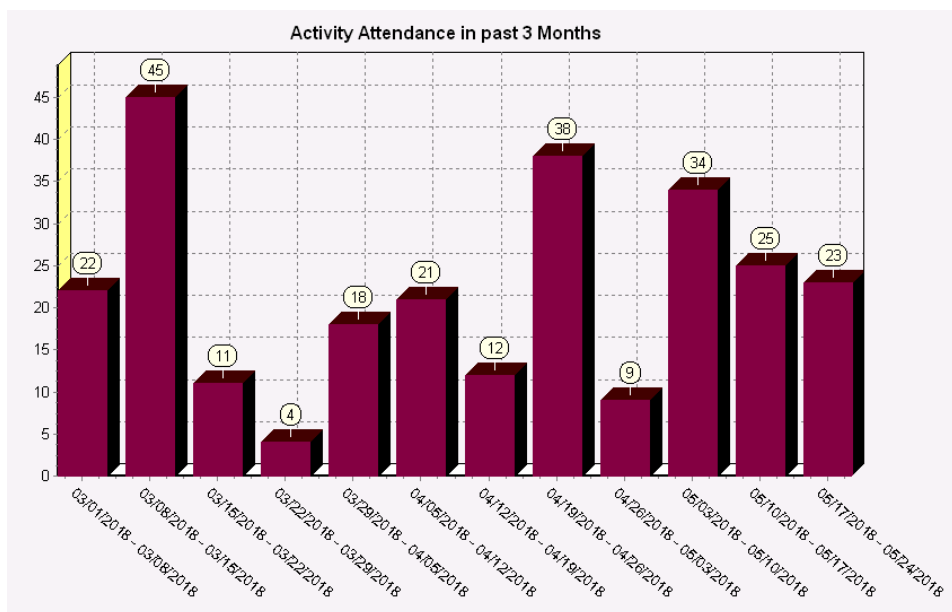# Report Maker - Graphs

Graph fields pull data entered into the chart. Graph fields are formatted to illustrate 2 dimensional and 3 dimensional line, bar and pie graphs. Under report Options the report type must be set to Graph for printing graphs. The Graph tab defines the field.

Bar Graphs

This is the most common graph type and is a good choice for comparing multiple data elements across time.
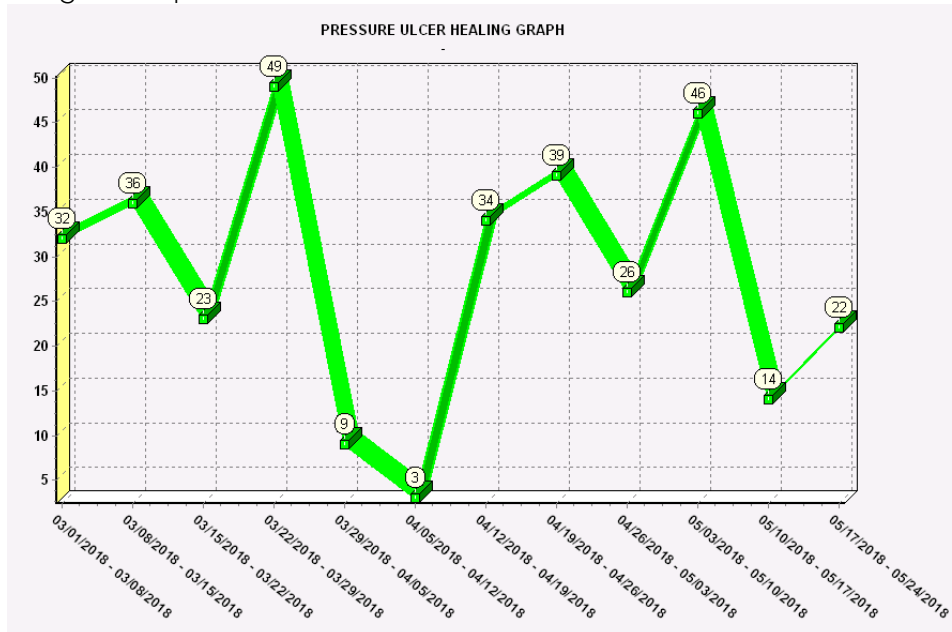

Example

The facility has implemented new menus and dining procedures, and would like to track the number of occurrences of meal intake < 75% over time compared to 75% or more over time.

1. Access the Report Maker and create a Graph report template:

   - Click **American Data > ECS** and follow the path **Setup > Report > Report Maker**.
   - Select the **Options** icon . Select the **Multiple Clients per Report** checkbox and the Report Type of Graph. Also consider making the report Landscape orientation if you are graphing many elements or many time increments.

2. Add the first element you want to graph (Meals <75%):

   - Click on the **Add Field** icon .
   - Select graph and click **OK**.
   - Select Bar (the default) and click **OK**.
   - In the Elements area, click **Add**. Enter the element name ("<75%") and click **OK**.
   - In Element Properties, select the **Show Labels** checkbox.

- In the Words area, click Add > CNA/Breakfast > and select the words for 50%, 25%, and 0%, then click **OK**.
- In Based on, keep the **Entry Date** option selected.
- In Include, select the **Current Entries** checkbox.
- In Other, select the **Word** checkbox.
3. Add the second element:
- In the Elements area, click **Add**. Enter the element name ("75-100%") and click **OK**.
- In Element Properties, select the **Show Labels** checkbox.
- In the Words area, click Add > CNA/Breakfast > and select the words for 100% and 75%, then click **OK**. Repeat for Lunch and Dinner.
- In Based on, keep the Entry Date option selected.
- In Include, select the **Current Entries** checkbox.
- In Other, select the **Word** checkbox.
4. Select the Element Settings:
- How much time will the graph cover (e.g., 3 months, 6 months, 12 months)? For this example, we will set the graph to look back 3 months. (Start 3 +/- Months Ago).
- What time increments do we want to see within the graph? We will select 1 week increments (Series 1 +/- Week Increments).
- Set the Values Calculation. We want to Count Words/Values (count up all of the meals), not Count Clients (how many clients ate more, or less than 75%).
5. Select the Properties tab:
- Enter a Title (Meal Intakes).
- Make the Legend visible and position as desired (Bottom).
- Add 3D effects as desired.
6. Select the Look tab:
- Select the **Primary Field** checkbox (to allow date selection).
7. Click **Close**.
8. Position the field and stretch to meet margins. The graph will auto-size to fit the size of the field (the larger the field, the larger the graph).
9. Click the **Save** icon to save and name your report (Graph– Meal Intake). Select Sites and User Groups as appropriate.

Line Graphs

Line graphs are an excellent choice for monitoring one data element over time, especially for individual clients. Line elements are unique in that they can each display each occurrence of an event during a time period.


PRESSURE ULCER HEALING GRAPH

Example

A resident's INR levels fluctuate. The facility would like to display the results on a graph.

1. Access the Report Maker. Since the report is for one client per page, select a similar report and make a copy of it, so that you do not need to create the resident identifier fields from scratch.

   - Click **American Data - ECS** and follow the path **Setup > Report > Report Maker**.

   - Click the **Open** icon 📂 . Filter for Graph reports. Select "Skin – PUSH Scores Area 1" and click **OK**.

   - Make a copy of the report by clicking **Save As** 💾 and name your report (Graph – INR Results). Select Sites and user Groups as appropriate.

   - The **Report Options** icon will already have the desired settings (NOT "Multiple Clients per Report," and Report Type "Graph." The report is also "Landscape" orientation, which is fine.)

2. Delete unwanted fields: in this case, select Wound Location, and click **Delete**, as well as the green "Report Label." Also delete the Pressure Ulcer Healing Graph field because we will be making our own.

