



tcheck – User Guide

(Edit Checking Program for Morbidity Extracts)

Version 1.9.2

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INTRODUCTION

tcheck program verifies the validity of the morbidity extract files generated from the patient information/administration systems used by the hospitals in Western Australia. tcheck incorporates some of the edit checks from the Hospital Morbidity Data System (HMDS) to ensure that hospitals are able to verify the data before sending them to the Department of Health (WA).

There are three main types of edit checks that tcheck performs:

1. File format checks: Check for the sequence and width of the lines.
2. Field format checks: Check for missing mandatory fields, valid character types, and valid range of values.
3. Cross-value checks: Check against a specific combination of two or more fields.

tcheck runs on 32-bit/64-bit Windows and requires less than 10 MB of RAM and 5 MB of hard drive space.

In order to reduce the number of errors generated by tcheck, the following steps may need to be performed multiple times:

1. Generate a morbidity extract file from the patient information system.
2. Run the tcheck program against the extract file and review the tcheck log file.
3. Fix the errors on the patient information system using the tcheck log file.

Some errors are not easily fixable and the user might have to contact the local IT support or the system vendor to resolve the problem.

Since 1 July 2011 it has been a mandatory requirement that each hospital run the morbidity extract files through the tcheck program and amend all correctable errors prior to submission of the files to the Department of Health. The final tcheck log file is required to be included with submission of the morbidity extract file. The HMDS will not accept any data containing FATAL or SYSTEM errors identified in the tcheck log file.



WHAT'S NEW IN THIS VERSION?

The following amendments have been made to this version of tcheck:

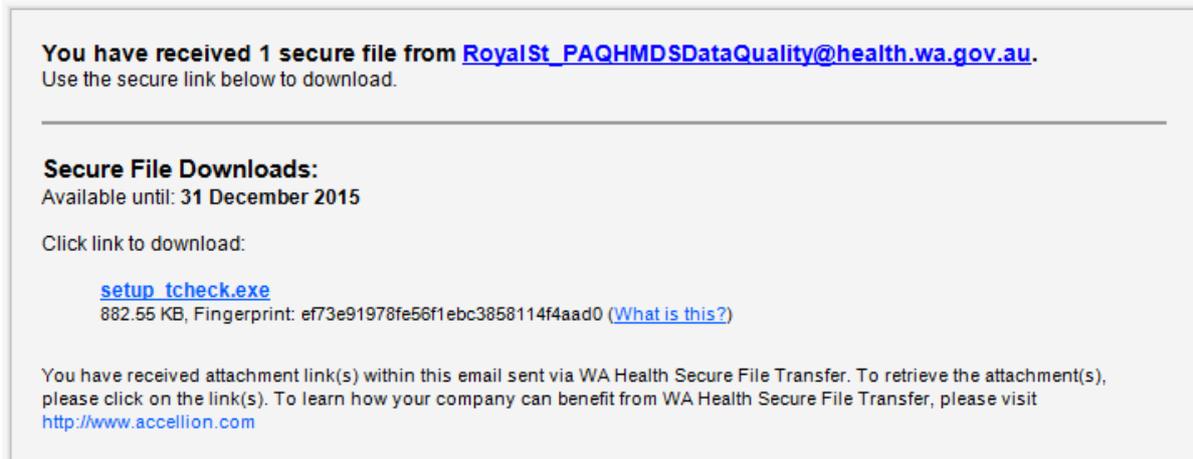
- Updated the edits for July 2017. These include changing a number of warning edits to fatal edits. Please refer to the edit_checks.pdf file for further details.
- Version 1.9.1: Fixed the error 1050 so that tcheck does not crash.
- Version 1.9.2: Added establishments 0107, 0132, 6016 and 6017 to the error 148, 523, 529, 697, 824, 974 and 1030.



