How to get data from a file without reading it into memory

> ***QUESTION***
>
> Is there a way to point a pointer to a text data file on a hard drive without reading into memory. Here is the problem. I have a third-party DLL that requires a pointer to a large char string 10000 + chars. If I were to read into memory and then call the DLL it could cause problems.

You can use Mapped Files. A mapped file is a region in memory that is mapped to a file on disk. After you map a file to memory you get a pointer to the memory region and use it like any other pointer - Windows will load and unload pages from the file to memory as needed. Here is a very simple implementation of a mapped file. It is used only to read data from the file so you might want to change it to also allow writing. After you create an instance, the *Content* property is a pointer to the file content.

```
{ ... }
type
  TMappedFile=class
  private
    FMapping: THandle;
    FContent: PChar;
    FSize: Integer;
    procedure MapFile(const FileName: string);
  public
    constructor Create(const FileName: string);
    destructor Destroy; override;
    property Content: PChar read FContent;
    property Size: Integer read FSize;
  end;

implementation

uses
  sysutils;

{ TMappedFile }

constructor TMappedFile.Create(const FileName: string);
begin
  inherited Create;
  MapFile(FileName);
end;

destructor TMappedFile.Destroy;
begin
  UnmapViewOfFile(FContent);
  CloseHandle(FMapping);
  inherited;
end;

procedure TMappedFile.MapFile(const FileName: string);
var
  FileHandle: THandle;
begin
  FileHandle := FileOpen(FileName, fmOpenRead or fmShareDenyWrite);
  Win32Check(FileHandle <> 0);
  try
    FSize := GetFileSize(FileHandle, nil);
    FMapping := CreateFileMapping(FileHandle, nil, PAGE_READONLY, 0, 0, nil);
    Win32Check(FMapping <> 0);
  finally
    FileClose(FileHandle);
  end;
  FContent := MapViewOfFile(FMapping, FILE_MAP_READ, 0, 0, 0);
  Win32Check(FContent <> nil);
end;
```

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