Debugger, Error System, and Unwinder test report

This report is for tests written and executed up to March 24, 1987 on the <Lyric>Basics>Full.Sysout generated 11-Mar-87.

The following tests are for the integration of the new error system into the Interlisp environment.

The source for this report is {Erinyes}<Test>Lisp>Lyric>Plans>Debugger.NoteFile

The print version of this test report is filed at {Eris}<Lispcore>Test>Debugger>Report.IP

The test plan is filed at {Erinyes}<Test>Lisp>Lyric>Plans>Debugger.NoteFile and IP.

Groups of tests were written and executed on the 1109 for all the commands in the Debugger document in the Xerox Common Lisp implementation notes.

These are stored on {eris}<Lispcore>Test>Debugger>BreakWindow.u

Groups of tests were written and executed on the 1109 for most of the functions in IRM chapter 15: Breaking, Tracing, and Advising.

These are mostly automatic tests but some require user interaction. They are stored in {Eris}<Lispcore>Test>Debugger>Debugger.u

For tests of the Xerox extentions to the CML error system, see {Eris}<Lispcore>cml>test>24-*. {Eris}<Lispcore>cml>test>cl-error.x and {Eris}<Lispcore>cml>test>errorsystem.notefile which is the source for {Eris}<Lispcore>cml>test>24-errorsystem.x.

Regression Test for ARS

ARS tested 21-Jan-87 <Lyric>basics>full.sysout

7152 passed
7780 new
7797 new
6503 passed

New ARs generated
Several problems were discovered and reported as ARs. Each of these have tests.   The following are only new ARs generated up to February 28.

DEBUGGER.NEWARS
7486   debugger "eval:" undocumented

7522   missing second param causes random error reporting

7601   unnamed proceed cases break compute-proceed-cases

7679   Version .01 Error System documentation edits

7780   argument names of broken fns unbound in debugger

7797   breaking/tracing advised fns does not update brokenfns

7845   exec il:settopval il:helpflag serious-condition attempt-to-change-constant

7848   (IL:NLSETQ (CL:SIGNAL 'ERROR)) breaks

7868   bad package fix readtable change screws up fix

7873: Common functions should be safe to break

AR 7923 il:brkinfolst no longer exists

AR 7908 untrace also unbreaks

AR 7919 TRACE no longer works for undefined subfunctions

AR 7932: (unbreak (sub-fn in super-fn)) has two problems

Original List of ARs

ERRORSYSTEM.ARSUMMARY
AR Summary generated on 17-Feb-87 10:33:56
Generated with Query Spec: (AND (Submitter: HAS Kelley))
Sorted with Sort Spec: (Status:)

