INTRODUCTION

Purpose & Intent

At archiving, all project design files are to be compressed. However, the manual methods available from MicroStation allow for compression by directory folders only, at best. Sub-folders that are within the selected folder are not processed; the user must therefore find each project sub-directory containing dgn files then process those directories one-by-one. Besides being rather time-consuming, even on small projects, this procedure is obviously prone to error and omission due to its reliance on manual sub-directory identification and set-up. Furthermore, MicroStation's manual compress capabilities does not provide for double checking for any locked elements in the files to be compressed; such elements cannot be changed and cannot, therefore, be compressed. Lastly, records of what was done, or problems encountered, during the compress are written only to the active file's message center, which cannot be saved for review/historical purposes without doing a manual copy and paste from each file.

Program ODOT_DgnCompress allows the user to specify only a single folder -- the project directory – for the project to be compressed. The program then finds all dgn files in the project, checks each model in each dgn for locked elements, unlocks any locked elements that it finds, then performs the compress on the file. All sub-directories searched and files processed are reported on-screen and the completed report may be written to a text file if the user so desires.

Essentially, the application removes the tedium and error/omission tendencies from the compression process for archived projects. Furthermore, it adds the enhancement of a written record of what was found and what was done – or not done, and why -- during processing.
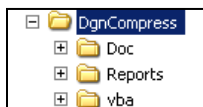
Requirements

The program runs in MicroStation V8i and is to be used by a CADD Administrator or other responsible individual with write access to the Archive directory.

To ensure that all design files in the project do get to be compressed, they must be closed to all other use during the program run.

Most importantly, the user must check/set the desired compress options manually in MicroStation before running the program. At present, there is no way to set these programmatically and the ODOT CADD Standards do not currently provide requirements for such. There are, however, recommendations for the options; see the following section for details.

The program's folder and sub-folders, as shown below, are to be in the directory to which the user has set the configuration variable, V8iSTD.

The Doc sub-directory contains the pdf for this user's guide. The Reports folder is provided for storage of any text files the user creates from the program's reports. The program itself is located in the vba folder.
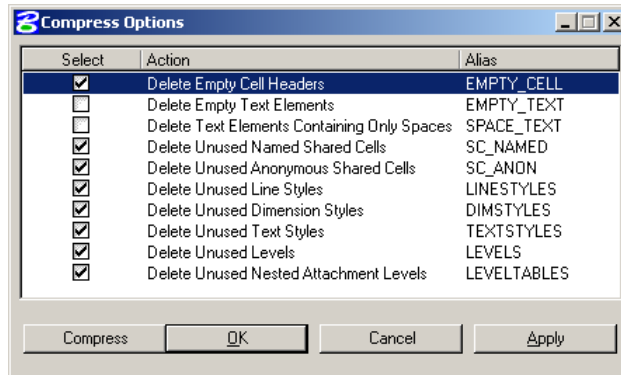
The program uses three small picture files that must be present in the ODOTstd sub-directory for vba programs: clsdfold.bmp; openfold.bmp, and; drive.ico.

HOW TO USE IT

Step by Step

Setting the Compress Options
As stated previously, the user must check/set the compress options before running the program. Select File>Compress>Options from the MicroStation main menu to activate the Compress Options dialog box.

We are not recommending that the "empty elements" and "only spaces" text deletion options be activated for the compress. Although it should have no significance for archived files, the options settings do become "set" for the user, and, if applied to a work in progress that contains, for example, broken standard sheet cells, necessary text fields may be lost if the delete empty text elements option is active.

Also, in the V8 release of MicroStation, there was a bug with the "only spaces" text delete option that resulted in the removal of text elements containing only stacked fractions. That issue has been resolved for later releases.

These settings are recommendations only and the user is certainly free to alter them as best suits his/her purposes.

