# **INTRODUCTION TO BUSINESS INTELLIGENCE**

Business Intelligence (BI) uses methodologies, processes, architectures, and technologies that transform raw data into meaningful and useful information used to enable more effective strategic, tactical, and operational insights and decision-making. Identifying opportunities and implementing effective strategies can provide a competitive advantage and long-term stability for American University.

# **BI@AU: MICROSTRATEGY REPORTING AND ANALYSIS**

American University uses the MicroStrategy reporting platform to provide information, analyze trends, create scorecards and dashboards, and proactively deliver timely information to users within the organization.

- Executive Dashboards
- Performance Dashboards
- Budget and Financial Management (General Ledger) Reports
  - O Research Grants Reports
  - O Office of Sponsored Projects Reports
- Graduate and Undergraduate Admissions Reports
- Development and Alumni Relations Reports
- Student Enrollment and Retention

MicroStrategy reporting uses a browser-independent web interface that includes features like:

- Sorting and filtering
- Drag and Drop Report Manipulation
- Drop down menus
- Right click, context sensitive menus
- One-click toolbars

# **BI@AU: USER GROUPS**

There are two defined Business Intelligence User Groups at American University.

### **BI Web Reporter (Information Consumers):**

- Use interactive reports or key performance indicator dashboards without changing the report structure or content.
- Tailor interactive reports to their or someone else's needs by manipulating (including filtering content) and distributing existing reports.

### BI Web Analysts (Information Creation):

- Create and manipulating new reports based on available data elements loaded from Colleague and other sources.
- Save and share newly created reports.

## 1. SOURCE SYSTEMS (COLLEAGUE, RECRUIT, ETC.)

**Source systems** store the data that is captured about the University and it's operations. These systems may be databases or mainframes, but they are optimized to process the recording of data. The Ellucian Colleague system is the primary data source for BI Reporting at American University.

### 2. EXTRACT, TRANSFORMATION, AND LOAD

Data is pulled from the source system(s) on a nightly basis to load into our reporting database. After being extracted, we also transform data from Colleague and other data sources to create additional information such as a student's Primary Academic Program or Retention Cohort.

### **3. ENTERPRISE DATA WAREHOUSE**

The extracted/transformed data is then loaded into the Enterprise Data Warehouse (EDW). This database holds all of the information available for BI reporting. This separate database allows IT to optimize it for reporting on larger data sets and isolates the impact of reporting on these larger data sets from the source operational systems.

# **ACCESS TO BI**

Access to Business Intelligence is determined by business need. All account or access requests should be submitted to the OIT Help Desk. Users should specify the reporting domain being requested as well as the school/university department to which he/she belongs. The OIT Help Desk will forward the request to the appropriate Data Custodian for approval. Once approved, the account is created and credentials are granted once this mandatory training is completed. Additional training is available depending on your access level.

## **RESPONSIBLE COMPUTING**

Everyone with access to American University data shares in the responsibility to protect and defend our academic, administrative, and financial information resources. American University adheres to the Principle of Least Privilege which provides the narrowest access needed to sensitive data to reduce risk to the university. American University Office of Information Technology offers extensive online training in Information Security Best Practices, and you are encouraged to email <u>CIO@american.edu</u> if you have any questions or concerns.

# **BUSINESS INTELLIGENCE TERMINOLOGY**

# Reports 💷 네 븚

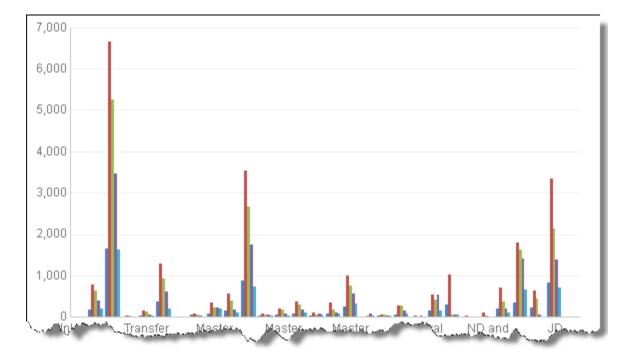
A report is a request for specific data that has a defined layout and format.

All of the information for a report can be predefined or you may be able to choose part or all of the content of a report. You can view report results either in grid or graph format. The following image shows an example of a grid report:

The following image shows a grid report:

Admit Category	Application Degree	Five Year Prior Term	2012F	2013F	2014F	2015F	2016F
			$\bigtriangledown$	$\sim$	$\sim$	$\sim$	$\sim$
Unknown	ALUM	Alumni Audit		4			
	BA	Bachelor of Arts	166	780	639	398	194
New Freshman	BACH	Bachelor's	1,645	6,644	5,241	3,466	1,621
	BS	Bachelor of Science	7	32	21	14	1
- Andra and A	BA	Bachelor of Astronomy	40	168		. 60	25

This image shows the same data as above displayed in a graph report:



## **Report Elements -**

### **Row and Column**

On a typical report, each **row** represents groupings by the values of different concepts, such Student, Course Section Name, GL Unit, and so on. MicroStrategy calls these concepts "**attributes**," because represent the many important characteristics of the university. While the rows represent concepts/groupings, the **columns** of a typical report represent calculations, such as Enrolled Credits or GL Amount. MicroStrategy calls these calculations "**metrics**."

