................................................................................. 33
Appendix B – Apple Mac Virtual Requirements ................................................................. 37
Appendix C – Frequently Asked Questions (FAQ) ............................................................... 38
Appendix D – Workspace Component Toolbar ................................................................. 44
Appendix E – Export or Copy Results to Other Applications ................................................. 45
  Exporting to Excel .............................................................................................................. 45
  Copy & Paste to Applications ......................................................................................... 51
Appendix F – Which Template Should I Use? ..................................................................... 52
Appendix G – Tips for Report Formatting .......................................................................... 57
  Improve Appearance or Readability ................................................................................ 57

Table of Figures

Figure 1 - Data Warehouse Enterprise Reporting Login ..................................................... 3
Figure 2 - Enterprise Reporting Landing Page .................................................................... 4
Figure 3 - Enterprise Reporting Personal Workspace .......................................................... 4
Figure 4 - Workspace Tools ............................................................................................... 5
Figure 5 - Workspace Toolbar .......................................................................................... 5
Figure 6 - Anatomy of a Templates Report Area ................................................................. 6
Figure 7 - Template Field List .......................................................................................... 7
Figure 8 - Field List Icon ................................................................................................. 8
Figure 9 - Selecting a Template ....................................................................................... 9
Figure 10 - My First Report ............................................................................................ 10
Data Warehouse User Guide

Figure 11 - Make Personal Copy of Template .............................................................................. 11
Figure 12 - Save New Report ........................................................................................................ 11
Figure 13 - My First Report Opens ............................................................................................... 12
Figure 14 - My First Report Add Numerical Data ........................................................................ 13
Figure 15 - My First Report Drop Row ........................................................................................ 14
Figure 16 - Student Headcount by Declared College ................................................................... 15
Figure 17 - My First Report Column Drop ................................................................................... 16
Figure 18 - My First Report with Academic Year ......................................................................... 17
Figure 19 - My First Report Academic Year Default ...................................................................... 17
Figure 20 - My First Report Finished ........................................................................................... 19
Figure 21 - Hide or Show Field Items .......................................................................................... 20
Figure 22 - Drilldown by College ................................................................................................. 22
Figure 23 - Declared Department Drilldown ................................................................................ 23
Figure 24 - Declared College Departments Displayed .................................................................. 24
Figure 25 - Remove a Row or Column ......................................................................................... 25
Figure 26 - Selecting a Template .................................................................................................. 26
Figure 27 - Make Personal Copy of Template .............................................................................. 26
Figure 28 - Save New Report ........................................................................................................ 27
Figure 29 - Retrieve Saved Report ............................................................................................... 28
Figure 30 - Saving Changes to a Report ....................................................................................... 28
Figure 31 - Save Changes Window .............................................................................................. 29
Appendix A Figure 1 - Click Link to Download OWC .................................................................. 31
Appendix A Figure 2 - Download and Install Office 2003 OWC Add-in ...................................... 32
Appendix A Figure 3 - Installing the OWC .................................................................................. 32
Appendix A Figure 4 - Explorer Security Setting Customization Required .................................. 33
Appendix A Figure 5 - Identify Data Warehouse as a Trusted Site .............................................. 34
Appendix A Figure 6 - Set Custom Levels for Trusted Sites .......................................................... 35
Appendix A Figure 7 - Access Data Sources Across Domains ....................................................... 35
Appendix A Figure 8 - Automatic Logon Current User Name and Password .............................. 36
Appendix A Figure 9 - ActiveX Controls and Plug-ins ................................................................. 36
Appendix C Figure 1 - Duplicated vs. Unduplicated Headcount ................................................. 38
Appendix C Figure 2 – PivotTable Field List Icon ........................................................................ 40
Appendix C Figure 3 - Font Formatting ....................................................................................... 41
Appendix C Figure 4 - Workspace Scroll Bars ............................................................................. 42
Appendix D Table 1 - Toolbar Components .................................................................................. 44
Appendix E Figure 1 – Click Plus Sign to Expand ....................................................................... 45
Appendix E Figure 2 - Expanded Elements .................................................................................. 46
Appendix E Figure 3 - Export to Excel Icon .................................................................................. 46
Appendix E Figure 4 - Enable Content for Editing ....................................................................... 47
Appendix E Figure 5 - Content Enabled ....................................................................................... 47
Appendix E Figure 6 - Special Paste Values Only ................................................................. 49
Appendix E Figure 7 - Values Only Paste View ................................................................. 50
Appendix G Table 1 - Supported Number Formats ............................................................ 59
Appendix G Figure 1 - Commands and Options Window .................................................. 60
Appendix G Figure 2 - Report Title Bar .......................................................................... 61
Appendix G Figure 3 - Display Totals as Column Headings .......................................... 62
Appendix G Figure 4 - Display Totals as Row Headings ............................................... 63
Appendix G Figure 5 - Totals as Percentages ................................................................. 63
Appendix G Figure 6 - Percent of Row Total ................................................................. 64
Appendix G Figure 7 - Percent of Column Total ............................................................ 64
Appendix G Figure 8 - Percent of Parent Row Item ............................................................. 64
Appendix G Figure 9 - Percent of Parent Column .............................................................. 65
Appendix G Figure 10 - Percent of Grand Total ............................................................... 65
Introduction

Data Warehouse

UTSA’s Data Warehouse (DW) is built upon Enterprise Reporting (ER) software by Zogotech Inc. It contains historical, nonvolatile data extracted from the UTSA BANNER system and other official university data sources. Through the use of online, browser-based ER analysis tools you can build reports to analyze various aspects of UTSA student data without having to engage in any form of programming.

This manual provides the basic steps needed to start creating reports, but assumes that you:

- already have access to the DW,
- are familiar with Microsoft Excel,
- have a working knowledge of Microsoft’s Windows and Internet Explorer version 8 or greater, and,
- have attended the Data Warehouse course CT0868, UTSA Data Warehouse Training Session.

