How to Use the Include Directive in PAL

PAL supports the Delphi *include* directive. This allows PAL from another file, such as custom functions or logic, to be included into another PAL for consistency and ease of maintenance.

Write once, use many times.

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Syntax

```
{$include '<full path to pal>'}
```

The directive *must* be in the PAL *above* statements that use the included code.

Simple example

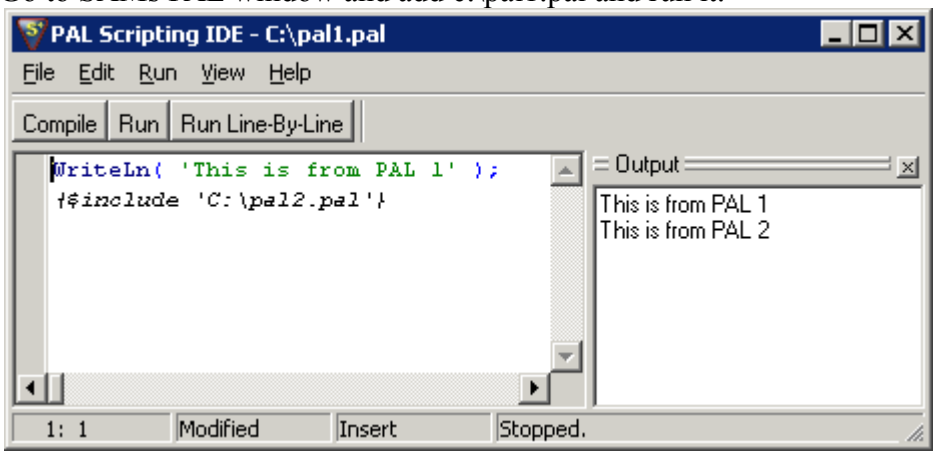
Save this as c:\pal2.pal:

```
WriteLn( 'This is from PAL 2' };
```

Save this as c:\pal1.pal:

```
WriteLn( 'This is from PAL 1' );
{$include 'C:\pal2.pal'}
```

Go to SAMs PAL window and add c:\pal1.pal and run it.



Custom procedure example

Save this as c:\write_log.pal

```
{******************************************************
 *
 * $Id: fhr_write_log.pal,v 1.1 2007/12/01 22:03:03 FesterHead Exp $
 *
 ******************************************************
 *
 *  Copyright Steve Kunitzer (FesterHead)
 *
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 *
 ******************************************************
 *
 * Procedure to log messages to a file by appending.
 * If the log file does not exist it will be created.
 *
 * Log/Message Levels are:
 *   0 = NO logging
 *   1 = Log FATAL messages
 *   2 = Log INFO messages
 *   3 = Log DEBUG messages
 *
 * A log level of DEBUG will log DEBUG, INFO, and FATAL messages.
 * A log level of INFO will log INFO and FATAL messages.
 * A log level of FATAL will log FATAL messages.
 *
 * Examples:
 *   WriteLog( 0, 2, 'Some informational message' );  // This will NOT log
 *   WriteLog( 1, 2, 'Some informational message' );  // This will NOT log
 *   WriteLog( 2, 2, 'Some informational message' );  // This will log
 *   WriteLog( 3, 1, 'Some fatal message' );          // This will log
 *
 * It is recommended to define a LogLevel in your PAL at the configuration layer
 *   and pass it as a parameter to this function.  This the logging level can be
 *   incremented or decremented as needed during development and production.
 *
 * Logged messages have the following format:
 *   [Date/Time] [LEVEL] message
 *
 * @param userLevel    the user log level.
 * @param messageLevel the message level.
 * @param theMessage   the message to log.
 * @param theLogFile   the log file to write the message by appending.
 *
 ******************************************************
 *
 * History:
 * [2007-12-01] : Initial version
 *
 ******************************************************}
procedure WriteLog( userLevel : Integer;
                    messageLevel : Integer;
                    theMessage : String;
                    theLogFile : String );
  begin
    var messageString : String = '';
    var crlf : String = Chr( 13 ) + Chr( 10 );

    case messageLevel of
      1 : messageString :=  ' FATAL ';
      2 : messageString :=  '  INFO ';
      3 : messageString :=  ' DEBUG ';
```
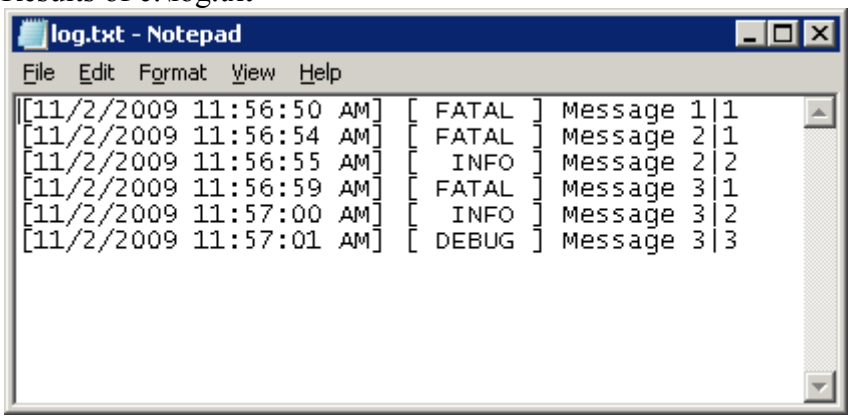

```
      else messageString := ' ERROR ';
    end;

    // check to see if we log the message
    if ( ( userLevel > 0 ) and
         ( userLevel >= messageLevel ) ) then
      begin
        if ( not FileExists( theLogFile ) ) then
          begin
            // Log file doesn't exist.  This will create the log file.
            StrToFile( theLogFile, '' );
          end;

        // Log the message
        AppendStringToFile( theLogFile, '[' + DateTimeToStr(Now)
                                            + '] ['
                                            + messageString
                                            + '] '
                                            + theMessage
                                            + crlf );
      end;
  end;
```

Save this as c:\pal3.pal:

```
{$include 'C:\write_log.pal'}

var log_file : String = 'c:\log.txt';

var user_level : Integer = 0;
WriteLog( user_level, 1, 'Message 0|1', log_file );  // will NOT log
WriteLog( user_level, 2, 'Message 0|2', log_file );  // will NOT log
WriteLog( user_level, 3, 'Message 0|3', log_file );  // will NOT log

user_level := 1;
WriteLog( user_level, 1, 'Message 1|1', log_file );  // will log FATAL
WriteLog( user_level, 2, 'Message 1|2', log_file );  // will NOT log
WriteLog( user_level, 3, 'Message 1|3', log_file );  // will NOT log

user_level := 2;
WriteLog( user_level, 1, 'Message 2|1', log_file );  // will log FATAL
WriteLog( user_level, 2, 'Message 2|2', log_file );  // will log INFO
WriteLog( user_level, 3, 'Message 2|3', log_file );  // will NOT log

user_level := 3;
WriteLog( user_level, 1, 'Message 3|1', log_file );  // will log FATAL
WriteLog( user_level, 2, 'Message 3|2', log_file );  // will log INFO
WriteLog( user_level, 3, 'Message 3|3', log_file );  // will log DEBUG
```

Results of c:\log.txt



Permalink

See the FesterHead Consulting Google group for the most current version of this document.

History

Date	Information
2009-11-02	Initial version