

NEW FEATURES AND CHANGES IN AG-NAV NAVVIEWW Version 3.x

Version 3.0:

- 1) Allow creating a project directly from a map. You can do this by clicking the following buttons: "Open Area", select ENTRY.NEW, "Open Map", "123", radio button "Prj" and "Spray". Now move the cursor to the polygons you want to group together then press the right mouse button. While holding down the right mouse button, draw a rectangle to encompass the desired polygons then release the mouse button. The selected polygons will be drawn in red. To add another polygon, use the <Shift> <Right Mouse> buttons to draw a rectangle on any corner of the polygon. To deselect a polygon, use the <Ctrl> <Right Mouse> buttons to draw a rectangle on any corner of the polygon. The deselected polygon must turn blue again. When you feel happy with the selected polygons, click "Save" to save the project. Note that at least 2 polygons must be selected to make a valid project.
- 2) Create a project with exclusion zones: Do steps in number 1) above but don't save. After the spray polygons are selected, click "Excl" button just underneath the "Prj" button. Now move the cursor to the polygons you want to make exclusion zones then press the right mouse button. While holding down the right mouse button, draw a rectangle to encompass the desired polygons then release the mouse button. The selected polygons will be drawn in pink. To add another polygon, use the <Shift> <Right Mouse> buttons to draw a rectangle on any corner of the polygon. To deselect a polygon, use the <Ctrl> <Right Mouse> buttons to draw a rectangle on any corner of the polygon. The deselected polygon must turn blue or back to original color again. When you feel happy with the selected polygons, click "Save" to save the project. Note that a polygon already selected as a spray polygon won't be selected as an exclusion zone and vice versa.
- 3) New File Operation: When you select "Open Menu", "File Operation", "Copy Area", the options will be "Floppy A:\", "USB" and "Hard Drive". Select "Floppy A:\" if you want to copy files from a floppy disk to hard disk, same as before. Select "USB" if you want to copy files from a USB disk or disk on key to hard disk. Select "Hard Drive" to do other copies.

Version 3.1:

- 4) Spray Acreage: There are two ways to calculate the spray acreage. The NAVIGATE program which runs in the AG-NAV system uses the ground speed of aircraft, spray time and swath width to calculate the spray acreage every seconds. NavviewW uses the GPS position when spray was on and the swath width to calculate the spray acreage. Due to the errors in GPS data and rounding in the data recorded, the two methods are normally produce slightly different results. The difference could be up to 5%. The less spray data were recorded, the bigger the error will be. To solve the problem, NavviewW now gives you two options to calculate the Spray Acreage. They are "Position" and

“Navigate” which are shown on the Output2 page. If the Spray Acreage produced by NavviewW was OK before, you can select the option “Position”. If you tell your client the spray acreage shown on the AG-NAV screen and want the same or similar number on the print-out or NavviewW, you should select “Navigate”. Your selection will be saved as the default for the next time use.

- 5) USB Drive: When copying files from a USB disk to hard disk, NavviewW may not find the right Drive and not showing the content of the AGNAV folder on the USB disk. This problem is solved in version 3.1. The AGNAV folder is opened for you to select the desired areas and projects to copy to the hard disk.

Version 3.2:

- 6) File Extension: When digitizing a map to make a spray area file, project file, exclusion zone file, or displayed polygon file, after clicking “SAVE”, you will be prompted to enter a filename. If you don’t enter the filename extension, NavviewW will automatically add the expected extension, for example “.NO1” for spray area file, “.PRJ” for project, “.XCL” for exclusion zone and “.DSP” for displayed polygon.
- 7) Automatic Map Digitizing: When digitizing a map for a spray area, exclusion zone or displayed polygon, you can select the “Auto” or “Man” mode. Two more radio buttons “**Auto**” and “**Man**” are provided for you to select the mode. “**Man**” is the default.

When using the “Auto” mode for a spray area, you just left click on a corner of the desired polygon to select the polygon. NavviewW will check the number of corners the map polygon has and automatically remove the unnecessary points, change the order of the corners if necessary and make the polygon a valid spray area without showing you a warning. After this, it will prompt you to enter a filename for the area.

When using the “Auto” mode for an exclusion zone (XCL), you just left click on a corner of the desired polygon to select the polygon. NavviewW will check the number of corners the map polygon has and automatically remove the unnecessary points, change the order of the corners if necessary and make the polygon a valid XCL without showing you a warning. To select the next XCL, left click on a corner of another polygon. You will see the XCL number increments in XCL box. To delete an XCL, right click on the screen. When all XCLs have been selected, click “SAVE” to save the XCLs.

When using the “Auto” mode for a displayed polygon (DSP), you just left click on a corner of the desired polygon to select the polygon. To select the next DSP, left click on a corner of another polygon. You will see the DSP number increments in DSP box. To delete a DSP, right click on the screen. When all DSPs have been selected, click “SAVE” to save the DSPs.

If you want to use the conventional method to digitize a map, click “**Man**” for digitizing mode.

Version 4.0:

- 8) Gauss Kruger Map Projection: Allow using a Gauss-Kruger map for digitizing. The spray data can be overlaid on a Gauss-Kruger map. For this feature, the Map Scale, code 102 in the ENTRY.NEW, *.NO1 and *.PRJ files must be "GK". Note that the entry of "UTM" is for regular UTM X/Y or Lat/Long, "NZ" for New Zealand Map Grid and "GK" for Gauss-Kruger.
- 9) Replay Data in LatLong: A problem happened when the ellipsoid defined in the selected NO1 or PRJ file is local such as CLARKE-1866 or NAD-27. Since the Lat Long values in the spray data are always in WGS-84 or NAD-83, they must be converted to the coordinates in the local datum before plotting. Note that when you fly areas in different geographical zones, always select to replay data in Lat Long for proper plotting. If you display more than one area on the screen, the datum or ellipsoid defined in all areas must be the same.