Numbe	Date:	System:	Subsystem:	Status:	Attn:	Subject:	Priority:	Difficulty	Impact: Problem Type:
6787	4-Nov-86	Common Lisp	File System In	New	Jellinek.pa	CL:OPEN says FILE NOT FOUND for BUSY FILE			Absolutely
6810	5-Nov-86	Common Lisp	Streams and I/	New	Jellinek	make-synonym-stream core file read fails		Absolutely	Bug
6847	10-Nov-86	Common Lisp	Other	New	vanMelle, W	Making straight common-lisp text files using SEdit	Unlikely Hard		Feature
6987	2-Dec-86	Common Lisp	Streams and I/	New	Jellinek	make-broadcast-stream should check for list arg		Absolutely	Bug
7033	9-Dec-86	Programming En	Code Editor	New	Wozencraft	SEdit global replace breaks			
7067	15-Dec-86	Common Lisp	Streams and I/	New	Jellinek	force-output should flush pages buffered in vmem		Serious	
7118	29-Dec-86	Programming En	Code Editor	New	woz	Sizing to fit SEdit window region length		Perhaps	Feature
7168	8-Jan-87	Common Lisp	Other	New		Portable DO-TEST needs expect-errors			
7268	19-Jan-87	Language Suppo	Storage Format	New	vanmelle	SPELLFILE should use FILEDATES prop, but doesn't		Hopefully	Bug
7308	21-Jan-87	Programming En	Break Package	New	Daniels	CL:READ should be in the list of break warning fns		Absolutely	Design - UI
7436	4-Feb-87	Communications	Other	New	LispCore↑.p	Constant requests for passwords			
7439	4-Feb-87	Common Lisp	Error System	New	Biggs, Dani	Error system documentation needs re-writing			
7448	4-Feb-87	Programming En	Code Editor	New	Wozencraft,	SEdit looses edits of whole lists			
7451	4-Feb-87			New	Fischer	Old-Interlisp-Exec comes up in current pkg&rdtbl			
7486	5-Feb-87	Programming En	Break Package	New	Daniels	debugger "eval:" undocumented			
7522	6-Feb-87			New	Daniels	CERROR missing second param causes random error reporting			Minor
7601	10-Feb-87	Common Lisp	Error System	New	Daniels	unnamed proceed cases break compute-proceed-cases			
7679	12-Feb-87	Common Lisp	Error System	New	Daniels,Big	Version .01 Error System documentation edits			
7680	12-Feb-87	Documentation	Product Descr/	New	Biggs	WHO-LINE mention missing from overview			
7681	12-Feb-87	Text	TEdit	New	Sybalsky, S	TEDIT not calling EDITBM ?			
7686	12-Feb-87	Documentation	Interlisp Refe	New	Biggs,Sybal	IL => CL function map needed			
7687	12-Feb-87	Programming En	Code Editor	New	Wozencraft	SEdit should reflect a change in readtable			
7696	12-Feb-87	Programming En	Code Editor	New	SeditSuppor	SEdit quits refreshing after soft stack overflow			
5717	27-May-86	Windows and Gr	Window System	Open	Wozencraft.	ATTACHWINDOW JUSTIFY should work for thin windows	Hopefully	Moderate	Bug
6789	4-Nov-86	Common Lisp	Streams and I/	Open	Jellinek.pa	make-concatenated-stream core file problem			Absolutely
6919	18-Nov-86			Open	Jellinek	SETFILEINFO does not take FileName in all cases	Unlikely		Bug
4847	5-Dec-85	Communications	Other	Fixed		FileCache breaks when running init.firsttime	Hopefully	Moderate	Bug
7098	22-Dec-86	Common Lisp	Streams and I/	Fixed		make-string-input-stream breaks on printed double		Absolutely	Bug
4890	10-Dec-85	Operating Syst	Virtual Memory	Declined		Changing CPE and memory boards gives MP9335	Hopefully	Moderate	Bug
6797	4-Nov-86			Declined		KEYACTION does not work for MOVE.			
6799	5-Nov-86	Common Lisp	Streams and I/	Declined	Jellinek	make-string-input-stream calls OPENSTRINGSTREAM with unconverted string	Absolutely		Bug
7529	9-Feb-87	Language Suppo	Stack and Inte	Incomplete		il:|fetch| dwimification problems			

DEBUGGER.ARSUMMARY
AR Summary generated on 16-Feb-87 16:23:08
Generated with Query Spec: (AND (Subsystem: IS Break Package))
Sorted with Sort Spec: (Status:)

Numbe	Date:	System:	Subsystem:	Status:	Attn:	Subject:	Priority:	Difficulty	Impact: Problem Type:

