

Apple Events **MacBug Resources**

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Introduction

This document describes the following MacsBug dcmts: aevt, AEDesc, and AEDescData, in addition to some MacsBug macros that will be useful when developing and debugging your application. These MacsBug macros allow you to break on all Apple Event Manager routines, as well as all Edition Manager routines.

How To Install It

Using ResEdit, open the Debugger Prefs file located in your System folder. Next, open each dcmtd file using ResEdit. For each dcmtd you wish to install, copy and paste it into the dcmtd resource in your Debugger Prefs file. To install the MacsBug macros, open the 'Æ&Edition PACK trapping' file. Select the 'mxbm' resource, copy and paste it into your Debugger Prefs. If you receive a "duplicate resource ID" alert in this process, just press the 'Unique ID' button. When you are finished, save the Debugger Prefs file and restart your machine.

How To Use It

Macros.

When you are in MacsBug, you can type 'atb AESend' (or any other Apple Event or Edition Manager call), which will break each time the call is made.

Another handy macro is "ATSend" which gives you a trace of every Send. It breaks at every AESend call and then displays the event using the aevt Dcmd described below.

Macros for the Open Scripting Architecture (OSA) are also included in Macsbug Resources. These macros allow you to break on specific OSA or AppleScript calls. For instance you can type 'atb OSACompile' to break on any call to compile.

Dcmds.

aevt <address> ; address of an Apple Event descriptor

This dcmd displays the following information and provides the Apple Event's attributes. Also, if a parameter is an object specifier, this dcmd will break it down further and display the 'want', 'from', 'form', and 'seld' fields.

CLASS	ID	RTRNID	PROTOCOL	VERSION
aevt	setd	00017c89	aevt	00010001
addr	psn	00000008	0000 0000 0000 0002	
////				

PARAM	TYPE	LENGTH	DATA (param starts at <address>)
----	obj	00000088	object specifier
	KEY	TYPE	LENGTH DATA (record starts at <address>)
	want	.....	.....
	from	obj	00000044 object specifier
	KEY	TYPE	LENGTH DATA (record starts at <address>)
	want	.....	.....
	from	.....	.....
	form	.....	.....
	seld	.....	.....
	form	.....	.....
	seld	.....	.....
PARAM	TYPE	LENGTH	DATA (param starts at <address>)
kdat	QDpt	00000004	0225 0072

AEDesc <address> ; address of any AEDesc descriptor record

AEDesc's output is very similar to the aevt dcmd. The differences are: AEDesc will accept the address of any descriptor record; the Apple Event-specific information is not displayed (i.e., class, id, return id, protocol, and version); and the address of the master pointer is displayed. An object specifier is displayed identically.

AEDescData <address> ; address of AEDesc data

AEDescData displays the data of an Apple Event descriptor record given the address of the data. The data's address may be obtained from the AEDesc command.