

The CEDRA Corporation's COMMAND OF THE MONTH

A monthly information bulletin

August 2008

FEATURED COMMAND

Mailing Labels and
Exporting Attributes



Application Description

Those of you who are involved in citizen notification applications will have probably come across the need to generate mailing labels.

An example where it is necessary to generate mailing labels is when the utility department is going to close one or more water valves which will temporarily suspend water service for a particular area. In this case, the municipality needs to inform those residents who will be effected by this work. Obviously, there are many other examples but the end result is the same, the municipality needs to send out letters or flyers informing the appropriate individuals of some action that will occur.

The question becomes, how does an ArcMap user generate mailing labels that contain the addresses for the people who are to be informed.

This application has become even more important because with the release of ArcGIS 9.3, the full version of the Crystal Reports software from Business Objects is no longer included with ArcGIS. As such, the ability to produce mailing labels using Crystal Reports is no longer available. For those who are not familiar with Crystal Reports, this software is a very powerful tool in the production of reports using tabular data.

By not including Crystal Reports with ArcGIS, procedures which have been used in the past to produce mailing labels, as well as other types of reports, are no longer available.



Figure 1
CEDRA-MailingLabels-Menus Toolbar

Before proceeding with the CEDRA solution it should be pointed out that ArcMap users who have used Crystal Reports to generate mailing labels in the past, using ArcGIS 9.1 or 9.2, can continue to use the procedures they have been using. This is because the full version of Crystal Reports was included with the earlier releases of ArcGIS.

Command Of The Month bulletin

This month's issue discusses how Mailing Labels can be created and how attributes for a layer or table can be exported into a text file.

However, if you are a new ArcGIS 9.3 user (one who does not have an earlier release of ArcGIS), procedures which employed Crystal Reports can not be used since the full version of Crystal Reports is not included with ArcGIS 9.3.

For those users who: (a) do not have the full version of Crystal Reports and who do not wish to license the full version of the Crystal Reports software, or (b) wish to employ a generic approach in generating mailing labels, this issue of Command of the Month should be of special interest.

The CEDRA Solution

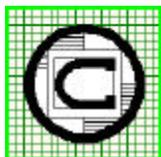
To address the application of generating mailing labels, the [Mailing Labels File] and [Export Attributes] commands were created. These new commands appear in the Mailing Labels Tools choice list as shown in Figure 1. This choice list is included in the CEDRA-MailingLabels-Menus toolbar.

To generate the mailing labels, these new commands do not offer Word Processing capabilities, but rather, produce an ASCII based text file that can be printed from any program that offers the ability to process text files.

Two approaches have been taken in the generation of mailing labels.

The **first**, which the [Mailing Labels File] command addresses, is to create an ASCII text file that contains the addresses in a format that can be printed directly on mailing labels or envelopes. That is to say, the text file that is produced is formatted so that the user can simply open the file and send it to the appropriate printer. Should the user wish to modify the file, the user can employ native functionality within the Word Processing software to make the appropriate modifications.

The **second** approach, which the [Export Attributes] command addresses is to produce a comma delineated ASCII based file containing the desired attributes that are to be used in generating the mailing labels. Since this is a generic database file, a macro or some utility program will need to be employed to convert the data,



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contained in this file, into a suitable mailing label address format.

Mailing Labels File - Overview

The [Mailing Labels File] command operates on the active feature layer in the Table of Contents. If there is: (a) no active layer, (b) more than one active layer, or (c) a table is active, an appropriate error message is displayed such as the ones shown in Figures 2, 3 and 4.



Figure 2 - No Active Layer Error Message



Figure 3 - More than 1 active Layer Error Message



Figure 4 - Table is Active Error Message

In this case select the OK button, make the appropriate correction and re-select the command.

The [Mailing Labels File] command is able to process either: (a) all of the features in the active layer, or (b) just the selected features.