ID	Date	Time	System	Module	Status	Likelihood	Difficulty	Severity	Category	Submitter	Description
6851	10-Nov-86	23:07:31	Programming Environment	Break Package	New	Absolutely			Feature	masinter	If a u.d.f. has a functions definition, want the definition to be unsaved, ala Interlisp-D environment.
6981	1-Dec-86	08:56:50	Programming Environment	Break Package	New	Hopefully		Annoying	Bug	Fischer.PA	Trace Window Overflow
6993	3-Dec-86	15:57:33	Programming Environment	Break Package	New	Hopefully	Moderate	Annoying	Bug	daniels	Bug in debugger: Buttoning "display edit" from the frame window edits the function cell
7016	6-Dec-86	07:40:10	Programming Environment	Break Package	New	Unlikely		Serious	Design - Impl	jellinek, daniels, biggs	Want -> = commands for debugger
7079	17-Dec-86	13:26:10	Programming Environment	Break Package	New	Hopefully	Easy	Annoying	Bug	daniels	Debugger should skip SI::*UNWIND-PROTECT* frames in reporting errors
7084	17-Dec-86	18:07:17	Programming Environment	Break Package	New	Absolutely			Bug	daniels, vanMelle	BREAK..OK doesn't work under Interlisp exec/profile--uses wrong evaluator, gets uba BROKEN
7085	17-Dec-86	20:36:10	Programming Environment	Break Package	New	Absolutely	Moderate	Serious	Bug	daniels.pa	UNBREAK (foo :in bar) doesn't find uses in subfunctions
7089	19-Dec-86	10:23:56	Programming Environment	Break Package	New	Absolutely	Easy	Fatal	Bug	daniels.pa	OPENWP should be on list of unsafe functions to break
7097	19-Dec-86	22:36:05	Programming Environment	Break Package	New	Hopefully	Moderate	Moderate	Bug	Daniels	Wrong frame current in broken function in debugger
7122	29-Dec-86	13:47:11	Programming Environment	Break Package	New	Absolutely			Bug	Daniels	Break window BT frame window doesn't show arg names for broken fn.
7213	13-Jan-87	02:10:08	Programming Environment	Break Package	New	Hopefully		Serious	Bug	daniels, pavel	Trace replacing old fn defn.
7215	13-Jan-87	02:16:43	Programming Environment	Break Package	New	Perhaps		Moderate	Feature	daniels	Arguments displayed during trace are random.
7236	14-Jan-87	16:07:14	Programming Environment	Break Package	New	Absolutely	Moderate	Moderate	Bug	daniels	Information in breakpoint, backtrace, and frame window is printed with inconsistent package / readtable.
7267	16-Jan-87	16:06:54	Programming Environment	Break Package	New	Unlikely	Easy	Annoying	Design - UI	woz	Bad bahavior of backtrace window inspect menu
7295	20-Jan-87	17:45:26	Programming Environment	Break Package	New	Absolutely	Hard	Serious	Documentation	Daniels, Biggs	Need to finish documentation for the new DEBUGGER
7296	20-Jan-87	17:48:23	Programming Environment	Break Package	New	Absolutely	Moderate	Serious	Documentation	Fischer, Biggs	New Step and trace need documentation
7308	21-Jan-87	16:14:01	Programming Environment	Break Package	New	Absolutely			Design - UI	Daniels	CL:READ should be in the list of break warning fns
7355	26-Jan-87	23:27:01	Programming Environment	Break Package	New				Design - UI	Pavel, Daniels	Want better support for debugging interpreted code
7371	28-Jan-87	12:01:49	Programming Environment	Break Package	New	Absolutely		Moderate	Design - UI	Daniels	Stack overflow condition should get normal debugger window
7383	29-Jan-87	11:41:06	Programming Environment	Break Package	New	Hopefully	Easy	Moderate	Design - Impl	Daniels	ENTER-DEBUGGER-P should say yes for STORAGE-CONDITIONs
7384	29-Jan-87	11:43:08	Programming Environment	Break Package	New	Hopefully	Easy	Annoying	Design - Impl		STACK-OVERFLOW errors should get a new window
7402	30-Jan-87	12:56:11	Programming Environment	Break Package	New			Moderate	Bug	Daniels	Closing a debugger window does not always abort
7441	4-Feb-87	14:57:56	Programming Environment	Break Package	New	Absolutely		Serious	Bug	Daniels	Can't break Interlisp NLAMBDAs
7445	4-Feb-87	16:51:54	Programming Environment	Break Package	New	Hopefully		Moderate	Bug	Daniels	INSPECTCODE from debugger should always inspect selected frame
7474	4-Feb-87	21:28:01	Programming Environment	Break Package	New	Absolutely	Easy	Serious	Bug	Daniels	The debugger should rebind *READ-SUPPRESS* to NIL
7486	5-Feb-87		Programming Environment	Break Package	New					Daniels	debugger "eval:" undocumented

