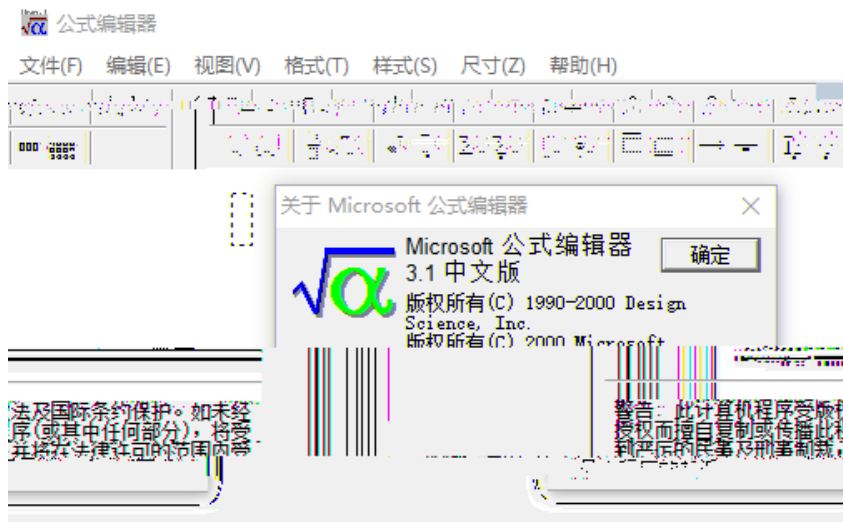


17 Office POC

2017 11 14 11
17 Office CVE-2017-11882 Office
Office

11 19 POC

- Office 365
- Microsoft Office 2000
- Microsoft Office 2003
- Microsoft Office 2007 Service Pack 3
- Microsoft Office 2010 Service Pack 2
- Microsoft Office 2013 Service Pack 1
- Microsoft Office 2016



1 - Microsoft

EQNEDT32.EXE

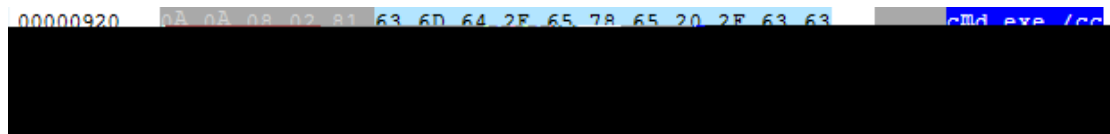
Office

Word

WINWORD.EXE, EXCEL.EXE

Office

EQNEDT32.EXE

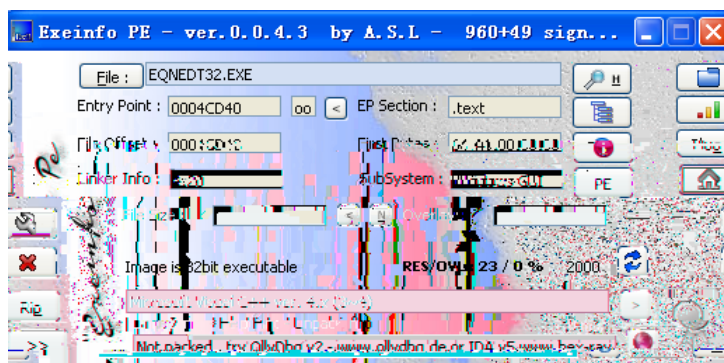


2 - CVE-2017-11882 POC

0patch

(2000)

