





DELPHI - TEXT FILES

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LESSON OBJECTIVES

- Introduction
- Input and output





AIM AND PRE-KNOWLEDGE

Aim is to understand the skills to ..

- Input and output data using a text file
- Understand conditional iteration with a text file
- Produce text-based reports from a text file
- Solution development using text files

String manipulation functions and procedures is a pre-requisite for this section of work. E.g. copy, pos, delete, insert, uppercase and upcase.



INTRODUCTION

- A text file is a file of ASCII characters and so does not have formatting codes (bold, underlined or italics), sound or graphics.
- ☐ Text files are commonly used for importing and exporting data to and from Notepad, Excel, Access, internet, barcode scanner data, etc
- ☐ This text file is very portable and universally used amongst all types of programs and computers.
- ☐ They store data to be re-used later.

```
Friends - Notepad

File Edit Format View Help

Bob
Sue
Harry
Ben
Nelly
```



INTRODUCTION CONTINUED...

- In order for the Delphi IDE to link to, input data from and output data to a text file, Delphi must follow a set algorithm.
- To read a line into a string variable and display it in a richedit or memo component, these instructions are placed in a conditional loop. The instructions in the loop are repeated until the Boolean end of file marker is reached in the textfile.
- To display the line of words (strings) on the form, the string variable must be added to the memo or richedit component using the Lines.Add property.



INPUT AND OUTPUT

This is the set of instructions that opens an existing text file and displays the data on the form.

Algorithm to Input data from an existing text file into a string

- Declare variables Eg VAR MyFile: TextFile; sLine: String;
- 2. Link the text file variable to the external file
- 3. Test if the file exists, if not exit / terminate the project
- 4. If the file exists open the file to read
- 5. Use a conditional loop until the end of file boolean variable returns true
 - a. Read the line and transfer the data into a string/integer/array
 - b. Display the variable in a component on the form
- 6. Close the text file, flag the memory space as unused.



DELPHI EXAMPLE 1

The following procedure reads the external text file, Friends.txt and displays the contents on the form in a richedit component when the Button is clicked.

```
{1}
VAR MyFile: Textfile;
          sLine: string;
BEGIN
 Assignfile (MyFile, 'Friends.Txt');
 IF FileExists ('Friends.Txt') >> True
 THEN Exit
                          {3}
 ELSE Reset (MyFile);
                               {4}
 WHILE NOT EOF(Myfile) DO
                                     {5}
 BEGIN
  Readln (Myfile, sLine);
                               {5a}
  RedDisplay.lines.Add(sLine);
                                     {5b}
 END;
 CloseFile(MyFile);
                               {6}
end;
```

