

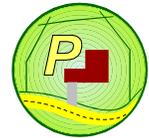
The CEDRA Corporation's COMMAND OF THE MONTH

A monthly information bulletin

September 2006

FEATURED COMMAND

Parcel Combining



Application Description

In last month's issue of Command of the Month, we discussed the common parcel maintenance procedure of how to split polygons and parcels. Continuing with the parcel maintenance topic, this month we address the process of combining polygons and parcels.

By combining polygons or parcels, the area of one or more selected features (polygons or parcels), which overlap a base feature (polygon or parcel), is removed from the base feature. If all of the selected features are completely within the base feature, the user is able to create a hole or a "doughnut" shape.

The CEDRA Solution

To address the application described above, the [PARCEL COMBINE] command, , can be employed. This tool may be displayed as indicated below depending upon the GIS system in use:

- (a) ArcGIS® users should activate the CEDRA-AVparcel-Tools toolbar to display the CEDRA-AVparcel-Tools toolbar shown in Figure 1.
- (b) ArcView® GIS users should select the {AVparcel Tools} [Tools on Toolbar (Hide/Show)] command, the result of which is shown in Figure 2.

Note that, regardless of the environment the user is working in, ArcGIS® or ArcView® GIS, the operation of the [PARCEL COMBINE] command is the same.



Figure 1
CEDRA-AVparcel-Tools Toolbar for ArcGIS Users



Figure 2
CEDRA-AVparcel Tools on Toolbar (Hide/Show) for ArcView GIS Users

Combining Parcels Tool - Overview

As described above, the function of this tool is to remove from a base feature the area of one or more selected features that overlaps the base feature. In using this tool, the command differentiates between an ArcView/ArcGIS polygon feature and a CEDRA-AVparcel Parcel. A CEDRA-AVparcel Parcel carries with it certain topological information, while an ArcView/ArcGIS polygon does not.

Command Of The Month bulletin

This month's issue discusses the process of combining parcels or polygon features.

For the purpose of this discussion, the combining of an ArcView/ArcGIS polygon is referred to as Polygon Combining, while combining a CEDRA-AVparcel Parcel is referred to as Parcel Combining. In addition, we will refer to an ArcView/ArcGIS polygon simply as a polygon, while a CEDRA-AVparcel Parcel will be referred to as a parcel.

The [PARCEL COMBINE] command can be used to process both polygons and parcels.

Combining Parcels Tool - Operation

Once the tool has been activated, the following steps can be performed:

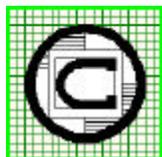
Polygon Combining

1. Make a pick in the map area to identify the polygon to be processed. Only one polygon can be combined at a time. Once the pick has been made and a feature found, a confirmation message box similar to the one shown in Figure 3 will be presented.



Figure 3
Polygon Confirmation Query Box

2. Click at the:
 - *Cancel* button to terminate the



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command. At which point, the user can select another polygon or another command.

- *No* button to denote that the feature, which was found, is not the desired feature and that the command should try to find another feature based upon the pick, which was made. If no element can be found, the program beeps, and the user is able to make another pick. If another element can be found, the confirmation box of Figure 3 reappears and the process is repeated.
- *Yes* button to confirm the selection of the polygon.

3. Select the polygon or group of polygons to be combined with the base polygon.

In combining polygons, the user may pick a single polygon or define a rectangle that captures some portion of a group of polygons. In selecting these polygons, the program first determines:

- If there *are active* themes (layers), if so, only the active themes (layers) will be searched.
- If there *are no active* themes (layers), then only the visible themes (layers) will be searched.

If a pick is made such that no element can be found, the program issues a beep and the user is prompted, in the status bar area (as shown below), to select the base parcel or polygon.

Select the base parcel or polygon

Note that if the base feature is included in this selection, the command will ignore the selection of the base feature. As such, the user does not have to worry if the base feature is “caught” in the selection or not.

If at least one element is found, the confirmation message box of Figure 4 is displayed.



Figure 4
Polygons to be Combined Query

4. Click at the:
 - *Cancel* button to terminate the command.
 - *No* button to ignore the selected features and to select another base feature for processing.
 - *Yes* button to confirm the selection of the polygons.

If the *Yes* button is selected, the command performs the combine operation and highlights in the color red the result. The query message box of Figure 5 is then displayed.

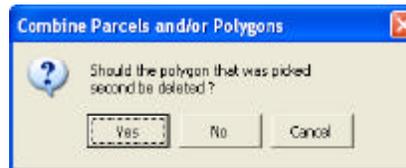


Figure 5
Delete Polygons Query

5. Click at the:
 - *Cancel* button to accept the result of the combine operation and to leave the polygons selected in Step 3 unaltered.
 - *No* button to accept the result of the combine operation and to leave the polygons selected in Step 3 unaltered.
 - *Yes* button to accept the results of the combine operation and to delete the polygons which were selected in Step 3.

The command remains active for processing another polygon if desired.

Note that if the polygons which are selected in Step 3 do not overlap the base feature at all, this command will union the polygons.

Parcel Combining

1. Make a pick in the map area to identify the parcel to be processed. Only one parcel can be combined at a time. Once the pick has been made and a feature found, a confirmation message box similar to the one shown in Figure 6 will be presented.