ASLR



3

Visual C++ 3~4

```

ProcessName: EQNEDT32
Source      : Running Process
Id         : 2976

DEP:
  Enable           : off
  Disable ATL      : off

ASLR:
  BottomUp         : off
  ForceRelocate    : off
  HighEntropy      : off
  DisallowStripped : off

StrictHandle:
  RaiseExceptionOnInvalid : off
  HandleExceptionsPermanently : off

System Call:
  DisallowWin32kSysCalls : off

ExtensionPoint:
  DisableExtensionPoints : off

DynamicCode:
  ProhibitDynamicCode : off
  AllowThreadOpt       : off
  AllowRemoteDowngrade : off

CFG:
  EnableCFG           : off
  EnableExportSuppression : off
  StrictMode          : off

BinarySignature:
  MicrosoftSignedOnly : off
  StoreSignedOnly      : off
  MitigationOptIn     : off

FontDisable:
  DisableNonSystemFonts : off
  AuditNonSystemFontLoading : off

ImageLoad:
  NoRemoteImages       : off
  NoLowMandatoryLabelImages : off
  PreferSystem32Images : off

```

4 - EQNEDT32.exe

1

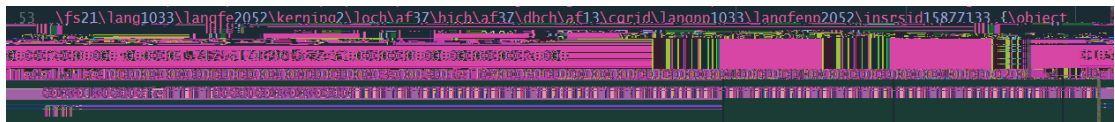
RTF CVE-2017-11882 OLE
 CVE-2017-0199 \objupdate

OLE

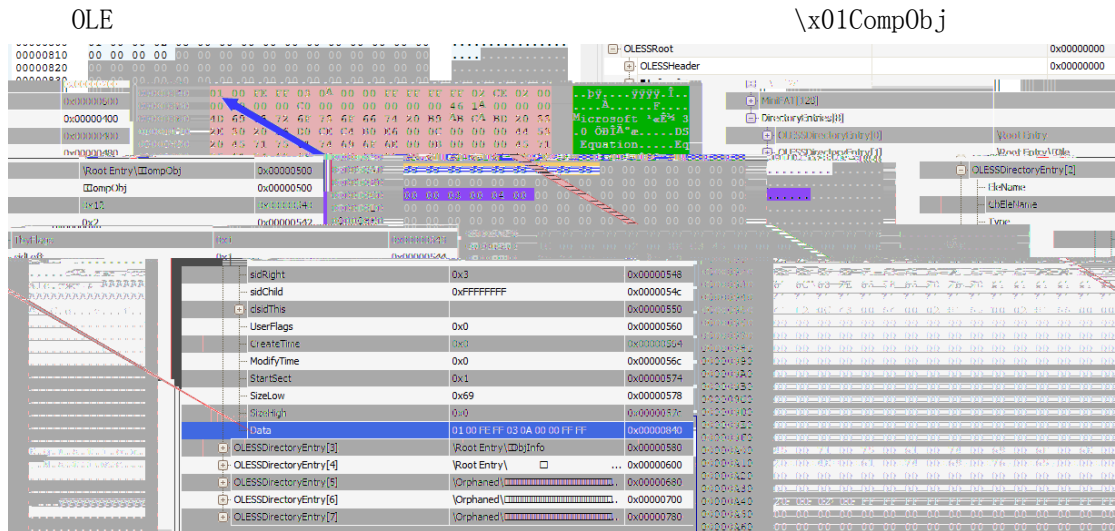
\objupdate. Forces an update to the object before displaying it. Note that this will override any values in the ~~riches control words but values should always be provided for these to maintain backward~~ ~~riches control words but values should always be provided for these to maintain backward~~

5 - RTF \objupdate

OLE Equation.3 3.0 CFB



6 – OLE



7 –

2

MTEF v. 3

28 0x1C

```

struct EQNOLEFILEHDR {
    WORD    cbHdr;          // 0x1C
    DWORD   version;       // 0x00020000
    WORD    cf;
    DWORD   cbObject;      // MTEF
    DWORD   reserved1;
    DWORD   reserved2;
    DWORD   reserved3;
    DWORD   reserved4;
};

```

```

00000900 1C 00 00 00 02 00 BE C3 45 00 00 00 00 00 00 00
00000910 28 24 68 00 7C A8 69 00 00 00 00 00 03 01 01 03

```

```

.....%AE.....
($h.|~i.....