Following up on the example, which was presented in the Application Description section, where one or more water valves are closed and the effected residents are to be informed, the question becomes, how does one identify the

addresses that are effected. Assuming a polygon layer contains the address information, one solution would be to:

- a. Graphically draw a polygon that touches or intersects every polygon between the valves that are to be closed. The New Polygon tool, , on the Draw toolbar can be used to accomplish this.
- b. Set the layer to be searched with the {Selection} [Set Selectable Layers...] command. The user simply clicks in the square to the left of the polygon layer name to either display or remove a check mark. If a check mark appears in the square, the layer is selectable, if a check mark does not appear, the features in the layer can not be selected. Once the appropriate check marks

have been identified, select the Close button.

- c. Use the {Selection} [Select By Graphics] command to select the polygons that touch or intersect the polygon drawn in Step a.

Using the active layer in the Table of Contents, the [Mailing Labels File] command extracts all of the field names in the layer that can be used in the generation of the mailing labels.

A multi-input dialog box is presented to the user, such as the one shown in Figure 5, from which the user specifies:

- a. the attribute or field that corresponds to an address component, and
- b. the mailing label formatting parameters.

Figure 5 - List Dialog Box for Selecting Attributes to be Transferred

This information is used in the preparation of the mailing list file. Once the file has been created, the user has the option to launch a Word Processing program to view, modify and/or print the file.

The default Word Processing program is WordPad, which is denoted by the Write option, see Figure 5. Should the user wish to use another program, the user can simply specify another value for this parameter.

Mailing Labels File - Operation

1. Activate or select in the Table of Contents the layer that is to be processed. That is, the layer that contains the address information.
2. If only a selected set of features are to be processed, select the appropriate features.
3. Select the [Mailing Labels File] command. If there is: (a) no active layer, (b) more than one active layer, or (c) a table is active, an appropriate error message is displayed such as the ones shown in Figures 2, 3 and 4.
4. Fill in the appropriate data for the various parameters shown in Figure 5.

The multi-input dialog box of shown in Figure 5 contains parameters that pertain to: (a) the fields (attributes) which represent the address components and (b) the mailing label positioning parameters.

Shown in Figure 6(a) are the seven address components. The address components can be arranged in two formats. Figure 6(a) illustrates the look of Format 1, while Figure 7(a) illustrates the look of Format 2. Figures 6(b) and 7(b) contain samples of both formats. Shown in Figure 8 are the mailing label positioning parameters.

Beginning at the top of the dialog box, the user is able to control the following:

Data Line 1 - Features to Process

From the choice list, select the option All Features or Selected Features to denote whether all features in the layer are to be processed or just the selected features. If the Selected Features option is selected but the active layer does not contain any selected features, an error message will be displayed and the command will abort.

Data Line 2 - Attribute 1 - Name

From the choice list, select the attribute that contains the Name component of an address. If this parameter is not to be used, the <none> option should be selected.

Data Line 3 - Attribute 2 - Organization

From the choice list, select the attribute that contains the Organization component of an address. If this parameter is not to be used, the <none> option should be selected.

Data Line 4 - Attribute 3 - Address 1

From the choice list, select the attribute that contains the Address 1 component of an address. If this parameter is not to be used, the <none> option should be selected.

Data Line 5 - Attribute 4 - Address 2

From the choice list, select the attribute that contains the Address 2 component of an address. If this parameter is not to be used, the <none> option should be selected.

Data Line 6 - Attribute 5 - City

From the choice list, select the attribute that contains the City component of an address. If this parameter is not to be used, the <none> option should be selected.

Data Line 7 - Attribute 6 - State

From the choice list, select the attribute that contains the State component of an address. If this parameter is not to be used, the <none> option should be selected.

Data Line 8 - Attribute 7 - Zip Code

From the choice list, select the attribute that contains the Zip Code component of an address. If this parameter is not to be used, the <none> option should be selected.

Data Line 9 - Mailing List File

Enter the name of the mailing label text file that should be created or select the file browsing icon on the right side of the parameter to navigate to the desired folder and either select or enter the file name.

Data Line 10 - Upper Left Corner Down

Enter the number of lines down from the upper left corner of the label where the first address component (Name) is to appear, see Figure 8.

Data Line 11 - Upper Left Corner Over

Enter the number of characters from the left side of the label where the address components are to start, see Figure 8.