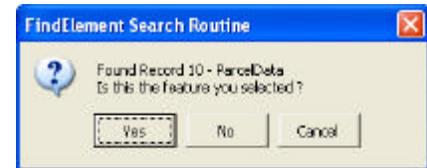


Figure 6
Parcel Confirmation Query Box

2. Click at the:
 - *Cancel* button to terminate the command. At which point, the user can select another parcel or another command.
 - *No* button to denote that the feature, which was found, is not the desired feature and that the command should try to find another feature based upon the pick, which was made. If no element can be found, the program beeps, and the user is able to make another pick. If another element can be found, the confirmation box of Figure 6 reappears and the process is repeated.
 - *Yes* button to confirm the selection of the parcel.
3. Select the polygon or group of polygons to be combined with the base parcel.

In combining parcels, the user may pick a single polygon or define a rectangle that captures some portion of a group of polygons. In selecting these polygons, the program first determines:

- If there *are active* themes (layers), if so, only the active themes (layers) will be searched.
- If there *are no active* themes (layers), then only the visible themes (layers) will be searched.

If a pick is made such that no element can be found, the program issues a beep and the user is prompted, in the status bar area (as shown below), to select the base parcel or polygon.

Select the base parcel or polygon

Note that if the base feature is included in this selection, the command will ignore the selection of the base feature. As such, the user does not have to worry if the base feature is “caught” in the selection or not.

If at least one element is found, the confirmation message box of Figure 4 is displayed.

4. Click at the:
 - *Cancel* button to terminate the command.
 - *No* button to ignore the selected features and to select another base feature for processing.
 - *Yes* button to confirm the selection of the polygons.

If the Yes button is selected, the command performs the combine operation and highlights in the color red the result.

The query message box of Figure 7 is then displayed inquiring whether the polygons which were selected in Step 3 are to be deleted or not.



Figure 7
Delete Parcels Query

5. Click at the:
 - *Cancel* button to accept the result of the combine operation and to leave the polygons selected in Step 3 unaltered.
 - *No* button to accept the result of the combine operation and to leave

the polygons selected in Step 3 unaltered.

- *Yes* button to accept the results of the combine operation and to delete the parcels which were selected in Step 3.

The command now prompts the user for the Parcel Identification Number (PIN) to be assigned to the combined parcel, as shown in Figure 8.

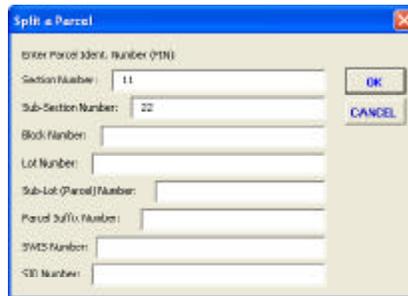


Figure 8
Parcel PIN Dialog Box

Using this dialog box, see Figure 8, the user is able to assign the PIN of the newly created combined parcel. The default PIN displayed in the dialog box is the PIN of the parcel being combined. Note that the format of the dialog box will vary depending upon the PIN format in use.

6. Enter in the respective data fields the new parcel's PIN.
7. Click at the *OK* button to confirm, or click at the *Cancel* button to abort the command.

The command remains active for processing another polygon if desired.

Note that if the polygons which are selected in Step 3 do not overlap the base feature at all, this command will union the polygons.

Note

Attributes of the polygon or parcel being combined are maintained with the exception that the geometric attributes are updated to properly reflect the combine operation.

Summary

The [PARCEL COMBINE] command provides a straightforward approach to combining a polygon or a parcel. Shown in Figure 9 are two overlapping polygons. Using the [PARCEL COMBINE] command, the user first selects and confirms the blue polygon. Afterwards, the green polygon is selected and confirmed. By selecting the *Yes* button in response to the delete polygon query, see Figure 5 or 7, the result shown in Figure 10 can be attained. Readers should feel free to forward any comments they may have regarding the use or operation of this command.

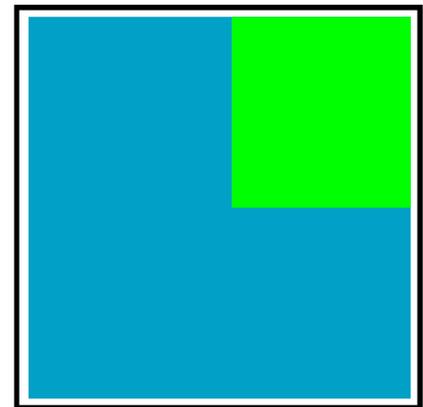


Figure 9
Two Polygons to be Combined

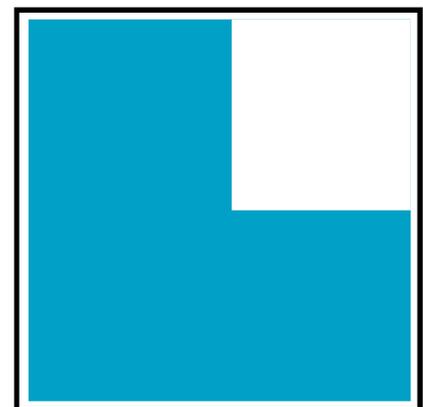


Figure 10
[PARCEL COMBINE] Result

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