

Using the NRI Grazing Land Survey Instrument (Training Mode) to Collect Special Project Grazing Land Data

April 2015

The NRI Grazing Land Survey Instrument (also referred to as the CASI- Computer Assisted Survey Instrument) installed on a field PC can be used to collect survey data for non-NRI points. This may be useful for special inventories or to document ecological site description data. This can be done by creating ‘test’ segments/points in the CASI while set to training mode. Once data has been entered for the ‘test’ or special use segment they can be easily moved to the desktop computer, uploaded via the NRI Grazing Land Survey Instrument – XML Point File to Excel File Utility website (<https://www.nrisurvey.org/grazinglandPointToExcel/>), and downloaded to an Excel format.

For more information about the NRI Grazing Land Survey and how to obtain the software for installation on certain field PCs, see the website:
<http://www.nrisurvey.org/nrcs/Grazingland/2015/>.

A. Creating a ‘test’ or special use segment/point on the field PC.

1. Open the NRI Grazing Land Survey Instrument installed on your field PC and from the **Tools** menu select **Training mode** (fig.1). A check will appear in front of this option when it is selected. This allows you to create and name up to 10 training (special purpose) segments.
2. To create a training or special use segment, tap on the **Create Test Segment** button (fig. 2).
3. The Create Test Segment window will now open. Enter the appropriate **State** (from the pull down list), **County** and **Segment ID**. County can be any number but must be 3 digits. Segment ID must be 7 characters but can be made up of numbers and letters. Select the type of survey from the Sample drop-down list. Certain protocols are only available for certain types of surveys (Range, Pasture, or BLM). Check the boxes next point IDs and enter the coordinates (fig.3).

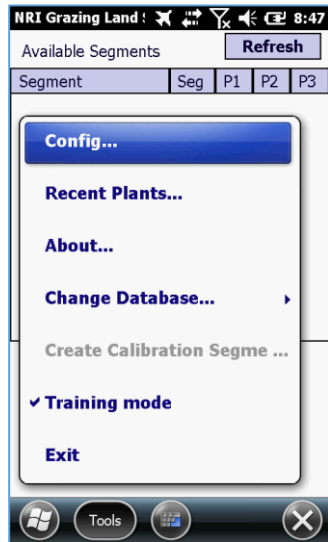


Figure 1. The CASI must be set to training mode to create special use CASI point files.

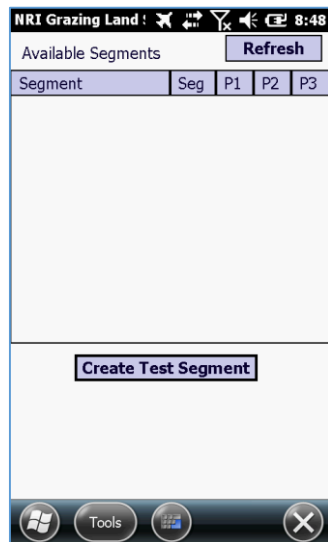


Figure 2. Select Create Test Segment

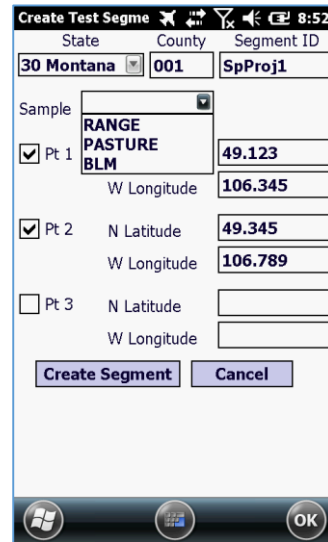


Figure 3. Special use segment/point IDs are displayed in the available test segment window.

Check the number of points you want to associate with the special use segment (normally check 1, or 1 and 2) depending upon your sampling and segment identification scheme. Point 3 is normally not used for data. **Latitude** and **Longitude** can also be entered at this time. These coordinates can be used in combination with the Navigate (NMEA GPS) option on the CASI Location page to navigate to these target coordinates. Alternatively, a zero may be entered in each coordinate data field if point coordinates are not available or are not applicable to the special project.

Note: For purposes of the NRI, there are normally 3 points in each production segment. The production NRI survey requires data entry on only 2 points (normally 1 and 2). Point 3 is included and opens for field data collection only when either 1 or 2 are not eligible for data collection. For this reason, if you are using the NRI Grazing Land CASI for a special project, point 3 will normally not open for data collection.

4. Tap the **Create Segment** button to complete this process and return to the Available Segments screen. This screen will display all created segments (fig.4). The remainder of the CASI operation is identical to working with a production NRI segment. Refer to the **2015 National Resources Inventory (NRI) Grazing Land On-Site Data Collection Handbook of Instructions** for more information (<http://www.nrisurvey.org/nrcs/Grazingland/2015/>).

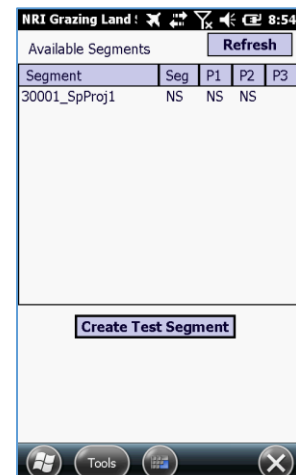
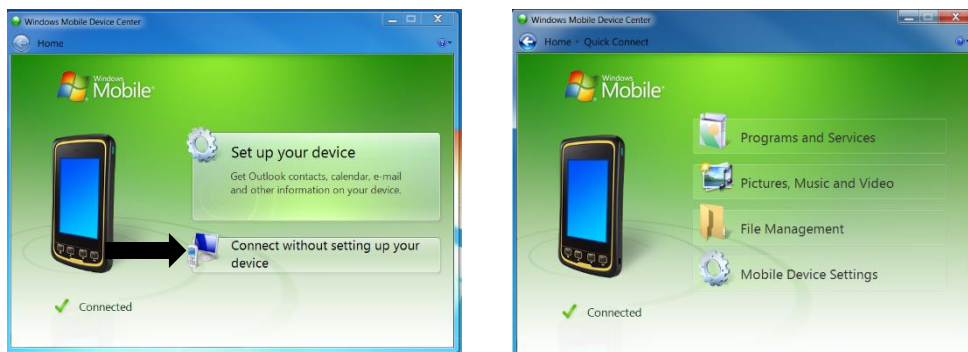


Figure 4. Special use segment/point IDs are displayed in the Available Segments window.

B. Transferring Entered Data to Excel

Data entered in the CASI in training mode can be converted to Excel format. Once data have been entered into the special use PSUs, they can be moved to a PC via Windows Mobile Device Center, submitted to the data view web site and retrieved in Excel format. The following instructions assume the field PC is connected to a PC via the Microsoft Windows Mobile Device Center program. Screen shots and all computer activity are conducted on the PC side.

1. Establish a Windows Mobile Device Center (WMDC) connection between the field PC and a PC (with Internet connectivity). Always select **Connect without setting up your device** when making your connection (fig. 5a).



Figures 5a and 5b. Windows Mobile Device Center (WMDC)

2. Select **Browse the contents of your device** from **File Management** (fig 5b) in the WMDC window to navigate to your field PC – Built-in Storage – GrazingData – GRAZINGLAND-2015 - training. This is the directory where the segment (PSU) and point files are stored.

Note on file structure:

The segment/points are stored in xml files. The state and county IDs are concatenated, followed by an underscore, the segment ID, a second underscore, and the point id. They look like this: 30001_SpProj1_1.xml.

There will be a file for each created point and one also labeled with PSU (segment). The PSU file does not contain any critical data and need not be uploaded to the server.

3. Move the point files to a directory of your choice on the PC. Remember where you put them as you will need to navigate to this directory when uploading via the data view web site. Follow normal Windows copy and paste conventions for moving the files. The files will still exist on the field PC unless you delete them. Use **delete** when you are done collecting data and want to create more special use segments on the field PC.

4. Access the data view web site on the PC. The data view site is located at:
<https://www.nrisurvey.org/grazinglandPointToExcel/>.

5. Click on browse (fig.6) and navigate to the PC directory where you have stored the CASI point files.

6. Select one CASI point file and select **open** (fig 7). This will queue up the CASI point file.

7. Click on **submit** to send the CASI point file to the server.

Note: Since target/capture coordinates are not returned or stored for special use CASI points, you may want to record these before deleting any of this data from the PC or Recon.

D. Viewing NRI Data

There are two ways to view the data, either within the browser (Internet Explorer only) or outside directly in Excel. You can also include/exclude section headings in both options.

Option 1. View in browser (IE only). Check the box if you want to view the data while still in Internet Explorer.

This option opens the Excel file in the Internet Explorer window. You can still save the file here if you desire but may be a bit quicker than downloading the file and opening the regular Excel program.

Option 2. View in Excel as a separate file. Uncheck the View in browser box to enable this option. You can open the file directly in Excel or save the file and then open in Excel. The save file name will default to the unique PSU ID.

E. Data Format

Data for protocols with a prescribed number of output rows are listed in the general worksheet. This will create sections for:

- Tracking
- Location
- Gatherers
- Ownership/land cover/use
- Soil
- Ecological Site
- Line Intercept – Gap Existence

Figure 6. Click on browse and navigate to the PC directory where the special use point files have been transferred from the field PC.

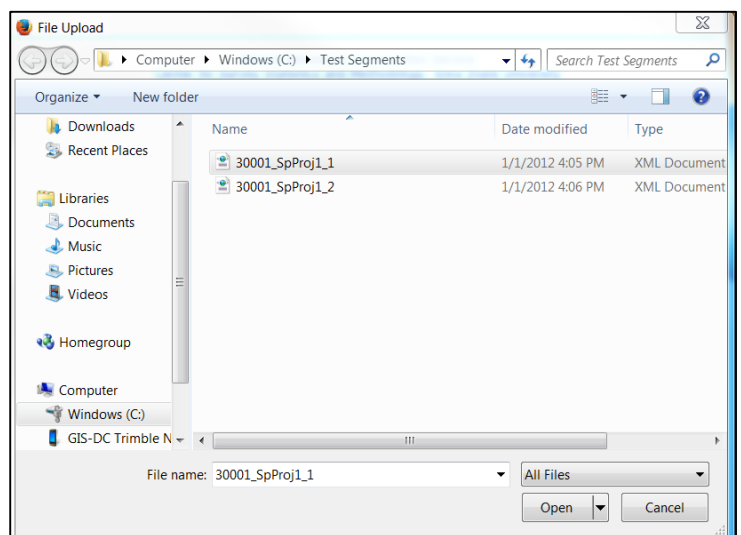


Figure 7. Click on browse and navigate to the PC directory where the special use CASI point files have been transferred from the field PC.

Soil Stability Indicator
Dry Weight Rank Relative Yields
Standing Biomass (Pasture only)
Production Parameters (Range only)
Resource Concerns
Conservation Practices
Rangeland health
Rangeland health summary
Condition Score (Pasture only)

Data for protocols with an indeterminate number of output rows are included in individual worksheets. These worksheets are listed in the scroll bar at bottom of screen by point ID.

There are individual worksheets for:

Point Intercept
Line Intercept
Plant Height
Dry Weight Rank
Alternate Woody Method (Pasture only – for Standing Biomass)
Production
Plant Census
Disturbance
Notes

The data field names and associated codes are generally the same as used in the CASI and instructions. If you have any questions on interpretation of the displayed data please contact Roni Lessard (vllessard@iastate.edu) for a detailed data base schema