3. Create the Graph field:

   - Click the **Add Field** icon 🗐 .
   - Select Graph and click **OK**.
   - Select **Line** and click **OK**.
   - In the Elements area, click **Add**. Enter the element name ("INR") and click **OK**.
   - In Element Properties, select the **Show Labels** checkbox.

- In the Words area, click Add > Nurse Charting/Lab Results > select the word INR Result, then click **OK**.
- In Based on, keep the Entry Date option selected.
- In Include, select the **Current Entries** checkbox.
- In Show Values, select **All Values**, and then click on the Values button and select "Text" value. Click **OK**.
- Leave the Other area blank.

4. Select the Element Settings:
- How much time will the graph cover (e.g., 3 months, 6 months, 12 months)? For this example we will set the graph to look back 3 months. (Start 3 +/- Months Ago).
- What time increments do we want to see within the graph? We will select 1 week increments (Series 1 +/- Week Increments).
- Set the Values Calculation. (We want to "Count Words/Values" not Count Clients.)

5. Select the Properties tab:
- Enter a Title (INR Results).
- Since there's only one item being graphed, you can probably leave the legend set to "Not Visible."
- Add 3D effects as desired.

6. Select the Look tab:
- Select the **Primary Field** checkbox (to allow date selection).
- You may also select the Master Field checkbox, so that if you run the report on a group of residents, it will exclude those without INR results automatically.

7. Click **Close**.

8. Position the field below the client identifiers and stretch to meet margins. The graph will auto-size to fit the size of the field (the larger the field, the larger the graph).

9. Click the **Save** icon to save changes.

Pie Graphs

Pie graphs are designed to show the breakdown of data within one data element.


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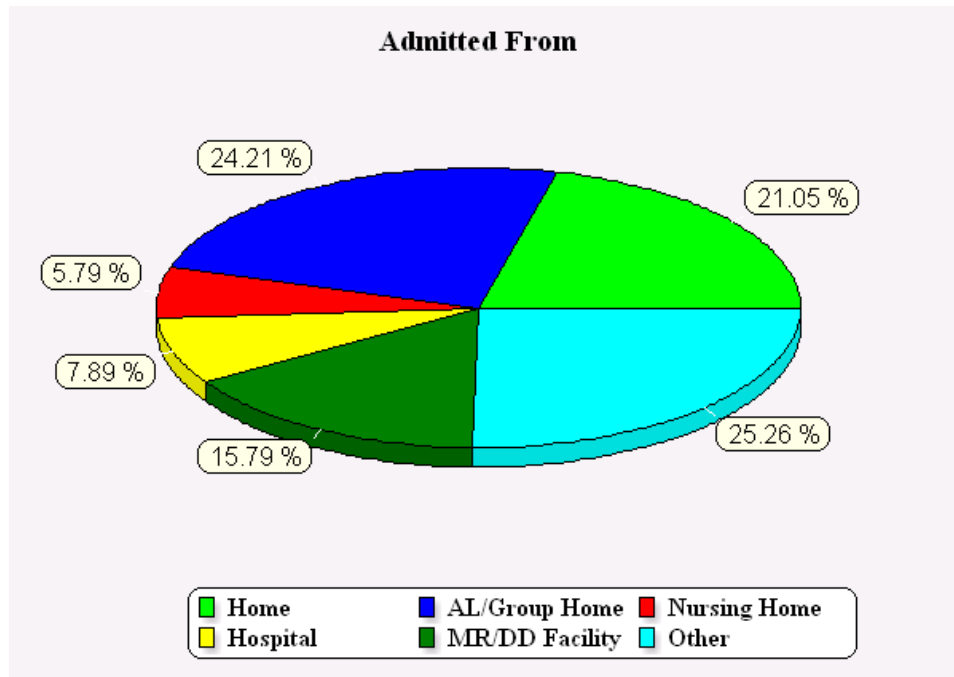
Example

A facility has an initiative to attempt more non-pharmacological interventions for breakthrough or acute pain episodes before PRN analgesics are used. They want to analyze how often different interventions are attempted.

1. Access the Report Maker and create a Graph report template:
   - Click **American Data - ECS > Setup > Report > Report Maker**.
   - Select the **Report Options** icon. Select the **Multiple Clients per Report** checkbox and a Report Type of Graph. You may also consider making the report Landscape orientation if you wish.
2. Add the graph field:
   - Click on the **Add Field** icon .
   - Select Graph and click **OK**.
   - Select **Pie** and click **OK**. Add the first element (Exercise):
   - In the Elements area, click **Add**. Enter the element name ("Exercise") and click **OK**.
   - In the Words area, click Add > Nurse Charting/PRN Meds > and select the words for Exercise, then click **OK**.
   - In Based on, keep the **Entry Date** option selected.
   - In Include, select the **Current Entries** checkbox.
   - In Other, select the **Word** checkbox.
3. Add additional elements (Rest, Distraction, Activity, Position Changes, ROM, Stretching, Massage, PRN Analgesic):
   - In the Elements area, click **Add**. Enter the next element name and click **OK**.

- In the Words area, click Add > Nurse Charting/PRN Meds > and select the needed word, then click **OK**.
- In Based on, keep the **Entry Date** option selected.
- In Include, select the **Current Entries** checkbox.
- In Other, select the **Word** checkbox.
- Repeat steps for each element.

4. Select the Element Settings:
    - How much time will the graph cover (e.g., 3 months, 6 months, 12 months)? For this example we will set the graph to look back 1 month.
    - Set the Values Calculation. (We want to "Count Words/Values," not Count Clients.)

5. Select the Properties tab:
    - Enter a Title (Pain Interventions).
    - Make the Legend visible and position as desired (Bottom).
    - Add 3D effects as desired.
    - Set the Pie Properties: For Show Labels, select Show Percent, or Show Value (for this example we will Show Percent).

6. Select the Look tab:
    - Select the **Primary Field** checkbox (to allow date selection).

7. Click **Close**.

8. Position the field and stretch to meet margins. The graph will auto-size to fit the size of the field (the larger the field, the larger the graph).

9. Click the **Save** icon to save and name your report (Graph – Meal Intake). Select Sites and user Groups as appropriate.

Gauge Graphs

Gauge graphs help the facility to see if they are meeting a goal or target.
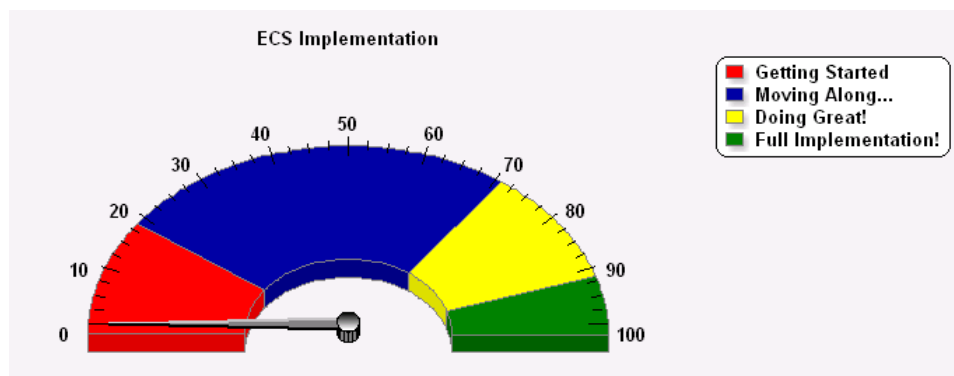
Example

The facility has implemented new marketing strategies to improve admission rates. The facility would like between 20-30 residents each month and would like to display the monthly admission rate at a monthly meeting.

