Presentation Title: Digital Mapping Processes & Property Maintenance Procedures in the Johnson County Clerk's Office
Presenter: Janet Jacobs, Rod Odom, and Steve Tolman
Software: ESRI ARC/INFO 7.2.1 (UNIX)

Problem:
How can I create separate coverages from a single DXF file?

Code Sample:

```
/*********************************************************************
/* AML NAME:  MULTDXFARC  (MULTiple DXFARC commands)
/*
/* AML DESCRIPTION:
/*   This AML facilitates repeated use of the DXFARC command.  It
/* assumes that multiple coverages will be created from a single
/* DXF file.
/*
/*
/* INPUT PARAMETERS:
/*   - none
/*
/*********************************************************************
/*
/*                    M A I N   M O D U L E
/*
/*********************************************************************
  &args dxf_filename
  &call init1
  &call open_dxfspec_file
  &call dxfarc_session
  &call close_dxfspec_file
  &return
/*********************************************************************
/*
/*                    S U B R O U T I N E S
/*
/*********************************************************************
/*   Subroutine:
/*-------------------------------------------------------------------
  &routine init1

  &severity &error &fail

  &if [show program] <> ARC &then
    &return &error Must be in ARC ....

  &if [null %dxf_filename%] = .true. &then
    &sv dxf_filename = [getfile *.dxf -file 'Select DXF file']

  &sv dxfspec_filename = [getfile *.dxfspec -file 'Select DXFSPEC file']
/*&sv dxfspec_filename = [before %dxf_filename% .].dxfspec

  &sv carriage_return = ' '

  &return
```

```
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine dxfarc_session

/*  &tty dxfarc %dxf_filename% %temp_cvg%

  &sv eof = 0
  &do &until %eof% = 1
    &sv record = [unquote [read %fileunit% readstatus]]
    &select %readstatus%
      &when 0
        &do
        &sv current_time = [after [date -ftag] .]
        &sv temp_cvg = xx%current_time%
        dxfarc %dxf_filename% %temp_cvg%
        %record%
        %carriage_return%
        y
        y
        &if [exists %temp_cvg% -cover] = .true. &then
          &do
          /* If an acode INFO file exists for the coverage, then
          /* add COGO attributes ...
          &if [exists %temp_cvg%.acode -info] = .true. &then
            add_cogo_att %temp_cvg%
          &call arcedit_session
          &end
        &end
      &when 102
        &sv eof = 1
      &otherwise
        &return &error Error reading record from fileunit %fileunit%
    &end
  &end

  &return
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine arcedit_session

  display 9999 size frame 1000 800
  arcedit

  editcoverage %temp_cvg%
  drawenvironment all
  drawenvironment tic off
  drawenvironment node errors
  backcoverage [getcover # # 'Select a back coverage' -none] 2
  backenvironment all
  backenvironment tic off
  backenvironment node errors
  draw
```

```
&type
  &type %record%
  &type
  &type Type &RETURN to continue (Do not QUIT arcedit)
  &type
  &tty


  &if [query 'Do you want to keep this coverage (y/n)' .false.] = .true.
&then
    &do
    &sv cvg = [response 'What do you want to name the coverage']
    &if [exists %cvg% -cover] = .true. &then
      &do
      &type --> A coverage by that name already exists.
      &type --> Do you want to overwrite (o) or append (a)?
      &if [getchar ' '] = a &then
        &do
        editfeature arcs
        select all
        put %cvg%
        y
        quit yes
        kill %temp_cvg% all
        &end
      &else
        &do
        quit yes
        kill %cvg% all
        rename %temp_cvg% %cvg%
        &end
      &end
    &else
      &do
      quit yes
      /* If the coverage was killed without the all option then its
      /* acode info file will still be hanging around ... so delete it
      &if [exists %cvg%.acode -info] = .true. &then
        &sv delstat = [delete %cvg%.acode -info]
      rename %temp_cvg% %cvg%
      &end
    &end
  &else
    &do
    quit no
    kill %temp_cvg% all
    &end

  &return
```

```
/*********************************************************************
/*   Subroutine: Open File
/*---------------------------------------------------------------------
  &routine open_dxfspec_file
  &sv fileunit = [open %dxfspec_filename% status -read]
  &if %status% <> 0 &then
    &return &error Error opening %dxfspec_filename%
  &return
/*********************************************************************
/*   Subroutine: Close File
/*---------------------------------------------------------------------
  &routine close_dxfspec_file
  &if [close %fileunit%] <> 0 &then
    &return &error Error closing fileunit %fileunit%
  &return
/*********************************************************************
```

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Problem:
How can I create one coverage from separate coverages that were created after importing a single DXF file?

Code Sample:

```
/*********************************************************************
/* AML NAME:  DIGPLAT_DRIVER  (DIGital PLAT DRIVER)
/*
/* AML DESCRIPTION:
/*   This AML puts together the different coverages created when importing
/*   the DXF file.
/*
/*
/* INPUT PARAMETERS:
/*   - none
/*
/*
/*
/*********************************************************************
/*
/*                    M A I N   M O D U L E
/*
/*********************************************************************
  &call init1

  &sv cvg = %.sy$per%
  &call create_perimeter

/*If menu passes a non-null right-of-way coverage and that coverage is
/*named something other than none, then process it ...
  &if [null %.sy$row%] = .false. and %.sy$row% <> none &then
    &do
    &sv cvg = %.sy$row%
    &call create_right_of_way
    &end

  &if [null %.sy$lot%] = .false. and %.sy$lot% <> none &then
    &do
    &sv cvg = %.sy$lot%
    &call create_lot_lines
    &end

  &if [null %.sy$cl%] = .false. and %.sy$cl% <> none &then
    &do
    &sv cvg = %.sy$cl%
    &call create_centerlines
    &end

  &call create_plat
```

```
  &return
/*********************************************************************
/*                    S U B R O U T I N E S
/*
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine init1
  &severity &error &fail
  &if [show program] <> ARC &then
    &return &error Must be in ARC ....

/*If menu passes a null perimeter coverage or one named none, then
/*don't go any further ...
  &if [null %.sy$per%] = .true. or %.sy$per% = none &then
    &return &error Must select a perimeter coverage ...

/*Check plat coverage name ...
  &sv plat_cvg = %.sy$subcode%%.sy$page%
  &if [exists %plat_cvg% -cover] = .true. &then
    &do
    &type --> A coverage by the name of %plat_cvg% already exists.
    &type --> Do you want to overwrite (y/n)?
    &if [query ' '] = .true. &then
      kill %plat_cvg% all
    &else
      &return &error Process aborted ...
    &end

  &return
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine create_perimeter
/*&sv cvg = [response 'Name of perimeter coverage']
/*&sv cvg = [entryname [getcover # # 'Select perimeter coverage']]
  build %cvg% line
  &call cogo_attributes
  build %cvg% node
  renode %cvg%
  addxy %cvg% node
  snap %cvg%
  &run additems %cvg% aat
  &return
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine create_right_of_way
/*&sv cvg = [response 'Name of right-of-way coverage']
/*&sv cvg = [entryname [getcover # # 'Select right-of-way coverage']]
  build %cvg% line
  &call cogo_attributes
  build %cvg% node
  renode %cvg%
  addxy %cvg% node
  snap %cvg%
  &run additems %cvg% aat
```

```
  &return
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine create_lot_lines
/*&sv cvg = [response 'Name of lot lines coverage']
/*&sv cvg = [entryname [getcover # # 'Select lot lines coverage']]
  build %cvg% line
  &call cogo_attributes
  build %cvg% node
  renode %cvg%
  addxy %cvg% node
  snap %cvg%
  &run additems %cvg% aat
  &return
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine create_centerlines
/*&sv cvg = [response 'Name of centerlines coverage']
/*&sv cvg = [entryname [getcover # # 'Select centerlines coverage']]
  build %cvg% line
  &call cogo_attributes
  build %cvg% node
  renode %cvg%
  &run additems %cvg% aat
  &return
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine cogo_attributes

/*If the coverage does not have COGO attributes (which is indicated