Data Line 12 - Number of Columns

Enter the number of columns that are to appear per page, see Figure 8. Note that Figure 8 illustrates how 3 columns per page would look.

Data Line 13 - Number of Rows

Enter the number of rows of addresses that are to appear per page, see Figure 8. Note that Figure 8 illustrates how 3 rows per page would look. In addition, when the number of rows per page has been reached, the command writes a Form

```

Name
Organization
Address 1
Address 2
City, State Zip Code

```

Figure 6(a) - Address Components - Format 1

```

Mr. John Smith
The CEDRA Corporation
151 Sully's Trail
P.O. Box 630
Pittsford, New York 14534

```

Figure 6(b) - Address Components Format 1 Example

```

Name
Organization Address 1 Address 2
City, State Zip Code

```

Figure 7(a) - Address Components - Format 2

```

Mr. John Smith
151 Sully's Trail
Pittsford, New York 14534

```

Figure 7(b) - Address Components Format 2 Example

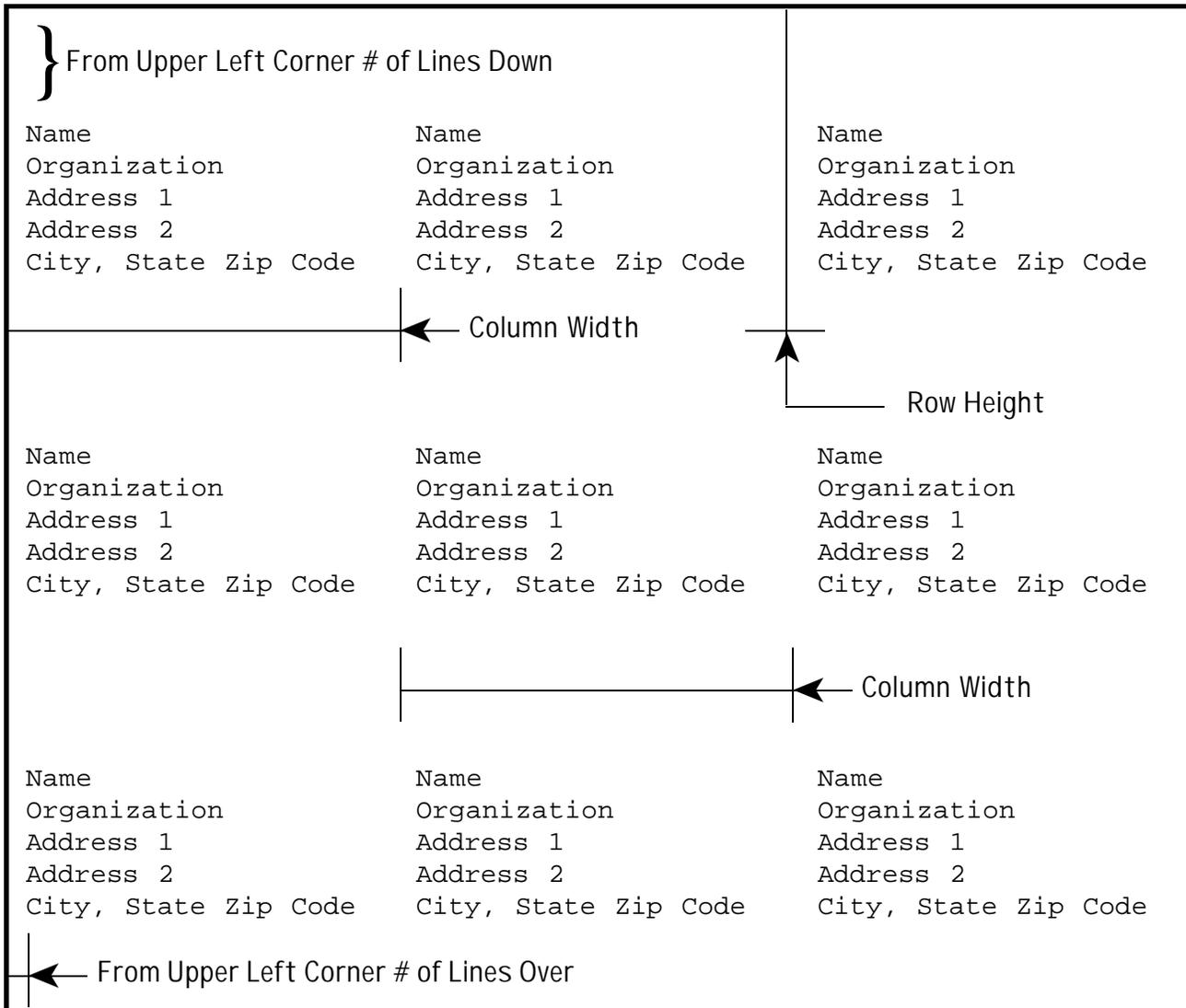


Figure 8 - Mailing Labels Positioning Parameters

Feed or new page character to the text file, so that, the next set of addresses will appear on a new page.

Data Line 14 - Column Width

Enter the maximum number of characters that are to appear in a column. When placing multiple columns on a page, this value is used in positioning the subsequent columns, see Figure 8.

Data Line 15 - Row Height

Enter the maximum number of lines that are to appear in a row of addresses, see Figure 8. A value of 0 denotes that the command is to start the number of lines down from the last line in the address. A non-zero value will force the program to output blank lines, if need be, to satisfy the nonzero value. For example, if the Row Height value is 15 and the Lines Down value is 8 and the address occupies 5 lines. The command will write 2 blank lines to satisfy the Row Height value ($8+5+2=15$).

Data Line 16 - Program to Print Labels

From the choice list, select the program that is to be used in printing the mailing labels. The default, Write, indicates that the WordPad program will be used (*the WordPad program is actually called write.exe*). If the option <none> is selected, no program will be launched once the mailing list file has been created. As such, the user will have to manually invoke the appropriate program to print the mailing labels. Should the user wish to use a different program, the user is able to enter a text string that reflects the path of the program to be launched or executed, for example `c:\windows\notepad.exe`.

Data Line 17 - Place Attributes 2,3 and 4

From the choice list, specify whether attributes 2, 3 and 4 are to be placed