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        12:00:08  vironment
7510   5-Feb-87  Programming En  Break Package  New        Daniels     Debugger gives lexical environment to EVAL too oft
       Absolutely          Moderate   Bug
       18:22:32  vironment                          en
7589  10-Feb-87  Programming En  Break Package  New        daniels     Want !EVAL debugger command
       Feature
       15:10:43  vironment
7592  10-Feb-87  Programming En  Break Package  New                    HELPDEPTH no longer controls break depth
       17:47:02  vironment
7742  13-Feb-87  Programming En  Break Package  New        Daniels     ADVISE doesn't work on Common Lisp functions
       Absolutely          Serious    Bug
       18:53:10  vironment
7748  13-Feb-87  Programming En  Break Package  New        Daniels     Want better name for Breakpoint, tracing functions
       Hopefully  Easy      Minor    Feature
       19:25:46  vironment
118   17-Mar-84  Programming En  Break Package  Open       Pavel       Want EDIT command in debugger to work even when co
       Perhaps    Hard      Moderate Feature
       0:19:30  vironment                           de is compiled.
494    4-Apr-84  Programming En  Break Package  Open       Masinter    HELPFLAG = BREAK! should cause breaks on every err
       Absolutely          Moderate   Feature
       11:24:03  vironment                           or
1032   8-May-84  Programming En  Break Package  Open       Masinter    CML: Want to trace & break macros, like "push, pop
       Unlikely  Moderate  Annoying Feature
       17:21:55  vironment                           " etc
3972  25-Jun-85  Programming En  Break Package  Open       Masinter.pa  Want to be able to trace variables at execution ti
       Perhaps             Moderate   Feature
       12:46:56  vironment                           me
4164   1-Aug-85  Programming En  Break Package  Open       Biggs, Masi  Want extended documentation of the Break Package
       Absolutely Hard        Annoying Documentation
       16:18:20  vironment                           nter.pa
5099  29-Jan-86  Programming En  Break Package  Open       Burton      want shift selection from the backtrace menu
       Unlikely            Minor     Feature
       10:06:54  vironment
6231  27-Jul-86  Programming En  Break Package  Open       Masinter    EDIT in break window under Common Lisp won't edit
       Hopefully  Moderate  Serious  Feature
       10:29:22  vironment                           the expression
6542  29-Sep-86  Programming En  Break Package  Open       Masinter    TRACE window doesn't hold when page is full
       Hopefully             Annoying Feature
       08:56:25  vironment
6959  25-Nov-86  Programming En  Break Package  Open       Masinter    Can't advise ARGTYPE = 2 functions
       Absolutely          Fatal      Bug
       15:25:50  vironment
6960  25-Nov-86  Programming En  Break Package  Open       daniels.pa  Want one-shot breakpoints                 Unlikely
       Moderate   Feature
       15:46:22  vironment
7364  27-Jan-87  Programming En  Break Package  Open       Daniels     (TRACE) gives ("nil not a function")
       Serious    Bug
       19:10:55  vironment
7386  29-Jan-87  Programming En  Break Package  Open                   ADVISE AROUND uses u.d.f. IL:\\SAFEAPPLY
       Absolutely          Fatal      Bug
       13:01:11  vironment
7391  29-Jan-87  Programming En  Break Package  Open                   Want !EVAL in debugger
       Moderate   Design - Impl
       14:32:21  vironment
7618  11-Feb-87  Programming En  Break Package  Open       Daniels     BREAK :IN broken                      Absolutely
       Serious    Design - Impl
       12:36:42  vironment
1034   8-May-84  Programming En  Break Package  Fixed                  TRACE of (C)EXPR*'s fails to show arguments
       Perhaps    Easy      Serious  Design - UI
       17:24:30  vironment
1035   8-May-84  Programming En  Break Package  Fixed                  TRACEing shifts (TTYDISPLAYSTREAM) into trace wind
       Absolutely Moderate  Moderate Bug
       17:25:02  vironment                           ow
1036   8-May-84  Programming En  Break Package  Fixed                  Confusing appearance of TRACE's value-return line
       Hopefully  Moderate  Annoying Design - UI
       17:25:59  vironment
1122  18-May-84  Programming En  Break Package  Fixed                  change STKNARGS, STKARG to see args of Lambda-
       nosp  Perhaps               Moderate Design - UI
       12:25:45  vironment                           read (for break)
1694  24-Jul-84  Programming En  Break Package  Fixed                  (BREAK (FOO IN BAR)) replaces recordname FOO with
       Unlikely   Hard      Moderate Bug
