- Function Check (a component of Link Check)
- Version 5.1 August 1996
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### **Contents for Function Check Help**

To learn how to use Help, please press F1.

Please select one of the following:

What's New Introduction
System Requirements
Guide to the Main Window
Keyboard Support
Menu Options
Toolbar
How to Register/Order
Registered Version Details
Copyright/License/Warranty
Trademarks
Acknowledgements
Also Available



#### Major changes from Version 5.00 to Version 5.10

- Examining another module from within Function Check now launches a second copy
- Hassle-free registration via an electronic key
- Improved Help
- Added sizing of the Version details listbox and the main listbox
- Support added for executables from 12 different National Languages
- Added more version information

This is basically a maintenance release but also introduces the possibility of getting the retail version within minutes of registering thanks to the electronic key.

Due to this form of registration, the 32-bit versions of **Link Check** are now available as separate products and registration for them is handled exactly in the same way as for this 16-bit version.

See Also Available for more information.



### Introduction

Function Check (part of a suite of three (3) diagnostic programs called Link Check) allows the user to view actual function calls inside modules. This program is useful for analyzing those "Call to Undefined Dynalink" system error messages.

When a program calls a module (.DLL) to execute a function (piece of code) inside the .DLL and that particular function does not exist in the .DLL, a "Call to Undefined Dynalink" error is raised by the system. These can occur when a newer version of a .DLL is accidentally replaced by an older version of the same .DLL. A program is compiled to use the new functionality of the .DLL but can come unstuck when that .DLL is replaced by an older version which does not contain the new functionality.

Some installation programs are prone to do this "accidental" replacement.

Function Check cross-checks all function calls in an executable with the ones in all of the .DLLs (modules) that it uses, to verify that all of the functions all present.

Should your program throw up one of those "Call to Undefined Dynalink" messages, Function Check will show you which module is at fault.



## System Requirements

Function Check requires Windows 3.1\* or later or Windows for Workgroups 3.11\*.

\* See Trademarks

See the Link Check help file for more information on all files required.

### Keyboard Support

The main window supports the keyboard as well as the mouse.

Key actions in the main window are as follows:

Tab Switch between the main window and the Version/Key windows.

Enter View version information window.

Spacebar Select a module.

Arrow keys Navigate up/down the list of modules or Version/Key windows.

Control+O Open executable for examination.
Control+V Display Version Information window.

Control+K Display Key window.
Control+C Create Function report.
Control+P Print Function report.

Control+L Load selected module into Function Check.

F1 View Help.

F2 Display exported functions.
F3 Check links to other modules.
F4 Display imported functions.
F5 Refresh main window.

Alt+F4 Quit Function Check.

### Menu Options

#### Please select one of the following:

#### File:

Open Executable
Create Function Report
Print Function Report
Exit

#### **Options:**

Display Version Information
Display Key to Symbols
Display Exported Functions
Display Imported Functions
Check Links to Other Modules
Examine Selected Module
Highlight Possible Problems
Refresh

#### **Preferences:**

Show Lowercase Function Names
Show Lowercase Module Names
Show Toolbar Tips
Show Toolbar
Show Status Bar
Show Settings Now
Save Settings on Exit

#### Help:

Contents
Search for Help on
How to Use Help
About Function Check



### Guide to the Main Window

Use the **Open Executable** menu option under **File** to open up a module for examination.

The **Function Check** main window shows all imported or exported function names with their ordinals (indices) in an executable file. Functions from other modules (such as .DLLs) can be imported by name or by ordinal.

If you select any one of the shown modules (while viewing **imported** functions) and **double-click** it with the mouse, **Function Check** reveals version information for the selected module otherwise for the loaded/open module.

This is identical to selecting it with the mouse and choosing the **Display Version Information** menu option under **Options**. In both cases a version information window will appear at the bottom of the main window.

To hide the version or the key windows, please re-select the same menu items as for invoking them. Alternatively, **right-click** with the mouse on top of these windows and select the **Hide** menu option from the popup menu that follows.

As a short cut, you may also **right-click** on the main window to access the options in the **Options** menu.

When viewing **exported** function names, the module name is missing since all the functions belong to the currently open module.

If you prefer to use the keyboard, please see <u>Keyboard Support</u> for the key assignments.

### File: Open Executable

Click on this menu option or on the short cut on the Toolbar to open an executable file for examination.

### File: Open Previous Module

Click on this menu option to re-open a recently used module.

File: Open Previous Module



Click on this menu option to re-open a recently used module.

File: Open Previous Module



Click on this menu option to re-open a recently used module.

File: Open Previous Module



<u>Click</u> on this menu option to re-open a recently used module.

File: Create Function Report

Click on this menu option or click on the short cut on the Toolbar to create a report listing all of the exported and imported function names for the loaded executable.

Select Sample Function Report to view a sample report.

File: Print Function Report

Click on this menu option or click on the short cut on the Toolbar to print a report listing all of the exported and imported function names for the loaded executable.

Select Sample Function Report to view a sample report.

### Sample Function Report

Sample output (only a part is shown):

\_\_\_\_\_\_ Function Check Report \_\_\_\_\_\_ For: I:\WFCHECK\WLCCOMM.DLL Ordinal Exported Function Name \_\_\_\_\_\_ 1 2 KSLCREATETOOLBAR 3 KSLDISPLAYNOTICE KSLTOOLBARFILTER 5 KSLSETSTATUSTEXT 6 KSLABOUTBOX 7 KSLFILEEXIST KSLSAVEFILEDLG 9 KSLREMOVETOOLTIP 10 KSLCREATESTATUSBAR 11 KSLCENTERWINDOW 12 KSLGETOPTIONALMODULENAMES 13 KSLINFO 13 Entries Listed. Ordinal Module Name. Imported Function Name \_\_\_\_\_\_ 232 USER.SETWINDOWPOS (1) 107 USER.DEFWINDOWPROC (1) 108 USER.GETMESSAGE (1) 109 USER.PEEKMESSAGE (1) 111 USER.SENDMESSAGE (1) 239 USER.DIALOGBOXPARAM (1) 113 USER.TRANSLATEMESSAGE (1) 1 KERNEL.FATALEXIT (1) 114 USER.DISPATCHMESSAGE (1) 131 KERNEL.GETDOSENVIRONMENT (1) KERNEL.GETVERSION (1) KERNEL.LOCALINIT (1) 12 Entries Listed.

- (1) = Imported by Ordinal
- (2) = Imported by Name

### File: Exit

Click on this menu option or click on the short cut on the Toolbar to exit Function Check.

## Options: Display Version Information

Click on this menu option to show the **Version window** at the bottom of the main window.

This window will show version and file details of the selected module (when viewing **Imported** functions) or for the loaded module (when viewing **Exported** functions).

It can also be invoked from the popup menu by **right-clicking** with the mouse anywhere over the main window.

You may hide this window either by right-clicking on the mouse whilst over this window or by reselecting the same menu option.



## Options: Display Key to Symbols

Click on this menu option to show the **Key window** at the bottom of the main window.

This window will show an explanation to the symbols used in the main window and can also be invoked from the popup menu by right-clicking with the mouse anywhere over the main window.

You may hide this window either by **right-clicking** on the mouse whilst over this window or by reselecting the same menu option.



# Options: Check Links to Other Modules

Click on this menu option to launch Link Check (WLCHECK.EXE).

You can view a list of all of the modules that the selected one is linked to in the system.

This menu option can also be invoked by **right-clicking** with the mouse anywhere in the main window or by pressing **F3**.

### Options: Display Exported Functions

Click on this menu option to view all of the exported function names for the module.

This menu option can also be invoked by **right-clicking** with the mouse anywhere in the main window or by pressing **F2**.

An **Exported Function** is a code routine written to be used by other external programs or modules. These functions usually reside in .DLLs (Dynamic Link Libraries) and are **Imported** by programs (.EXEs) as well as by other modules (such as other .DLLs).

Functions are exported by name and by ordinal. An ordinal is an index to the function.

### Options: Display Imported Functions

Click on this menu option to view all of the imported function names for the module.

This menu option can also be invoked by **right-clicking** with the mouse anywhere in the main window or by pressing **F4**.

An **Imported Function** is a code routine written in an external module (such as a .DLL) which the calling program or module uses as part of itself. The external module **Exports** the function so that it is available for all to use.

Problems can occur when a program is using a newer version of a .DLL, say, and the .DLL gets overwritten by an older one which does not include the function imported by the program. In this case the system would display a **"Call to Undefined Dynalink"** error message.

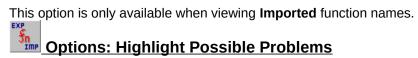
Functions can be imported by name or by ordinal. An ordinal is an index to the function.

Please see <u>Highlight Possible Problems</u> menu option for more information on how to spot these potential errors.



## Options: Examine Selected Module

Click on this menu option to launch a second copy of **Function Check** to view functions in the selected module.



Click on this menu option to view possible problem entries in the executable module.

These entries are shown by the 🛕 symbol and upon selecting this option, only these entries are shown in the window.

Please note that this option is only available when viewing **Imported** function names.

Options: Refresh



Click on this menu option to refresh the main window with updated information.

This menu option can also be invoked by right-clicking with the mouse anywhere in the main window or by pressing F5.

Preferences: Show Lowercase Function Names



Click on this menu option to draw the function names in the main window in lowercase or as is.

If this menu option is checked, then the function names will be in lowercase, otherwise as is.

# Preferences: Show Lowercase Module Names

Click on this menu option to draw the module names in the main window in lowercase or as is.

If this menu option is checked, then the module names will be in lowercase, otherwise as is.

## Preferences: Show Toolbar Tips

Use this menu option to turn the Toolbar button explanations/hints on and off.

## Preferences: Show Toolbar

Use this menu option to show or hide the Toolbar.

## Preferences: Show Status Bar

Use this menu option to show or hide the Status Bar.

### Preferences: Save Settings Now

Select this menu option if you want **Function Check** to save the current position and size of the main window plus all other settings now to the file **WFCHECK.INI**.

When you restart **Function Check**, it will reposition, size and configure itself to the saved values.

## Preferences: Save Settings on Exit

Select this menu option if you want **Function Check** to save the current position and size of the main window plus all other settings when you exit the program to the file **WFCHECK.INI**.

When you restart Function Check, it will reposition, size and configure itself to the saved values.

### Toolbar

The Toolbar contains the following short cuts:





Create Function Report



Print Function Report



Display Exported Functions



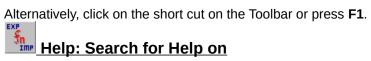
Display Imported Functions





## Help: Contents

This menu item shows the Contents page of the help file.



This menu item shows the Search dialog box for the help file.

### Help: How to Use Help

This menu item shows how to use Help.

## Help: About Function Check

Use this dialog box to view the copyright information for this program.

### How to Register/Order

**Link Check** now includes online registration facilities. Please click on the **Register** pushbutton in the **About dialog** and follow the dialog boxes.

Once finished, the registration process will create an order form **(WLCHECK.ORD)** for you based on the details given. This order form will be created in your Windows directory and Notepad will be launched for you to view it.

**VERY IMPORTANT:** We will create an **electronic key** from the order form so please follow the instructions on the form and send/fax/email it to us. The order form includes details of our fax number, postal address and email id.

Once we receive the order form we will send/fax/email/phone you the key along with details on how to unlock **Link Check** for the full retail version. We will get the key to you as soon as possible (usually within 24 hours).

#### **Payment Details:**

#### Price: 29 US Dollars or 18 Pounds Sterling

To have your registration added to your CompuServe bill, GO SWREG and follow the instructions.

Please use the registration ID 7160, unless...

**IMPORTANT:** If you are a VAT registered company residing in the European Union (EU) (and not in the UK), please use the registration ID **10094**.

You will see details on all other forms of payment through the registration process/dialogs.

Please click on Registered Version Details for information on the retail version.



### Copyright and License Agreement

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OS/2 is a registered trademark of International Business Machines Corporation.



Karri Software Ltd. would like to **THANK ALL** of the registered users of **Link Check** for supporting the **Shareware** concept. Without you **Shareware** would not exist.

Special thanks to Bob Henderson for his many suggestions, and for spending his own time testing Link Check and providing useful feedback.



### Registered Version Details

Link Check is shareware and not available for free. You are allowed a 21-day evaluation period free of charge for this program and then you should either register it with the author or remove it from your disk(s). Should you use it after the 21-day evaluation period, you are violating US and international copyright laws and treaties.

For details on how to register this program, please click on How to Register/Order.

The registered version of Function Check includes:

- 1. Full unrestricted version
- 2. All references to "Unregistered Shareware" removed
- 3. Your name in the "About" dialog box

The 32-bit versions of Link Check (WLCHK95.ZIP and WLCHKNT.ZIP) are also available.

As a registered user of **Link Check**, you will receive the following benefits:

- 1. Free technical support over the telephone and Email
- 2. Free upgrades via the electronic key

Currently (Aug 96) we have no plans to charge for upgrades. Once registered with the electronic key, any upgrades will be seamless. All you need to do is to obtain/download a new copy and install over the old version. The key will unlock the retail version automatically so you need to register **only once**.



#### Link Check for Windows 95\* (WLCHK95.ZIP):

This is the 32-bit native version of Link Check for the Windows 95 platform.

#### Link Check for Windows NT 3.51\* (WLCHKNT.ZIP):

This is the 32-bit native version of Link Check for the Windows NT platform.

#### Software Check 3.24 (WACHECK.ZIP):

**Software Check** is a program which scans your local and network drive(s) for specified or all executable files and gathers information about them for software licensing purposes.

You may also use Software Check to identify any unwanted software on your disks/drives.

Information can be gathered, saved to a log and processed later. You may also export the information to another application for further processing.

You may run multiple copies of **Software Check** and scan more than one drive at the same time.

Individual directories may also be logged.

The shareware version of **Software Check** supports floppy and local hard drives only. The full retail version adds support for CD ROM and network/remote drives.

\* See Trademarks