Once you have checked/set the options, click "Apply" to close the dialog.
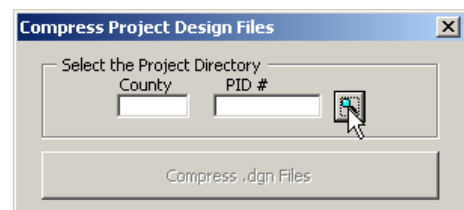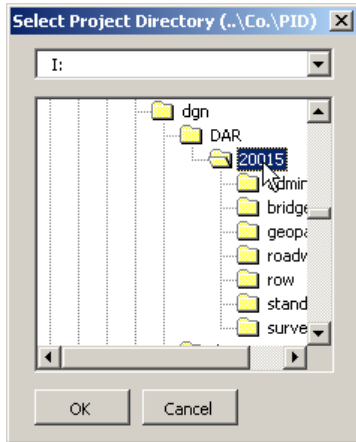
Starting the Program
ODOT_DgnCompress must be started from the VBA Project manager dialog box. Select Utilities>Macro>Project Manager from the MicroStation main menu to activate the dialog. Click on the dialog's file open icon to open the Load Project dialog, which you will then use to navigate to the program's location in your directory structure. Select the program and click on the OK button to bring it into the Project Manager dialog. Back in the Project Manager dialog, select the program, click on the start icon, then, in the resulting Macros dialog, select modMacro.Run_ODOT_DgnCompress and click on the Run button.

Using ODOT_DgnCompress
The program's main graphic interface opens with only its upper portion enabled.

Click on the browse button to the right of the County and PID fields to open the directory selection dialog, as shown to the right then use the directory selection dialog to navigate to the
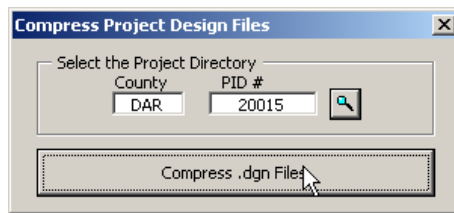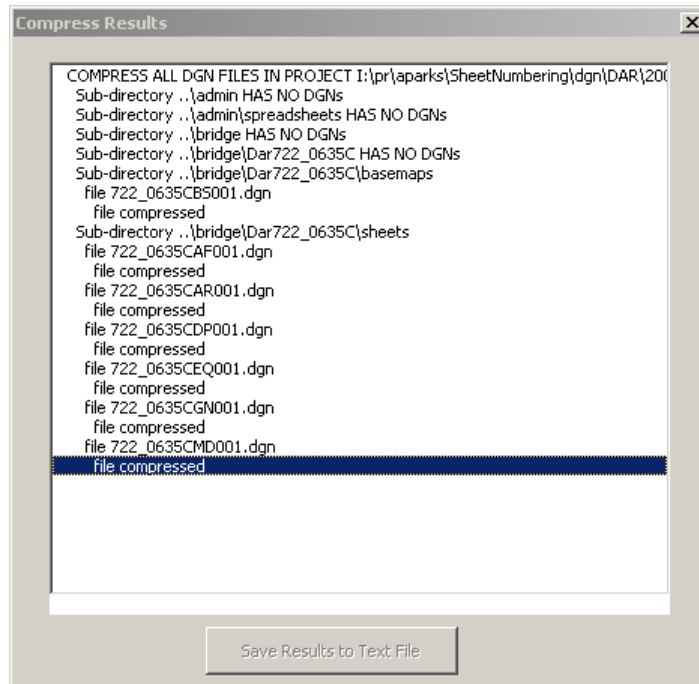
project for whose files you wish to compress.

Select a directory, and press the OK button. The program will check your selection for validity as a project directory. If the selection is not recognized as valid (the next to last sub-directory has a three letter name and the last has a five digit number for a name), you will receive an error message and the dialog will remain open. Pressing cancel will close the dialog without returning a selection.

Once a valid project directory has been chosen, the county and PID values from that directory will be displayed on the form, and the button that activates the compression will be activated.

Click on the "Compress .dgn Files" to start the project file compression process.