If you require access to the DW, please visit the Institutional Research Data Warehouse web page, http://utsa.edu/ir/datawarehouse/dw_request.html, to download the Data Warehouse Access Request Form. Submit the completed form to datawarehouse@utsa.edu, or print the form and send it by fax to 210-458-4708 or by campus mail to VPIE, PNB 2.204, Data Warehouse Support.

A Note About “Official” University Data vs. Certified Information

Institutional Research (IR) at UTSA is charged with providing official university data that is reported to and certified by, external agencies including the Texas Higher Education Coordinating Board (THECB), Integrated Postsecondary Education Data System (IPEDS), and the U.S. Department of Education (DOE). The Data Warehouse stores historical official institutional data extracted directly from University transactional databases such as BANNER. Data extracted from BANNER directly does not necessarily match information provided to THECB, IPEDS, or the DOE. Those agencies have various definitions for reporting that are not initially stored in BANNER, and thus not necessarily imported into the Data Warehouse.

If a report requires certified data, please make a data request at, http://utsa.edu/ir/datarequest.html.
Support

Technical Assistance

Technical support may be obtained by sending an email to datawarehouse@utsa.edu.

Report and Usability Assistance

For assistance creating reports or using the warehouse templates, please contact:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brian Cordeau</td>
<td>Director of Reporting</td>
<td>458-4705</td>
<td><a href="mailto:brian.cordeau@utsa.edu">brian.cordeau@utsa.edu</a></td>
</tr>
<tr>
<td>Vanessa Sansone</td>
<td>Senior Institutional Research Analyst</td>
<td>458-4794</td>
<td><a href="mailto:vanessa.sansone@utsa.edu">vanessa.sansone@utsa.edu</a></td>
</tr>
</tbody>
</table>

Online Assistance

Self-service assistance and additional information is available on the Institutional Research website located at http://utsa.edu/ir/datawarehouse/. Here you can find links to request access, get online support, download this user guide, download a quick start guide to assist configuring Microsoft Internet Explorer, and get a glossary of terms and data definitions.

Data Warehouse User Group

The UTSA Data Warehouse User Group is a discussion forum for users. Members can ask questions (seek community assistance), comment on solutions, and network with the members of the DW community from the convenience of their regular email client (e.g.: Outlook, mobile devices, etc.). This is a spam proof, moderated service, meaning that messages are reviewed before posting. Subscribed group members receive messages via email directly to their UTSA account, or messages can be read by accessing the community website. Each member decides whether the individual messages are of particular interest by choosing to read, respond to, or disregard the messages.

You can post a message by sending an email to: datawarehouse@lists.sis.utsa.edu.

Getting Started

Before you begin, keep the following in mind:

- The best way to learn is to do.
- Keep practicing to become familiar with creation of reports and the available information.
- You cannot break anything in the data warehouse if you make a mistake.
- If worse comes to worse, just remove what you’ve done and start again.
- Take advantage of the Data Dictionary to help you understand what you may need.
The Data Warehouse Enterprise Reporting (DWER) application requires the use of Microsoft Internet Explorer version 8, at a minimum, along with several browser setting adjustments—see Appendix A.

**NOTE**
Experience the full range of reporting features by using Microsoft Internet Explorer (IE). Other browsers, such as Mozilla, FireFox, or Chrome, will not provide full access.


**Logging On**

Login access for the Data Warehouse is found on the UTSA Institutional Research website found at [http://utsa.edu/ir/datashareware/](http://utsa.edu/ir/datashareware/). Clicking on the “Login” link listed on the left-hand navigation menu will launch the DW Enterprise Reporting Login page. This page also provides easy access to a variety of online self-help resources and important notifications such as the latest data available.

![Figure 1 - Data Warehouse Enterprise Reporting Login](image-url)
Landing Page

Once logged in, you will see the Enterprise Reporting (ER) landing page, which gives you easy access to the Enterprise Reports and the Data Dictionary. The dictionary is available on this page as well as at the bottom of every report and template with a list of term definitions.

Enterprise Reporting Personal User Space

Each user has their own “personal workspace” for creating and saving personalized templates and reports, and adding any available report or template to their Favorites list. Navigation is accomplished by clicking once on a series of system “tags” and template/report names.

Navigation

You can navigate your workspace simply by clicking on the navigation links found under the System Tags in the left-most column, clicking on a report or template name, or return back to the Enterprise Reporting Landing Page by clicking on the Home link in the top left corner.
Workspace Tools

Links
Of special interest in the workspace are the links to:

- Switch between a tabular and chart view;
- Add a report or template as a favorite for future easy access;
- Save a report or template, Make My Own Copy;
- Access the Data Dictionary, a glossary of terms; and
- Increase your usable work space using the Expand Workspace feature.

Figure 4 - Workspace Tools

Toolbar
A toolbar appears above the field list area and provides a set of commands that you can use to work with the data in the drop in fields area. In your personal workspace, hover the mouse pointer over each toolbar button to display the name of its command. For complete toolbar details, see Appendix D.

Figure 5 - Workspace Toolbar
Anatomy of A Template’s Report Area

There are several areas of the template workspace you should familiarize yourself with, see Figure 6.

*Column Field Area:* Used to display fields as columns at the top of the report. A column lower in position is nested within another column immediately above it. Simply drag and drop fields used to define columns of a report.

*Row Field Area:* Used to display fields as rows on the side of the report. A row lower in position is nested within another row immediately above it. Drag and drop fields used to define rows of a report.

*Totals or Detail Fields Area:* The area in the middle of the template where the numerical data to be explored is dropped. These data appear in the intersections of rows and columns, the “cells” of the report.

*Report Filter Area:* Filtering enables in-depth analysis of large amounts of data in a PivotTable report by allowing you to quickly display a subset of available data. Filtering affects the entire report based on the selected field placed in the report filter area. Simply drag the field desired to use as a filter into the Report Filter area and select the subsets to include or exclude. You can repeat this step to create more than one report filter. Report filters are displayed above the PivotTable report for easy access.
Drag and Drop From Where?