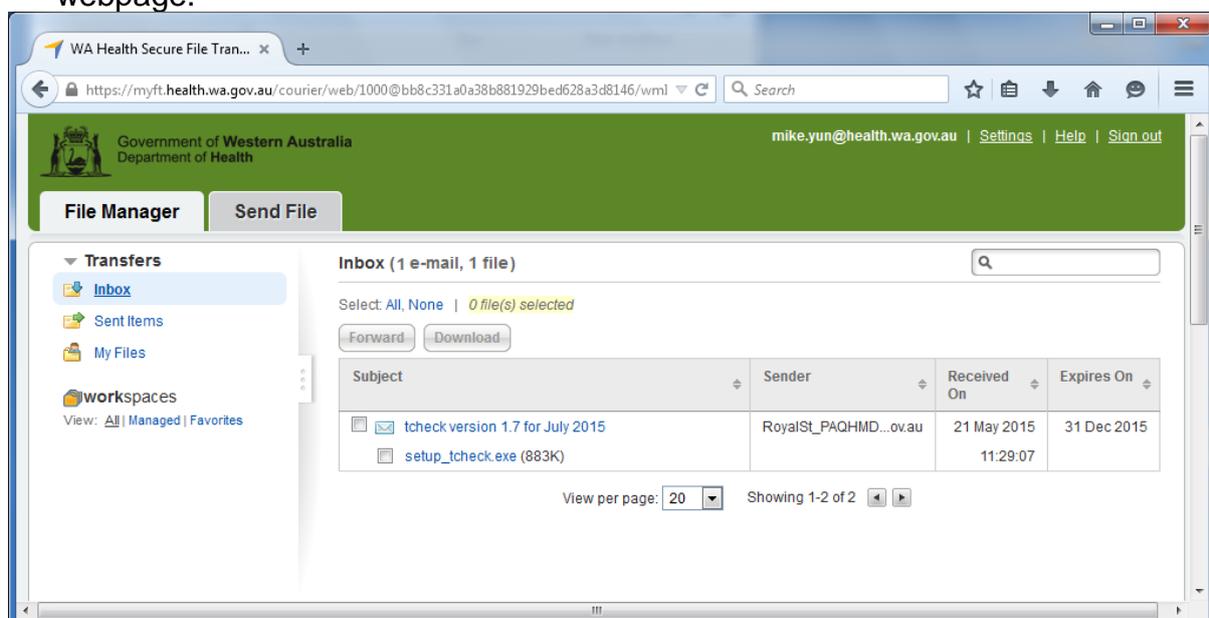
INSTALLATION

Please follow the steps below to install the tcheck program. Note that you need to have sufficient privilege for your computer to be able to install for all users (such as Administrator). Otherwise the program will only be available for the current user.

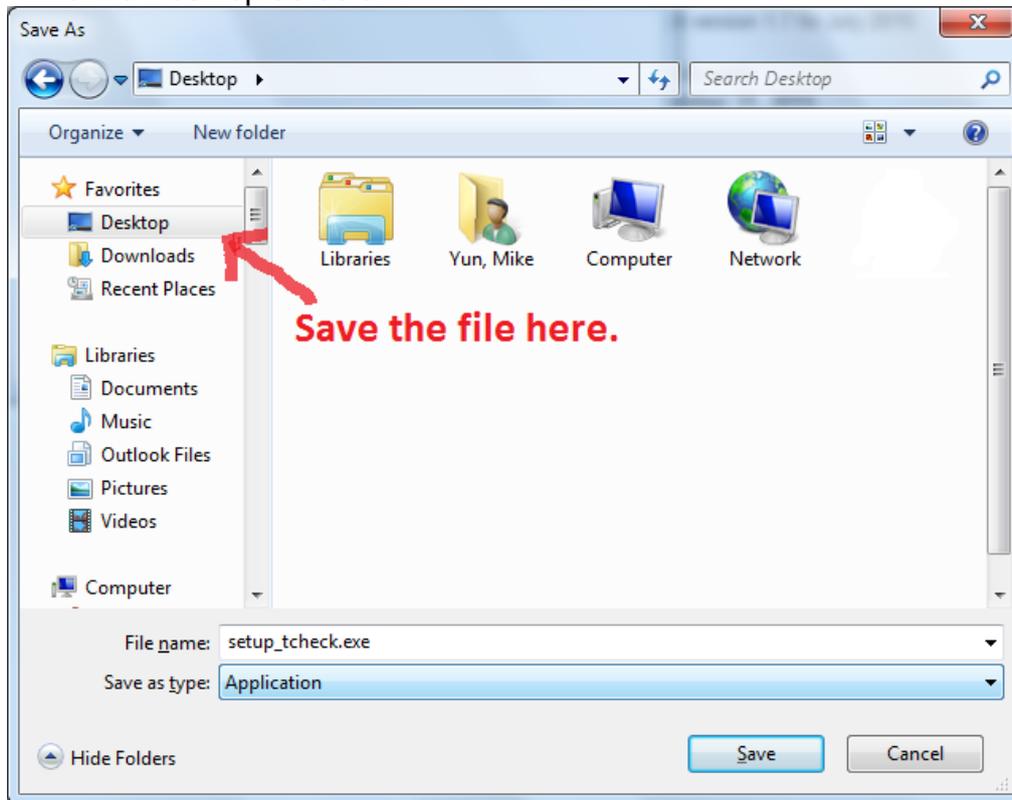
1. Make sure that you have received an email containing a message similar to the one below.



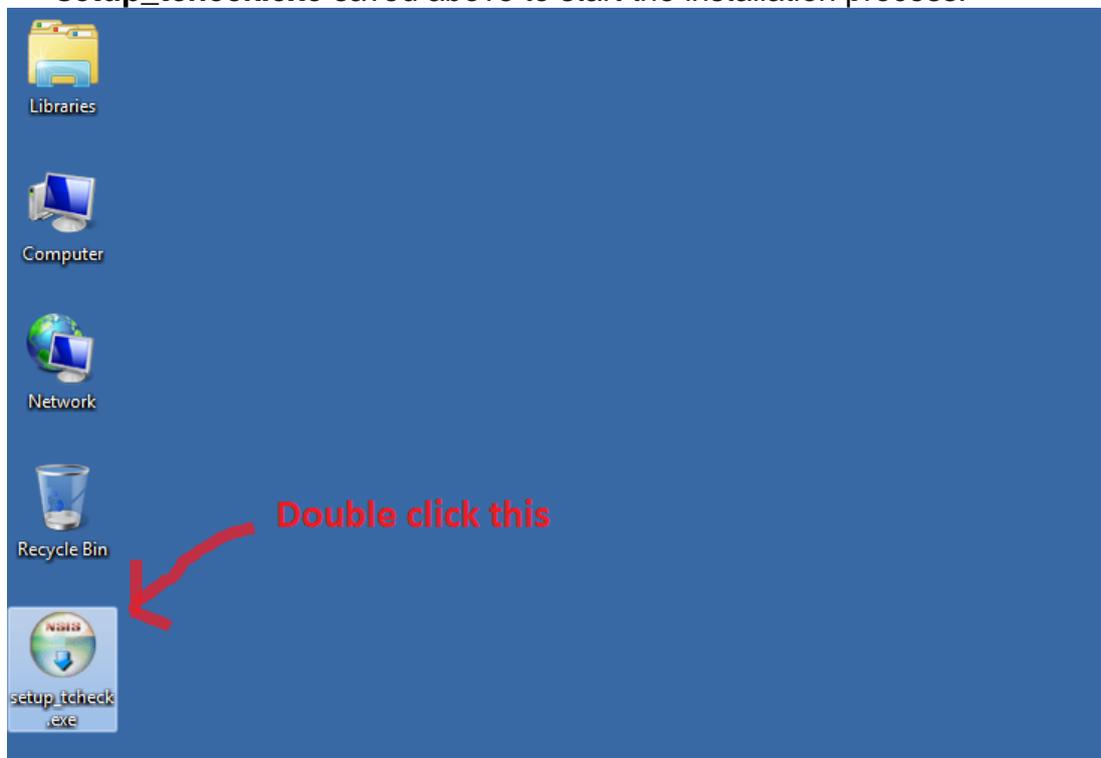
2. Either click on the link above or open up a web browser and navigate to: <https://myft.health.wa.gov.au>
3. Using your pre-arranged MyFT (also known as WA Health Secure File Transfer) account details to log on to the website. If you did not click the link from the email above, select File Manager » Transfers » Inbox from the left-hand side of the webpage.