on a single line or not. If the attributes are to be concatenated and placed on a single line, select the Yes option, otherwise, select the No option. Figure 7(a) is an example of when the Yes option is selected for this parameter.

After entering the appropriate value(s), click at the:

- *Cancel* button to terminate the command, or the
 - *OK* button to begin the generation of the mailing list file.
- 5a.** If the <none> option **was** selected for the Program to Print Labels parameters, the command will terminate.
- 5b.** If the <none> option **was not** selected for the Program to Print Labels parameters, the command will execute or launch the program that was specified. At this point, the specified program should appear with the mailing list file displayed within the program. The user is now able to: (a) make any modifications, (b) configure the appropriate printer and (c) print the mailing labels.

Notes

- a.** When attributes 2, 3 and 4 are concatenated as denoted by the Yes option for the Data Line 17 parameter, a single space is used to separate each attribute value from each other.
- b.** The Address 1 component as defined by the Data Line 4 parameter can contain the + character to indicate that multiple fields are to be concatenated to form the Address 1 value.

For example, a layer contains attributes called A, B and C. It is desired to have these three attributes concatenated to form the Address 1 value. To do so, the user can explicitly enter the string A+B+C in the data field to the right of the Address 1 label. This convention

applies only to the Address 1 parameter and not to any of the other parameters. There is no limit to the number of attributes that can be concatenated.

- c.** If an address component is not to be used the <none> should be selected for the particular component.
- d.** If the user enters a string for the Data Line 16 parameter that results in the command not being able to successfully launch the program an error message will be displayed and the command will terminate. In this case, the mailing list text file will still have been created and as such, the user will have to manually invoke the desired program to view and/or print the text file.

Export Attributes - Overview

The [Export Attributes] command operates on the active feature layer or table in the Table of Contents. If there is: (a) no active layer or (b) more than one active layer, an appropriate error message is displayed such as the ones shown in Figures 9 and 10.



Figure 9 - No Active Layer Error Message



Figure 10 - More than 1 active Layer Error Message

In this case select the OK button, make the appropriate correction and re-select the command.