Each template, and resulting report, provides an alphabetized PivotTable Field List which is a list of available numerical data values, and column and row fields used to build a report. Once a template or report is opened, you can customize it by adding and arranging fields from its field list. Many of the list’s fields are organized in a hierarchy of different levels that are viewable by clicking the expand and collapse buttons to find the fields needed.

The field list typically launches when a report or template opens. If you have more than one monitor connected to your computer, the list may open on the monitor opposite from where the template opened.
or it may be hidden behind another window. This is quickly remedied by clicking on the **Field List** icon found above the pivot table workspace.

**Creating a Report Using a Template**

Templates allow you to easily create interactive reports that automatically extract, organize, and summarize data based on how filed elements are added, rearranged or removed. Using this method, a report presents a simple way to analyze the data, make comparisons, detect patterns and relationships, and discover trends.

Let’s create a simple report that uses the student’s “Declared College” (the college within which the student’s declared major is located) as the rows, a fall semester as the columns, and “Unduplicated Headcount” as the data presented (i.e., “totals” or “details” as noted above). Unduplicated headcount is a count of each student only once, regardless of the number of courses he or she took.

Using the **Student Terms** template as an example, here is how to create a report:

**Select Template or Report**

1. First, open the **Student Terms** template:
   1.1. **Click on** the **Templates** tag.
   1.2. **Click on** the template name.
A blank *Student Terms* template will appear along with the associated *PivotTable List*. Note the default filter labeled “Enrolled” that is set to “Yes” in the filter area, see Figure 10. The filter is indicating only enrolled students are included in the data that will be presented.
Make A Personalized Copy

Save a copy of this template as a personal report before continuing on. Once the report is saved, it can be reused and updated as needed.

Why Save?

The Data Warehouse Enterprise Reporting application is browser-based. If you navigate away from the reporting page or your computer crashes, the content of an unsaved report will be lost. If the computer goes to sleep or the browser session is left unattended after 90 minutes, your work is in danger of being lost. You may want to consider saving your work after making changes to a report.

2. To make a personal copy of the Student Terms Template and save it as a report:

Figure 10 - My First Report
2.1. **Click** once on the “Make My Own Copy” link.

2.2. When the “Make My Own Copy” window appears:

2.2.1. Enter a name for the report and a report description.

2.2.2. Leave the default settings for the “Switch to…” and usage controls.

2.2.3. **Click** the *save* button; the window will close and the newly created personalized report will open in the original browser window, see Figure 11.
Building “My First Report”

To build My First Report, simply use the familiar “drag and drop” process.

3. First, add the numerical data value to be analyzed into the Totals/Details field area. Totals/Details contain the data being collected to fill the cells of the report created by the intersection of row and column field areas.

3.1. Since this report examines the students enrolled in fall of 2013, locate Headcount Unduplicated in the PivotTable Field List Totals section.

3.2. **Left Click** on Headcount Unduplicated and hold the mouse button while dragging the field into the Totals/Details Fields Area, see Figure 13.
3.3. The total unduplicated headcount of 127667 represents ALL of the students extracted from BANNER, validated, and stored in the data warehouse.

4. By moving the *Declared College* field to the *Drop Row Field*, all of the enrolled students become organized by college.

4.1. Locate the *Declared College* in the field list.
4.2. **Left Click** on the field name and hold the mouse button while dragging the field into the *Row Fields Area* then release the mouse button. The *Drop Rows Fields Here* will be highlighted by a blue border when ready to accept the field element, see Figure 14.

![Figure 15 - My First Report Drop Row](image)

After dropping the *Declared College* into the *Row Field Area* the enrolled student headcount is distributed among the declared colleges.
5. To view the declared college student headcount by academic year and term, drag the *Academic Year Term* from the *PivotTable Field List* into the *Row Fields Area*.

5.1. **Left click and hold** the mouse button while dragging the field into the *Column Fields Area* then release the mouse button. The *Drop Column Fields Here* will be highlighted by a blue border when ready to accept the field element, see Figure 13.

5.2. When the drag and drop completes, all available academic years stored in the warehouse are represented as columns, see Figure 17.
Figure 17 - My First Report Column Drop

Drag N’ Drop fields from the PivotTable Field List to the report field areas by holding down the left mouse button.
6. To display only a single academic year and term, eliminate the years that are not of interest by expanding the *Academic Year Term* field. Specific details of any field dropped into the template/report workspace row or column area may be used to hide or display (drill down) into the numerical data of the *Totals/Details field*. 
6.1. **Click on** the dropdown icon, the upside-down triangle to the right of the *Academic Year Term* field label, see Figure 18. Notice by default the complete range of available years stored in the data warehouse are selected.

6.2. **Click once** on the *All* checkbox to clear all of the selected years.

6.2.1. Scroll down then **click on** the expand + to the left of “2013-2014” Academic Year to display all available terms within that academic year.

6.2.2. When expanded, **click** the box next to “Fall 2013” to place a check mark. This indicates that only the Fall 2013 data will display in the report.

6.2.3. **Click** the *OK* button to apply the change, see figure 19.
Note that the “Declared College” values are the data extracted from Banner that corresponds to the college within which the student’s major is located.
Drilling Down into My First Report

Remember the questions you had about your data? Well My First Report is more than just a static summary; you can use it to interactively explore (drill down into) the data's significance, zero in on the details or pull back for an overview.

Using Fields to View Subset of Data

Using the skills learned (click, drag, drop; using the Pivot Table Field List, etc.), My First Report can be expanded to drill down deeper into the available data.

As with the Academic Year Term field, you can always choose to display more, or less, data by simply clicking on the dropdown icon , the upside-down triangle, to the right of a field label. Notice by default the complete range of available data stored in the data warehouse are selected.

Show or Hide Items

1. For example, if you want to only display enrolled student count by the eight colleges at the university:

1.1. Click on the dropdown icon to the right of Declared College field in the Rows Fields Area where you can select/deselect any colleges listed.
1.2. **Click once** on the *All* checkbox to clear all of the selected years.

1.3. **Click once** in the check box to the left of each college you wish to explore.

1.4. **Click** the *OK* button to apply the change, see figure 22.
Notice that the *Grand Total*, or total headcount, changed since you eliminated some students who would otherwise have been reported but were not enrolled in one of the eight colleges at UTSA.

*Show Select Data Details*

You can drilldown on particular details from the reports “big picture view” quickly by inserting additional items from the *PivotTable Field List*. A good example would be to have the academic departments displayed within each college. Here is how you can do this:

1. First, go to the *PivotTable Field List* and find *Declared Department*. 
1.1. **Click on and hold** down the left mouse button, then drag and drop the field just to the right of the list of *Declared Colleges*. The border to the right of the college list will be highlighted by a **blue bracket** when ready to accept the field element, see Figure 23.

![Figure 23 - Declared Department Drilldown](image)

Figure 23 shows what the report looks like after you’ve dropped *Declared Department* to the right of *Declared College*. We expanded the College of Business to view its departments by **clicking on** the expand button to display the departments associated with each college.
2. You can opt to display fewer details by using drag and drop to remove a column or row item. To remove the Declared Departments:

2.1. Simply **left click** and hold down the mouse button on the Declared Departments label.

2.2. Drag and drop it into any space **above** the report fields. As you drag the field to the open space, notice how the image below the mouse pointer will change from a (1) small report, then a “not sign” (2) as you pass over areas that won’t accept the drop, and finally to a (3) red “X” where you can release the mouse button, see Figure 24.
With the *Declared Department* field removed, the Grand Total and Subtotals will remain the same but the report reassigns the data elements to just the *Declared College*. 
Save, Retrieve, or Delete a Report

Saved reports are located under the Systems Tags navigation on the left-hand column of your personal workspace in Reports. Under this tag you will find your saved reports and any pre-configured reports shared with you.

To save a personal copy of a report or template you must first open it:

1. **Select** the Reports or Templates tag, and open:
   1.1. **Click on** the Reports or Templates tag.
   1.2. **Click on** the report or template name:

   ![Figure 26 - Selecting a Template](image)

   1.3. **Click once** on the “Make My Own Copy” link.

   ![Figure 27 - Make Personal Copy of Template](image)

   1.4. When the “Make My Own Copy” window appears:
1.4.1. Enter a name for the report and a report description.

1.4.2. Leave the default settings for the “Switch to…” and usage controls.

1.4.3. **Click** the *save* button; the window will close and the newly created personalized report will open in the original browser window, see Figure 11.

![Make My Own Copy](image)

**Figure 28 - Save New Report**

**Retrieve Report**

1. Just **click on** a saved report to open. Once opened, you can revisit your original findings or update the report.

   *Retrieved a report to revisit your original findings or update it.*
Saving Changes to a Saved Report

1. To save changes to a previously saved report, **click on the Save Changes link located at the top of your workspace**—see Figure 26.

   **NOTE**

You can only save reports or templates that you have been granted permissions to modify, or you have previously saved as your own using the **Make My Own Copy** link.

This action opens the Save Changes window that looks exactly like the window used when you first saved the **Student Terms Template** as **My First Report** earlier.

1.1. When the Save Changes window appears, you may want to update the report description. **Click** in the “Description” box to make any changes.
1.2. **Click** the *save* button; the window will close and return you to your report.

![Save Changes Window](image)

**Figure 31 - Save Changes Window**

*Delete a Report*

To delete a report, open it first and **click on** the *Delete* link located at the top of your report workspace.

1. In order to delete a report, you must be in the report.

   1.1. **Click on** your saved report to open it.

   1.2. Once open, find the *Delete* link near the top of the report workspace and **click** to delete.

   1.2.1. A message will pop up asking if you’re sure you want to delete the report.

   1.2.2. **Click** “OK” if you are sure.
The action deletes the report and returns you to the contents of the Reports tag.
Appendix A – Internet Explorer Settings

OWC Installation

First-time users and those recently upgraded may need to install Microsoft’s Office Web Components (OWC). The warning found in the following image appears after clicking on a report template and is an indication that the OWC needs to be installed. The following steps assume the user is logged in as a user with local administrator permissions.

*Installation of the OWC requires administrative permissions. Please contact OIT Connect, ext.: 5555, if you require assistance installing the OWC.*

1. Begin the OWC installation process by clicking on the Microsoft Office Web Components link in the message box.

Appendix A Figure 1 - Click Link to Download OWC
2. **Click** the “Download” button on the Microsoft OWC download page, Figure 3, and follow the installation instructions. Note that the user attempting the installation requires “administrator” permissions otherwise the installation will fail.
3. **Click** the check box to accept the license agreement (just a formality), and then click the **Install** button. When the installation is complete, Windows installer will notify the user. **Click on** the **OK** button.

**Internet Explorer Settings**

1. After installing the OWC, you will be notified to change certain browser security settings:

   ![Appendix A Figure 4 - Explorer Security Setting Customization Required](image)

   1.1. Identify the Data Warehouse website address as a trusted site by adding [https://datawarehouse.utsa.edu/](https://datawarehouse.utsa.edu/) to Internet Explorer’s trusted website zone security setting.

   1.1.1. Under the **Tools** dropdown menu, **click on Internet Options**—see Figure 5.

   1.1.2. In the **Internet Options** window, **click on** the **Security** tab.

   1.1.3. **Select** the **Trusted sites** icon, and **click on** the **Sites** button.

   1.1.4. When the **Trusted sites** dialog window opens, insert [https://datawarehouse.utsa.edu/](https://datawarehouse.utsa.edu/) into the “Add this website to the zone” field.

   1.1.4.1. **Click Add** and **Close**.
Appendix A Figure 5 - Identify Data Warehouse as a Trusted Site
Appendix A  Figure 6 - Set Custom Levels for Trusted Sites

1.2. With the Internet Options window open, **click on the Customize level…** button located near the bottom of the window in the Security Level for this zone section.

