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Welcome to the new IEEE OU Analytics

This training guide will assist you in becoming familiar with the new tool being transitioned for both IEEE Volunteers and Staff through easy access Dashboards.

SAMIIEEE will be transitioning from the current OBIEE to Tableau. For a short time during this period, both systems will be running concurrently. An announcement will be made before OBIEE is no longer available.

What’s changed: Volunteers no longer required to run queries. Data provided via various visualizations which link to member details.
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What is Tableau

- Tableau is an Online Business Analytics program that allows users to view and further define visualizations based on IEEE data.
- Tableau will use the same data sources used by SAMIEEE/OBIEE allowing for easy interaction with IEEE member and product data.
- This training will show users how to access and interact with the pre-created dashboards developed.
- Access to the new Dashboards continues to be based on the volunteers’ position and OU. For a list of volunteer positions, go to:  [http://www.ieee.org/about/volunteers/samieee/samieee_positions.html](http://www.ieee.org/about/volunteers/samieee/samieee_positions.html) (Access is restricted and user will only obtain data for their OU unit(s) and position level.)
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Tableau Content

- Content is organized into three levels – projects, workbooks and views. Data available for volunteers is in Workbooks and Views.
  - Workbooks contain one or more dashboards.
  - Views contain visualizations of data including graphs, charts and tables that the users can interact with to display the information in different ways.
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How to access the new tool

- Volunteers can access the new Dashboard Landing Page at:
  https://tblanalytics.ieee.org/#/site/IEEE/views/LandingPage_0/LandingPage?:iid=1
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How to navigate the new Landing Page

- **Members and Affiliates** – provides an overview of the geographic organizational unit (OU) and members. *This area would be most useful for Geographic Units such as Regions, Councils, Sections and Subsections* to view information regarding their IEEE members.

- **Memberships, Subscriptions and More ...** provides information regarding memberships, subscriptions, and participations by region, grade, gender, years of service and renewal category. *This area would be most useful for society, council, community and affinity group users to find their members.* Societies and Geo Units can also view information regarding renewals and years of service for their members.

- **Students** – provides an overview of attending students (all grades) by OU and School.

- **Doublet** – provides a view of overlapping memberships for OU’s.

- **Volunteer Positions** – lists of current OU volunteers including volunteer history.

- **Map** – coming soon
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How to navigate the new dashboards

- On the dashboard pages (example: “Members and Affiliates” link.) users will see . . .
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Navigating the Dashboards . . .

- The breadcrumb bar appears at the top left of the screen and provides the navigation path. Clicking within the breadcrumb allows you to navigate back to a prior screen.

- Most dashboard views contain several visualizations of data including information such as Count by Region, Grade, Gender, Product type or name, and Renewals with a link to Member Details.

- Each display is interactive and allows you to see more, less or different information by using drop-down filters, hovering over, or clicking on chart elements.

- Drop-down filter options vary depending on the content in the dashboard. Use drop-down filters to modify the results displayed in all the visualizations for that dashboard.
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Navigating the Dashboards . . .

- To filter data using the drop-down menu
  - Click on the desired drop-down filter
  - Click **All** to deselect all filters
  - Click items you want to filter on (ex. Regions 2, 4, 6)
  - Click on **Apply** and then click on any white space to close the filter box.
Interacting with Content – Filtering Within a Visualization

- In addition to drop-down filters, users can filter data directly from the visualization.
- Click on the data point on the chart you wish to explore. The selected data area will open and will be automatically filtered. (Example: on the “Count by Grade” pie chart in “Memberships, Subscriptions, and More – click on the GSM slice. You will see only GSM’s displayed on the chart and counts in the table also reflect GSM’s only.
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Navigating the Dashboards . . .

- **Tool Tip:** Provides another option for filtering visualizations. Click on the data point and then hover over the filtered area. A tool tip will appear and you can choose one of the following:
  - **Keep only** – keeps the selected data in the view, all other data will be removed.
  - **Exclude** – excludes the data from the view, all other data will be retained.
  - **View Detail** – launches Detail View, which provides a list of the chosen data with detail information.

- To clear the filter in the Tool Tip, click “Undo” at the top of the page and then click within white space to return the visualization to its original display.
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Navigating the Dashboards . . .

- Various visualizations provide an option to expand or collapse columns. This can be done before or after applying filters.
  - Example: The “Renewal Category by Region by Grade” tab in the Memberships, Subscriptions, and More Dashboard allows for the expansion of the “Region” column to display counts by GeoCouncil and Section within the Summary by Product by Region visualization.
Expanding or Collapsing Columns: Hover over column headings of a data table to see the expand and collapse buttons, if available.

- Click the plus sign to expand the column
- Click the minus sign to collapse the column; the plus sign will then appear
- Click Revert button to return to where you started.
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Navigating the Dashboards . . .

- **Undo changes**
  - Use the **Undo** button to reverse back through the changes you’ve made to the view. It will remember each step and undo one at a time.

- **Revert**
  - Use the **Revert** button to restore filters to original view maintained on dashboard. This action reverts all dashboards to original view and removes all changes/selections made to filters.
Tableau provides many tools for displaying, filtering, and manipulating data. However, if you need to download, there are several options found under the Download button.

To download the data for a pie chart, for example, click on the title of the pie chart. Then click on the **Download button** on the top right of the screen. The following options will appear:

- **Image** – downloads the image on your screen to a png file.
- **Data** – (not recommended) downloads the data to a csv file. This option requires multiple steps for downloading to a text file and does not retain format.
- **Crosstab** – (recommended download option) downloads the data to a csv file.
- **PDF** – downloads the image on the screen to a PDF file.

Important note, if you do not select the title of the visualization before clicking Download, the data and crosstab options will be grayed out.
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**Downloading Data**

- **Examples:**
  - **Crosstab:** Data downloaded from Pie Chart View.
  - **Data:** Data downloaded from Table View will first display a screen titled Summary. Click on the link “Download all rows as a text file” to download into a csv file.
  - When completed, it will download a csv file.
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Now for a closer look at the individual dashboards
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Members and Affiliates Dashboard

- The Members and Affiliates Dashboard provides an overview of IEEE members, society affiliates, and SA members by their geographic organizational units.
- An overview count of members by Region, Council, Section and Subsection is available.
- There are multiple visualizations:
  - Table of Count by Grade
  - Pie chart of Count by Gender
  - Bar graph for Count by Technology Focus Area
  - Bar graph for Count by Grade and Gender
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Members and Affiliates - Dashboard

- There are two tabs available.
  - Dashboard – shows the predefined tables and charts available for a breakdown view of your members.
  - Detail – contains the individual member information. Access the member information by clicking on “View Details” in Tool Tips or clicking on “Detail” tab.
    - Detail shows member contact information.
    - Download contains additional fields depending on dashboard.
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Members and Affiliates - Dashboard

- **Count by Region and Grade**
  - The data table is grouped by Region, Council and Section. If you have a Subsection, breakdown can be expanded by clicking on the expand button located in the middle of the Section column title.

  ![Region Council Section Grade Category](image)

  - Users can filter their view by Region, Grade and IEEE Status.

  - Views may display other Regions/Sections. These other geographic areas displayed represent the preferred address (e.g. home) of students attending school in your Region/Section. For example, a Connecticut section chair will see the Santa Clara Valley Section displayed because of a student attending the University of Connecticut (in Connecticut Section) who resides in the Santa Clara Valley Section.
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Members and Affiliates - Dashboard

- To further define your view to a specific section, click your cursor on the Section name. The view will appear highlighted in blue.

- Click on Revert or white space on page to remove the view.
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Members and Affiliates - Dashboard

- Hover over any visualization to display a Tool Tip. The tool tip gives further statistical information regarding that specific count or visualization.

- To lock in a detailed view, such as your Section members only, click on the Section name in the table, hover over column and a tool tip will appear. Select “Keep Only” and this view will be locked. When locked, this selection will carry throughout other visualizations.
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Members and Affiliates - Dashboard

- Within the tool tip, user can also select “View Details” This brings you to the Details View which will only include the member records for the selected data. Download by clicking in the data table header (grayed out area) and then clicking on download on the top right of screen. Download may include additional member details.

- **Count by Gender** (pie chart) – will display all results or results based on filter and/or further definitions.

- **Count by Technology Focus** (bar graph) – will display all results broken down by the 16 Technology Focus Areas. Results based on filter and/or further definitions.

- **Count by Grade and Gender** (bar graph) – will display Gender breakdown (bar) by Grade. Results based on filter and/or further definitions.
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Students - Dashboard

- The Student Dashboard provides information regarding members (any grade) attending educational institutions. Information is grouped by Region, Section and School.

- There are two dashboard tabs available:
  - Dashboard – shows the predefined tables and visualizations available for a breakdown view by School, Grade, Gender and Field of Study.
  - Detail – contains the individual member information. When selecting a count, specific filters, using “Keep only” in Tool Tip, or selecting a slice of a pie chart or bar chart, Detail will display ONLY those records.

- Top level filtering is on Region, Grade and IEEE Status.
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*Students - Dashboard*

- **Student Count by Section and School** *(bar chart table)* – Displays total count of attending students (any member grade), by School’s Section and School Name. Click on the school name or the count of students to obtain specific list.
  - Sections may also view schools that are not a part of their OU. These schools contain attending students (any member grade) whose preferred address is in your Section view.

- **Student Count by Grade** *(table)* – Displays attending students (any member grade) by region, council and section.
  - Sections may also view other sections of attending students (any member grade) who are enrolled in a school in your section but whose preferred address is in another Section.
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Students - Dashboard

- **Student Count by Gender** (pie chart) - displays results based on filter, if applicable, and/or further definitions.

- **Student Count by Grade** (data table) – displays breakdown by School and Grade. Chart columns can be expanded or collapsed by using the expand buttons over the Region, Council and Section columns. Table will display results based on filter and/or further definitions.

- **Student Count by Field of Study** (bar chart) – displays count of members by Field of Study selected on member records.

- **Student View** – Please note – for a Section volunteer – user may view schools that are not part of their OU. These are members that go to a school outside of your Section, but still report their preferred address as their home. This places them in your Section view.
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Volunteer Positions - Dashboard

- The Volunteers Dashboard has two tabs and one link available.

- **Volunteer Positions** – lists “all” current IEEE volunteer positions. Use filter options to select a specific OU type and OU Name. Example: select Section as Type and then select a Section Name. List contains all volunteer positions (including vacant) on the Section Level. Filter/search can also be used on Last Name field to find a specific volunteer.
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Volunteer Positions - Dashboard

- **Volunteer Positions in Related Organizational Units** – select OU Type and OU Name to view all related volunteer positions. Example: select Section as Type and then select a Section Name. List will contain all Affinity, Chapter, Student Branch, etc. volunteers under that Section.

- **View Volunteer History** (link) - provides a list of all “past” volunteer positions recorded in the IEEE database. Define search using the OU Type and OU Name filters. Search on the last name to find a specific individual. Example: Select Affinity as OU Type and a specific OU Group (Dallas Section Affinity Group, WIE) and apply. Results will display all volunteers holding past positions for that group.
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Volunteer Positions - Dashboard

- Two pie charts are also available:
  - **Volunteer Count by Gender** – will display visualization based on filters selected.
  - **Positions Vacant or Filled** – will display count of positions vacant or filled based on filters selected. Further statistical information is available using the Tool Tip on the selected slice of the pie.

- Download selection by clicking in the data table header (grayed out area) and then click on Download on the top right of screen.
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*Memberships, Subscriptions, and More... - Dashboard*

- Membership, Subscriptions, and More... Dashboard provides information for memberships, subscriptions and participations by region, grade, gender, years of service, and renewal category.

- Society, Council, Community, Chapter and Affinity Group users access information for their specific group using filter options available. Filter by Product Type (memberships, councils, periodicals, etc.), Product Name (selection viewed is based on product type chosen), Region, Grade, and Status.
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Memberships, Subscriptions, and More... - Dashboard

There are five (5) tab options available:
- Product Dashboard
- Product Summary by Region by Grade
- Renewal Category Dashboard
- Renewal Summary by Region by Grade
- Detail

Product Dashboard – contains four (4) visualizations.
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Memberships, Subscriptions, and More... - Dashboard

- **Summary by Product by Region** (data table) – provides a summary of product selected, using Filters. For example, Product Type Memberships is preselected; select Product Name (e.g. a specific Society or Affinity Group Membership). Affinity groups include Consultants Network, WIE, and YP). Click apply and view the total membership count. Hover over count to view tool tips with statistical information. Click View Details to view individual member information.

- **Count by Grade** (pie chart) – provides count of members by grade. You can modify results through Filters or clicking within visualizations. Hover over pie slices to view tool tip with statistical information. Click on a grade slice within pie to select a specific grade. Click View Details to view individual member information.
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Memberships, Subscriptions, and More… - Dashboard

- **Count by Gender** (pie chart) – provides count of members by gender. Hover over pie slices to view tool tip with statistical information regarding gender count. Click on a gender slice within pie to select gender type. Click View Details to view individual member information for selection.

- **Count by Grade and Years of Service** (bar chart) – Chart displays count of members by grade and years of service. Hover over chart to view tool tip with statistical information for a specific grade and year(s) selected or use Filters. To obtain member detail, click on a specific grade within bar chart, hover over to view Tool Tip and click. Select View Details. You can also click on the Years of Service count to View Details for a full list of members by grade for those “Years of Service”.

- **Note for Joint Chapter Chairs**: Membership counts displayed may contain duplicates due to members belonging to more than one society. Pie charts (Grade and Gender) provide unique member counts.
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Memberships, Subscriptions, and More... - Dashboard

- **Product Summary by Region, by Grade** – provides a data table to view counts by grade for memberships, communities, councils, online libraries and periodicals. Filter down by Product Type (Memberships is preselected), Product Name, Region, Grade and Status.
  - Region can be expanded to include counts by Section and Subsection by selecting the “expand” button on the Region field title.
  - Hover over counts to view tool tips with statistical information. Click View Details to view individual member information.
  - To download, click on table title, click on Download on the top right of screen. Download to Crosstab. Download will provide additional detail information for the members selected.
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Memberships, Subscriptions, and More... - Dashboard

- **Renewal Category Dashboard** – provides product renewal information based on filters selected. Renewal categories provided are: Renew, First Year Renewed, New, Reinstated, Not Yet Renewed and Cancelled.

- Filters provided are Product Type, Product Name, Region, Grade, and Status.
  - **Overview of Product Renewals** (bar chart) – provides a breakdown by renewal categories. Hover over to view additional statistical information. Click within bar chart and Click View Details to view individual member information.
  - **Product Summary by Region by Renewal Category** (data table) – provides a count of members by Region by Renewal Category. Expand Region to view counts by Section and Subsection by selecting the “expand” button on the Region field title. Hover over counts to view additional statistical information and Click View Details to view individual member information.
  - **Recommendation:** Downloading Column and Row Totals default to “Grand Total” counts, which can be significant and provide excess data. Use Filters to refine data per OU.
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Memberships, Subscriptions, and More... - Dashboard

- **Renewal Summary by Region by Grade** – provides a data table containing counts by renewal category. It is further defined by Grade.

- Filters provided are Product Type, Product Name, Region, Grade, Renewal Category and Status.
  - Hover over the Region header to expand view to include Section and Subsection.
  - Hover over counts to view tool tips with statistical information.
  - Click View Details to view individual member information. Download details for additional member information that displayed in view.
  - Recommendation: Downloading Column and Row Totals default to “Grand Total” counts, which can be significant and provide excess data. Use Filters to refine data per OU.
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*Memberships, Subscriptions, and More... - Dashboard*

- **Detail View** – provides details of the members/participants for memberships, communities, councils, online libraries and periodicals.

- Refine data using filters available (Product Type, Product Name, Region, Grade, Status, Gender, Years of Service and Renewal Category).

- Table includes breakdown by Region and Section.

- Other than member details displayed, there are additional member details available in download option.

- To download full list, click on table title line (gray shaded). Then select Download on top right of screen, and select download to Crosstab.
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**Doublet - Dashboard**

- The **Doublet Dashboard** only contains one view. It provides counts of overlapping memberships between IEEE, Societies, IEEE Affinity Groups and Standards Association.

- The table uses two filters:
  - Select Primary Membership(s)
  - Select Secondary Membership(s)
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*Doublet - Dashboard*

- Select your Primary Membership from the list, click Apply. Then select your Secondary Membership, click Apply. The chart will produce the count of overlapping memberships without duplication.

- Example: Select IEEE Computer Society Membership for your Primary and then IEEE Women in Engineering Membership as your secondary. Results will show how many of your members belong to BOTH societies (and possibly others).

- Download is only available for the table, as is – counts only. Viewing Member Details is not available.
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Save and Manage a “View”

- Users have the option to save a frequently used “View”. When setting up a specific filter, a user can save and name a view to be pulled up as needed. View pertains to “only the Dashboard it is created on.”

- In this example, in Memberships, Subscriptions, and More – Product Summary, a filter has been set for YP’s, Region 1, Status Active and Inactive – Section field opened.
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Save and Manage a “View”

- Click on “Original View” located on the upper right side of screen.

- In the “Name this view” field, type in the name you would like to save this view as.

- If you wish to open to that specific view each time you open this dashboard, select “Make it my default”.

- Click on Save
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Save and Manage a “View”

- The view marked as “Default” will show on the View Area.

- To change, click on the view title and in the My Views or Other Views areas – select Original view or any other view title available – click on title to select.

- To Manage (rename or delete), click on Views and then select “Manage.” Make changes and when completed, click on Done.
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Questions & Assistance

- If you have any questions regarding the new tool or need further assistance send an email to samieee@ieee.org
- Here are additional contacts:

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