1. Access the Report Maker and create a Graph report template:
   - Click **American Data - ECS** and follow the path **Setup > Report > Report Maker**.
   - Select the **Report Options** icon. Select the **Multiple Clients per Report** checkbox and the Graph report type. You may also consider making the report "Landscape" orientation if you wish.
2. Add the graph field.
   - Click the **Add Field** icon .
   - Select Graph and click **OK**.
   - Select **Gauge** and click **OK**.
3. Add the Elements. Gauge graphs are unique –the elements are the thresholds for the goal you are trying to achieve. Examples of elements for Gauge graphs might be "Poor, Fail, Good, Excellent," or "Below Target, At Target, Above Target." Each element represents a % of the total, and the total for all elements together must equal 100%.
   - This gauge graph will be a half circle, or have a 180 degree radius. We will allow from 0 – 50 admissions to be displayed. This means that 0-20 admissions represent 40% of the total, 20-30 represent 20% of the total, and 30-50 represent the last 40% of the total.
   - In the Elements area, click **Add**. Enter the element name ("Below Target") and click **OK**.
   - Enter what % of the total graph this element represents (40%).
   - Click **Add** to add another element called "At Target." This will be 20% of the total.
   - Enter the last element, "Above Target." This will be 40% of the total.
4. Define where in the record the data will pull from.
   - In the Gauge Value area, select Add, > Face Sheet / Status > and select the needed word (ADMISSION DATE), then click **OK**.
   - In Based On, change the setting to Calendar Date. It will request that a column be selected. Any column may be selected because they all pull from the same area (e.g., Below Target).
   - Under Include, select the **Current Entries** checkbox.
   - Don't add or change any settings under Show Values.
   - In Other, select the **Word** checkbox.
5. Select the Element Settings.
   - How much time will the graph cover (3 months, 6 months, 12 months)? For this example we will set the graph to look back 1 month.
   - Set the Values Calculation. We want to "Count Clients" (i.e., how many clients were admitted).
6. Select the Properties tab.
   - Enter a Title (e.g., Monthly Admissions).
   - Make the Legend visible and position it as desired (Bottom).
   - Add 3D effects as desired.
   - Set the Gauge Properties:

- o Minimum = 0 (0 admission per month)
- o Maximum = 50 (50 admission per month)
- o Increments = 2 (count from 0 – 50 in increments of 2). Depending how high your maximum is, setting this to 1, or even 2 can be too much).
- o Band Width – This is the width of the gauge graph. A low value looks like a narrow band, whereas 100% fills the gauge in completely. This is a cosmetic setting and does not affect the data.
- o Total Angle – This is typically set to 180 degrees, but you may select any angle you wish.
- o Show as percent – Changes the increments to percentages. Do not select this property for this example.
7. Select the Look tab.
   - Select the **Primary** checkbox (to allow date selection).
8. Click **Close**.
9. Position the field and stretch to meet margins. The graph will auto-size to fit the size of the field (the larger the field, the larger the graph).
10. Click the **Save** icon to save and name your report (e.g., Graph – Monthly Admissions Gauge). Select Sites and user Groups as appropriate.

Run Graph Reports

1. Click the green **Graph** icon. Or, follow the path American Data - ECS > View > Report > Graph.
2. When the client list appears, consider filtering for the appropriate clients. Since many graphs display data gathered for the facility, not for individual clients over time, it becomes critical to filter for clients that may already have an Inactive or Closed Account status in order to gather all of the resident data you need.
3. Select the client(s) and click **OK**.
4. Highlight the graph name, and click **OK**.
   a. If you don't select a date, the graph will end today and look back from today. If you want to specify a date range, note that it's <u>only necessary to select an End Date</u>. No start date is needed; the report will work back for the needed period based on the end date alone. For example, if it's a monthly report, you may want to select an End Date that is the last date of the previous month.
5. The results appear on the screen.
6. A unique feature of graph reports is that if you would like to see the chart entries associated with any of the data elements on the graph, you can hover your mouse over the data element (this changes your icon from a magnifying glass to a hand) and then click the element. A review screen appears with the relevant entries.