X/Open Window Management Verification Suite

Release Notes for X/Open Window Management Verification Suite (VSW)

Release 4.1.1

Contents

VSW release 4.1.1 is an unsupported general release of the X/Open Window Management Verification Suite. It consists of a tar file containing files which have been derived from two sources:

1. The MIT X test suite release 1.2. This is publicly available from MIT, and has been developed by MIT from release 1.1, which was produced by UniSoft under contract to MIT. This is a comprehensive Xlib and X Protocol test suite, including tests for chapters 2 to 10 of the MIT X11R4 Xlib specifications.

   These files contain MIT/UniSoft copyright notices.

2. The X/Open Window Management Additional Tests.

   These are tests for chapter 12 of the document:

   > X/Open CAE Specification (1991)
   > X/Open Window Management: Xlib - C Language Binding

   These files contain X/Open copyright notices.

   They have been developed by UniSoft under contract to X/Open.

Status of this release

As documented, this product is a composite of the MIT X test suite and X/Open enhancements. Given that the MIT software is publicly available at nominal cost, X/Open has chosen to adopt a similar style of presentation and packaging for the VSW software and documentation.

Support is only available for VSW4.1.1 for organisations with a valid support contract with X/Open.

Error Reports

Organizations with support contracts may report bugs using their support channel.

Installing the TET

The distribution includes a version of the Test Environment Toolkit (TET 1.10). This replaces TET 1.9 which was supplied with the MIT X test suite release 1.2.

If you have not previously installed the TET (version 1.10 or newer), ensure you extract the version of TET provided with this release, and install it according to the instructions for installing TET found in the "User Guide for the X test suite".

The latest version of the TET can be obtained from http://tetworks.opengroup.org.

If you already have the TET (version 1.10 or newer) installed you do not need to extract the TET files from the tape. (See the VSW User Guide for instructions on how to extract all files except the TET files, and how to configure VSW to use your pre-installed TET.)

Status of the TET

The supplied version of the TET contains modifications to correct the following known problems in TET (release 1.10). Other known problems in TET (release 1.10) are documented in the TET release notes.

1. On some systems, when using the tcc with the OUTPUT_CAPTURE mode True, the times do not get written to the journal for Invocable Components or Test Purposes. The times are still written to the journal for the start and end of Test Cases.

2. The CLEAN target in the makefile in directory src/posix_c/api does not remove the file libapi.a in the current directory.

Known portability limitations in VSW4.1.1

At the time of this release there is one outstanding known portability limitation in VSW4.1.1:

1. VSW4.1.1 is known to produce incorrect test results for a number of tests when using C compilers which allocate 64 bits to long data types and 32 bits to int data types.

    Incorrect results are produced in some places where unsigned long data types are compared with uncast constants. Incorrect results are also produced where unsigned long data types are printed as int data types.

Report writer

A new X/Open report writer has been developed which formats test reports from TET journal files produced by executing VSW. Full details are given in the VSW User Guide.

The report writers rpt and prp developed for MIT (and documented in the "User Guide for the X test suite") may still be used to produce a summary of the test results for each test set in a TET journal file. These summary reports may not be used to support branding applications.

Documentation

The following hardcopy documentation is provided for the X/Open Window Management Verification Suite:

— This release note, which is also provided in the file in PDF form in file xtest/xopen_doc/vsw_r_note.pdf.

— The VSW User Guide. This is also provided in PDF form in file xtest/xopen_doc/vsw.pdf.

    In order to install, configure, build and run VSW, work through all the steps described in the VSW User Guide in order. The VSW User Guide refers to specific sections of the documentation for the MIT X test suite.

The following hardcopy documentation developed for the MIT X test suite release 1.2 is also provided:

— The "Release Notes for the X test suite"

This contains information specific to release 1.2 of the MIT X test suite, and describes its contents in more detail.

— The "User Guide for the X test suite"

This gives enough information to enable an experienced test suite user, (not necessarily familiar with the X Window System) to configure, build and execute the release, and analyse the results produced.

The User Guide is also provided in the file xtest/doc/userguide.mm on the release media, and in PostScript form in file xtest/doc/userguide.ps.

— The "Programmers Guide for the X test suite"

This gives enough information to enable an experienced programmer familiar with the X Window System to modify or extend the release. It should not be necessary for VSW users to use this document. It is supplied solely for reference.

The Programmers Guide is also provided in the file xtest/doc/progguide.mm on the release media, and in PostScript form in file xtest/doc/progguide.ps.

%!PS-Adobe-1.0 %%Creator: xolit:ajosey (Andrew Josey) %%Title: stdin (ditroff) %%CreationDate: Wed Sep 8 10:31:01 1999 %%EndComments %! % Start of psdit.pro -- prolog for ditroff translator % Copyright (c) 1985,1987 Adobe Systems Incorporated. All Rights Reserved. % GOVERNMENT END USERS: See Notice file in TranScript library directory % -- probably /usr/lib/ps/Notice % RCS: $Header: psdit.pro,v 2.2 87/11/17 16:40:42 byron Rel $ /reencsmalldict 12 dict def /ReEncodeSmall

```
  { reencsmalldict begin
   /newcodesandnames exch def
   /newfontname exch def
   /basefontname exch def
   /basefontdict basefontname findfont def
   /newfont basefontdict maxlength dict def
   basefontdict
     { exch dup /FID ne           { dup /Encoding eq              { exch dup length array
copy                newfont 3 1 roll put }           { exch newfont 3 1 roll put }
ifelse }           { pop pop }            ifelse
     } forall
   newfont /FontName newfontname put
   newcodesandnames aload pop
   newcodesandnames length 2 idiv
     { newfont /Encoding get 3 1 roll put}
     repeat
   newfontname newfont definefont pop
   end
   } def

/NLSvec [
```

```
8#200 /florin
8#201 /fi
8#202 /fl
8#203 /endash
8#204 /dagger
8#205 /daggerdbl
8#206 /perthousand
8#207 /breve
8#210 /dotaccent
8#211 /ogonek
8#212 /caron
8#213 /emdash
8#214 /Lslash
8#215 /OE
8#216 /dotlessi
8#217 /lslash
8#220 /oe
8#221 /grave
8#222 /quotedblleft
8#223 /quotedblright
8#224 /fraction
8#225 /quotesingle
8#226 /circumflex
8#227 /tilde
8#241 /exclamdown
8#242 /cent
8#243 /sterling
8#244 /currency
8#245 /yen
8#246 /brokenbar
8#247 /section
8#250 /dieresis
8#251 /copyright
8#252 /ordfeminine
8#253 /guillemotleft
8#254 /logicalnot
8#255 /hyphen
8#256 /registered
8#257 /macron
8#260 /ring
8#261 /plusminus
8#262 /twosuperior
8#263 /threesuperior
8#264 /acute
8#265 /mu
8#266 /paragraph
```

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8#267 /periodcentered
8#270 /cedilla
8#271 /onesuperior
8#272 /ordmasculine
8#273 /guillemotright
8#274 /onequarter
8#275 /onehalf
8#276 /threequarters
8#277 /questiondown
8#300 /Agrave
8#301 /Aacute
8#302 /Acircumflex
8#303 /Atilde
8#304 /Adieresis
8#305 /Aring
8#306 /AE
8#307 /Ccedilla
8#310 /Egrave
8#311 /Eacute
8#312 /Ecircumflex
8#313 /Edieresis
8#314 /Igrave
8#315 /Iacute
8#316 /Icircumflex
8#317 /Idieresis
8#320 /Eth
8#321 /Ntilde
8#322 /Ograve
8#323 /Oacute
8#324 /Ocircumflex
8#325 /Otilde
8#326 /Odieresis
8#327 /multiply
8#330 /Oslash
8#331 /Ugrave
8#332 /Uacute
8#333 /Ucircumflex
8#334 /Udieresis
8#335 /Yacute
8#336 /Thorn
8#337 /germandbls
8#340 /agrave
8#341 /aacute
8#342 /acircumflex
8#343 /atilde
8#344 /adieresis

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```
        8#345 /aring
        8#346 /ae
        8#347 /ccedilla
        8#350 /egrave
        8#351 /eacute
        8#352 /ecircumflex
        8#353 /edieresis
        8#354 /igrave
        8#355 /iacute
        8#356 /icircumflex
        8#357 /idieresis
        8#360 /eth
        8#361 /ntilde
        8#362 /ograve
        8#363 /oacute
        8#364 /ocircumflex
        8#365 /otilde
        8#366 /odieresis
        8#367 /divide
        8#370 /oslash
        8#371 /ugrave
        8#372 /uacute
        8#373 /ucircumflex
        8#374 /udieresis
        8#375 /yacute
        8#376 /thorn
        8#377 /ydieresis
] def /Odict 10 dict def /O{
 Odict begin
 /maxwidth 0 def /chars exch def
 chars {           /code exch def          ( ) dup 0 code put          stringwidth pop dup
      maxwidth gt {/maxwidth exch def} {pop} ifelse
 } forall
 currentpoint /y exch def /x exch def
 chars {           /code exch def          ( ) dup 0 code put dup          stringwidth pop
      maxwidth sub 2 div neg 0 rmoveto          show x y moveto
 } forall
 maxwidth 0 rmoveto
 end } def /$DITroff 140 dict def $DITroff begin /fontnum 1 def /fontsize 10 def
/fontheight 10 def /fontslant 0 def /PB{save /psv exch def currentpoint translate
  resolution 72 div dup neg scale 0 0 moveto}def /PE{psv restore}def /m1 matrix def /m2
matrix def /m3 matrix def /oldmat matrix def /tan{dup sin exch cos div}bind def
/point{resolution 72 div mul}bind def /dround          {transform round exch round exch
itransform}bind def /xT{/devname exch def}def /xr{/mh exch def /my exch def /resolution
exch def}def /xp{}def /xs{docsave restore end}def /xt{}def /xf{/fontname exch def
/slotno exch def fontnames slotno get fontname eq not
```

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{fonts slotno fontname findfont put fontnames slotno fontname put}if}def
/xff{/NLfontname exch def
 /fontname exch def /slotno exch def fontnames slotno get fontname eq not
 {fontname NLfontname NLSvec ReEncodeSmall
 fonts slotno NLfontname findfont put fontnames slotno fontname put}if}def
/xH{/fontheight exch def F}bind def /xS{/fontslant exch def F}bind def /s{/fontsize exch
def /fontheight fontsize def F}bind def /f{/fontnum exch def F}bind def /F{fontheight 0 le
{/fontheight fontsize def}if
  fonts fontnum get fontsize point 0 0 fontheight point neg 0 0 m1 astore
  fontslant 0 ne{1 0 fontslant tan 1 0 0 m2 astore m3 concatmatrix}if
  makefont setfont .04 fontsize point mul 0 dround pop setlinewidth}bind def /X{exch
currentpoint exch pop moveto show}bind def /N{3 1 roll moveto show}bind def /Y{exch
currentpoint pop exch moveto show}bind def /S /show load def /ditpush{}def/ditpop{}def
/AX{3 -1 roll currentpoint exch pop moveto 0 exch ashow}bind def /AN{4 2 roll moveto 0
exch ashow}bind def /AY{3 -1 roll currentpoint pop exch moveto 0 exch ashow}bind def
/AS{0 exch ashow}bind def /MX{currentpoint exch pop moveto}bind def
/MY{currentpoint pop exch moveto}bind def /MXY /moveto load def /cb{pop}def   %
action on unknown char -- nothing for now /n{}def/w{}def /p{pop showpage pagesave
restore /pagesave save def}def /abspoint{currentpoint exch pop add exch currentpoint pop
add exch}def /dstroke{currentpoint stroke moveto}bind def /Dl{2 copy gsave rlineto
stroke grestore rmoveto}bind def /arcellipse{oldmat currentmatrix pop
 currentpoint translate 1 diamv diamh div scale /rad diamh 2 div def
 rad 0 rad -180 180 arc oldmat setmatrix}def /Dc{gsave dup /diamv exch def /diamh exch
def arcellipse dstroke
  grestore diamh 0 rmoveto}def /De{gsave /diamv exch def /diamh exch def arcellipse
dstroke
  grestore diamh 0 rmoveto}def /Da{currentpoint /by exch def /bx exch def /fy exch def
/fx exch def
  /cy exch def /cx exch def /rad cx cx mul cy cy mul add sqrt def
  /ang1 cy neg cx neg atan def /ang2 fy fx atan def cx bx add cy by add
  2 copy rad ang1 ang2 arcn stroke exch fx add exch fy add moveto}def /Barray 200 array
def % 200 values in a wiggle /D˜{mark}def /D˜˜{counttomark Barray exch 0 exch
getinterval astore /Bcontrol exch def pop
 /Blen Bcontrol length def Blen 4 ge Blen 2 mod 0 eq and
 {Bcontrol 0 get Bcontrol 1 get abspoint /Ycont exch def /Xcont exch def
 Bcontrol 0 2 copy get 2 mul put Bcontrol 1 2 copy get 2 mul put
 Bcontrol Blen 2 sub 2 copy get 2 mul put
 Bcontrol Blen 1 sub 2 copy get 2 mul put
 /Ybi /Xbi currentpoint 3 1 roll def def 0 2 Blen 4 sub
 {/i exch def
 Bcontrol i get 3 div Bcontrol i 1 add get 3 div
 Bcontrol i get 3 mul Bcontrol i 2 add get add 6 div
 Bcontrol i 1 add get 3 mul Bcontrol i 3 add get add 6 div
 /Xbi Xcont Bcontrol i 2 add get 2 div add def
 /Ybi Ycont Bcontrol i 3 add get 2 div add def
 /Xcont Xcont Bcontrol i 2 add get add def

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```
  /Ycont Ycont Bcontrol i 3 add get add def
   Xbi currentpoint pop sub Ybi currentpoint exch pop sub rcurveto
  }for dstroke}if}def end /ditstart{$DITroff begin
/nfonts 60 def                % NFONTS makedev/ditroff dependent!
/fonts[nfonts{0}repeat]def
/fontnames[nfonts{()}repeat]def /docsave save def }def
```

```
% character outcalls /oc {/pswid exch def /cc exch def /name exch def
   /ditwid pswid fontsize mul resolution mul 72000 div def
   /ditsiz fontsize resolution mul 72 div def
   ocprocs name known{ocprocs name get exec}{name cb}
   ifelse}def /fractm [.65 0 0 .6 0 0] def /fraction
 {/fden exch def /fnum exch def gsave /cf currentfont def
  cf fractm makefont setfont 0 .3 dm 2 copy neg rmoveto
  fnum show rmoveto currentfont cf setfont(224)show setfont fden show
  grestore ditwid 0 rmoveto} def /oce {grestore ditwid 0 rmoveto}def /dm {ditsiz mul}def
/ocprocs  50  dict  def  ocprocs  begin  (14){(1)(4)fraction}def  (12){(1)(2)fraction}def
(34){(3)(4)fraction}def          (13){(1)(3)fraction}def          (23){(2)(3)fraction}def
(18){(1)(8)fraction}def          (38){(3)(8)fraction}def          (58){(5)(8)fraction}def
(78){(7)(8)fraction}def (sr){gsave .05 dm .16 dm rmoveto(326)show oce}def (is){gsave 0
.15 dm rmoveto(362)show oce}def (->){gsave 0 .02 dm rmoveto(256)show oce}def (<-
){gsave 0 .02 dm rmoveto(254)show oce}def (==){gsave 0 .05 dm rmoveto(272)show
oce}def end % DIThacks fonts for some special chars 50 dict dup begin /FontType 3 def
/FontName /DIThacks def /FontMatrix [.001 0.0 0.0 .001 0.0 0.0] def /FontBBox [-220
-280 900 900] def% a lie but ... /Encoding 256 array def 0 1 255{Encoding exch /.notdef
put}for Encoding
 dup 8#040/space put %space
 dup 8#110/rc put %right ceil
 dup 8#111/lt put %left  top curl
 dup 8#112/bv put %bold vert
 dup 8#113/lk put %left  mid curl
 dup 8#114/lb put %left  bot curl
 dup 8#115/rt put %right top curl
 dup 8#116/rk put %right mid curl
 dup 8#117/rb put %right bot curl
 dup 8#120/rf put %right floor
 dup 8#121/lf put %left  floor
 dup 8#122/lc put %left  ceil
 dup 8#140/sq put %square
 dup 8#141/bx put %box
 dup 8#142/ci put %circle
 dup 8#143/br put %box rule
 dup 8#144/rn put %root extender
 dup 8#145/vr put %vertical rule
 dup 8#146/ob put %outline bullet
 dup 8#147/bu put %bullet
```

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```
 dup 8#150/ru put %rule
 dup 8#151/ul put %underline
 pop /DITfd 100 dict def /BuildChar{0 begin
 /cc exch def /fd exch def
 /charname fd /Encoding get cc get def
 /charwid fd /Metrics get charname get def
 /charproc fd /CharProcs get charname get def
 charwid 0 fd /FontBBox get aload pop setcachedevice
 40 setlinewidth
 newpath 0 0 moveto gsave charproc grestore
 end}def /BuildChar load 0 DITfd put %/UniqueID 5 def /CharProcs 50 dict def CharProcs
begin /space{}def /.notdef{}def /ru{500 0 rls}def /rn{0 750 moveto 500 0 rls}def /vr{20
800 moveto 0 -770 rls}def /bv{20 800 moveto 0 -1000 rls}def /br{20 770 moveto 0 -1040
rls}def /ul{0 -250 moveto 500 0 rls}def /ob{200 250 rmoveto currentpoint newpath 200 0
360 arc closepath stroke}def /bu{200 250 rmoveto currentpoint newpath 200 0 360 arc
closepath fill}def /sq{80 0 rmoveto currentpoint dround newpath moveto
    640 0 rlineto 0 640 rlineto -640 0 rlineto closepath stroke}def /bx{80 0 rmoveto
currentpoint dround newpath moveto
    640 0 rlineto 0 640 rlineto -640 0 rlineto closepath fill}def /ci{355 333 rmoveto
currentpoint newpath 333 0 360 arc
    50 setlinewidth stroke}def

/lt{20 -200 moveto 0 550 rlineto currx 800 2cx s4 add exch s4 a4p stroke}def /lb{20 800
moveto 0 -550 rlineto currx -200 2cx s4 add exch s4 a4p stroke}def /rt{20 -200 moveto 0
550 rlineto currx 800 2cx s4 sub exch s4 a4p stroke}def /rb{20 800 moveto 0 -500 rlineto
currx -200 2cx s4 sub exch s4 a4p stroke}def /lk{20 800 moveto 20 300 -280 300 s4 arcto
pop pop 1000 sub
    currentpoint stroke moveto
    20 300 4 2 roll s4 a4p 20 -200 lineto stroke}def /rk{20 800 moveto 20 300 320 300 s4
arcto pop pop 1000 sub
    currentpoint stroke moveto
    20 300 4 2 roll s4 a4p 20 -200 lineto stroke}def /lf{20 800 moveto 0 -1000 rlineto s4 0
rls}def /rf{20 800 moveto 0 -1000 rlineto s4 neg 0 rls}def /lc{20 -200 moveto 0 1000
rlineto s4 0 rls}def /rc{20 -200 moveto 0 1000 rlineto s4 neg 0 rls}def end

/Metrics 50 dict def Metrics begin /.notdef 0 def /space 500 def /ru 500 def /br 0 def /lt 250
def /lb 250 def /rt 250 def /rb 250 def /lk 250 def /rk 250 def /rc 250 def /lc 250 def /rf 250
def /lf 250 def /bv 250 def /ob 350 def /bu 350 def /ci 750 def /bx 750 def /sq 750 def /rn
500 def /ul 500 def /vr 0 def end

DITfd begin /s2 500 def /s4 250 def /s3 333 def /a4p{arcto pop pop pop pop}def /2cx{2
copy exch}def /rls{rlineto stroke}def /currx{currentpoint pop}def /dround{transform
round exch round exch itransform} def end end /DIThacks exch definefont pop
```