/*by the lack of an item named angle) and an .acode file exists (thus
/*making it possible to add COGO attributes), then add COGO attributes.

  &if [iteminfo %cvg% -arc angle -exists] = .true. &then
    &type --> %cvg% already has COGO attributes
  &else
    &do
    &if [exists %cvg%.acode -info] = .false. &then
      &type --> Unable to add COGO attributes to %cvg% due to missing acode
file
    &else
      add_cogo_att %cvg%
    &end

  &return
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine create_plat

  &sv cvg = %.sy$per%
  &call copy_perimeter

  &call start_ae
```

```
  &if [null %.sy$row%] = .false. and %.sy$row% <> none &then
    &do
    &sv cvg = %.sy$row%
    &call merge_right_of_way
    &end

  &if [null %.sy$lot%] = .false. and %.sy$lot% <> none &then
    &do
    &sv cvg = %.sy$lot%
    &call merge_lot_lines
    &end

  &if [null %.sy$cl%] = .false. and %.sy$cl% <> none &then
    &do
    &sv cvg = %.sy$cl%
    &call merge_centerlines
    &end

  &call quit_ae

  &return
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine copy_perimeter
  copy %cvg% %plat_cvg%
  &return
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine start_ae
  display 9999 size frame 1000 800
  arcedit
  editcoverage %plat_cvg%
  drawenvironment arc node errors
  setdrawsymbol 2
  editfeature arc
  select all
  calc line = 13
  colorit
  draw
  &pause
  &return
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine quit_ae
  save
  quit
  &return
```

```
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine merge_right_of_way
/*&sv cvg = [response 'Name of right-of-way coverage']
/*&sv cvg = [entryname [getcover # # 'Select right-of-way coverage']]
  &sv arcsnap_dist = .00001
  &sv nodesnap_dist = .000005
  &sv line_value = 12
  &sv extend_dist = .1
  &sv delete_if_lt_dist = .1
  &call merge_common
  &return
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine merge_lot_lines
/*&sv cvg = [response 'Name of lot lines coverage']
/*&sv cvg = [entryname [getcover # # 'Select lot lines coverage']]
  &sv arcsnap_dist = .025  /*.05
  &sv nodesnap_dist = .025 /*.05
  &sv line_value = 10
  &sv extend_dist = .05  /*.2
  &sv delete_if_lt_dist = .05  /*.1
  &call merge_common
  &return
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine merge_centerlines
/*&sv cvg = [response 'Name of centerlines coverage']
/*&sv cvg = [entryname [getcover # # 'Select centerlines coverage']]
  &sv arcsnap_dist = .05
  &sv nodesnap_dist = .05
  &sv line_value = 17
  &sv extend_dist = .1
  &sv delete_if_lt_dist = .1
  &call merge_common
  &return
```

```
/*********************************************************************
/*   Subroutine:
/*---------------------------------------------------------------------
  &routine merge_common
  arcsnap on %arcsnap_dist%
  snaporder segment vertex
  nodesnap closest %nodesnap_dist%
  intersectarcs all
  get %cvg%
  calc line = %line_value%
  reselect dangle
  drawselect
  &if [show number selected] > 0 &then
    &do
    extend %extend_dist%
    reselect dangle
    drawselect
    &if [show number selected] > 0 &then
      reselect length < %delete_if_lt_dist%
      &if [show number selected] > 0 &then
        delete
    &end
  colorit
  draw
  &type --> Just finished adding arcs from %cvg%
  &pause
  &return
/*********************************************************************
```

The preceding AML code provides a guide on how to import and merge specific layers from an AutoCAD DXF file. If there are any questions, please contact:

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