```

8 –

0-1	cbHdr		0x001C
2-5	version		0x00020000

6-7	cf		0xC3BE
8-11	cbObject	MTEF	0x45 69
12-15	reserved1		0x00000000
16-19	reserved2		0x00682428
20-23	reserved3		0x0069A87C
24-27	reserved4		0x00000000

9 -

MTEF v. 35

0	MTEF	0x03
1		0x00 Macintosh 0x01 Windows 0x01
2		0x00 MathType 0x01 0x01
3		0x03
4		0x0A

0x0A SIZE
0x08 FONT

0x08	FONT
0x02	typeface

```

.text:0041160F  dstout+      = byte ptr -28h
.text:0041160F  var_4        = dword ptr -4
.text:0041160F  overflowbuf  = dword ptr 8
.text:0041160F  arg_4        = dword ptr 0Ch
.text:0041160F  arg_8        = dword ptr 10h
.text:0041160F
.text:0041160F  push        ebp
.text:00411610  mov         ebp, esp
.text:00411612  sub         esp, 88h
.text:00411618  push        ebx
.text:00411619  push        esi
.text:0041161A  push        edi
.text:0041161B  mov         word ptr [ebp+var_4], 0FFFFh
.text:00411621  mov         word ptr [ebp+var_38], 0FFFFh
.text:00411627  mov         edi, [ebp+overflowbuf]
.text:0041162A  mov         ecx, 0FFFFFFFFh
.text:0041162F  sub         eax, eax
.text:00411631  repne scasb
.text:00411633  not         ecx
.text:00411635  lea         eax, [ecx-1]
.text:00411638  mov         [ebp+var_34], ax
.text:0041163C  mov         edi, [ebp+overflowbuf]
.text:0041163F  mov         ecx, 0FFFFFFFFh
.text:00411644  sub         eax, eax
.text:00411646  repne scasb
.text:00411648  not         ecx
.text:0041164A  sub         edi, ecx
.text:0041164C  mov         eax, ecx
.text:0041164E  mov         edx, edi
.text:00411650  lea         edi, [ebp+dstbuf] ; 栈上大小36字节的空间
.text:00411653  mov         esi, edx
.text:00411655  shr         ecx, 2
.text:00411658  rep movsd   ; 未经校验, 直接拷贝, 造成栈溢出
.text:0041165A  mov         ecx, eax
.text:0041165C  and         ecx, 3
.text:0041165F  rep movsb
.text:00411661  lea         eax, [ebp+dstbuf]
.text:00411664  push        eax ; lpSrcStr
.text:00411665  call        sub_451DE0
.text:0041166A  add         esp, 4
.text:0041166D  call        sub_420FA0
.text:00411672  mov         [ebp+var_2C], ax

```

10 -

0012F280	0012F2EC	
0012F284	77EFDDB1	返回到 GDI32.77EFDDB1 来自 GD
0012F288	930112FB	
0012F28C	0012F2A4	
0012F290	77EFDFC8	返回到 GDI32.77EFDFC8 来自 ntd
0012F294	77EFDDED	返回到 GDI32.77EFDDED 来自 GD
0012F298	77EFDFDA	返回到 GDI32.77EFDFDA 来自 GD
0012F29C	0012F660	
0012F2A0	0012FAB8	
0012F2A4	00000021	
0012F2A8	0000FFFF	
0012F2AC	0012F2F0	
0012F2B0	004115D8	返回到 EQNEDT32.004115D8 来自
0012F2B4	0012F430	
0012F2B8	00000000	
0012F2BC	0012F2CC	
0012F2C0	0012F660	

被覆盖前的地址

11 -

12 -

ASLR

RD /d 0x400