The [Export Attributes] command is able to process either: (a) all of the features

in the active layer, or (b) just the selected features.

Using the active layer in the Table of Contents, the [Export Attributes] command extracts all of the field names in the layer that can be exported.

A multi-input dialog box is presented to the user, such as the one shown in Figure 11, from which the user specifies:

- the number of attributes to be exported, and
- information pertaining to the “look” of the file to be created.

Using the information specified by the user, a comma delineated ASCII based file is created containing the values for the attributes that are to be exported. This file can then be imported into most any other software for further processing.

Export Attributes - Operation

1. Activate or select in the Table of Contents the layer or table that is to be processed. That is, the layer or table whose attributes are to be exported.
2. If only a selected set of features are to be processed, select the appropriate features or rows.
3. Select the [Export Attributes] command. If there is: (a) no active layer or (b) more than one active layer, an appropriate error message is displayed such as the ones shown in Figures 9 and 10.
4. Fill in the appropriate data for the various parameters shown in Figure 11.

Beginning at the top of the dialog box, the user is able to control the following:

Data Line 1 - Features to Process

From the choice list, select the option All Features or Selected Features

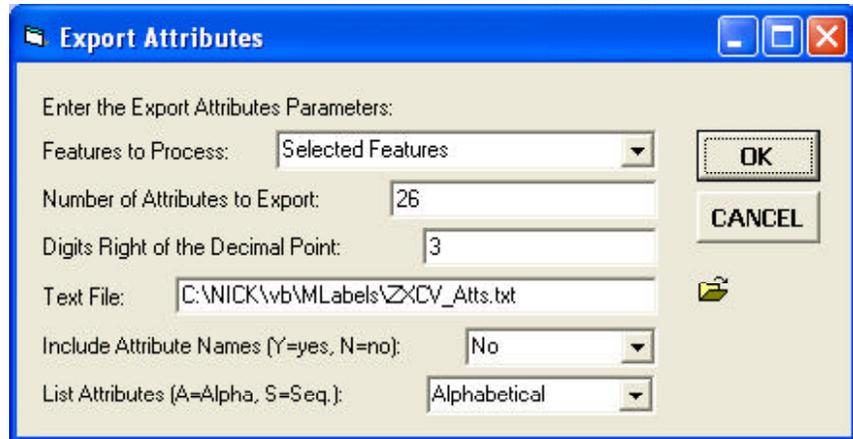


Figure 11 - Export Attributes Multi-Input Dialog Box



Figure 12 - No Selected Features Error Message

to denote whether all features in the layer are to be processed or just the selected features. If the Selected Features option is selected but the active layer does not contain any selected features, an error message, see Figure 12, will be displayed and the command will abort.

Data Line 2 - Number of Attributes

Enter the number of attributes to be exported. The default value displayed represents the total number of attributes in the layer or table that can be exported. Using this parameter, the user is able to control exactly how many attributes should be exported. That is to say, not all of the attributes within the layer or table have to be exported.

Data Line 3 - Digits Right of Decimal

Enter the number of digits to the right of the decimal point that should be included for floating point values. This value is only used for double and single precision fields

whose scale property is 0. If the scale property is not zero, then the scale property value for the attribute will be used in the exporting of the value.

Data Line 4 - Text File

Enter the name of the text file that should be created or select the file browsing icon on the right side of the parameter to navigate to the desired folder and either select or enter the file name.

Data Line 5 - Include Attribute Names

From the choice list, select the option to indicate if the first line in the text file should contain the names of the attributes being exported. If the No option is selected, no attribute names will appear in the file. If the Yes option is selected, the command will force the first line in the text file to contain the names of the attributes being exported with each name separated by a comma.

Data Line 6 - List Attributes

From the choice list, select the option denoting the default order of the attributes. The user can select either Alphabetical or Sequential. That is to say, the user can export the attributes according to: (a) an ascending alphabetical order of the

attribute names, or (b) the sequential order in which the attributes appear in the layer or table.

After entering the appropriate value(s), click at the:

- *Cancel* button to terminate the command, or the
- *OK* button to continue with the processing.