       10:04:53  vironment                           FOO-IN-BAR in CREATE
1970  28-Aug-84  Programming En  Break Package  Fixed                  ↑B while a traced function is being executed confu
       Absolutely          Moderate   Design - UI
       09:46:40  vironment                           ses break package
2478  19-Oct-84  Programming En  Break Package  Fixed                  RETFROM inside function doesn't unwind break windo
       Absolutely          Annoying   Bug
       16:47:01  vironment                           ws
2686  14-Nov-84  Programming En  Break Package  Fixed                  Repeatable Race break package: causes Break window
       Absolutely          Moderate   Bug
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                    20:39:12  vironment                        acting like top-level typescript window
5556  24-Apr-86  Programming En  Break Package  Fixed                AUTOBACKTRACEFLG vs. TRACE
        Absolutely                    Bug
        11:48:47  vironment
5807  11-Jun-86  Programming En  Break Package  Fixed                AUTOBACKTRACEFLG = ALWAYS breaks TRACE
        Absolutely              Serious  Bug
        09:38:52  vironment
5940  28-Jun-86  Programming En  Break Package  Fixed      biggs     BT in break windows isn't very useful.          Absolutely
        Moderate  Design - Impl
        02:06:18  vironment
6007   8-Jul-86  Programming En  Break Package  Fixed                Break handling under CMLEXEC should be CMLreading
        Absolutely              Annoying  Design - Impl
        11:03:28  vironment
6128  19-Jul-86  Programming En  Break Package  Fixed                Want to be able to include 1-cell arglist debuggin  Absolutely
        Design - Impl
        04:17:22  vironment                        g info in compiled code, have printcode etc know a
                                    bout them
6445   8-Sep-86  Programming En  Break Package  Fixed                Can't revert from the menu any more              Absolutely
        Moderate  Bug
        17:57:29  vironment
6712  27-Oct-86  Programming En  Break Package  Fixed                Break package obscures system variables
        Absolutely              Moderate  Bug
        09:44:31  vironment
6796   4-Nov-86  Programming En  Break Package  Fixed                EVAL in debugger doesn't print result            Absolutely
        Moderate  Design - Impl
        17:59:31  vironment
6817   6-Nov-86  Programming En  Break Package  Fixed                Backtrace windows (and printed backtraces) show to
        Hopefully               Annoying  Design - UI
        12:33:52  vironment                        o many calls
6818   6-Nov-86  Programming En  Break Package  Fixed                Stack frame display for CL EVAL frames should show
        Hopefully  Moderate  Annoying  Feature
        12:40:05  vironment                        more
6927  19-Nov-86  Programming En  Break Package  Fixed                 debugger windows pop up on top of one another.
        Absolutely              Annoying  Design - UI
        11:54:28  vironment
6952  24-Nov-86  Programming En  Break Package  Fixed                PAGEHEIGHT remains debugger window height after de
        Absolutely              Annoying  Bug
        12:01:36  vironment                        bugger exit
7121  29-Dec-86  Programming En  Break Package  Fixed                ?= under breakpoint shows broken fn, rather than a
        Absolutely                    Bug
        13:44:59  vironment                        rgs
7155   7-Jan-87  Programming En  Break Package  Fixed      Fischer    Debugger BTV! command :print-junk option broken
        Absolutely  Easy    Annoying  Bug
        11:23:37  vironment
7329  23-Jan-87  Programming En  Break Package  Fixed                Help info on debugger menu is "NIL"              Hopefully
        Annoying  Bug
        18:09:49  vironment
7598  10-Feb-87  Programming En  Break Package  Fixed                ↑ out of break under "EVAL" unwinds too far
        Absolutely              Serious  Design - Impl
        19:18:26  vironment
7599  10-Feb-87  Programming En  Break Package  Fixed                "PROCEED" shows too much, starts at wrong frame
        Absolutely              Moderate  Design - Impl
        19:22:56  vironment
6237  28-Jul-86  Programming En  Break Package  Closed               Change break  package uses a special variable to *
        Easy      Annoying  Design - Impl
        14:01:45  vironment                        WINDOW-BREAK* from WBREAK to decide whether to sta
                                    rt a new window or to use the same one instead of
                                    MOVDs when WBREAK(T) or WBREAK(NIL)