1.3. Three settings need to be customized in the Security Settings – Trusted Sites Zone window.

1.4. Select **Enable** for “Access data sources across domains” under the “Miscellaneous” category, Figure 7.
1.5. Find “User Authentication” > “Logon” and then select “Automatic logon with current user name and password”, Figure 9.

Appendix A Figure 8 - Automatic Logon Current User Name and Password

1. Under “ActiveX controls and plug-ins”, select **Enable** “Initialize and script ActiveX controls not marked as safe for scripting”, Figure 10.

Appendix A Figure 9 - ActiveX Controls and Plug-ins

2. Click on **OK** 1 and then **OK** 2
Appendix B – Apple Mac Virtual Requirements

Coming soon… Work In Progress…

.
1. **What fields go in rows versus columns?**
   All the fields with the blue icon in the PivotTable Field List can go either in the:
   - Drop Row Fields Here row area.
   - Drop Column Fields Here column area.
   - Drop Filter Fields Here report data filtering area.

   There is no right or wrong; however, if the field has a lot of data values and you do not want to filter on a few, it would be better in the row area and not the column area. Feel free to experiment; you cannot damage the data in the Data Warehouse.

2. **What is the difference between duplicated and unduplicated headcount?**
   The difference between the two fields is how they are totaled in a Grand Total or Subtotal.

   ![Appendix C Figure 1 - Duplicated vs. Unduplicated Headcount](image)

   The Grand Total for Headcount Unduplicated is a total of all unique students across the academic year; therefore, it is less than the Headcount Duplicated. For example, if I enroll in all three semesters, I would be counted three times using Headcount Duplicated versus once using Headcount Unduplicated. The following picture shows how Headcount Unduplicated and Headcount Duplicated are the same across a term.
3. **I can view but not interact with a report fields.**

If you can view but not interact with a report, you might not have the Microsoft Office Web Components (OWC) installed or you are using a browser other than Microsoft Internet Explorer.

1. Use the appropriate browser.
2. Be sure the OWC are installed.
3. Turn-off ActiveX filtering.

**NOTE**

The Data Warehouse Enterprise Reporting application requires the use of Microsoft Internet Explorer version 8, at a minimum, along with several browser setting adjustments—see Appendix A. Other browsers, such as Mozilla, FireFox, or Chrome, only allow a non-interactive version.


4. **I can't show the toolbar, title bar, field list, Commands and Options dialog box, or the shortcut menus.**

The designer of the PivotTable list may have restricted access to the workspace toolbar in order to prevent making changes in the browser. See FAQ #3 for additional details.

5. **I can't add or move the field I want.**

The field might already be displayed:
You cannot drop the same field in more than one area.

The source data might limit how you can use fields:
Source data from On-Line Analytical Processing (OLAP) databases provides sets of fields for different levels of detail. Within a set of fields, you can hide levels of detail, but you cannot separate out fields in the set for display in different areas. To find out whether the source data in your PivotTable list is from an OLAP database, contact the [data.warehouse@utsa.edu](mailto:data.warehouse@utsa.edu).

Moving fields might be restricted:
If you are using a browser other than Microsoft Internet Explorer static copies of the original report are only available, or refer to FAQ #3.

If you need to move fields, you can export a copy of the report to Microsoft Excel. In the Excel PivotTable report, you won't be restricted from moving fields, and you can display a field in the filter (page) area and the data area simultaneously.
6. *When I change the layout, the data takes a long time to appear.*

If the report takes a long time to calculate, you can make several changes to the layout at one time and then retrieve the data when you are finished making changes.

1. When the Office logo cube 🔄 is spinning, press ESC to cancel the calculation. The PivotTable list then displays only the names of the fields.
2. Change the layout, adding and moving as many fields as you want.
3. To retrieve and calculate the data for the new layout, click **Refresh** on the toolbar in the PivotTable list.

7. **The Commands and Options dialog box or the field list disappeared.**

When you click a control on the Web page other than a Microsoft Office Web Component, or when you minimize and then restore the browser window, the *Commands and Options* dialog box and the *PivotTable Field List* might be hidden.

To redisplay the dialog box or field list, click the PivotTable list so that it is reactivated.

The field list typically launches when a report or template opens, and remains visible as long as you are working in your personal workspace. Exceptions are when:

1. You have more than one monitor connected to your computer allowing the list to open on the monitor opposite from where the template opened, or sometimes it may be hidden behind another window.
2. When you click a control on the Web page other than in the workspace area.
3. If Internet Explorer is minimized and then restored to the browser window.

This is quickly remedied by **clicking on** the *Field List* icon found above the pivot table workspace.

![Appendix C Figure 2 – PivotTable Field List Icon](image)
8. **How can I improve my reports readability?**

   **Use a larger font:**
   The font size settings in your browser don't affect the size of text in a *PivotTable* workspace. To make small, hard-to-read text larger, you can change the font sizes for elements within a workspace using *Commands and Options*.

   ![Appendix C Figure 3 - Font Formatting](image)

   **Use contrasting colors:**
   The color settings in your browser don't affect the colors in a *PivotTable* list. To intensify text so that it stands out from its background, you can set the font color and then set a contrasting background color for each element in the *PivotTable* list.

   When you export a copy of a *PivotTable* list to Excel, you can zoom to magnify the data. For information about working with Excel *PivotTable* reports, see Appendix D.

9. **When I page down, I can't see my selection.**

   Use the browser and the workspace scroll bars. The workspace is designed so that when you change the layout, the list expands or shrinks to use as much space on the Web page as possible to display the data. To see the additional data, use the browser's scroll bars to scroll through the entire Web page.

Due to a Microsoft bug in Office 2013, exporting to Excel only works with Office 2007 or 2010. But, you can copy and paste from a report to Excel or Word.
10. **The fields are present, but all the data is missing.**

You canceled calculation of the report data elements, or calculation stopped before it was complete. To display the data, click **Refresh** on the toolbar of the report.