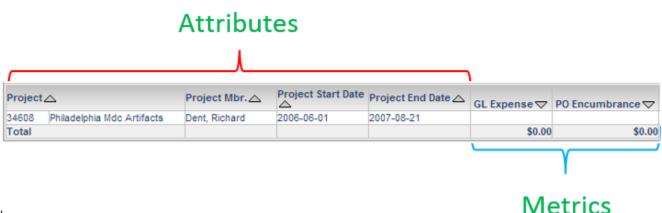
It can be useful to think of attributes as the nouns and metrics as the verbs. A student enrolls in a course section. A Project incurs an expense.

## Attribute 🥪

**Attributes** are the concepts/characteristics reflected in your stored data in your data source. **Attributes** provide a context in which to report on and analyze calculations.

## Metric 🚹

**Metrics** are MicroStrategy objects that represent counts, measurements, and key performance indicators. From a practical perspective, **metrics** are the calculations performed on data stored in your database, the results of which are displayed on a report. **Metrics** are similar to formulas in spreadsheet software.



#### I

## Filter 🧐

A **filter** is the part of a MicroStrategy report that screens data from the EDW to determine whether the data should be included in or excluded from the calculations of the report <u>results</u>. Filters are helpful in clarifying large quantities of data and only displaying <u>subsets</u> of that data, so reports show users what they really need to see.

For example, you want to view the *GL Expense* and *PO Encumbrance* amounts for *Project 34608* in *Fiscal Year 2017*. The report would need to be filtered by <u>GL Project = 34608</u> and <u>Fiscal Year = 2017</u>.

## Prompts 🕅

A **prompt** is a question the system presents to a user during report execution. How the user answers the question determines what data is displayed on the report when it is returned from your data source. Prompts may be used to create filters on a report, determine what attributes and metrics appear on a report, and/or both. Instructions for a given prompt will appear below the prompt title and will explain the effects of your selections. You may either click on the desired value and then the right pointing arrow or double-click your selection to add it to the Selected list. Required prompts are indicated by the word (Required) and must be answered before the report will run. Optional prompts may be left blank.

### Examples:

1. Select a value to filter report. A common report element prompt is the Academic Term.

3. Academic Term (Required)		X
Select 1 or more Academic Term.		
Search for:		
Available:	Selected:	
2017F	(none)	
♦ 2017X		
2017S	- <u>&gt;</u>	
♦ 2016F		
♦ 2016X		
2016S		
♦ 2015F	$\sim$	
A 2015Y A 1 - 30 of 34 ►		

### 2. Select attributes and/or metrics to include on the report.

1. Enrollment Report Objects (Required)	
Selects from relatable Enrollment Objects	
Available:	Selected:
Academic Year	
<ul> <li>Student</li> </ul>	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
Academic Program (All)	
<ul> <li>Academic Major (All)</li> </ul>	
<ul> <li>Student Enrollment Primary Academic Level</li> </ul>	
Student Enrollment Primary Department	>

### 3. Optionally, additional <u>filters</u> prompts present you with prompts to further restrict the report.

4. Student Search Filters for Origin Group		X
Select a combination of filters to qualify on the Origin Group.		
Available:	Selected:	
Y Academic Level (Primary Enrolled)	(none)	
▼ Academic Term for Initial Group		
▼ Academic Year		~
▼ Admit Degree Category		~
▼ Admit Status		
Y AU Abroad	$\sim$ $\ll$	
▼ Citizenshin		

# **REPORT TYPES**

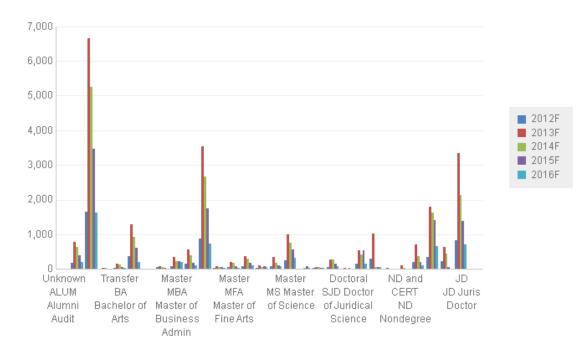
### Grids

A **grid** report is the most commonly used type of report. **Grid View** displays grid reports using a formatted, cross-tabular display of the report data. Most business intelligence analysis is performed using this view. The following figure displays the Grid View of a report.

Application Degree	Five Year Prior Term	2012F	2013F	2014F	2015F	2016F
$\bigtriangleup$		$\bigtriangledown$	$\sim$	$\sim$	$\sim$	$\sim$
ALUM	Alumni Audit		4			
BA	Bachelor of Arts	166	780	639	398	194
BACH	Bachelor's	1,645	6,644	5,241	3,466	1,621
BS	Bachelor of Science	7	32	21	14	1
BA AN A	Bachelor of Asternoo	<u>40</u>	168		. 60	25
	ALUM BA BACH BS	ALUM Alumni Audit BA Bachelor of Arts BACH Bachelor's BS Bachelor of Science BA Bachelor of Addition	ALUM     Alumni Audit       BA     Bachelor of Arts       BACH     Bachelor's       BS     Bachelor of Science	ALUM     Alumni Audit     4       BA     Bachelor of Arts     166     780       BACH     Bachelor's     1,645     6,644       BS     Bachelor of Science     7     32	ALUMAlumni AuditVVBABachelor of Arts166780639BACHBachelor's1,6456,6445,241BSBachelor of Science73221	ALUMAlumni AuditVVVBABachelor of Arts166780639398BACHBachelor's1,6456,6445,2413,466BSBachelor of Science7322114

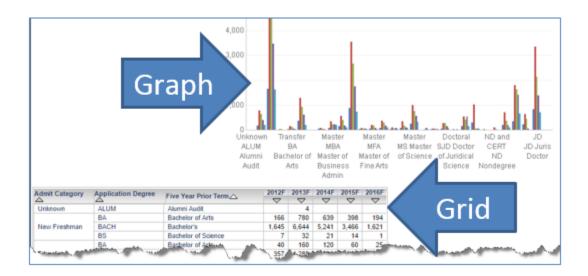
### Graphs

A **graph** report is representations of data in a visual format that can help you see overall trends easily, identify medians and exceptions, and so on. You display report data as a graph using **Graph View**. There are many different graph styles you can choose from to display your report data most effectively.



### Grids and Graphs combined

**Grid Graph View** is a combination display of the **Grid View** and the **Graph View** of a report, side by side. The following figure displays the **Grid Graph View** of a report.



### Document

A **document** is a more formatted report that may contain information from multiple grids. There is less interaction but the report results will be formatted in such a way to make it easier to print. A document may include several tabs.

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	Report Term Fall, 2016 Admission Statistics ata as of 08/07/2016 Admission Statistics															
		Fall, 2015 08/16/2015	Fall, 2016 08/07/2016	% Change	Fall, 2015 08/16/2015		% Change		Fall, 201 08/07/201	6 %	Fall, 2015	nrolled Fall, 2016 08/07/2016	% Change	Fall, 2015	nrolled Othe Fall, 2016 08/07/2016	r % Change
	CAS	7,053	8,640	22.5%	1,846	1,519	(17.7%)	482	470	(2.5%)	379	358	(5.5%)	40	27	(32.5%)
	KOGOD	2,437	2,909	19.4%	633	528	(16.6%)	189	188	(0.5%)	170	171	0.6%	30	41	36.7%
	SIS	2,969	2,994	0.8%	1,677	1,519	(9.4%)	586	503	(14.2%)	526	474	(9.9%)	38	64	68.4%
New Freshman	SOC	1,651	1,818	10.1%	589	487	(17.3%)	191	181	(5.2%)	168	158	(6.0%)	35	26	(25.7%)
	SPA	2,627	2,972	13.1%	1,125	956	(15.0%)	394	373	(5.3%)	333	309	(7.2%)	55	56	1.8%
	SPEXS	0	0		0	0		0	0		0	0		0	1	
	Total CAS	16,737	19,333 551	15.5%	5,870 388	5,009 302	(14.7%)	1,842 108	1,715 83	(6.9%)	1,576	1,470 60	(6.7%)	198	215	8.6%
	KOGOD	620 305	299	(11.1%) (2.0%)	388	302	(22.2%)	108	47	(23.1%) (19.0%)	61 42	35	(1.6%) (16.7%)	4	0	(100.0%) 25.0%
	SIS	230	190	(17.4%)	166	109	(22.3%)	56	29	(48.2%)	36	24	(33.3%)	4		(66.7%)
Transfer	515 50C	170	190	(17.4%)	98	90	(8.2%)	27	29	(40.2%)	19	13	(31.6%)	4	1	(75.0%)
	SPA	228	221	(3.1%)	155	123	(20.6%)	48	25	(47.9%)	23	13	(43.5%)	2	2	0.0%
			1,422	/	973	813	(16.4%)	297	205	(31.0%)	181	145	(19.9%)	-	9	(47.1%)
	Total															
	Total CAS	1,553 391	404	(8.4%)		, 286	4.4%	195	195	. 0.0%	45	35	(22.2%)	0	1	(4712.70

## Dashboard

A **dashboard** is an interactive report that may combine information from multiple grids and graphs. It is highly visual and is usually best viewed on-line. A dashboard may also include multiple tabs.



# **MICROSTRATEGY BI REPORTS**

### Overview:

- Navigate to the folder that contains the report you want to run.
- Click the name of the report to run the report.
- If the **Wait Page** appears as your report is executing, you can click **Add to my History List** to automatically save a copy of the report in your History List when the report is finished executing.
- If you are presented with a prompt question, you must answer the prompt(s) before the results of the report are displayed.
- After the report is displayed, you can interact with the report to change the sorting, filter the view, or change the display.

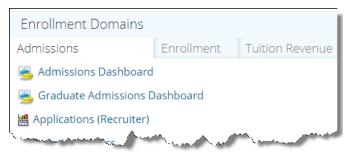
### **Technical Requirements:**

- Recommended Web browsers:
  - o Firefox
  - o Chrome

- 1. Log on to the myau.american.edu Portal, then expand the TECHNOLOGY link under Personalized links.
- 2. Select **Business Intelligence**. Access to view this link is restricted to those granted the security class. Contact the HelpDesk at x2550 for security class assistance.

MAIN MENU	^
TECHNOLOGY	~
Business Intelligence	
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3. The **BI Portal** will be customized based on the domains to which you have been granted access.