2347   8-Oct-84  Programming En  Break Package  Declined             Break of (REPLACE IN FOO) gives erroneous error me
        Perhaps             Annoying  Design - UI
        14:23:41  vironment                        ssage (REPLACE was undefined)
4102  17-Jul-85  Programming En  Break Package  Declined             want ~ to be treated equivalent to ↑ in break wind  Perhaps
        Annoying  Design - UI
        19:13:39  vironment                        ow
744   17-Apr-84  Programming En  Break Package  Superseded           (Superseded by AR 1035) ↑ out of break can switch
        Perhaps  Moderate  Annoying  Design - UI
        16:25:26  vironment                        TTY stream to TRACE window
1740   2-Aug-84  Programming En  Break Package  Superseded           editing under a break (superseded by AR 162)
        Moderate  Bug
        14:00:53  vironment
2809   6-Dec-84  Programming En  Break Package  Superseded           (Superseded by AR 5556) Setting
        AUTOBACKTRACEFLG =  Perhaps              Annoying  Bug
        09:56:17  vironment                        ALWAYS causes a break when a traced fn is called:
                                    "TRACE - UNBOUND ATOM"
2863  12-Dec-84  Programming En  Break Package  Superseded  BURTON.PA   Harmony: tracing functions (superceded by AR
        2863)
        16:10:44  vironment
2967  29-Dec-84  Programming En  Break Package  Superseded           (Superseded by AR 1035) BREAK windows can be left
        Unlikely            Minor    Bug
        08:52:57  vironment                        on screen after REVERT to broken fn.
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3487 14-Mar-85 Programming En Break Package Superseded   (Superseded by AR 1035) Display stream switched to
        Perhaps   Annoying   Design - Impl
      09:13:59 vironment   break window when HELPFLAG set to break!
3540 25-Mar-85 Programming En Break Package Superseded   (Superseded by AR5556) When
        AUTOBACKTRACEFLG=ALWAY Hopefully   Moderate   Bug
      08:39:38 vironment   S!, any TRACEd function stops with UNBOUND ATOM TR
                                                ACE
5219 14-Feb-86 Programming En Break Package Superseded   superseded by AR494: HELPFLAG = BREAK! doesn't
        alw Absolutely   Moderate   Bug
      11:41:33 vironment   ays work
6099 16-Jul-86 Programming En Break Package Superseded   (Superseded by AR 5556) AUTOBACKTRACEFLG of
        ALWAYS Perhaps   Annoying   Bug
      17:46:31 vironment   or ALWAYS! breaks TRACE
7011   6-Dec-86 Programming En Break Package Superseded   debugger entry frame odd   Absolutely
        Serious   Design - UI
      06:53:47 vironment
7083 17-Dec-86 Programming En Break Package Superseded   [SUPERSEDED BY 7121] ?= doesn't work for il:broken
        Absolutely   Bug
      18:01:11 vironment   fns
7247 15-Jan-87 Programming En Break Package Superseded   Superseded by AR7236: Frame inspector window in De
        Absolutely Moderate   Serious   Bug
      19:16:18 vironment   bugger always uses IL package, readtable
311   27-Mar-84 Programming En Break Package Obsolete   HELPFIX is calling EDITE with Type=FNS when there
        Absolutely Easy   Annoying   Design - UI
       9:29:34 vironment   is no fn
2223 21-Sep-84 Programming En Break Package Obsolete   BREAK frame window opens twice   Perhaps
        Annoying   Design - Impl
      15:09:15 vironment
2533 30-Oct-84 Programming En Break Package Obsolete   Break window becomes Toplevel
        Moderate   Bug
      09:41:33 vironment
2598   7-Nov-84 Programming En Break Package Obsolete   Got UNBOUND ATOM "↑" and "?=" in break window
        Perhaps   Annoying   Bug
      17:07:01 vironment
2614   8-Nov-84 Programming En Break Package Obsolete   MaxBkMenuHeight no longer effective   Perhaps
        Minor   Bug
      14:55:36 vironment
2928 19-Dec-84 Programming En Break Package Obsolete   Break window frame inspect window opened twice whe
        Perhaps   Minor   Performance
      08:09:37 vironment   n first created
2968 29-Dec-84 Programming En Break Package Obsolete   REVERT to Nlambda-nospread with LOCALVAR arg
        trans Absolutely   Moderate   Bug
      10:47:57 vironment   forms arg to (LIST arg)
6538 26-Sep-86 Programming En Break Package Obsolete   TRACE keeps opening new windows, rather than reusi
        Absolutely   Serious   Bug
      18:23:55 vironment   ng one trace window.
6829   6-Nov-86 Programming En Break Package Obsolete   CLOSEW of a breakwindow sends ↑ instead of il:↑
        Minor   Bug
      21:34:57 vironment
539   6-Apr-84 Programming En Break Package Incomplete   Break middle-button pop-up menu should switch the
        Perhaps   Annoying   Design - UI
      10:20:11 vironment   TTY to the break window