1 Introduction

The ADL Error Management Service in Wavecom's Open-AT® v3.12 allows "backtrace" information to be read and exported to an external application. The backtrace consists of a call stack "footprint" taken at the time of a fatal software error in the Open-AT® operating system, or the user application.

The 'BUG' sample application included in the Open-AT® SDK illustrates how to retrieve the binary backtrace information (using the XMODEM file transfer protocol).

This paper gives a step-by-step guide to replaying this binary backtrace information so that the cause of the software crash can be diagnosed.

2 Reference

This paper relates to the following versions of the Target Monitoring Tool (TMT) and Serial Link Manager:

Please refer to the following Wavecom Open-AT® documents:

Title	**Reference**	**Rev**	**Date**
Tools Manual for Open-AT® IDE 1.02	WM_DEV_OAT_UGD_018	005	20 Nov 2006
ADL User Guide for Open-AT® v3.12	WM_ASW_OAT_UGD_00006	009	6 Nov 2006

3 Disclaimer

The information contained herein is presented in the hope that it may be of some use; it is given *"as-is"* and entirely **without any warranty of any sort** – any use of it is **entirely at your own risk!**

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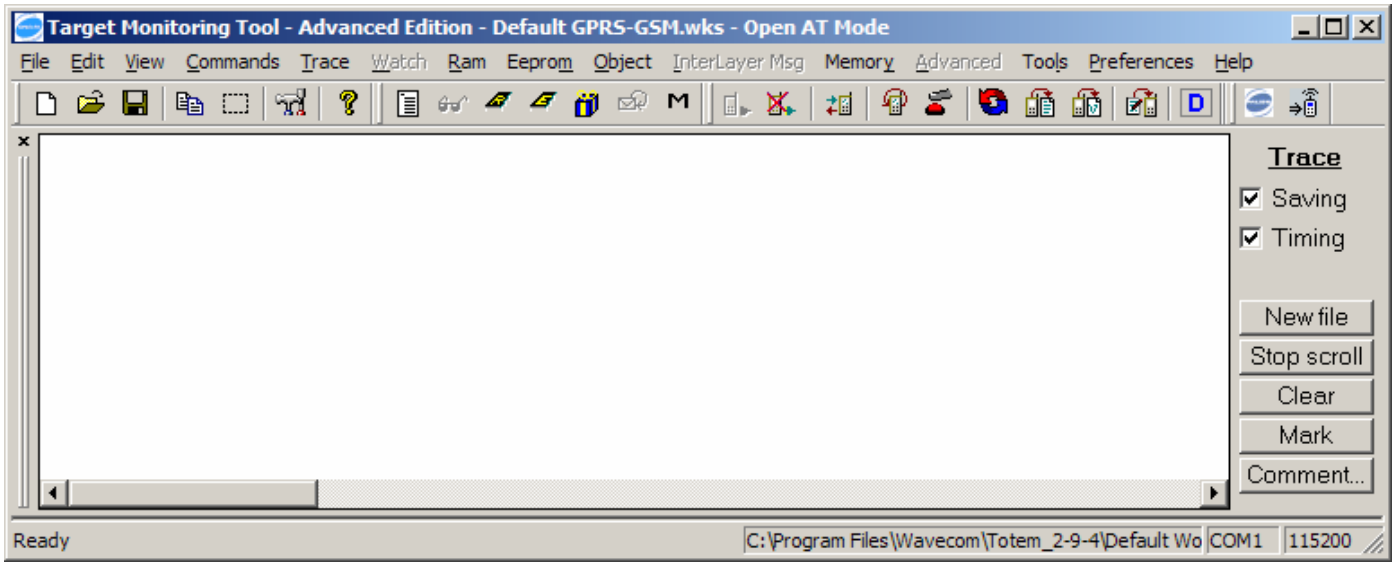
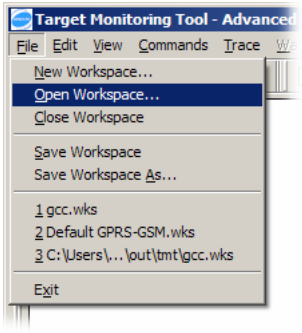
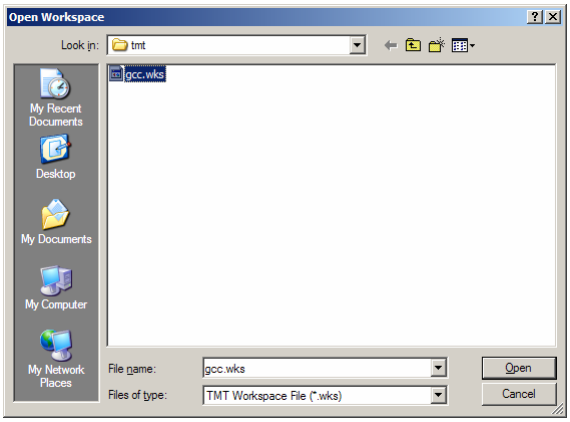
4 Start the Target Monitoring Tool (TMT)