4. Select the message containing the tcheck setup file and click Download to save it to the Desktop as below.



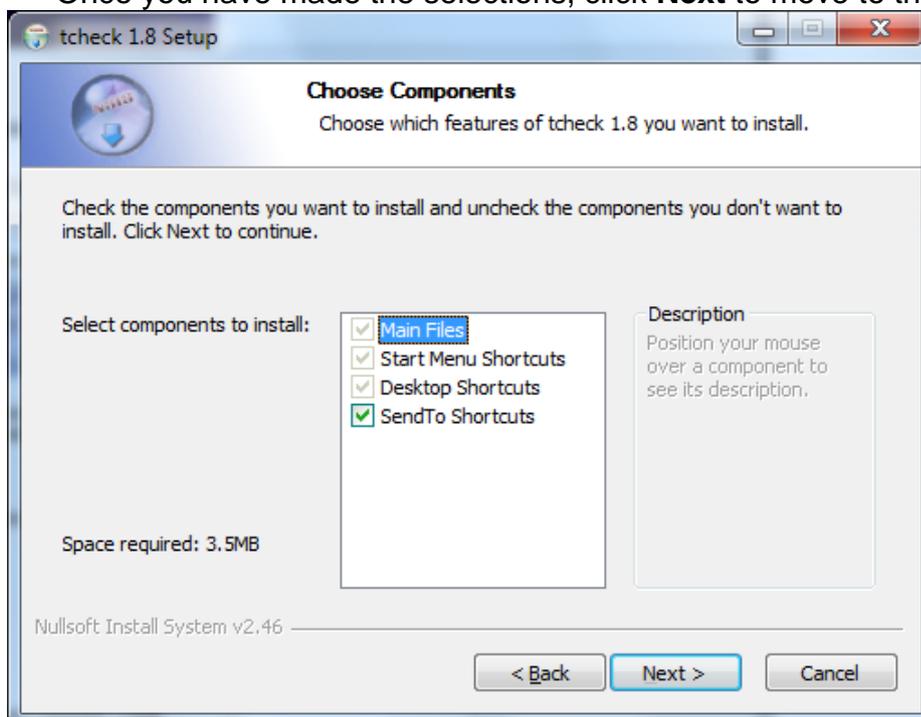
5. Minimise all windows to show the Desktop. Double-click the file **setup_tcheck.exe** saved above to start the installation process.



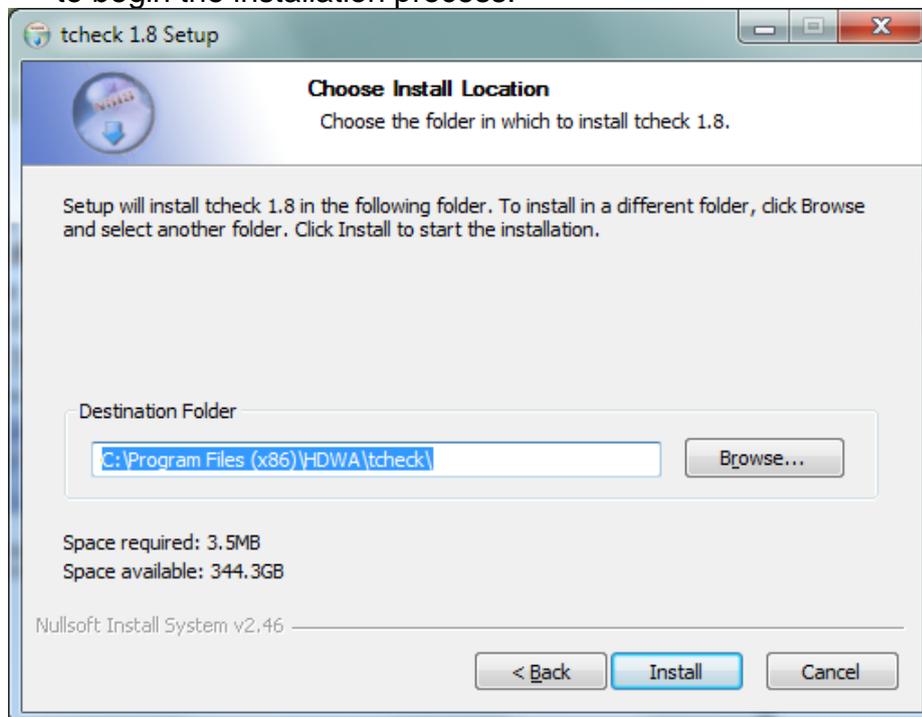
6. A setup wizard window will be displayed. Click **Next** to move to the next screen.



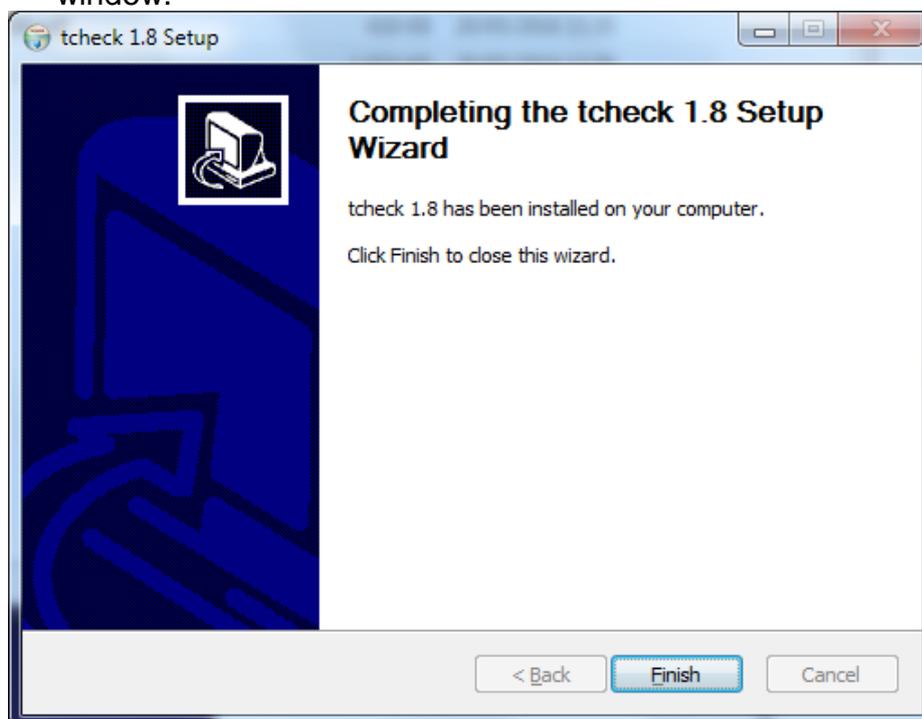
7. From the following window you can choose which components to be installed. Once you have made the selections, click **Next** to move to the next window.



- On this window you can set where to install the tcheck files. The default folder is **C:\Program Files\HDWA\tcheck** (or **C:\Program Files (x86)\HDWA\tcheck** if the Operating System is 64-bit), but you can change it to another location by clicking **Browse...** and selecting a new folder. Once it has been set, click **Install** to begin the installation process.

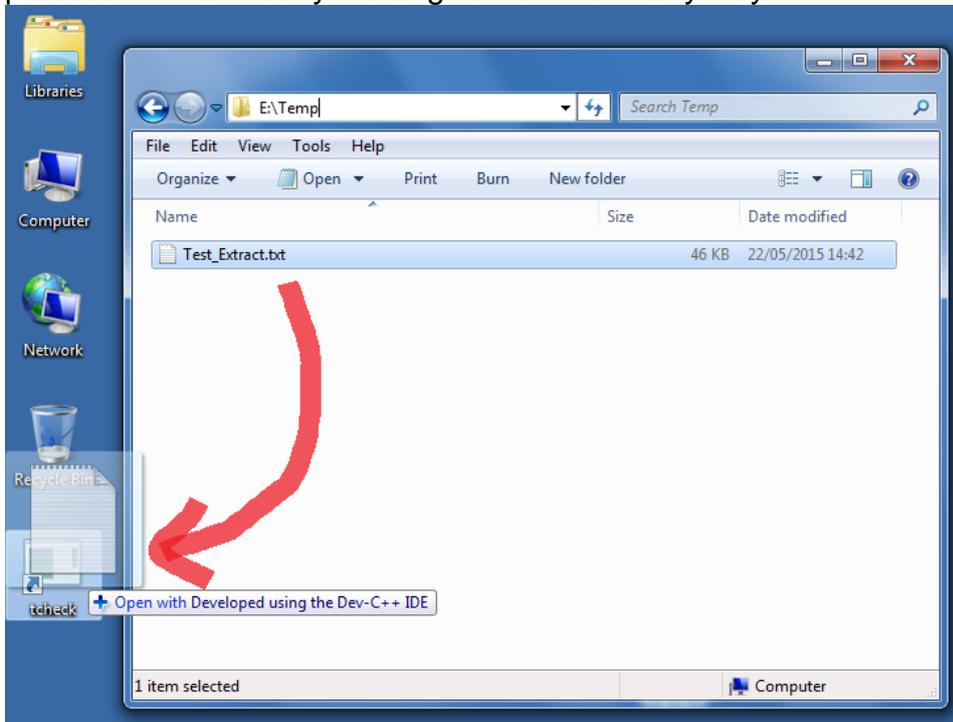


- After a while the following window will be displayed. Click **Finish** to close the window.

