

# Introduction to the SCAN User Interface

## Introduction

SCAN (the System for Convection Analysis and Nowcasting) packages radar algorithm output along with environmental information based on a number of user-defined thresholds.

The basic SCAN display consists of an attribute table, a D2D display, and time trend graphs of certain storm attributes.

You can click on most of the graphics in this presentation to see more detail.

## Attribute Labels

Most of the column headings allow you to sort the table. Simply click on the heading to re-sort the table. In this example, the table is currently sorted by **mdaSR** (Mesocyclone Detection Algorithm Strength Rank). Accordingly, its column heading is purple.

The two other highlighted cells (**vil** and **dbz** in this case) are used to customize the SCAN D2D display:

- vil: hexagon size
- dbz: display filter

The attached document, "[SCAN Table Attribute Descriptions](#)" provides a list of the most common attributes and their meanings.

## TVS and mdaSR Column Headings

In addition to the cell attribute table, SCAN also has similar tables for the TVS and MDA algorithms. You can access these tables by *right-clicking* on the **TVS** and **mdaSR** column headings.

These two tables function very similarly to the main SCAN table.

## Cell ID

The **Cell ID** has two functions in the SCAN table.

1. **Left-click** on a cell ID to zoom and center the D2D display on that particular storm cell. The currently zoomed cell ID is highlighted in the table (tan background vs brown) and is also shown in the very bottom row of the table.
2. **Right-click** on a cell ID to obtain a cell trend set. A cell trend set is a pre-defined collection of trend graphs. The trend sets are defined using the **Configurations** menu.

## Cell ID (Inspection Row)

Click on the Cell ID in the bottom row ("Inspection Row") of the SCAN table to unzoom the D2D display.

## Cell Value

Left-click a cell value to obtain an individual cell trend graph for a given cell attribute.

Note: TVS and mdaSR are not available for trend graphs.

## File Menu

The **File** menu in SCAN allows you to save and retrieve SCAN configuration files. The name of the current configuration file is displayed in the menu. In this example, the current file is "working".

## Configurations Menu

The **Configurations** Menu allows you to adjust many settings of the SCAN display.

- **D2D Display:** controls the size of the hexagons and arrows and sets filtering options. In the example table, the **vil** and **dbz** attributes were specified using this menu to control the hexagon size and D2D filtering, respectively.
- **Alarm Thresholds and Alarm Time:** controls how and when SCAN automatically alerts you when attributes cross certain thresholds.
- **Trend Sets:** Define, save, and retrieve sets of parameters from which to construct trend graphs. Trend sets are obtained by right-clicking on a cell ID.
- **Box Colors:** Allows you to set the color thresholds for the individual table cells. This menu is also available by right-clicking on many of the column headings.

## Rank Menu

The Rank menu allows you to sort the attribute table. Another way to sort the table is to click on an individual column heading.

## Attributes Menu

The Attributes Menu allows you to set which cell parameters appear in the SCAN table.

## Link to Frame Button

When the **Link to Frame** button is checked, the table values time-match the D2D display. In other words, the SCAN table values update when the D2D image is advanced forward and backward in time with the arrow keys.

When the button is *not* checked, the values in the SCAN table are derived from the most recent volume scan regardless of the time of any D2D windows.

## CWA Filter Button

When the **CWA Filter** button is checked, the SCAN table only displays storm attributes where the storm cell is located within your County Warning Area. The D2D display is not affected by this setting.

## Unwarned Button

This button allows you to set alert thresholds for the VIL, dBZ, and hail size plus the presence of TVS and Meso detections. If SCAN detects that these thresholds are exceeded in a county without an active warning, SCAN changes the county name in the table to a different color.

## Vert Button

The **Vert** button is a toggle to change the table from its normal horizontal orientation to a vertical configuration.

## Tips Button

When the **Tips** button is checked, SCAN provides you with some information about the functions of the various table elements as you mouse over them.