

Using the List Editor with the Ricoh G700SE as a Standalone Data Collector

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If you are planning to use the Ricoh camera as a standalone data collector, you will want to use the List Editor software, which will allow the camera to collect up to twenty attributes about your photos in addition to date, time, location and direction information.

Installing Software: The List Editor software will be installed when you install the software from the CD that comes with your G700SE.

Creating the List: Go to Start>Programs>List Editor. The List Editor opens, and you can specify up to twenty different items of information to be entered for each feature.

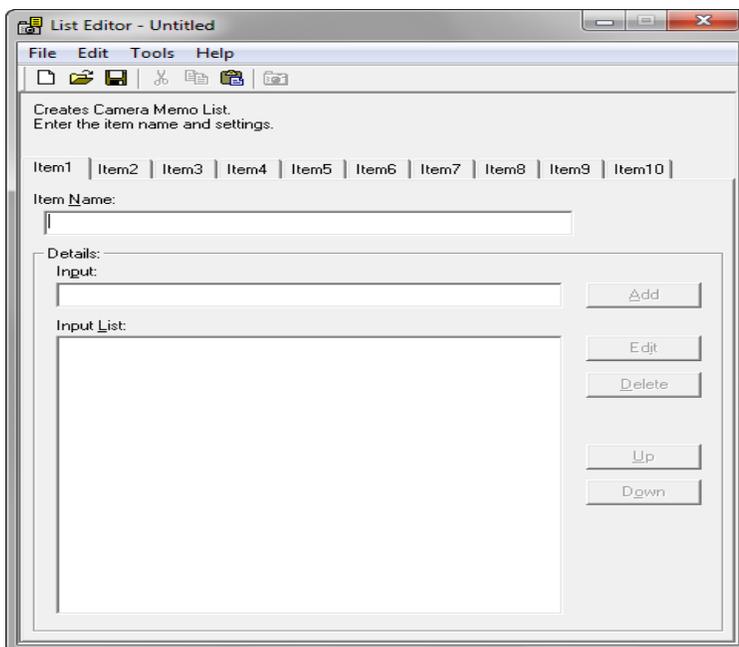
Note: If you plan to use the built-in barcode scanner to enter a barcode as an item, you must set that as Item 1. The scanner will always input the barcode to Item 1. If you need more than one barcode per photo, see the manual for descriptions of Modes 2 and 3.

To set up a menu of choices for an item, give the item a name, and then type the different choices into the Input line and click Add.

The different choices will be added to the input list.

When you are finished, save the.mta file.

Use the Transfer to Camera button or Tools>Transfer to Camera to move the Memo List to the camera.



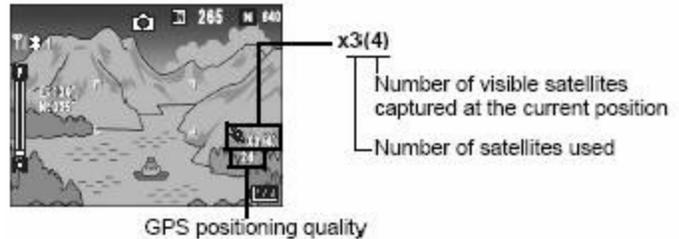
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Connecting to GPS: When you get out to the field and are ready to begin data collection, you will first need to get the camera connected to GPS.

If you have a Ricoh with the built-in GPS antenna, the camera will connect automatically. If you are using a separate Bluetooth® receiver, you will need to set up the Bluetooth connection first, and then let the camera connect to GPS.

When the camera has a GPS fix, it will let you know by beeping several times, and you will see a screen like this.



The GPS positioning quality will be one of the following:

- No fix - The GPS unit cannot receive data.
- 2d - The position is only two-dimensional due to the number of satellites it is reading.
- 3d - The antenna is locked onto enough satellites to provide a three-dimensional position.
- Diff 3d - The camera is receiving real-time corrections, and the position is a corrected position.

Settings for GPS Connectivity and Battery Power: Because the camera must reconnect every time it is turned on, and connecting and locking onto satellites can take a few minutes, we do not recommend turning the camera off after taking a photo unless a significant amount of time will elapse between the next photograph to be taken.

One option to conserve the battery between taking photos is to turn the display to the “Synchronized Monitor mode”. This turns the picture display off except when the camera is operated. This is effective for saving power consumption. The picture display turns on when the shutter release button is pressed halfway; once a picture has been taken and the results displayed, the picture display will turn off.

You can change the display to ‘Synchronized-Monitor mode’ by pressing the DISP button until the display screen goes blank. When the picture display is off (including when the display has turned off automatically in synchronized monitor mode), pressing any of the following buttons turns the picture display on: the MENU/OK, ADJ./MEMO, DISP. Playback, or zoom .

Imprinting Original Photo: You can set up the camera to imprint different information on the original photo if you need that information for legal reasons.

To do this, push MENU>EX SET and scroll all the way down to the different imprint options. You will see that you can turn on options to imprint GPS data, UTC data and compass heading data if you have a built-in compass.

You can also imprint memo information. To do this, push MENU>MEMO and scroll down to Camera Memo Imprint and select “on”.

Note: The Ricoh camera is only capable of imprinting the first 3 memos. If you need more than that, you will need additional processing software.

Collecting Data: Now your camera is set up, you have your attribute list on the camera, you are connected to GPS, and you have located a feature that you would like to take a picture of and record attributes. The most efficient way to do this is to enter the items in the list before taking the picture.

Push the ADJ./MEMO button to bring up the list.

If you have Barcode as one of your list items, it should be at the top of the list. Use the up or down arrows to highlight the barcode memo, point the camera at the barcode, and then push and hold the left arrow button until the memo is populated.

Adjust the rest of the memos in the list as needed, by using the up and down arrows to highlight an item, and then the right arrow to change the entry. When your list is correct for the feature you are mapping, you only have to take the picture, and the current position will be recorded and all the attributes from the list applied to that photo. To view the photo and its associated list, push the Playback button. If you need to make changes to the list, you can do that here. Push the Playback button again to get back to collecting data.

GPS Lock: When you take a picture, the location of the camera itself is what is recorded with the photo. If you prefer to have the coordinates of the feature itself, you can use the GPS Lock option.

To make the GPS Lock available, push MENU, and then push the left arrow and the down arrow to get to Expanded Settings. Go down to GPS LOCK, and set it to ON. Now you can walk up to the feature you want to map, and push the *right arrow button* to turn on the lock. Then you can step back, take the picture, and the coordinates will be recorded at the position where the lock was turned on.

Note: Make sure you push the right arrow again to turn the GPS Lock off before going to your next feature. If you accidentally leave the lock on, the next photo will be recorded as having the same location.

Processing Data: When you have finished your data collection and are back in the office, connect the camera to the computer, and transfer your pictures to the computer. If you had the Imprint turned on, you will now have pictures with the information you required imprinted directly on the photo.

If you would like to turn those photos into a shapefile, feature class, Google Earth file, spreadsheet, Word document, PDF, etc., you will need additional processing software. Electronic Data Solutions sells and supports two software programs that can provide this functionality: Wind Image and GPS Photo Link. Certain software is more suited to outputting specific formats.

If you are using ArcGIS® and want to output to a shapefile or feature class, you will want to use Wind Image or GPS Photo Link. Follow the instructions in the software manual for whichever software you are using to process the photos.