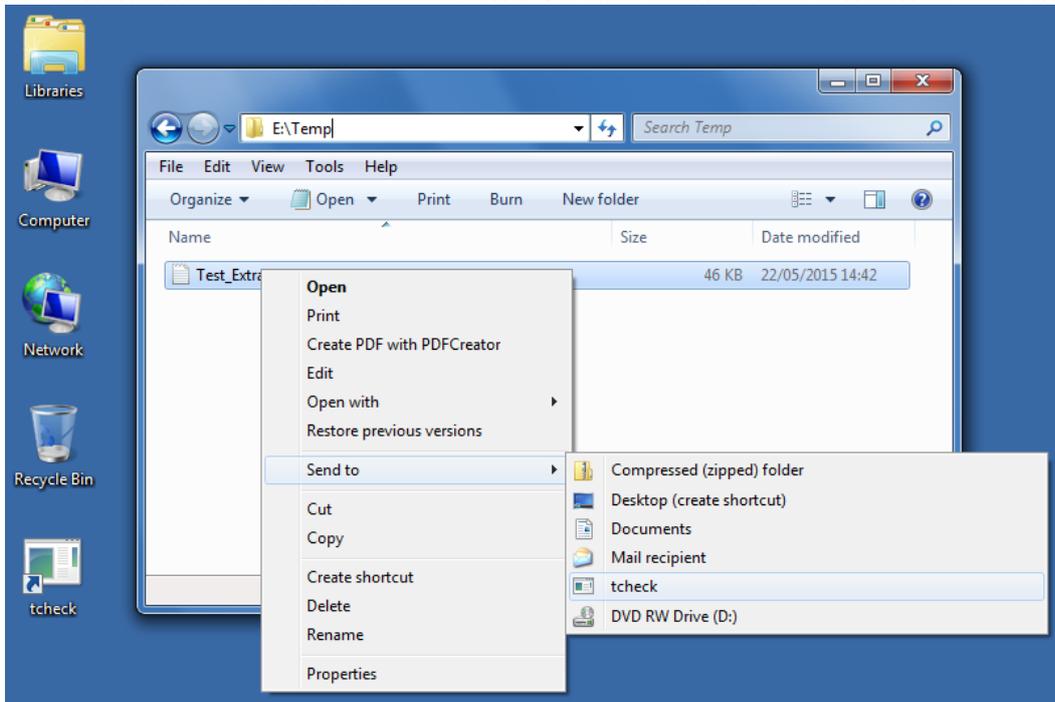


USAGE

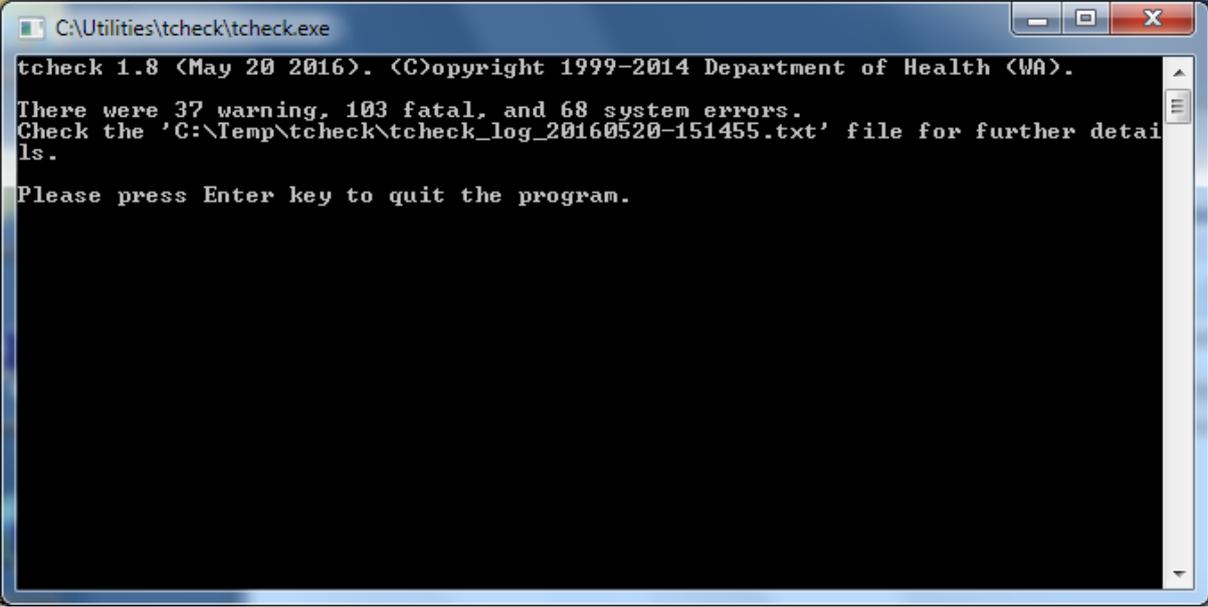
Once the installation has completed, there will be a new shortcut icon on the Desktop. To run the tcheck program, just drag a morbidity extract data file generated from your patient information system onto the 'tcheck' shortcut. Please note that this process will not modify the original text file in any way.



Alternatively, highlight the text file and **right-click** the mouse button to open the context menu as below. Select **Send To** and then select **tcheck** to start the process.

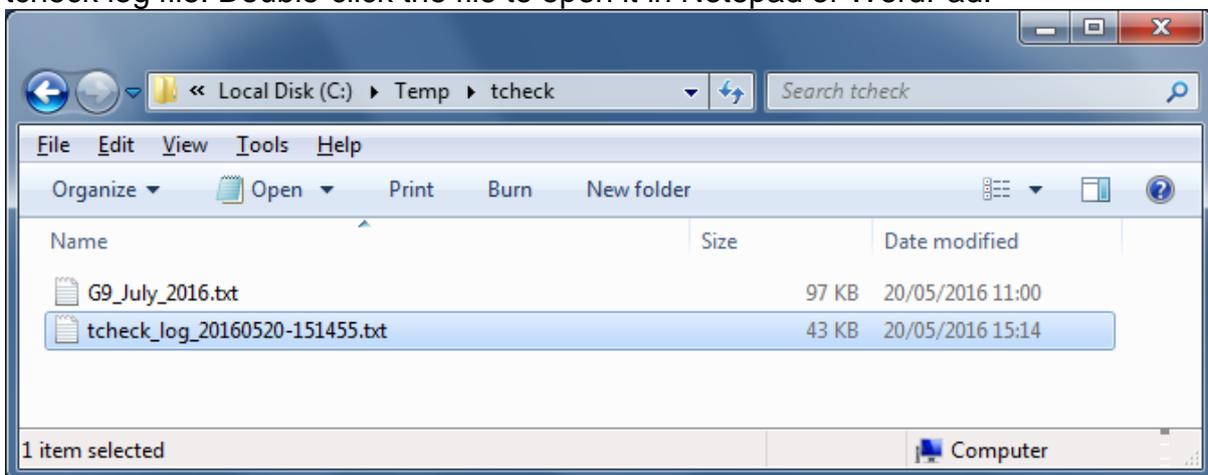


A command prompt window will then be displayed. After processing the edit checks for all records, it will ask you to press the **Enter** key to exit the program. Press the **Enter** key to close the command prompt window.



```
C:\Utilities\tcheck\tcheck.exe
tcheck 1.8 (May 20 2016). (C)opyright 1999-2014 Department of Health (WA).
There were 37 warning, 103 fatal, and 68 system errors.
Check the 'C:\Temp\tcheck\tcheck_log_20160520-151455.txt' file for further details.
Please press Enter key to quit the program.
```

A tcheck log file should have been generated in the same folder as the original morbidity extract data file. Note that each time you run tcheck it will create a unique tcheck log file. Double-click the file to open it in Notepad or WordPad.



You will see the contents of the tcheck log file similar to the one below.