In the 'File' menu, choose 'Open Workspace…' and open the Workspace file for the Project:

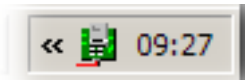


For a GCC Project, this will be in the `gcc\out\tmt` folder:

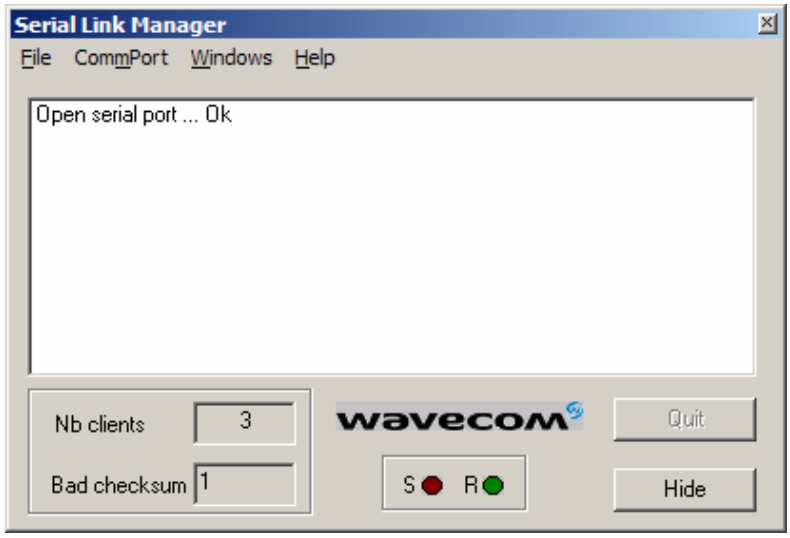


5 Configure the Serial Link Manager for File Playback

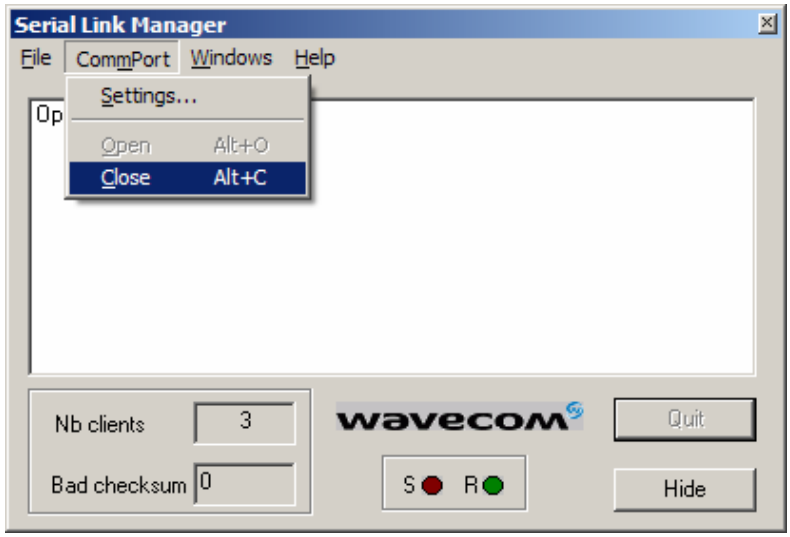
Starting the TMT tool causes the Serial Link Manager icon to appear in the Windows System Tray:



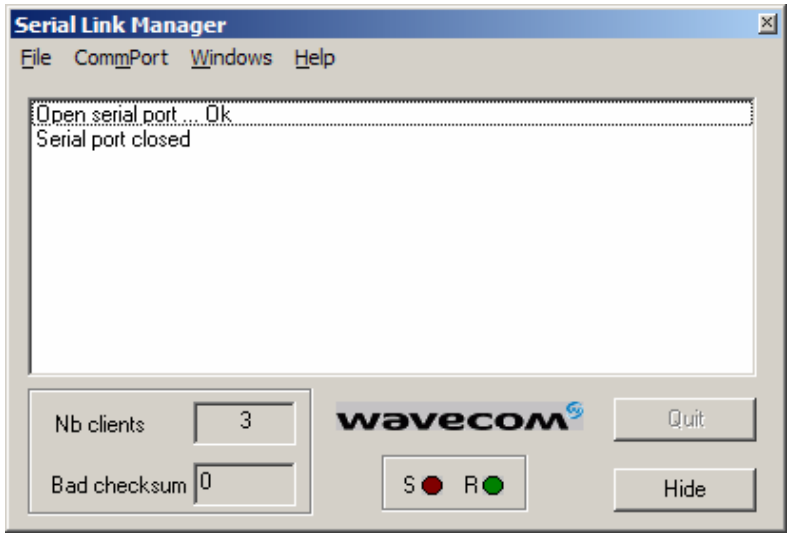
Double-click the icon to open the Serial Link Manager:



Use the 'CommPort' menu to close the serial port:



The message window confirms that the port has been closed:

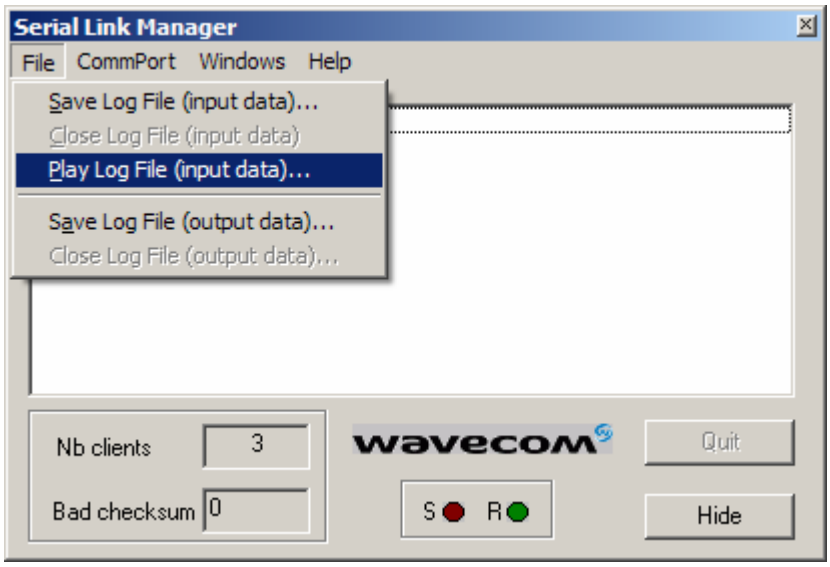


6 Open the Backtrace File

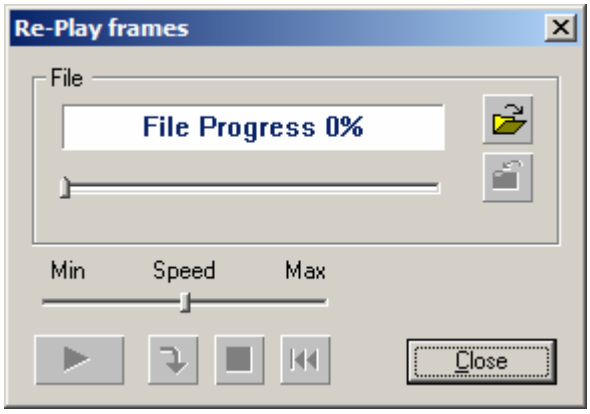
The backtrace information must previously have been retrieved from the target, and saved to a file on the host PC.