The report form will now appear on the screen; the program will list what it finds, and what it is doing (or not) on the form's list box as it works.
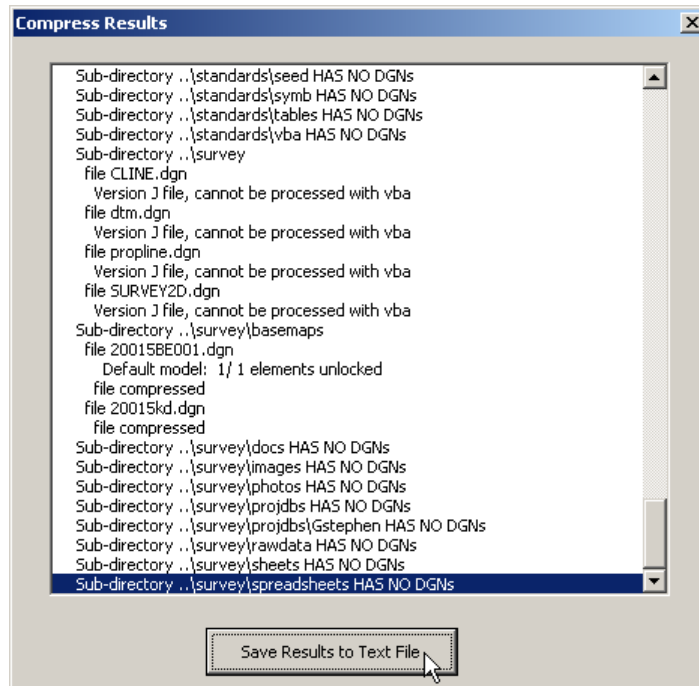
When the program has completed locating and processing the project's dgn files, it will notify you by means of a small message box.
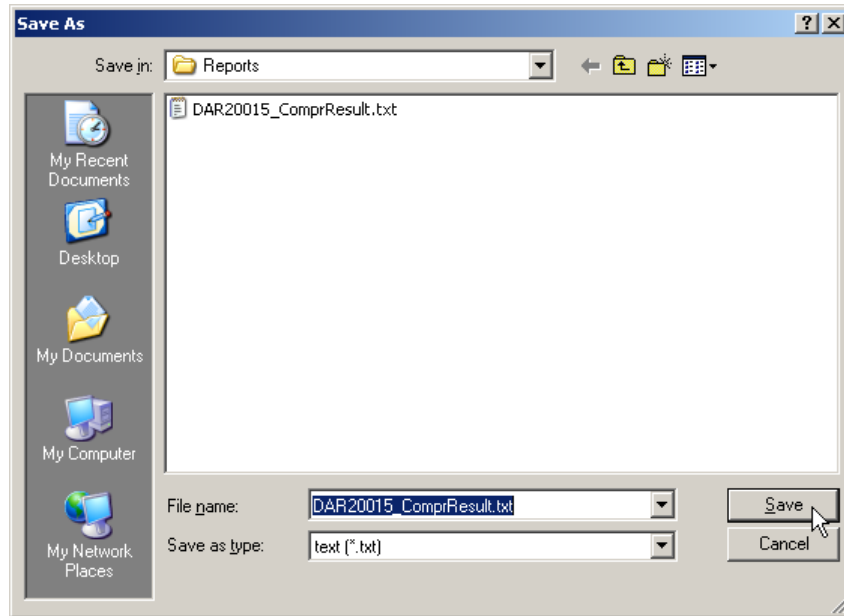
Click on the OK button to close the message.

You may now scroll through the completed compression report for the subject project; if you wish to save the report, click on the "Save Results to Text File" button at the bottom of the form, as shown below:

The resulting Save As dialog will automatically go to the default results file storage directory and provide you with a default name for the file. You may navigate to any other location you wish, and rename the file as you see fit. To perform the save, click on the OK button; you may also choose cancel or close the dialog by its Windows control to abort the file save procedure.

The program will send an error message if a problem is encountered in creating the text file.

To process another project, go back to the opening form and browse for that project's directory. To exit the program, close the opening form by its Windows control.

CAVEATS

Permissions

As stated in the Requirements section, the user of the program does need to have write access to the project directory. It is important that the dgn files in the project be closed to all other users during the compress run; compression cannot be performed on a file that is in use elsewhere, or is open on the user's work station but is not in the currently active MicroStation window. It is up to the user to provide this necessary exclusive access as it cannot be done programmatically. The program does, however, let the user know, via the report form, of any files to which it could not write. It also informs the user of all J files found in the project, which will need to be manually compressed with MicroStation v7, and any other files that it could not open or otherwise process.

Speed

Because each file to be compressed must be opened as the active MicroStation file, the program is quite slow. It can take up to 10 minutes to perform the necessary checks and compressions on a small project (under 50 sheets).

Bugs

At this time, there are no known errors or other problems with the program.

Contacts

If you have any questions, suggestions, or problems please contact the ODOT Office of CADD and Mapping Services CADD Support team or use the following form on the ODOT web site at:

http://www.dot.state.oh.us/Divisions/Engineering/CADDMapping/CADD/Pages/suggestions.aspx