Account No	UMRN	Adm Date	Sep Date	Coder Identifier	Type	ID	Error Message
1	0	01-Jul-2014	10-Jul-2014	sdca	System	971	Hours in ICU must be numeric.
3	0	01-Jul-2014	02-Jul-2014	sdca	Warning	973	Hours in ICU are greater than the Length of
3	0	01-Jul-2014	01-Jul-2014	sdca	Warning	973	Hours in ICU are greater than the Length of
4	0	01-Jul-2014	01-Jul-2014	sdca	System	376	Establishment is different from the first c
4	0	01-Jul-2014	01-Jul-2014	sdca	Fatal	974	Hours in ICU are present but the hospital d
5	0	01-Jul-2014	10-Jul-2014	sdca	Warning	975	Hours CVS require Hours in ICU.
6	0	01-Jul-2014	10-Jul-2014	sdca	Warning	976	Hours in ICU are present but Care Type is n
7	0	30-Jun-2013	30-Jun-2013	bdsa	Warning	977	Hours in ICU are not blank.
8	0	01-Jul-2014	10-Jul-2014	bdsa	Warning	336	Days in ICU are not blank.
9	1	01-Jun-2014	10-Jun-2014	bdsa	Warning	934	Condition Onset Flag for ICD Code is not 2
10	0	01-Jul-2014	10-Jul-2014	bdsa	Warning	504	Marital Status is incompatible with Age.
11	0	01-Jul-2014	10-Jul-2014	bdsa	Warning	504	Marital Status is incompatible with Age.
13	0	01-Jul-2014	10-Jul-2014	bdsa	Warning	579	Postcode corresponds to a postal address. 0

The tcheck log file contains a list of errors in the upper part and a summary report in the lower part. Please refer to the Edit Checks document ([edit_checks.pdf](#)) for the list of implemented edits. For further explanations regarding these edits, please consult the relevant edition of the **HMDS Reference Manual** (in the above case July 2017 Edition) available from:

<http://www.health.wa.gov.au/healthdata/resources/hmnds.cfm>

The summary report contains the following items:

Input file name:	Path and file name of the input data.
Interface file format:	Type of the interface file that tcheck has recognised; supported formats include G1 to G9.
Reporting establishment:	Establishment number found on the first line of the file; it must be the same as the hospital's establishment number.
Total number of lines:	Number of lines from the input file.
Total number of cases:	Number of cases (separations) from the input file.
Start of separation date:	Separation date of the earliest case from the input file.
End of separation date:	Separation date of the latest case from the input file.
Number of warnings:	Number of warning edits detected from the input file; the cases with warning edits will be followed up by HMDS staff and you will be asked to confirm whether they are correct or not. Some warning edits can be ignored if the values are legitimate.
Number of fatal errors:	Number of fatal errors detected from the input file; as cases with fatal errors will be in the edit process until they are fixed, you are strongly encouraged to reduce this number to zero or close to it.
Number of system errors:	Number of system errors detected from the input file; if the file contains any system errors, it will be rejected from HMDS and the hospital would have to resolve the problems and re-submit the data.



Number of lines read correctly:	Number of lines that tcheck has successfully recognised; it must be the same as the total number of lines.
Number of cases read correctly:	Number of cases that tcheck has successfully recognised; it must be the same as the total number of cases.
Number of short lines:	Number of lines that are shorter than expected; it must be '0' to ensure that the file can be loaded.
Number of long lines:	Number of lines that are longer than expected; it must be '0' to ensure that the file can be loaded.
Number of Co-Diagnosis codes:	Number of Co-Diagnosis codes found on the input file; an unusually high number of Co-Diagnosis codes may indicate that the incorrect prefix for diagnosis codes may have been used.
Number of Morphology codes:	Number of morphology codes found on the input file.
tcheck version:	Version number for the tcheck program used.
tcheck run date/time:	Date and time when tcheck was run for this report.

If tcheck has reported any fatal or system errors, correct the errors on the patient record, or consult with the patient information system vendor to find out if the problem can be rectified by them instead.

Regenerate the extract file and run it against tcheck to see if there are any more fatal or system errors. Once all fatal and system errors have been addressed, the morbidity file should be ready for submission to the Department of Health.

Please open a web browser application to connect to the MyFT website (<https://myft.health.wa.gov.au/>) and upload the morbidity extract file and the tcheck log file. Alternative data submission methods are still available (e.g. emailing a zip-encrypted file to Morbidity.Data@health.wa.gov.au), but they will be phased out and replaced by this MyFT method.

Should you have any queries regarding the installation or use of tcheck, please contact:

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Denise McMahon (Phone: 08 9222 2472; Email: Denise.McMahon@health.wa.gov.au).