11. **Data is missing after I copy a Report into Excel or Word.**

When you copy data in a Report to the Clipboard and paste it into Microsoft Excel or Microsoft Word, only visible rows and columns are copied. Any data that you have hidden or filtered out is not copied.

Before you copy data, turn off filtering to show all data in the Report, and display the detail data that you want copied.

To avoid having to show all the data first, you can export, rather than copy, the Report. When you export a copy of a Report to Excel, all of the data is automatically included, with the same filtering in effect. You also have the same access to additional fields in the source data that you do in a Report, and you can change the filtering in Excel. From Excel, you can then copy data to Word or other programs. For information, see **Appendix D**.

---

**Due to a Microsoft bug in Office 2013, exporting to Excel only works with Office 2007 or 2010. But, you can copy and paste from a report to Excel or Word.**
12. **A cell displays ####### instead of a number.**

When a number is too wide to fit in a cell, the Report displays number signs instead of the number. You can fix this in any of the following ways:

- Make the column wider so that the entire number fits.
- Make the font smaller if you don't want to widen the column.
- Change the number format to one that takes less space.

13. **A chart that's based on my Report is blank or has no data.**

**Add total fields:**
For a chart to reflect data in a Report, you must add at least one total field to the Report.

**Move fields to the row and column areas:**
The row and column fields in a Report provide the category and series data in your chart. If all of the fields are in the detail area of the Report, for example, the chart has no categories and series to plot. From the detail area or field list, move at least one field to the row area or the column area.

14. **Total fields in my Report have asterisks next to them.**

Asterisks (*) appear next to captions of the total fields in the following cases:

- When you set the option to include all items in totals, asterisks appear next to the caption of the total fields to indicate that the totals include any hidden items in addition to the displayed items.

- In Excel PivotTable reports that are based on source data from On-Line Analytical Processing (OLAP) databases, the calculations for subtotal and grand total values always include the values for all items in the field, both displayed and hidden. Excel provides an option to turn off display of these asterisks.

In the Report, regardless of whether it's based on source data from an OLAP database, if you want to omit data that is hidden by filtering from subtotals and grand totals, you can set an option to include only displayed data. This option also hides the asterisks.
## Appendix D – Workspace Component Toolbar

The following table outlines what the controls on your workspace PivotTable Component toolbar do.

<table>
<thead>
<tr>
<th>Control</th>
<th>Type</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>About</td>
<td>Button</td>
<td>Displays About Microsoft Office Web Components dialog box.</td>
</tr>
<tr>
<td>Copy</td>
<td>Button</td>
<td>Copies selected data to the Clipboard.</td>
</tr>
<tr>
<td>Sort</td>
<td>Toggle</td>
<td>Sorts columns or row fields in ascending or descending order. When turned off, data reverts to the way it was saved. Unlike PivotTable reports in Excel, blanks sort to the top.</td>
</tr>
<tr>
<td>AutoFilter</td>
<td>Toggle</td>
<td>When turned on, hides or shows items according to whether their check boxes have been cleared or selected in the Column or Row field drop-down list. When turned off, all items are displayed.</td>
</tr>
<tr>
<td>AutoCalc</td>
<td>Menu</td>
<td>Gives you a choice of summarizing fields by using the Sum, Count, Min, or Max functions. Can be disabled by the creator of the PivotTable list.</td>
</tr>
<tr>
<td>SubTotal</td>
<td>Toggle</td>
<td>Shows or hides subtotals for selected field.</td>
</tr>
<tr>
<td>Expand/Collapse</td>
<td>Toggle</td>
<td>Expands or collapses the data detail for selected field, item of data, or cell in data area. Unlike in Excel, there is only one button to toggle between Expand and Collapse. In Excel, these are separate buttons.</td>
</tr>
<tr>
<td>Refresh</td>
<td>Button</td>
<td>Updates data from source list or database.</td>
</tr>
<tr>
<td>Export to Excel</td>
<td>Button</td>
<td>Starts Excel and copies data into a new workbook as a PivotTable report. Due to a bug in Microsoft Office 2013 we recommend using the Copy button to copy report data and paste it into Excel.</td>
</tr>
<tr>
<td>Command Box</td>
<td>Button</td>
<td>Displays the reports Commands and Options box.</td>
</tr>
<tr>
<td>Field List</td>
<td>Button</td>
<td>Displays a hierarchical list of fields available from the PivotTable list's source data.</td>
</tr>
</tbody>
</table>
This appendix presents a step-by-step process for exporting, or copying, report results created using the Data Warehouse (DW) Enterprise Reporting application to Excel. Performing a “copy & paste” from a report to Excel, Word, or PowerPoint is often the quickest and easiest method. But for Excel Power Users the ability to export to Excel that maintains an interactive data connection to the DW provides you with another level of data analysis.

Due to a Microsoft bug in Office 2013, exporting to Excel only works with Office 2007 or 2010. But, you can copy and paste from a report to Excel or Word.

**Exporting to Excel**

1. Create a report using the Enterprise Reporting application.

2. Expand all of the desired report elements before exporting by clicking on the + sign to the left of an elements title.
Appendix E Figure 2 - Expanded Elements

3. The report is ready to export.

3.1. Click on the *Export to Microsoft Office Excel* icon located on the workspace toolbar. Excel will automatically open with the data contained in the original report in a pivot table format including the *PivotTable Field List*.

Appendix E Figure 3 - Export to Excel Icon
4. The report will open in Excel where a *Security Warning* banner may display. Clicking on the *Enable Content* button allows the report data and pivot tables to populate with the report data—see Figure 5. At this point Excel is actually linked to the Data Warehouse database enabling you to further manipulate the report using Excel and the Pivot Table Tools.
5. With the data in Excel corresponding correctly to the report created in the Enterprise Reporting application, the next step is to extract the data and place it on another worksheet to facilitate formatting and possible graphical options.

5.1. Select all the data displayed on the worksheet by clicking the Select All button or type Ctrl+A.

**NOTE:** If the worksheet contains data, Ctrl+A selects the current region. Pressing Ctrl+A a second time selects the entire worksheet. Selected fields are typically highlighted in blue.

5.2. Now Copy the selected data and Paste it onto a new sheet in the Excel workbook. To move or copy a selection to a different worksheet, click another worksheet tab, and then select the upper-left cell of the paste area—typically A1. Also, when pasting the data to a new worksheet leave the formulas behind by selecting Paste Special—see Figure 6.

5.3. Now Copy the selected data and Paste it onto a new sheet in the Excel workbook. To move or copy a selection to a different worksheet, click another worksheet tab, and then select the upper-left cell of the paste area—typically A1. Also, when pasting the data to a new worksheet, leave the formulas behind by selecting Paste Special—see Figure 6.

5.3.1. Right-click any selected cell and then click Copy. (Keyboard shortcut, press Ctrl+C)

5.3.2. On the new worksheet, right-click on the A1 cell and then click Paste Special. (Keyboard shortcut, press Ctrl+Alt+V)
5.3.3. In the Paste Special dialog box, click the “Values and number formats” attribute and click the OK button. Only the data values from the original worksheet are now available which can be formatted as desired—see Figure 7.
Appendix E Figure 7 - Values Only Paste View
Copy & Paste to Applications

Use this procedure to copy a PivotTable report, or a part of it, as a non-interactive, formatted table in Microsoft Excel, Word, or PowerPoint.

1. Do one of the following:

   1.1. To copy the entire report PivotTable, click the title bar of the PivotTable list.

   1.2. To copy a part of a report PivotTable, select the elements that you want to copy.

2. On the toolbar in the PivotTable list, click Copy.

3. Switch to Excel or Word, and click where you want the data from the PivotTable list to appear.

4. Click Paste, or Ctrl-V.

Notes

- When you copy a PivotTable list, or a part of it, you are copying only the formatting and data values. No link is maintained between the copy in Excel or Word and the original source database.

- You can copy part of a PivotTable list to other programs, such as Microsoft Access, as unformatted text.

A copy and paste from a data warehouse report into Excel or Word to be the simplest method.
Appendix F – Which Template Should I Use?

The Field List allows you to drag and drop the fields or data elements into a template to create a report, and to arrange those fields in a way that answers the reports question.

Class Sections Table Template

Use this template to generate reports on different sections of courses offered during terms at UTSA by combining *Numerical Data Fields* available through the template *PivotTable List* with *Row/Column*. 
Student Classes Table Template

This template contains information about classes that students are taking during a semester at the university. It differs from Class Sections because it has information about the students taking the classes. The fields available using this template are listed in the following:
Student Degrees Table Template

If your question requires information focused on degrees awarded at UTSA, you should use this template. The calculations that can be made using the fields are totals for Average Terms to Degree at UTSA by combining Numerical Data Fields available through the template PivotTable List with Row/Column.

Student Terms Table Template

If your question is focused on enrollment during or across terms (by headcounts or full time equivalents, etc.) then use this template. NOTE: this template will NOT allow you to get Texas Higher Education Coordinating Board (THECB) official enrollments. The enrollments generated for the THECB require
special definitions of who is counted that are not accommodated by this template. The fields available using this template listed in the following:
Row/Column Fields (Dimensions)

Numerical Data Fields (Measures)
Appendix G – Tips for Report Formatting

Improve Appearance or Readability

You can format row, column, total, or detail fields, the title bar and drop area captions, and custom properties of row or column fields.

Formatting Elements

Setting Text Formats

You can set the font, font size, and color for text, and make text bold, underlined, or italic. These settings are separate from your browser's settings for fonts and colors, which have no effect on PivotTable lists.

Aligning Text in a Cell

You can display values so that they are left-aligned, right-aligned, or centered horizontally in the cells. You cannot change the values' vertical alignment.

Setting Background Colors

You can change the background color for cells. These settings are separate from your browser's settings for colors, which have no effect on PivotTable lists.

Changing Number Formats

You can change the formats in which numbers, dates, and times in a field are displayed to any of several predefined number formats. In Microsoft Visual Basic or in a script, you can assign custom number formats to the data.

For example, you can display a number as currency or as a percentage, and you can display a date in long format, with the day and month spelled out, or in abbreviated format. Changes to the number format do not change the actual values, only how the values are displayed.

Formats that you apply to one element might affect similar elements. For example, if you change the text color for an item, all other items in the same field are formatted with the new text color.

How To Select Elements

Select the element or elements that you want to format using one of the following techniques.

1. Select the entire report PivotTable by clicking on the title bar.
2. Select one or more data cells:
2.1. To select a single cell, **click** it.
2.2. To select a group of cells, **click and drag** the mouse pointer until all the cells you want are selected.

3. Select a row, column, or filter field by **clicking** the field label.

**Note:** Selecting a row or column field also selects all of the items of data in the field.

4. Select a detail field:
   4.1. **Click** the field label.

**Note:** If detail data is displayed for several items so that the field label is displayed more than once, clicking one instance of the field label selects all instances.

5. Select a total field:
   5.1. Click any field label for the total field.

6. Select one or more items:
   6.1. To select a single item, **click** the item label.
   6.2. To add more items to the selection, **press and hold** the CTRL key when **clicking** the item labels.
   6.3. To select a range of items, **click the label** of the first item, press SHIFT, and then **click the label** of the last item.

**Note:** Selecting an item selects all of the data for that item.

7. Select a subtotal or grand total:
   7.1. Click the subtotal or grand total.

**Note:** Selecting a subtotal or grand total also selects all of the data for the subtotal or grand total.

8. Select the title bar or a drop area:
   8.1. **Click** the title bar.
   8.2. On the PivotTable list toolbar, **click Commands and Options**, and then **click the Captions tab**.
   8.3. In the Select caption list, select the item you want.

9. Select a custom property of a row or column field:
   9.1. Click the row or column field, or one of its items.
   9.2. On the PivotTable list toolbar, **click Commands and Options**, and then click the Item Properties tab.
   9.3. In the Item properties list, select the property you want.

**Note:** If the selected field does not have any custom properties, the Item properties list will be empty.
NOTE: You can set the caption, number format, and display location settings for the selected property. The formats you select affect only the selected property.

9.4. To set the font and style settings of a property, select Property caption or Property value from the Format list.

NOTE: Font and text style settings that you apply to a custom property affect all custom properties in the PivotTable list, but only when they are displayed in the report. The formatting is ignored when the custom property is displayed in the ScreenTip.

**Number formats**

Number formats for number, currency, date, and time are customizable using the *Commands and Options* control.

The following table lists the number formats supported in a report PivotTable:

<table>
<thead>
<tr>
<th>Format</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td>Displays a number right-aligned, with no thousands separator, and preceded by a minus sign if negative.</td>
</tr>
<tr>
<td></td>
<td>Displays up to 11 digits, or 10 digits with a decimal point, rounding additional digits to the right of the decimal point. Displays numbers with more than 11 digits to the left of the decimal point in scientific format.</td>
</tr>
<tr>
<td></td>
<td>Displays text left-aligned.</td>
</tr>
<tr>
<td><strong>General Date</strong></td>
<td>Displays a number as a date and optional time. For example, 8/31/99 05:54 AM.</td>
</tr>
<tr>
<td></td>
<td>The fractional part of the number is the time. If a number has no fractional part, only a date appears. If a number has only a fractional part and no integer part, only a time appears.</td>
</tr>
<tr>
<td><strong>Long Date</strong></td>
<td>Displays a date according to the Microsoft Windows regional setting for the long date format. For example, Thursday, January 25, 2001.</td>
</tr>
<tr>
<td><strong>Medium Date</strong></td>
<td>Displays a date using the abbreviated month names and hyphens (-) to separate month, day, and year. For example, Jan-25-2001.</td>
</tr>
<tr>
<td><strong>Short Date</strong></td>
<td>Displays a date according to the Windows regional setting for the short date format. For example, 1/25/2001.</td>
</tr>
<tr>
<td><strong>Long Time</strong></td>
<td>Displays a time according to the Windows regional setting for the long time format. For example, 8:45:36 PM.</td>
</tr>
<tr>
<td><strong>Medium Time</strong></td>
<td>Displays a time in 12-hour format with an AM or PM designator, omitting the seconds. For example, 8:45 PM.</td>
</tr>
<tr>
<td><strong>Short Time</strong></td>
<td>Displays a time in 24-hour format, omitting the seconds. For example, 20:45.</td>
</tr>
<tr>
<td><strong>Currency</strong></td>
<td>Displays a number according to the Windows regional setting for currency. For example, with the default United States English regional settings, $2,532.75.</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Fixed</strong></td>
<td>Displays a number with two decimal places. For example, 68.30.</td>
</tr>
<tr>
<td><strong>Standard</strong></td>
<td>Displays a number according to the Windows regional settings for numbers. For example, with a comma as the thousands separator and a period as the decimal symbol, 1,800.00.</td>
</tr>
<tr>
<td><strong>Percent</strong></td>
<td>Displays a number multiplied by 100, with two decimal places and a percent sign. For example, the value 0.8914 would be displayed as 89.14%.</td>
</tr>
<tr>
<td><strong>Scientific</strong></td>
<td>Displays a number in exponential notation. For example, 1.25E+10.</td>
</tr>
<tr>
<td><strong>Yes/No</strong></td>
<td>Displays <strong>No</strong> if the number is 0; displays <strong>Yes</strong> for any other number.</td>
</tr>
<tr>
<td><strong>True/False</strong></td>
<td>Displays False if the number is 0; displays True for any other number.</td>
</tr>
<tr>
<td><strong>On/Off</strong></td>
<td>Displays Off if the number is 0; displays On for any other number.</td>
</tr>
</tbody>
</table>

*Appendix G Figure 1 - Commands and Options Window*
**Customize Total Fields**

*Change the orientation of total fields*

This procedure affects total fields in the report PivotTable. It has no effect on subtotals or grand totals.

1. **Click on** the title bar of the PivotTable list.

2. On the PivotTable list **toolbar**, click **Commands and Options** and then click the **Report** tab.

3. Under **Display totals as**, select one of the following:

   3.1. **COLUMN HEADINGS**: To display total fields across the first row below the column fields or in the top row if there are no columns fields.
3.2. **ROW HEADINGS**: To display total fields down the first column to the right of the row fields or in the leftmost column if there are no row fields.
Show totals as percentages

To show totals as percentages, choose from the Show Values As options.

1. **Right-click** the total field whose values you want to view as percentages, point to Show As, and then click one of the following:
1.1. **PERCENT OF ROW TOTAL:** To display the values in each row or category as a percentage of the total value of each row or category.

Appendix G Figure 6 - Percent of Row Total

1.2. **PERCENT OF COLUMN TOTAL:** To display the values as a percentage of the total value of each column. All the values in each column or series as a percentage of the total for the column or series.

Appendix G Figure 7 - Percent of Column Total

1.3. **PERCENT OF PARENT ROW ITEM:** To display the values as a percentage of the total value of the item's parent in the row axis. Values as: (value for the item) / (value for the parent item on rows)

Appendix G Figure 8 - Percent of Parent Row Item
1.4. **Percent of Parent Column Item**: To display the values as a percentage of the total value of the item's parent in the column axis. Values as: (value for the item) / (value for the parent item on columns)

![Appendix G Figure 9 - Percent of Parent Column](image)

1.5. **Percent of Grand Total**: To display the values as a percentage of the PivotTable list's grand total value. Values as a percentage of the grand total of all the values or data points in the report.

![Appendix G Figure 10 - Percent of Grand Total](image)