4. If you would like to see a complete list of applications and instructions for access, click the **OIT Business Intelligence link** at the top of the page, in the last sentence of the first paragraph.

a Business Intelligence - Hon	ne		
Recent			
Core Services		, ,	Intelligence Portal. From this page you
Business Intelligence			est. Available Information Products s, standard and ad hoc reporting and
EagleData Reports			plications and instructions on how to get
Web CMS (CommonSpot)	access to them please go t	to the OIT Business Intelligence	ste.
ERP (Colleague)	Enrollment Domain		-
Scheduling (Resource 25)		IS	
Web Bortal (ShareBoint)	Admissions	Enrollment	Tuition Revenue

- The available reporting applications have been organized by domain: Enrollment, Finance and Administration, Development and Alumni Relations, and Office of Information Technology. Click on the tab under the appropriate domain to access reports and folders.
- 6. Make a selection from your available options: dashboard, document, folder, etc.

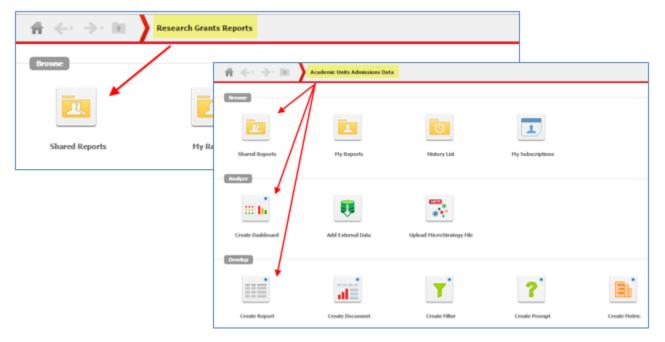


# ACCESS RIGHTS AND PRIVILEGES

### **IDENTIFYING ACCESS RIGHTS**

The folders, reports, and features you can access depend on the rights and privileges that have been granted to your account. You may have rights to access the **Research Grants and Reporting** Shared Reports folder but your privileges do not extend to running the **Overhead and Fringe** reports. Some users will have rights to create new reports while others will only be able to run existing reports.

- **PRIVILEGES** control what functionality in the MicroStrategy system the user has access to (i.e. run reports vs. create your own)
- **SECURITY FILTERS** control what data the user has access to (i.e. user may only access GL accounts to which the user has been granted access to in Colleague within the Budget and Financial Management reporting.)
- **PERMISSIONS** control to which objects (Attributes, Metrics, etc.) in the MicroStrategy system the user has access:
  - None (user may not run a report including that object)
  - Execute (user may run reports using these object)
  - Full Control (user may change these objects)).

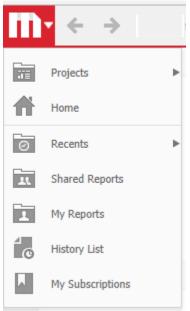


# **REPORTS**

Through Enterprise Reporting, you can analyze data using standard features such as page-by, pivot, sort, filter and drill up/down to flip through a series of report views. Massive amounts of operational data are organized into hierarchical categories that are fundamental to university operations. The reports feature easy page and section navigation, including labels, headers, footer and page break logic.

Each project that you log into in **BI** opens the project's **HOME** page, which provides links at the top of the page to different areas of the project. Click the **Microstrategy logo** to select from:

- **PROJECTS** all the domain folders you have rights to access
- **RECENTS** access any reports you have recently run within a particular BI application
- SHARED REPORTS a common report library for all users
- MY REPORTS each users' favorite reports
- HISTORY LIST stored reports that have been run on a schedule and delivered to the History List folder
- **MY SUBSCRIPTIONS** a list of scheduled reports, where you can manage subscriptions to scheduled reports



### SHARED REPORTS FOLDER

Selecting **Shared Reports** displays subfolders containing reports. Below each subfolder name is a description of the types of reports contained in the subfolder. *Note*: If you know the name of the report you are looking for and not the exact location, you may also use the search feature by either clicking the magnifying glass from the **NAVIGATION TOOLBAR** on the left or entering the name in the search box in the upper right of the Shared Reports page.

1. Click the name of a **subfolder** to display a list of the **reports**.

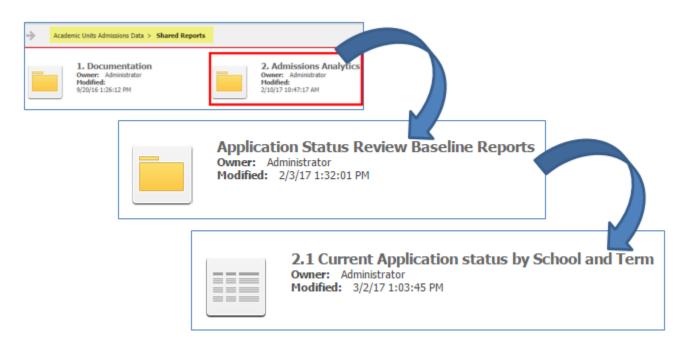
m	$\# \leftarrow \Rightarrow$	Shared Reports	
► ■ *		1. Documentation Owner: Administrator Modified: 9/20/16 1:26:12 PM	2. Admissions Analytics Owner: Administrator Modified: 2/10/17 10:47:17 AM
		3. Academic Units Specific Reports Owner: Administrator Modified: 5/18/17 12:40:29 PM	Office of Enrollment Analytics Owner: Administrator Modified: 4/25/17 10:42:26 AM
•		Search by AU Person Owner: Administrator Modified: 5/18/17 12:05:52 PM	

### **NAVIGATION TREE, LIST, ICON VIEWS**

- 1. To change the report list display, make a selection from the **NAVIGATION TOOLBAR**, located at the bottom of the left sidebar. Choose one of the following:
  - Show Navigation Tree
  - o List
  - o Icon

-	Name	Owner	Modified
*	1. Documentation	Administrator	9/20/16 1:26:12 PM
	2. Admissions Analytics	Administrator	2/10/17 10:47:17 A
	3. Academic Units Specific Reports	Administrator	5/18/17 12:40:29 P
	Office of Enrollment Analytics (Restricted)	Administrator	4/25/17 10:42:26 A
	Search by AU Person	Administrator	5/18/17 12:05:52 P

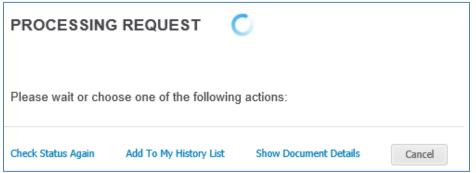
 To run a report, click the report name. For this example, select the 2. Admissions Analytics folder, then click Application Status Review Baseline Reports subfolder, and, then, click the 2.1 Current Application status by School and Term report.



2. Click the **RUN REPORT** button located in the lower left corner of the screen to run the report.



 If the report does not return immediately, a PROCESSING REQUEST page will appear. After refreshing the first time, a link will appear and the running report can be added to the history list to be viewed later. After adding a report to the history list, the user may then navigate away and run other reports if desired.



#### 4. After the report is run, it is displayed on the next screen.

		TOOLS									
	≁	<u> </u>			4 2 2						
EPORT DETA	ILS										1
port Filter:											
	m} wher	e ({Active	Academic Term	s Indicator} = 1)) And ({Current Application Indi	cator} = 1) And ({Application	Process Stage}	(DESC) <> "Pr	ospect") And ({A	pplication Status	s} ({Status Code	}) <> "P") 🍋
GE-BY: Ac	ademic <sup>-</sup>	Term:	all. 2013 🛛 🔻	School: SIS:Sch of International Service	•						
ac on the			-	Statistic Statistic of Incented on a Service							
		- 7		<b>1</b>							
		1			Application Process	Applied	Complete	Rejected	Withdrawn	Waitlisted	Accepte
andomia Laur			lian Dagrad A		Application Process	Applied AP	Complete CO	Rejected RE	Withdrawn WI	Waitlisted WL	Accepte AC
cademic Leve	el 🛆 🔺	Applicat	tion Degree 🛆	Academic Program		AP					AC 4
Continuing	el 🛆 🔸	Applicat	tion Degree (	Academic Program	Stage 🛆	AP Application	CO Application	RE Application	WI Application	WL Application	AC Application
Continuing			-	Intercultural Management Institute (IMI)	Stage Metrics	AP Application	CO Application	RE Application	WI Application	WL Application	AC Application
Continuing			-	Intercultural Management Institute (IMI) Noncredit	Stage Metrics	AP Application	CO Application	RE Application	WI Application	WL Application	AC Application
cademic Leve Continuing Education			-	Intercultural Management Institute (IMI) Noncredit The Americas (GR Cert)	StageMetrics NC.SIS:IMI CERT.GAMR	AP Application	CO Application	RE Application	WI Application	WL Application	AC 4
Continuing		NC	Noncredit	Intercultural Management Institute (IMI) Noncredit The Americas (GR Cert) Cross-Cultural Communication (GR Cert) International Economic Relations (GR	Stage Metrics NC.SIS:IMI CERT.GAMR CERT.GCCC	AP Application	CO Application	RE Application	WI Application	WL Application	
Continuing		NC	Noncredit	Intercultural Management Institute (IMI) Noncredit The Americas (GR Cert) Cross-Cultural Communication (GR Cert) International Economic Relations (GR Cert)	Stage         Metrics           NC.SIS:IMI         CERT.GAMR           CERT.GCCC         CERT.GIER	AP Application	CO Application	RE Application	WI Application	WL Application	AC 4

# USING THE TOOLBARS

- 1. To interact with the data, use the **MENUBAR** and/or **TOOLBAR** located above the report display.
- 2. Do one of the following:
  - Select the dropdown next to the **MENUBAR** name and choose an option.
  - Click the **MENUBAR** name to change the **TOOLBAR** and then select an option from the **TOOLBAR**.

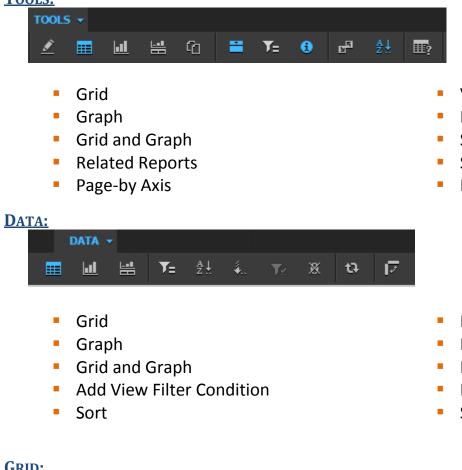
#### HOME:

REPORT HOME 👻						
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- Grid
- Graph
- Grid and Graph
- Add to History List
- Create Personal View
- Share

- Print
- Send Now
- Schedule to History List
- Export
- PDF
- Full Screen Mode

### **TOOLS:**



- **View Filter**
- **Report Details**
- Show Pivot Buttons
- Show Sort Buttons
- **Report Options**

## Drill

- **Filter on Selections**
- Hide Nulls/Zeros
- Refresh
- Swap Rows and Columns

## **<u>GRID:</u>**

GRID			
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<ul> <li>Grid</li> </ul>			Merge Column Headers
<ul> <li>Graph</li> </ul>			Merge Row Headers
Grid and Graph			Lock Row Headers
<ul> <li>Autostyles</li> </ul>			Lock Column Headers
Banding			Autofit to Contents
<ul> <li>Outline</li> </ul>			Autofit to Window

### MOUSEOVERS

MicroStrategy **BI** provides more information regarding icons and report elements through the use of mouseovers. Hover your mouse pointer over an icon or an attribute/metric name on a report and a short description will pop up if one has been created.

### PRINTING AND EXPORTING DATA

MicroStrategy BI allows you to easily export reports to Microsoft Excel and as an Adobe PDF file.



- 1. To export the report to Excel, click the **EXPORT TO EXCEL** button on the **Home Menu** toolbar.
- 2. Select the report formatting options, then, click the EXPORT button .

3.04 Single Project detailed GL expense (page by object)						
Export: Whole report	Export Header and Footer: Edit Custom Settings					
	Excel options:					
<ul> <li>Excel with plain text</li> <li>CSV file format</li> </ul>	Export metric values as text					
O Excel with formatting	Export headers as text					
O HTML	Excel with formatting options:					
○ Plain text Delimiter: Comma ∨	Place each page on a separate sheet					
	✓ Embed all images					
✓ Export Report Title	Allow MicroStrategy Office to refresh Report after exporting					
<ul> <li>Export Page-By Information</li> </ul>						
Export filter details						
Remove extra column: Automatic 🗸						
Expand all page-by fields						

- 3. To export the report to a PDF, click the **EXPORT TO PDF** button on the **Home Menu** toolbar . You can also click the **PRINTER** icon which displays the same **Options dialog box** as the **PDF icon**.
- 4. Select the report formatting options, then click the EXPORT button .

3.04 Single Project detailed GL expense (page by object)								
Export: Whole report	Page Header and Footer: Edit Custom Settings							
Scaling: O Adjust font to 100 % of original size	Report Header: Edit Custom Settings							
O Fit to: 1 page(s) wide by 1 tall	Print cover page							
Orientation:	<ul> <li>With Filter Details</li> </ul>							
● Portrait	O With Report Details							
🔿 Landscape 📄	Cover page location:							
	Before report							
Expand all page-by fields	○ After report							
Show advanced options								

5. You can also choose to run the report directly into a **PDF** or **Excel** by selecting these options under the report description.

3.1 Freshman applicants by Department/Major (for single Term,
single School) Owner: Administrator Modified: 10/26/12 9:18:51 AM The report is showing # from Application Status (Admit, Application, Deposit, Spring Admit, WA, and Denial) in single Term and School Edit Subscriptions Send Now Export PDE

## FILTER DATA SHOWN

MicroStrategy **BI** provides a few ways in which you can limit what data is shown on the screen for a report.

- A report may already have included PAGE-BY fields or you can add them yourself. If there are no fields in the PAGE-BY section, you can enable it by clicking on the Page-By option under TOOLS. Any attributes can be pulled into the PAGE-BY section. Select an attribute value from the list and only rows with those values will be shown on the screen.
- 2. You can also add a VIEW FILTER to the report. Click on the VIEW FILTER option on the TOOLS menu. Select one of the report elements from the drop-down presented. You can then build your filter on values of those report elements. Remember to click Apply to restrict your view of the report. You can add multiple view filters to one report. Click Clear All in the VIEW FILTER section to remove all view filters.

### SORT THE DATA

MicroStrategy **BI** provides the ability to change the way that a report is sorted in your display.

- 1. From the **TOOLS** menu, select **Show Sort Buttons** to add sort buttons to the report elements. You can click them to sort by that value up or down.
- 2. From the DATA menu, select the Sort option to sort by one or more different report elements.

### VISUALIZE THE DATA

MicroStrategy BI provides the ability to change the way that a report is displayed.

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Application Process :						-			
	Applied	Complete		s StageZ	<u> </u>				
Academic Program 🛆	Current	Current				N	App	lied	Complete
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Applied Statistics							-		0
Asian Studies		1	· ·	CERT	.GAM			1	3
Bilingual Education		-		CERT	.GAS				
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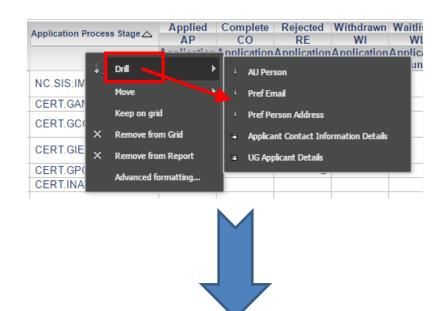
- 1. You can improve the readability of the data by adding **BANDS** to the data.
- 2. MicroStrategy automatically groups like attribute values in the rows so that you only see a single value for attributes. For some reports, it may be better to see all of the repeating values. From the GRID menu, de-select the Merge Row Headers option. This will show all values for the attributes in the grid.

### **DRILL THROUGH THE DATA**

**Drilling** provides a view into the details of the report's data. When data is organized hierarchically in a storage system, the data can be displayed at a high, summarized level, and areas of interest can be investigated all the way down to a low, detailed level.

Drilling allows users to change the initial report definition dynamically without having to design and store the new reports beforehand.

- 1. Some reports already have drills to different reports or additional values. If an attribute or metric value is underlined, you should be able to click it and be taken to either a more detailed report or add additional report elements to the report you are viewing.
- 2. In the GRID report, right-click on any column or row heading and select DRILL.



UG Applicant 🛆		Schoo	л	Department	Application Degree	Academic Program∠	Admit Level	Application Status
	Jill	SIS	Sch of International Service	82501	NC	NC.SIS:IMI	UNK	MS
	Eric	SIS	Sch of International Service	82501	BACH	INT.BACH.INST	хт	D
	Магу	SIS	Sch of International Service	82501	MA	MA.INAF:USFP	м	MS
	Michelle	SIS	Sch of International Service	82501	MIS	MIS.INSV	UNK	MS
	Martin	sis	Sch of International	82501		MISIN	M	PL .

### **USING THE HISTORY LIST**

The **HISTORY LIST** is a tool that allows you to view previously run reports. Reports are not added to the list automatically, but may be added manually or subscribed on a pre-determined schedule. Once you have subscribed to a report, the results will run automatically and will be <u>saved</u> in the History List.

I	REPORT HOME 🔻	TOOLS 👻	DA
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~	Grid		
	Graph		9
	Grid and Graph		
	Add to History List		
	Create Personal Vie	ew	
	Share		
	Send Now		
	Subscribe to		
	Export		Þ
	Print		
	Full Screen Mode		

If you have **RUN** a report you would like to have sent to your **History List**, you may add the report while it is running from the **PROCESSING REQUEST** page or using the **Add to History List** option on the **REPORT HOME** menu.
 If a report is <u>not prompted</u> or has <u>default answers selected</u>, you can subscribe to have the report delivered to your history list on a regular basis.

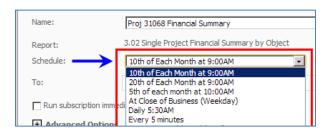
• Click the dropdown arrow next to **HOME**, click **SUBSCRIBE TO**, slowly move mouse to the right and select **HISTORY LIST**.

3. In the dialog box that opens, set the following:

**REPORT NAME**: You can edit the report name to a more descriptive name.

Subscribe to History Lis	đ	Name:	Dest 21050 Steep risk Granese
You have 0 subscription(s) t	o this report.	Name.	Proj 31068 Financial Summary
History List Subscr	iption		
Name:	3.02 Single Project Financial Summary by Object 8/1/13 9:58:01 AM		

*SCHEDULE*: The report will automatically run on the scheduled date you select from the dropdown.



*TO*: By default, your email address will receive notification that the report has been run and is available for you to view in your **HISTORY LIST**. To email a <u>notification</u> to another address letting that person know that the report has been run, click the *Send to a New Address* link at the bottom of the dialog box. This option DOES NOT send the report to that person...only notification that the report is waiting in your History List!

Schedule:	5th of each month at 10:00AM
To:	🔒 sbarron
🗖 Run subscription imme	ediately
+ Advanced Options	
Delivery Notification	ı
Send notification to	ema address:
To: sbarron 💌	<b>*</b>
Send to a new addre	SS

*RUN SUBSCRIPTION IMMEDIATELY*: Check this box if, after clicking OK to close the dialog box, you want the report to run now instead of waiting until the Scheduled Date. The report will still run on the scheduled date in addition to being immediately run.



*ADVANCED OPTIONS*: If you want <u>only</u> the new copy of the report when it is run (ie. the 5<sup>th</sup> of next month) and the older copy <u>deleted</u>, check the box next to **The new scheduled report will overwrite...** If the report does not need to be run after a particular date (ie. end of fiscal year), check the box next to **Da** 

If the report does not need to be run after a particular date (ie. end of fiscal year), check the box next to **Do not deliver after** and select a date from the calendar picker dropdown.



Click **OK** to save your settings.

### View the Report from your History List:

• **EMAIL NOTIFICATION** that the report has run and is saved to your History List:

MicroStrategy Success, History List delivery notification: Report - 3.02 Single Project Financial Summary by Distribution Object Services		
Misro Otrotogy Ipp Mishooot Inject Dig Date in a your Cornerate DNA	00/04/2042 40:45 AM	401/
Success, History List delivery notification: Report - 3.02 Single Project Fin Object	nancial Summary b	y
MicroStrategy Distribution Services	08/01/201	13 10:29 AM
To: sbarron Please respond to "MicroStrategy Distribution Services"	<u>8</u>	Show Details
Dear sbarron:		
The following History List delivery was successful. Delivery/update and destination information: Run at: 8/1/2013 10:28:52 AM		
Subscription Information		
Subscription Name: Project 31068 Financial Summary Created by: sbarron		
Report/Document name: 3.02 Single Project Financial Summary by Object		
Project name: Research Grants Reports		
Schedule: Immediate Delivery		
Link to history list		

- LOGIN to BI Reporting, select a **PROJECT FOLDER** (ie. Graduate Admissions), click the **MicroStrategy M** from the upper left corner and select **HISTORY LIST**.
- **CHOOSE** one of the following: export the report into Excel, view the report in Adobe Reader as a .PDF, rename the report, or to delete the report from this list, click the Remove checkbox.

m	÷	→	Academic Units Admissions Data > History List				C,
•		Name		Status	Message Creation Time 🔻	Actions	Remove
4	26	2.1 Cur	rent Application status by School and Term 6/2/17 3:54:59 PM	Ready	7/10/17 9:00:18 AM	🗎 🔁 🚯 ab	

• To **REMOVE** the subscription (stops the subscription, does not delete the report), choose **MY SUBSCRIPTIONS**, checkmark the box under **Unsubscribe** and, then, click the **UNSUBSCRIBE button**.

- 1. **RUN** the report. Note: The report <u>must not be prompted</u> or the report <u>must have default answers</u> selected in order to be used as a subscription.
- 2. Click the dropdown arrow next to **HOME**, click **SUBSCRIBE TO**, slowly move mouse to the right and select **E-MAIL**.

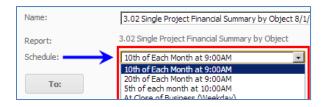
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	Subscribe to			Þ	Histor	y Lis	:t
	Export				E-mai	I	
	Print				File		
	Full Screen Mode				Printe	r	
	ruii screen Mode				FTP		
1					Cache	e Upo	date

3. In the dialog box that opens, set the following:

**REPORT NAME**: The report name can be edited to a more descriptive name.

Subscribe to History List			Name:	Proj 31068 Financial Summary
You have 0 <u>subscription(s)</u> to this report.			Name.	
History List Subscription				
Name:	3.02 Single Project Financial Summary by Object 8/1/13 9:58:01 AM			

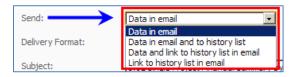
*SCHEDULE*: The report will automatically run on the scheduled date selected from the dropdown.



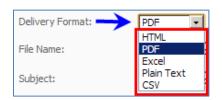
*TO*: Click the **TO button** to open the *Recipients Browser* dialog box. Select an email address to send the report to by clicking the **ADD TO SELECTIONS arrow** to move one or more recipients from the **Available list** on the left to the **To list** on the right. If you do not see the correct email address to use, type a *name* to refer to the email address in the **ADDRESS NAME** field and type the *email address* in the **PHYSICAL ADDRESS** field. Click **ADD TO RECIPIENTS** to add the address. Click **OK** to close the dialog box.

Recipients Browser	X
Available: To:	Available: To:
Address Name Physical Address Device Pam Tyler tyler @american.edu Generic email	sbarron sbarron
Add To Recipients	

SEND: Specify how the report or document is included in the email.



**DELIVERY FORMAT**: Select the format in which to send the report or document. When **Excel** or **PDF** is chosen, the report is included as an <u>attachment</u> in the email.



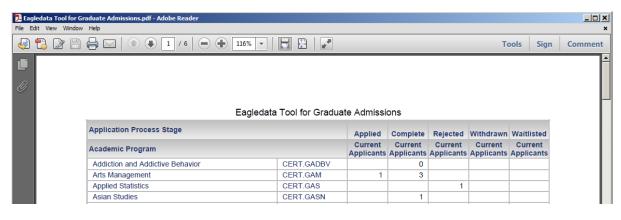
Click **OK** to save your settings.

**NOTE**: If you are subscribing other people to the report, the recipient will receive the email from the system as *AU Business Intelligence*. If the recipient replies to that email, it will come back to the IT department as a helpdesk ticket. Generally, we will forward along any personal responses, but in some situations it may be better to export a report and email it manually. This is especially true if you expect the report to generate an email conversation.

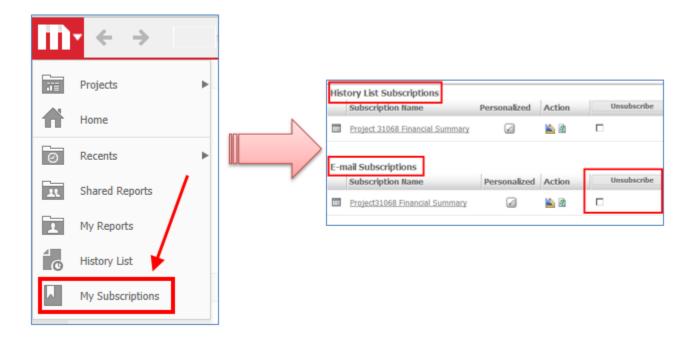
### **View the Report:**

• **EMAIL NOTIFICATION** that the report has run and is included as an attachment in the email:





• To **REMOVE** the subscription (stops the email, does not delete the report), choose **MY SUBSCRIPTIONS**, checkmark the box under **Unsubscribe** and, then, click the **UNSUBSCRIBE button**.



# GETTING HELP

For additional assistance, please contact the **OFFICE OF INFORMATION TECHNOLOGY HELP DESK**:

- <u>helpdesk@american.edu</u>
- 202-885-2550
- AskAmericanUHelp
- <u>http://help.american.edu</u>