COGNOS REPORTS USING IR CUBES

ILLUSTRATIONS

- From Cognos home page: https://cognos.texastech.edu/

- Click “IBM Cognos content”

- Under “Public Folders” Click “IR Data Warehouse”
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- Click “IR Cubes”

![Image of Cognos interface with IR Cubes folder open]

- Select any Cube you want:
  - T_IR_ST_Course_Registration_CUBE (Course SCH and Course Enrollment)
  - T_IR_ST_Degrees_CUBE (Degrees Awarded)
  - T_IR_ST_Enrollment_CUBE (Total and New Students Enrollment)
  - T_IR_ST_RetGrad_CUBE (Retention and Graduate Rates)
  - T_IR_ST_WSCH_CUBE (Weighted Semester Credit Hours)

![Image of Cognos interface with cubes listed]

- In this example, SELECT “T_IR_ST_Enrollment_CUBE”
- Go to the top right corner of the menu bar and
- Click “Launch” arrow
- Select “Analysis Studio”
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- Next Screen, SELECT “Blank Analysis” or “Default Analysis”
  - Default Analysis is a prepopulated screen. You can modify the report the way you want.
  - Blank Analysis is empty or blank form. Just Drag and Drop data needed from Insertable Objects on the left.

- CLICK “Blank Analysis” for our example.
- Then CLICK “OK”
- Below is a sample of “Blank Analysis” “Default Analysis”
Analysis Studio Definitions

- **Insertable Objects** – found on the left side of the screen (Source Pane). This is your data source.

- **Expandable Objects or Measures** - The plus sign “+” before each object or measure means that there are detailed list available for each insertable object or measure.

- **Measures** are quantitative data or values you use to analyze data and display in your Work area.

- **Work Area (Rows and Columns)** – This is the area where you explore and analyze data. Data analysis can be displayed or viewed as crosstab, a chart, or both crosstab and a chart.

- **Overview Area (Rows, Columns, and Context Filter)** – This is where you set your parameters or specific criteria and change the contents of the Work area.
Understanding IBM Analysis Studio Interface

- **Menu Bar**
- **Source Pane (Insertable Objects)**
- **Analysis Tab**
- **Information Pane**
- **Overview Area**
- **Work Area**

Expand the plus "+" sign to see details of the Measures or other Insertable Objects.

Drag and drop any Insertable Objects from the Left Source Pane. Work Area include: Rows, Columns, and Measures.

This is your overview area.

This is your "Work Area." Drag and drop any Insertable Objects from the Left Source Pane. Work Area include: Rows, Columns, and Measures.

This is the WORK AREA.

This is the Property Pane.
EXAMPLE #1 (Using “Blank Analysis”)

- College of Arts and Sciences enrollment from Fall 2005 to Fall 2012

**Please do the following:**

- Expand Insertable Objects: **College**
  - Select “Coll of Arts and Sciences”
  - Drag and Drop to the Overview area under “Context Filter:”

- Select Insertable Objects: **Department**
  - Drag and Drop to the Work area under “Rows”

- Expand Insertable Objects: **Time**
  - Press “CTRL” in your keyboard (This will allow you to select certain term)
  - **Note:** If you see at the bottom of Insertable object this “More” icon, this means there are more insertable objects listed. Click this to see all listing.
  - Select **Fall 2005, Fall 2006, Fall 2007, Fall 2008,** and all Fall terms to **Fall 2012**
  - Drag and Drop the terms to the Overview area under “Columns:”
  - For all terms, just drag and drop “Time” in the Work area under “Columns.” This will show all terms in the Objects.

- Expand **Measures:**
  - Select, Drag, and Drop “Total Enrollment Count” to the Work area under “Measure”

- Make sure to **INSERT in the order you want in the Work area,** example: **College, department, and programs. This will give you the data in that order.**

- In your Report, you will see there are lots of rows and columns that are empty. We need to suppress this so that only those with data will be displayed:

- To “**SUPPRESS**” rows and columns:
  - At the top menu bar select suppress icon

  ![Supress Icon](image)

  - In the option, select “**Suppress rows and columns**”
  - You will see that your report will only display the department with enrollment in a term.
Cognos Reports Using IR Cubes

To Copy and Paste:
- If Cognos Report is on a single page, you can use mouse to highlight, copy, and then paste to Excel or Word document.
- If the report is more than one page, you can run the report in different format such as HTML, PDF, Excel or text file.
- Go to top right corner of the menu bar (under Help) and click this icon then, select option you want. In this case, select “Run Report (Excel 2007 format)”
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- **Undo – Redo Function:**
  - To undo or re-do an action you just did, CLICK this icon.

- **Other Useful Quick Tips**
  - **In the Source Pane:** Right Click next to Insertable Objects:
    - Use to Replace columns or rows,
    - Insert as Nested rows and columns
  - **In the Work area:** Highlight column heading or row and Right Click:
    - To change values to percentage or add percentages
    - To change Measures or change measures calculation
    - Other options available such as delete, exclude, sort, calculate and suppress.

- **Adjusting the Column Widths** in the Work Area. You can adjust your columns to fit the data label. To adjust the column width:
  - Point your mouse to the end of the column line, then **hold and drag** left or right to fit.

- **Reverse** rows and columns in the Work Area. Go to top menu bar and CLICK this icon

The result:
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PRACTICE

1. Total Enrollment by College for the last eight years. (Fall only)

   **Total Enrollment by College – Fall 2005 to Fall 2012**

   ![Image of Total Enrollment by College]

2. Enrollment for College of Arts and Sciences by Department for the last eight years. (Fall only)

   **College of Arts and Sciences Total Enrollment by Department and Program – Fall 2005 to Fall 2012**

   ![Image of College of Arts and Sciences Enrollment]

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Last Update: 11/15/2012
TO START NEW ANALYSIS OR REPORT

- If you are already in the IBM Cognos Analysis Studio, `go to` the top menu bar
- It will ask you to save the analysis if you have an existing report created in the Analysis Studio.
- CLICK “NO” at this time.

In the menu bar, CLICK “File” then select “New” and then CLICK “Blank Crosstab” or “Default Analysis”
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USING “DEFAULT ANALYSIS”

From IR CUBES main menu,

- CLICK any CUBE you want. In this example, let’s use: T_IR_ST_Degrees_CUBE
- Go to the top right corner of the menu bar and find “Launch” option
- Click “Launch” arrow icon
- Select “Analysis Studio”
- CLICK “Default Analysis” then CLICK “OK”

This is the “Default Analysis” showing Degrees Awarded by College
**Cognos Reports Using IR Cubes**

- **To modify this report, do the following:**
  (In this example, we only want degrees awarded for the College of Engineering. From FY2005 to FY2012)
  - Expand Insertable Object: **College**
  - Select "**College of Engineering**" and
  - **Drag and Drop** to Overview area under “Context Filter”
  - **Suppress** the report. Go to top menu bar:
    - At the top menu bar select suppress icon
    - In the option, select “**Suppress rows and columns**”
  - The report or analysis will look like this:

- **To add the department for the College of Engineering:**
  - **Select, Drag, and Drop** Insertable Object “**DEPARTMENT**” to the Work area under “Rows” where the “**College of Engineering**” is located.

This is what it looks like after you drag and drop the “**Department**” insertable object.
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- To ADD Student Level:
  - Drag and Drop Insertable Object “STUDENT LEVEL” just under the “Terms.” Please watch until you see blinking line below the Terms, then “DROP” the “Student Level” insertable object.

  - This is what you see after you drop the “Student Level” under the Term.
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- OR for QUICK and EASY WAY, select, drag, and drop “Student Level” next to the “TIME” in the Overview Area under “Columns.”

ANOTHER ANALYSIS STUDIO EXAMPLE

WITH REVERSE FUNCTIONS - Reverse the rows and columns in the Work Area.

In this example, Let us run another simple analysis. We will use Enrollment by Ethnicity from Fall 2000 to Fall 2012.

- If you are already in the IBM Cognos Analysis Studio, go to the top menu bar
- If you have a report in the Analysis Studio, it will ask if you want to save the analysis.
- CLICK “NO” at this time.

- In the menu bar, CLICK “File” then select “New” and then CLICK “Blank Crosstab”
• **Drag and Drop** Insertable Object: “Gender” to the Work area under “Rows”

• If you want all terms to show, **Drag and Drop** Insertable Object: “Time” to the Work area under “Columns”
• If you want to show certain Fall terms only: *(For our example, we select Fall 2000 to Fall 2012)*

• **Expand Insertable Object: TIME**
  - Press “CTRL” in your keyboard *(This will allow to select certain term)*
  - Select Fall 2000, Fall 2001, Fall 2002, Fall 2003, and all Fall terms to Fall 2012
  - Drag and Drop the terms to the Overview area under “Columns:”

• **Expand Insertable Object: Measures**
  - Drag and Drop “Total Enrollment Count” to the Work area under “Measure”

• **To reverse the rows and columns in the Work Area, go to top menu bar and CLICK this icon**

The result: From this Screen:

To this Screen:
SAVING YOUR REPORT

To save your analysis or report:

- Go to top menu bar, CLICK “File” then select “SAVE” or “SAVE AS” option.
- Or CLICK either of this icon
- CLICK “My Folder”
- TYPE the file name
- CLICK “SAVE” This will save under your personal folder.

CREATE CHART IN ANALYSIS STUDIO

Using the example shown above: Enrollment by Gender – Fall 2005 to Fall 2012

- Go to the top menu bar, and CLICK this icon or this icon.

- This icon has an option to display for just Chart or both Chart and the Crosstab Analysis.

- This icon will show options of the different types of Chart and Effects.
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- If you CLICK this icon, SELECT and CLICK “Crosstab and Chart” option. This is the result:

- If you CLICK this icon, SELECT and CLICK type of Chart you want. In this example, use Pie Chart. This is the result of a Pie Chart and Crosstab option: