

# ArcPad Handheld Cheat Sheet

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## Getting started.

- Turn on the handheld unit.
- Choose the start menu. From the drop down list choose ArcPad 6.0.3. If ArcPad is not shown choose Programs then ArcPad 6.0.3.

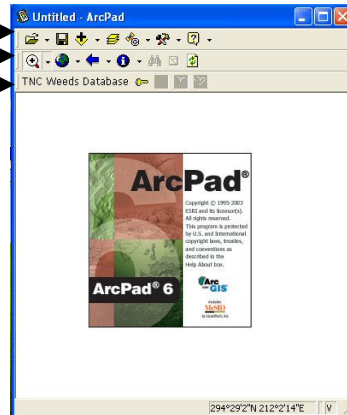
Press the MS flag and select the ArcPad icon



to launch ArcPad.




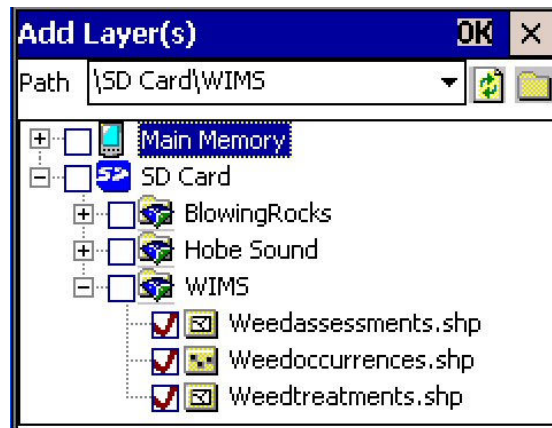
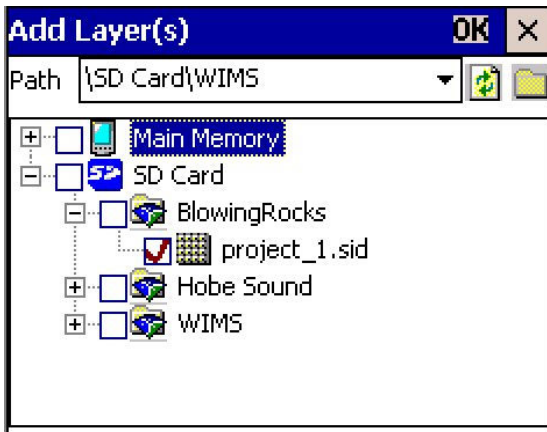
Main toolbar  
Browse toolbar  
WIMS toolbar



Blank ArcPad screen

## Adding imagery (maps) and data layers.

- Press the “Add-layers” button  on the main toolbar.
- Add the WIMS database by checking the “WIMS” box or individual Weed Assessments, Weed Occurrences, and Weed Treatments under the WIMS folder.
- Check boxes for imagery you may have.
- Click the OK box on top of the add layer window (note: it can take some time for this data to load).

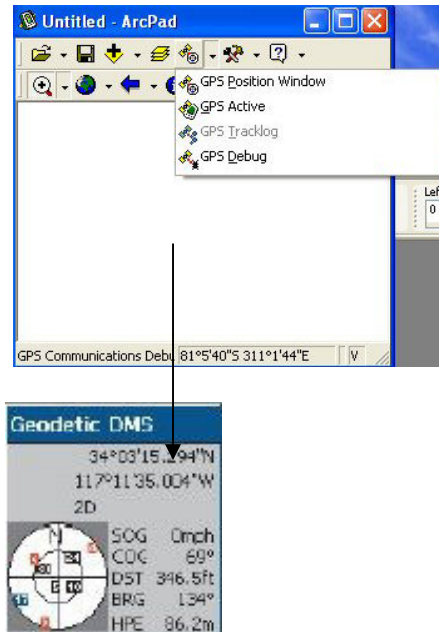


### Activate G.P.S.

Turn on the G.P.S. unit by tapping the 'G.P.S. satellite' button along the top toolbar (the satellite symbol with the compass). The handheld will display:

"the G.P.S. is not active. Would you like to activate it now?" Click yes.

The G.P.S. unit may also be activated by tapping the drop down arrow next to the 'G.P.S. satellite' button. Choose GPS Active. It will take a few minutes for the G.P.S. to receive a decent signal. Once you have a fix you will be able to see your location on the map marked by a yellow cross hatch within a red circle.



Note: The G.P.S. position window (shown directly above) can be closed without deactivating the unit. Tap the X in the G.P.S. position window. If you wish to reactivate the position window tap on the drop down arrow next to the G.P.S. button then choose the G.P.S. position window.

Note: You can increase or decrease your map view by using the 'zoom-in' or 'zoom out' buttons (magnifying glass-first button along the second row of tools on your screen). From the drop down menu choose either Zoom in or Zoom out. Then by tapping or dragging your stylus in the area that you wish to magnify or minimize. Note how the scale changes on the bottom of the screen as you zoom in and out.

## **Mapping a Weed Occurrence (point)**

- A. First locate the invasive (weed) you wish to map.
- B. Stand within the weed patch. If the area is small, try to stand near the middle of the patch. If the area is large, you just need to stand well within the boundary that you will be mapping.
- C. Press the WIMS key (the golden key) button. This will activate the WIMS toolbar and the 'O', 'A', and 'T' will now be highlighted.
- D. Press the Occurrence button ('O').
- E. Press the 'Capture G.P.S. point' button (the first satellite button). This will automatically capture your G.P.S. location and will open a blank Occurrence data form.



- F. Enter the required information. Listed below are the most common data that are entered.

Under the Basic tab (required information):

- weed
- location info ( a unique identifier should be created for each occurrence)
- you (often just your initials)
- accuracy (based on the type of GPS you are using-see p.84 of the WIMS manual)


Under the Area tab (required information):

- Area 1: this is the overarching area (e.g., Ottawa NWR). Check the primary box
- Area 2: this will be the unit you are currently mapping in.
- Area 3: use if needed to better describe where you are

Optional information:

- Description tab: Vegetation, goal, disturbance
- TRS tab: township, range, section, etc.
- Attributes tab: a summary of all the information you have collected
- Geography tab: the spatial coordinates of your point are displayed

*Once the information is entered tap the OK button on top. Observe your weed Occurrence as a red dot on the map.*

Note: If you wish to create a weed Occurrence manually using your stylus follow steps C and D above, then tap the 'Point' button.  Tap on the screen where you want the Occurrence. The weed Occurrence record will appear.

## Mapping a Weed Assessment (polygon)

After you have created your Occurrence record, move to the edge of the weed patch.

Select one of 3 methods to map the weed patch:

1. **Streaming.** Walking around the weed patch while the G.P.S. unit is continuously collecting waypoints.
2. **Manually collecting waypoints.** Walk around the patch and manually capture waypoints as you go. This method can be useful for large patches where
3. **On-screen Digitizing.** Drawing the borders of the weed patch on the screen. This method can be useful when the boundary of the patch is predetermined by things such as roads or dikes.

### 1) Streaming Method

- A. Make sure your G.P.S. unit is still active.
- B. Before mapping your weed patch, mark your start point. Bright flagging works best.
- C. Press the 'A' button next to the golden key button.



- D. Press the 'Polygon' button.
- E. Press the satellite button with the three dots underneath (streaming method). This will automatically capture waypoints as you walk.



**Note:** As soon as you press the satellite button, the unit will start collecting waypoints. Make sure you are ready to walk as soon as this button is pressed.

- F. Start walking around the weed patch.
- G. Stop a **few feet short** of your start point and press the white '**Polygon**' button again to complete the process.

**Note:** It is very important to stop short of your start point. This will reduce the polygon overlap error, which can occur when you cross back over your path. This type of error can cause problems with the GIS export and shapefiles. To reduce this error remember to stop short of where you started.

## Assessment Continued: enter weed patch information

Under the Location tab

- Choose Occurrence: your current Occurrence should appear. Re-select the occurrence and the weed name should appear automatically below.
- Notes: enter any additional information here.
- You : your initials
- Date: should appear automatically

Under the Stats tab

- Comments, Phenology, Short and Long-term trends (if known), Distribution

Under the Time tab:

- Start Time/End Time: military time
- Total time: increments of 1 hour (e.g., 0.1 = 6 minutes)
- # Staff/# Volunteers

Under the Size tab:

- Check the box 'calculate size from shape'. This will automatically calculate the patch size

Under the Cover/Dens tab:

- Cover Info: Percent = % cover of weed within area mapped, Class = a cover class
- Density Info: density of plants per unit area

*Once the information is entered tap the OK button on top. You will then see your weed Assessment on the screen as a brownish (yellow) polygon.*

## **Mapping a weed Treatment**

- A. Treatments are mapped the same way as an Assessment. The only difference is that you press the 'T' button next to the golden key. The remaining steps are identical.
- B. Enter the required information and tap the OK button on top. You will then see your weed Treatment on the screen as a purple (green) polygon.



Note: Each treatment type requires a specific recorded data. If you are mapping treatment areas, this information will be provided.

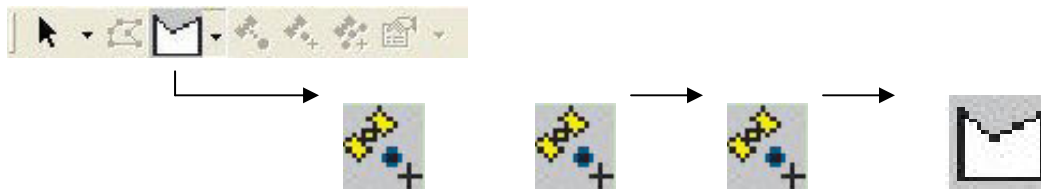
## Closing ArcPad

- A. Deactivate the G.P.S. unit. Touch the drop down arrow next to the 'G.P.S. satellite' button. There will be a red box around the G.P.S. active icon. Press this choice and the G.P.S. unit will close. You can make sure the unit is off by checking your screen. The red cross hatch within the circle will be gone.
- B. Press the drop down arrow next to the 'Folder' button on the top left. From the menu choice exit. It will ask you: save changes to untitled? **Say NO.** The information is automatically saved to the SD card each time you record a weed Occurrence, Assessment, or Treatment.
- C. Turn off the handheld by the power button.
- D. In your field journal, jot down what areas you have mapped and any questions that you have.
- E. Upon returning to the office place the handheld in the cradle.

## Additional Information

1. **Manually collecting waypoints for mapping weed Assessments.**
  - A. Follow steps A – D under mapping a weed Assessment.
  - B. Press the 'G.P.S. satellite vertex' button. It is the second satellite button with one dot and a hatch mark.

Note: Each time you press the 'G.P.S. vertex' button the unit will take a waypoint. It takes about 20–30 seconds to capture the waypoint. The more waypoints you capture the more defined the area will be.

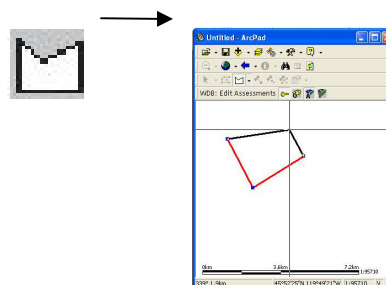


- C. Press the white 'Polygon' button when you have finished walking around the weed patch. This will close the polygon and the Assessment forms.
  - D. Enter the required information. Then press OK to save.

## 2. **On screen digitizing using your stylus.**

To use this method, your G.P.S. unit does not need to be active. However, having the G.P.S. active will assist with proper placement of points. Zoom in to the area of interest.

- A. Press the WIMS 'golden key' button.
- B. Press the weed Assessment or Treatment button ('A', 'T').
- C. Press the 'Polygon' button.
- D. Using your stylus draw in your boundary of your weed patch. To do this first tap the screen (you will see a blue point). Tap the screen on your point and drag your stylus to draw a line. Repeat this step until you are within a short distance to your start point.



- E. When you have finished drawing in the boundary, press the 'Polygon' button again to close the polygon and open either a blank weed Assessment or Treatment record.
- F. Enter the required information. Then press OK to save.

3. **Editing Occurrence, Assessment, or Treatment records in the field.**

- A. Select the record type (O, A, T) that you want to edit from the WIMS toolbar.



- B. Choose the 'Select' (black arrow) button from the Edit/Draw toolbar.
- C. Tap on the point (O) or polygon (A, T) you want to edit. You will see a faint black dashed line outlining your choice.
- D. Press the 'Properties' button (hand pointing to paper)
- E. Edit record.
- F. Press OK when finished.

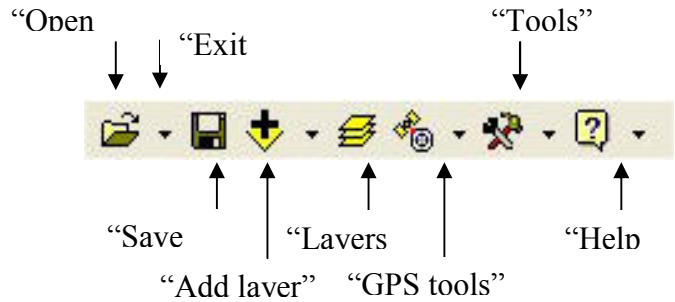
Note: Editing the spatial characteristics of points and polygons on screen can cause problems with GIS export and shapefiles. It is best to do this kind of editing in ArcMap or ArcGis.

4. **Deleting an existing Occurrence, Assessment, or Treatment record.**

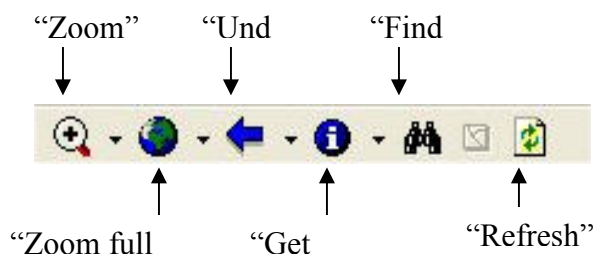
Deleting an existing data record is done the same way as editing a record, except that instead of pressing the 'properties' button, you press the drop-down arrow next to the 'properties' button and select delete.

- A. Be sure that you have selected the specific record type (O, A, T) you wish to edit from the WIMS toolbar.
- B. Choose the 'Select' button from the Edit/Draw toolbar (black arrow).
- C. Tap the point or polygon on the screen. You will see a faint black dashed line outlining your choice.
- D. Press the drop down arrow next to the 'Properties' button and select 'delete' to erase that record.

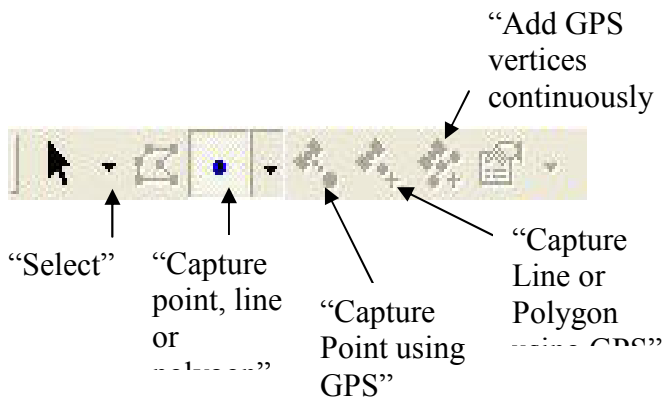
### Main Toolbar



### Browse Toolbar



### Edit/Draw Toolbar



### WIMS Toolbar