The '**BUG**' sample application (included in the Open-AT® SDK) illustrates how to do this (using the XMODEM file transfer protocol).

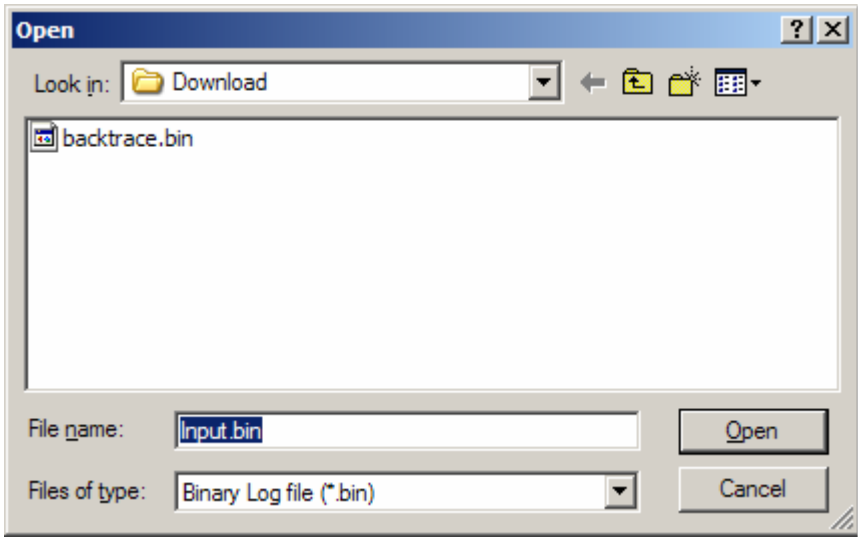
In the Serial Link Manager's 'File' menu, choose 'Play Log File (input data)…'



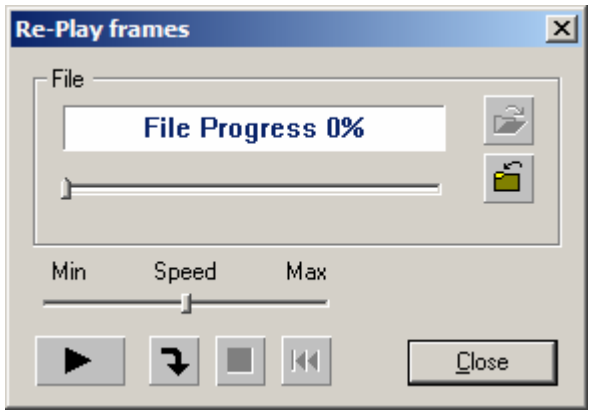
The 'Re-Play Frames' window opens:



Click the  button, and choose the file to open – if it has been uploaded via XMODEM or similar, it will most likely be a Binary file:



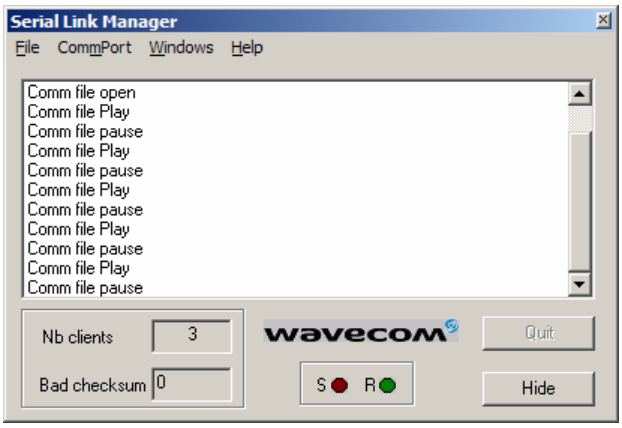
Note that the Play button  has now become enabled:

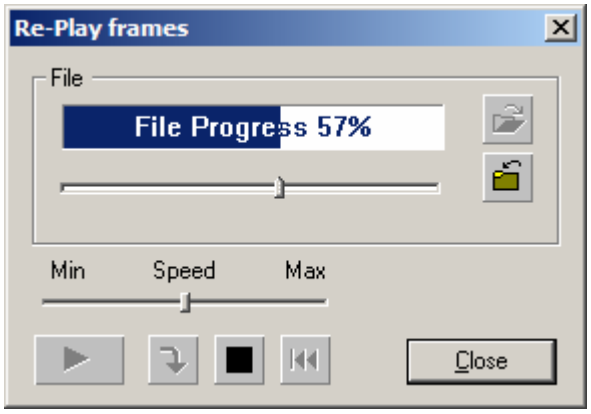


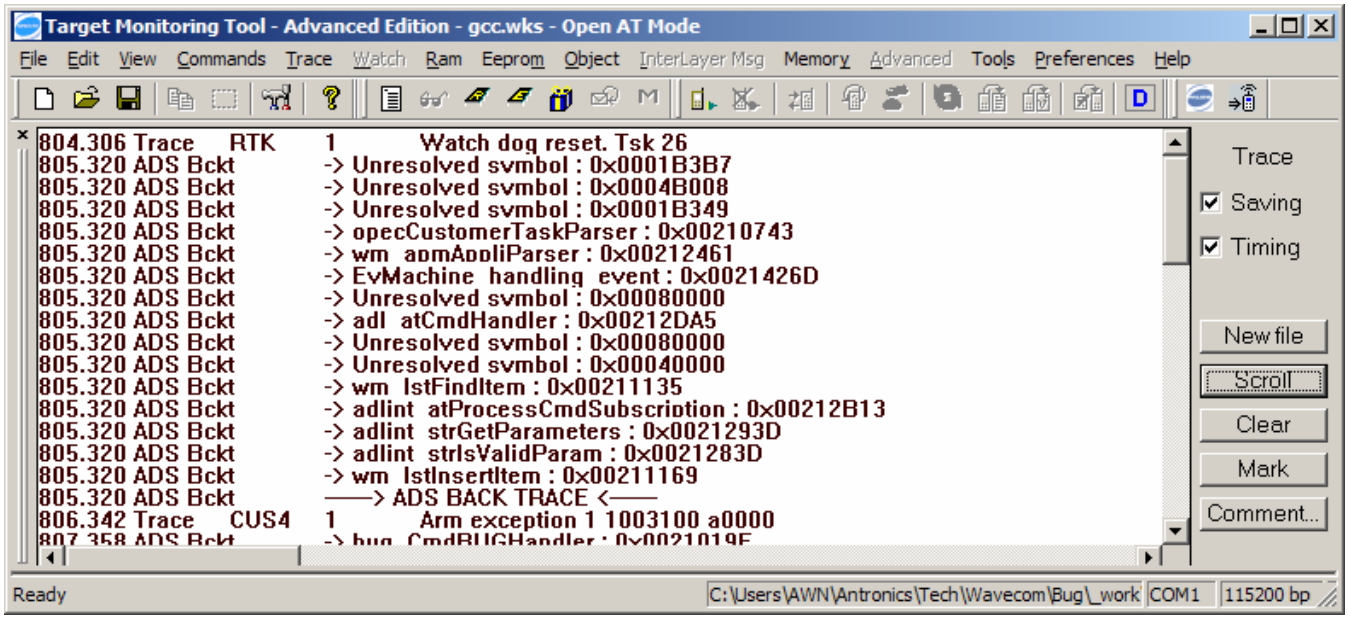
7 Play-back the File

Click the Play button 

The playback activity is reported in the main Serial Link Manager window, the progress bar will advance as the playback proceeds, and the backtraces will appear int the TMT's Trace Window:







Note that the correct Workspace file must be used in the TMT; if it isn't, the trace detail is reduced; eg: