



MapShots, Inc.

Data Management Solutions for Agriculture

Importing Field Boundaries into JDOffice

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The MapShots JDO Boundary Tool utility provides the ability to transform a polygon shapefile into one or more John Deere GreenStar™ boundary files. It is then possible to “unload” the boundaries into JDOffice. The entire process consists of three steps: 1. Creating suitable shapefile boundary files, 2. Transforming them to GreenStar boundary files, and, 3. Unloading the boundary files into JDOffice.

Creating Suitable Shapefile Boundaries:

The current versions of MapShots EASi Suite and Farm Works Farm Site include a special JDOffice shapefile boundary export. These shapefiles are in a format ready to be used by the MapShots JDO Boundary Tool. Please refer to page 5 of this document for export instructions.

Shapefiles produced by other software packages must conform to the following specifications:

- The shapefiles to be transformed can have one or more records, where each record represents a single field. There are three columns required for the shapefile to be transformed.
- The values for each column of the shapefile represent the values related to the single field represented by each record in the shapefile.

The following three columns are required in the shapefile:

Client_ID – an integer value between 1 and 100000, inclusive. This value represents the client identifier for the field boundary. The tag value will be ignored during the unload process, so any value can be assigned to this column as long as the value is constant for all boundaries that are associated to a single client.

Farm_ID – an integer value between 1 and 32767 inclusive. This value represents an internal JDOffice farm tag, and is the ID of the farm associated with the field boundary. The actual value has no meaning during the subsequent process of unloading the boundaries into JDOffice, but it will be displayed as an identifier during the linking process. Each farm within a client must have a unique number.

Field_ID – an integer value between 1 and 32767 inclusive. The actual value has no meaning during the subsequent process of unloading the boundaries into JDOffice, but it will be displayed as an identifier during the linking process. Each field within a farm must have a unique number.

There are three optional columns that can be included:

ClientName – A descriptive name for the client associated with the field defined by a record.

FarmName – A descriptive name for the farm associated with the field boundary.

FieldName – A descriptive name for the field.

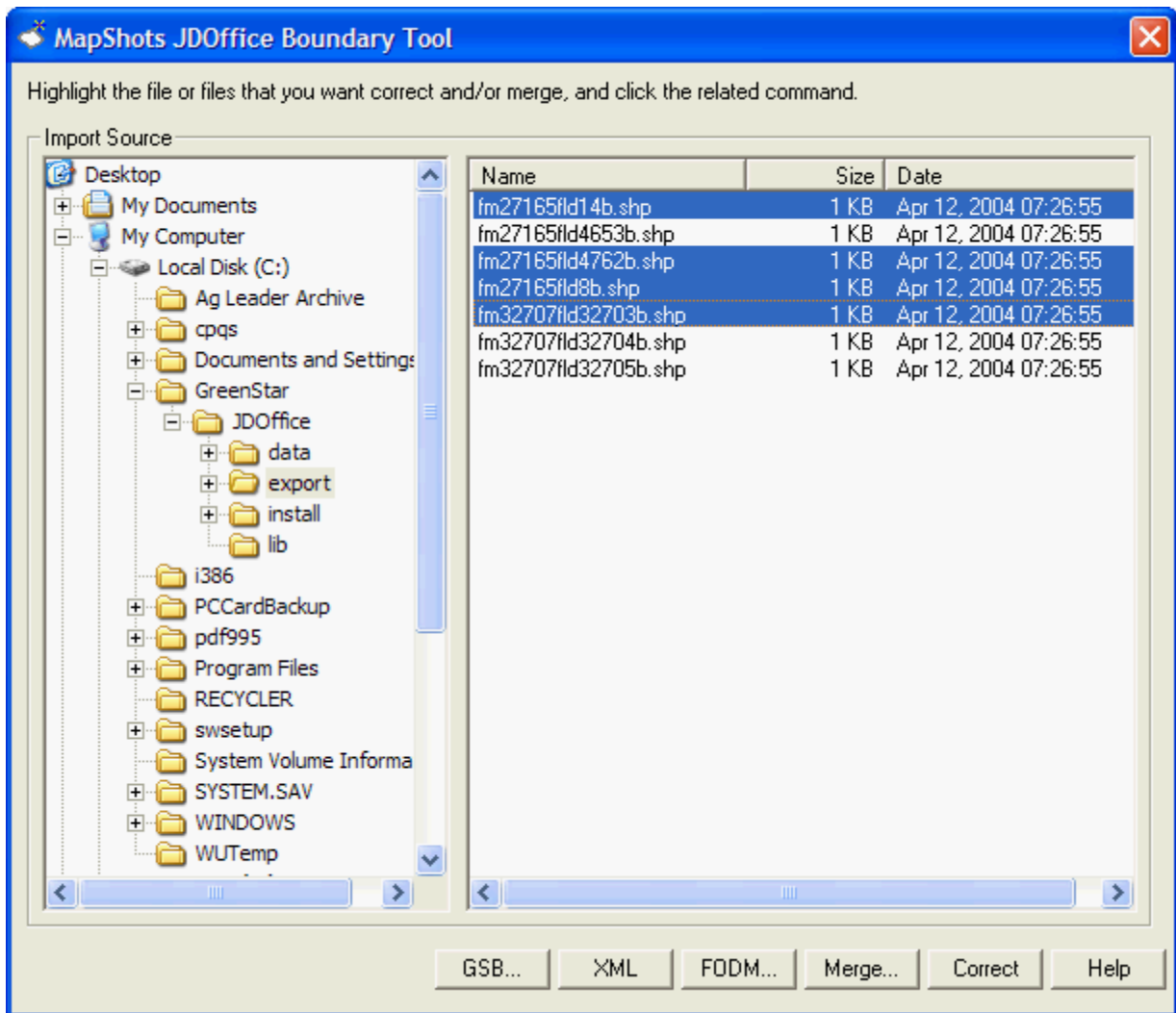
The order of these columns within the shapefile is not important. Additional columns may be included in the shapefile. They will be ignored during the transformation. The entire set of fields

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to be transformed for import into JDOOffice may be conveyed in a single shapefile, one field per shapefile, or anything in between (such as a shapefile for each farm).

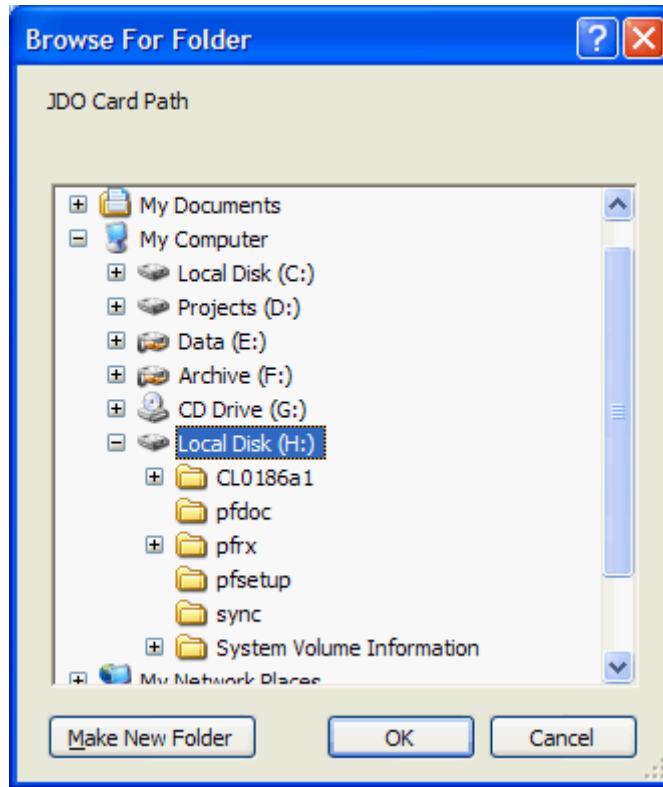
Transforming the Boundaries:

The shapefile boundaries are transformed into GreenStar boundaries (.gsb files) using the MapShots JDO Boundary Tool. Click Start | Programs | MapShots | JDO Boundary Tool to start this application. The program presents a conventional Windows Explorer type of interface. Use the left pane to navigate to the folder containing the shapefile(s) to be transformed. The available shapefiles in the folder are displayed in the right pane. Select one or more of the shapefiles to be transformed. Use conventional Windows multi-select techniques (Shift-Click or Ctrl-Click) to select multiple files.



With one or more files highlighted, click the GSB... button. A small dialog will be displayed from which you will select a folder into which the .gsb files will be exported.

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It is important that you insert your Greenstar data card and select your card drive as the folder. To import these boundaries into JDOffice, you will use the “Unload from Card” command, and you will unload “GreenStar Boundaries”. Therefore, the .gsb files that are generated from the shapefiles must be placed in the pfdoc folder of the greenstar data card in order to be unloaded. The pfdoc subfolder will automatically be created as part of the transformation, so you should select the root of the card drive, as shown in the illustration.

Unloading the Boundaries into JDOffice:

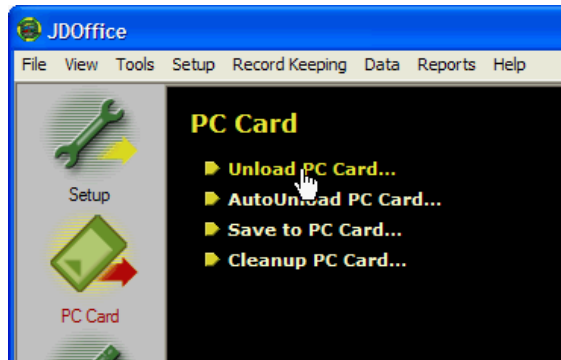
After you have completed the generation of shapefile boundaries and have transformed those boundaries into GreenStar boundaries, you are ready to unload them into JDOffice. The process is called unloading, because GreenStar boundaries are normally created logging the vehicle path while driving around the perimeter of the field. Then the boundaries are unloaded from the card, just as if they were harvest or application logs.

For a detailed description of the unload process, please refer to the JDOffice documentation. However, a simple guide to the process is provided here for your reference.

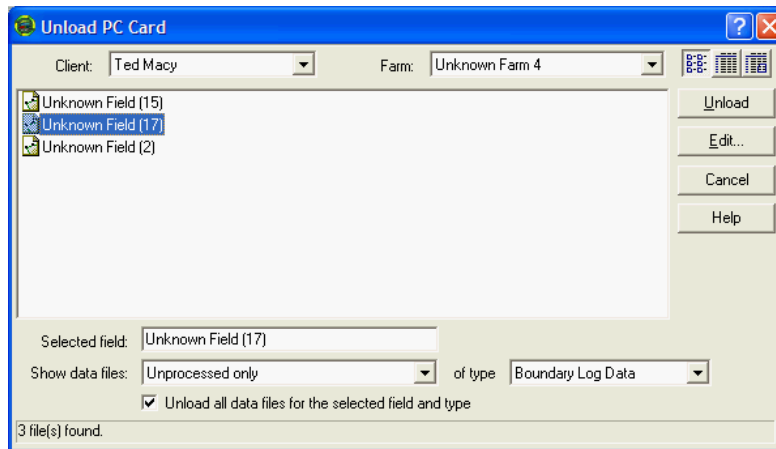
For each field to be imported:

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Select the **Unload PC Card** command.



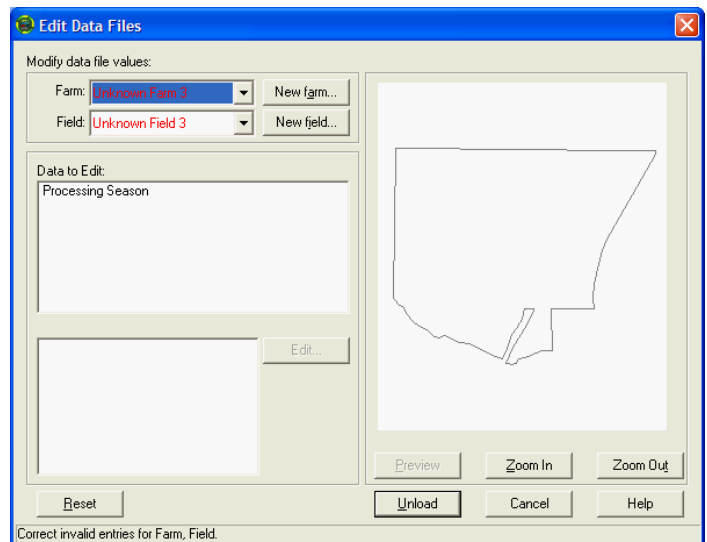
From the **Unload PC Card** dialog, select a single field and click **Unload**.



From the **Edit Data Files** dialog:

- Select a farm or create a new farm
- Select a field or create a new field
- Click the Unload button

Note, if the shapefiles contain FarmName and FieldName columns, then the entries such as "Unknown Farm 3" will be replaced with "Assigned Name <farm name>" where <farm name> is replaced with the name from your shapefiles. While you will still have to create a new farm and field with the right name, you can readily use the name from the shapefile in order to assign the imported fields to the new farms and fields that you create.



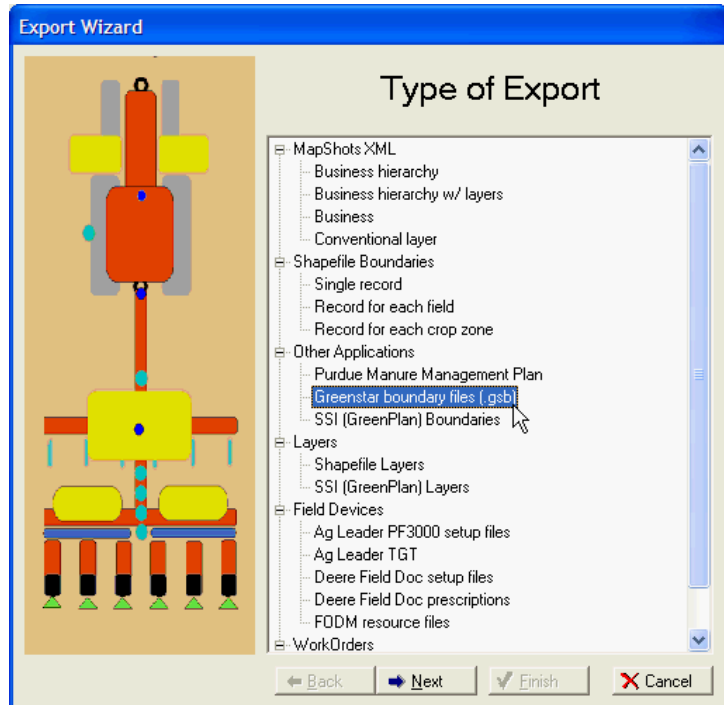
After unloading all of the .gsb files, JDOOffice will be loaded with the set of field boundaries that were transformed from the original shapefiles.

Exporting Compatible Boundaries from Common Applications

MapShots EASi Suite:

EASi Suite has a built-in command for exporting .gsb boundary files directly from within its export wizard. The command is available at the Business, Farm, Field, and CropZone level of the Field explorer.

From the second pane of the wizard, you will most likely select the Greenstar data card drive. However, you may select any other folder or make a new folder. The export process will AUTOMATICALLY make a pfddata subfolder and will create a .gsb file for each CropZone that is a descendent of the selected domain.



Farm Works Farm Site:

Farm Site and Site Pro users have the ability to export the field boundaries as ArcView Shape Files. These Shape Files include attributes that are required to convert the boundaries to a .gsb file for use in JD Office. In order to convert the boundaries, they must be exported from the Main Farming Layer as a Shape File. Note that this functionality is only available with Farm Site or Site Pro version 9.207 and higher. The following are the steps required to do this:

1. Go into the project that you are using.
2. Select the **Layer Management** button.
3. Move the "Main Farming Layer" to the **Displayed Layers** listing so it is the Top/Active layer.
4. Select the **Done** button.
5. Go to the **File** menu and select **Export**.
6. Select "ArcView Shape File" for the "**Export Type**".
7. Select the **Browse** button and enter a name for the file. Make a note of the folder/directory where the file will be created.
8. Make sure that the **Layer** is the Main Farming Layer.
9. Select the **Export** button and the layer will be exported as a Shape File.

The resulting Shape File can be converted to a .gsb file using the JDO Boundary Tool program and the steps described within this document.