5. The command now displays a dialog box similar to the one shown in Figure 13.

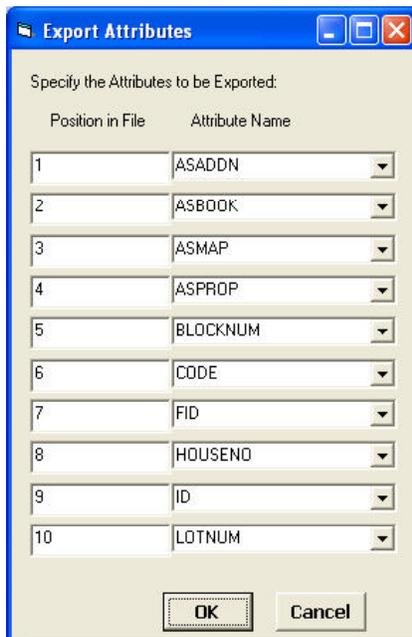


Figure 13 - Attribute Selection and Position Dialog Box

This dialog box contains two columns with the first column indicating the position of the attribute on a data line, while the second column contains the name of the attribute to be exported. The user can now specify which attribute is to be exported at a specified position on a data line.

After entering the appropriate attribute in the second column, click at the:

- *Cancel* button to terminate the command, or the
- *OK* button to begin the generation of the text file.

```

PLAT_NAME , PARCEL_ADD , HOUSENO , ST_NAME , TILENO , SOURCE
VILLAS , 2345 VIEWMONT CT , 2345 , VIEWTRAIL , 180914 , CEDRA
VILLAS , 3116 SHORTGRASS ROAD , 3116 , TALLGRASS , 180914 , CEDRA
VILLAS , 3117 VIEWMONT CT , 3117 , VIEWTRAI , 180914 , CEDRA
VILLAS , 3101 VIEWMONT CT , 3101 , VIEWTRAI , 180914 , CEDRA
VILLAS , 3125 VIEWMONT CT , 3125 , VIEWTRAI , 180914 , CEDRA
VILLAS , 2101 VIEWMONT ROAD , 2101 , VIEWTRAI , 180914 , CEDRA
VILLAS , 3141 VIEWMONT CT , 3141 , VIEWTRAI , 180914 , CEDRA
VILLAS , 3142 VIEWMONT ROAD , 3142 , VIEWTRAI , 180914 , CEDRA
VILLAS , 3109 VIEWMONT CT , 3109 , VIEWTRAI , 180914 , CEDRA
VILLAS , 3133 VIEWMONT CT , 3133 , VIEWTRAI , 180914 , CEDRA
VILLAS , 3132 SHORTGRASS ROAD , 3132 , TALLGRASS , 180914 , CEDRA
VILLAS , 3124 SHORTGRASS ROAD , 3124 , TALLGRASS , 180914 , CEDRA
VILLAS , 3108 SHORTGRASS ROAD , 3108 , TALLGRASS , 180914 , CEDRA
    
```

Figure 14 - Sample Text File Created by the [Export Attributes] Command with the Attribute Names included

6. Once the command has finished creating the text file a message in the status bar area will appear indicating the number of features or records processed and the name of the file that was created.

All ArcGIS users who have a need to export attribute data will definitely be interested in the [Export Attributes] command. This command is particularly more functional than using native ArcMap functionality to export attribute data.

Notes

- a. If a NULL value is encountered it will be replaced with a blank or 0 depending upon the field type of the attribute.
- b. Shown in Figure 14 is a sample text file created by the [Export Attributes] command with the Data Line 5 parameter set to Yes. If this parameter was set to No, then the first data line shown in Figure 14 would not appear in the file.

As always, should the reader have any comments or suggestions they should feel free to forward them to us.

Summary

This command has been recently added and users with a software support agreement should check with The CEDRA Corporation on how to obtain a software update so as to be able to use this new tool.

ArcGIS users who have recently acquired Version 9.3 and who do not have the full version of Crystal Reports and who have a requirement to produce mailing labels will definitely be interested in the [Mailing Labels File] command.

If you have a request for Command Of The Month, feel free to phone, fax or e-mail your request to The CEDRA Corporation.