ID: 337597
Sample Name:
001982_Invoice_confirmation.exe
Cookbook: default.jbs
Time: 20:08:39
Date: 08/01/2021
Version: 31.0.0 Red Diamond

Table of Contents

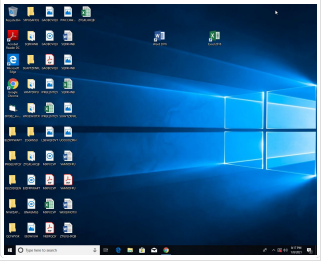
Analysis Report 001982_Invoice_confirmation.exe

Overview

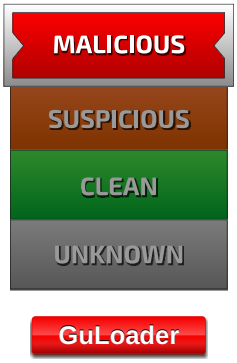
General Information

Sample Name:	001982_Invoice_confirmation.exe
Analysis ID:	337597
MD5:	e0167e6a13fea0d.
SHA1:	03b36796e30e11..
SHA256:	f67020d5de462a9.
Tags:	exe GuLoader

Most interesting Screenshot:



Detection

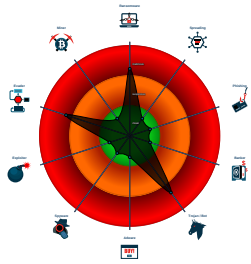


Score:	76
Range:	0 - 100
Whitelisted:	false
Confidence:	100%

Signatures

- Potential malicious icon found
- Yara detected GuLoader
- Executable has a suspicious name (…
- Initial sample is a PE file and has a …
- Tries to detect sandboxes and other…
- Tries to detect virtualization through…
- Yara detected VB6 Downloader Gen…
- Abnormal high CPU Usage
- Contains functionality for execution …
- Contains functionality to read the PEB
- Detected potential crypto function
- PE file contains strange resources
- Sample file is different than original

Classification



Startup

- **System is w10x64**
- 001982_Invoice_confirmation.exe (PID: 7120 cmdline: 'C:\Users\user\Desktop\001982_Invoice_confirmation.exe' MD5: E0167E6A13FEA0D69A43E377FBA75AF4)
- **cleanup**

Malware Configuration

No configs have been found

Yara Overview

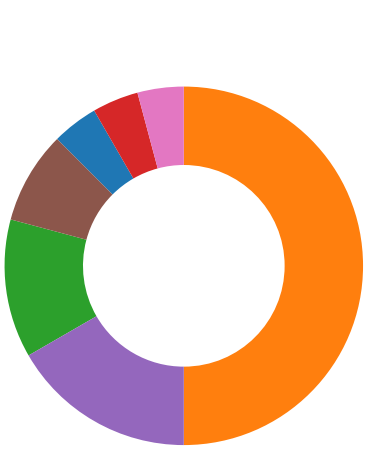
Memory Dumps

Source	Rule	Description	Author	Strings
Process Memory Space: 001982_Invoice_confirmation.exe PID: 7120	JoeSecurity_VB6DownloaderGeneric	Yara detected VB6 Downloader Generic	Joe Security	
Process Memory Space: 001982_Invoice_confirmation.exe PID: 7120	JoeSecurity_GuLoader	Yara detected GuLoader	Joe Security	

Sigma Overview

No Sigma rule has matched

Signature Overview



Click to jump to signature section

System Summary:

Potential malicious icon found

Executable has a suspicious name (potential lure to open the executable)

Initial sample is a PE file and has a suspicious name

Data Obfuscation:

Yara detected GuLoader

Yara detected VB6 Downloader Generic

Malware Analysis System Evasion:

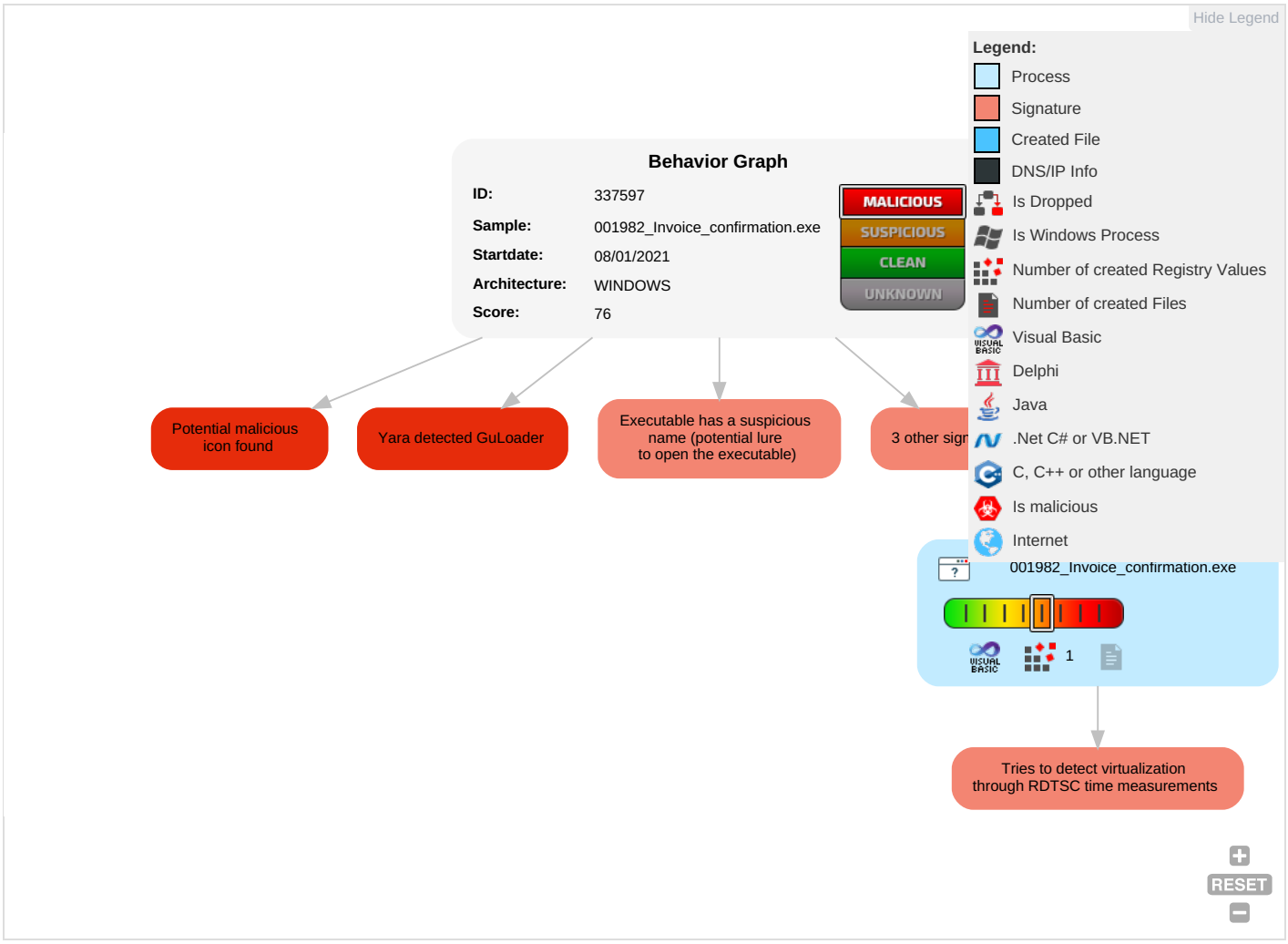
Tries to detect sandboxes and other dynamic analysis tools (process name or module or function)

Tries to detect virtualization through RDTSC time measurements

Mitre Att&ck Matrix

Initial Access	Execution	Persistence	Privilege Escalation	Defense Evasion	Credential Access	Discovery	Lateral Movement	Collection	Exfiltration	Command and Control	Network Effects	Remote Service Effects
Valid Accounts	Windows Management Instrumentation	Path Interception	Process Injection 1	Process Injection 1	OS Credential Dumping	Security Software Discovery 2 1 1	Remote Services	Archive Collected Data 1	Exfiltration Over Other Network Medium	Encrypted Channel 1	Eavesdrop on Insecure Network Communication	Remotely Track Device Without Authorization
Default Accounts	Scheduled Task/Job	Boot or Logon Initialization Scripts	Boot or Logon Initialization Scripts	Obfuscated Files or Information 1	LSASS Memory	Process Discovery 1	Remote Desktop Protocol	Data from Removable Media	Exfiltration Over Bluetooth	Junk Data	Exploit SS7 to Redirect Phone Calls/SMS	Remotely Wipe Data Without Authorization
Domain Accounts	At (Linux)	Logon Script (Windows)	Logon Script (Windows)	Obfuscated Files or Information	Security Account Manager	System Information Discovery 1 1	SMB/Windows Admin Shares	Data from Network Shared Drive	Automated Exfiltration	Steganography	Exploit SS7 to Track Device Location	Obtain Device Cloud Backups

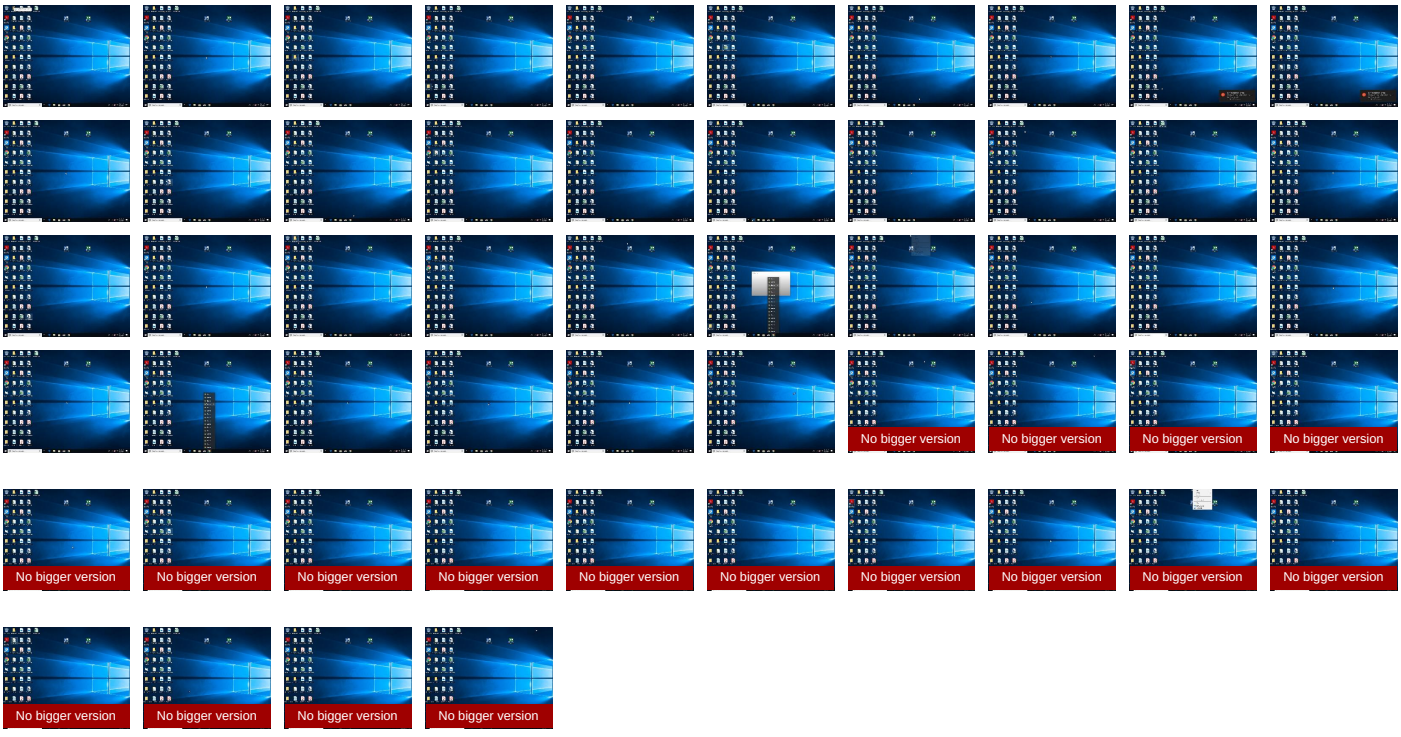
Behavior Graph



Screenshots

Thumbnails

This section contains all screenshots as thumbnails, including those not shown in the slideshow.



Antivirus, Machine Learning and Genetic Malware Detection

Initial Sample

No Antivirus matches

Dropped Files

No Antivirus matches

Unpacked PE Files

No Antivirus matches

Domains

No Antivirus matches

URLs

No Antivirus matches

Domains and IPs

Contacted Domains

No contacted domains info

Contacted IPs

No contacted IP infos

General Information

Joe Sandbox Version:	31.0.0 Red Diamond
Analysis ID:	337597
Start date:	08.01.2021
Start time:	20:08:39
Joe Sandbox Product:	CloudBasic
Overall analysis duration:	0h 11m 36s
Hypervisor based Inspection enabled:	false
Report type:	light
Sample file name:	001982_Invoice_confirmation.exe
Cookbook file name:	default.jbs
Analysis system description:	Windows 10 64 bit v1803 with Office Professional Plus 2016, Chrome 85, IE 11, Adobe Reader DC 19, Java 8 Update 211
Number of analysed new started processes analysed:	26
Number of new started drivers analysed:	0
Number of existing processes analysed:	0
Number of existing drivers analysed:	0
Number of injected processes analysed:	0
Technologies:	• HCA enabled • EGA enabled • HDC enabled • AMSI enabled
Analysis Mode:	default
Analysis stop reason:	Timeout
Detection:	MAL
Classification:	mal76.rans.troj.evad.winEXE@1/0@0/0
EGA Information:	Failed
HDC Information:	• Successful, ratio: 10% (good quality ratio 4.2%) • Quality average: 26.6% • Quality standard deviation: 33%
HCA Information:	Failed
Cookbook Comments:	• Adjust boot time • Enable AMSI • Found application associated with file extension: .exe • Override analysis time to 240s for sample files taking high CPU consumption
Warnings:	Show All • Exclude process from analysis (whitelisted): MpCmdRun.exe, audiodg.exe, BackgroundTransferHost.exe, RuntimeBroker.exe, WMIADAP.exe, MusNotifyIcon.exe, backgroundTaskHost.exe, conhost.exe, svchost.exe, wuapihost.exe

Simulations

Behavior and APIs

No simulations

Joe Sandbox View / Context

IPs

No context

Domains

No context

ASN

No context

JA3 Fingerprints

No context

Dropped Files

No context

Created / dropped Files

No created / dropped files found

Static File Info

General

File type:	PE32 executable (GUI) Intel 80386, for MS Windows
Entropy (8bit):	5.801454519311096
TrID:	• Win32 Executable (generic) a (10002005/4) 99.96% • Generic Win/DOS Executable (2004/3) 0.02% • DOS Executable Generic (2002/1) 0.02% • Autodesk FLIC Image File (extensions: flc, fli, cel) (7/3) 0.00%
File name:	001982_Invoice_confirmation.exe
File size:	90112
MD5:	e0167e6a13fea0d69a43e377fba75af4
SHA1:	03b36796e30e11ebae69edf59fc135fdb6c69233
SHA256:	f67020d5de462a963aeeaae1afe2bba3ba629da38a85a03 5a9389c454a402d0a
SHA512:	7bf1c10dbeb8dbc8388219eeef61b43143d0e385f292a03 590e3b60c69d1fbc0e7de94b245e3235d74e304c5131ff1 0c5ec61d7abd6d961f4dc64b2b39785344
SSDEEP:	1536:z+XxmD5xOJi1Hz9EH9WFaqW/k2Vu48dL:zCyzg o5Exuv
File Content Preview:	MZ.....@.....!..L.!This program cannot be run in DOS mode....$.....6...W...W...W...K...W...u...W...q...W..Rich.W.....PE..L...;._.....0...0.....@....@

File Icon

Icon Hash:	20047c7c70f0e004

Static PE Info

General

Entrypoint:	0x401600
Entrypoint Section:	.text
Digitally signed:	false
Imagebase:	0x400000
Subsystem:	windows gui
Image File Characteristics:	LOCAL_SYMS_STRIPPED, 32BIT_MACHINE, EXECUTABLE_IMAGE, LINE_NUMS_STRIPPED, RELOCS_STRIPPED
DLL Characteristics:	
Time Stamp:	0x5FF88E3B [Fri Jan 8 16:54:19 2021 UTC]
TLS Callbacks:	
CLR (.Net) Version:	
OS Version Major:	4
OS Version Minor:	0
File Version Major:	4
File Version Minor:	0
Subsystem Version Major:	4
Subsystem Version Minor:	0
Import Hash:	690ed9eee3aab240a93936dee17050b4

Entrypoint Preview

Instruction
push 00401C68h
call 00007FCAB4906215h
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
xor byte ptr [eax], al
add byte ptr [eax], al
cmp byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
mov bl, B7h
and edx, dword ptr [edi+481470A7h]
scasd
out E2h, al
into
loop 00007FCAB49061EAh
cli
sbb dword ptr [eax], eax
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [ecx], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [ebp+54h], dl
inc ecx
inc ecx
dec esp
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add bh, bh
int3
xor dword ptr [eax], eax
sbb dword ptr [D26DBC53h], edi
inc esi
jc 00007FCAB4906268h
mov fs, di
lahf

Instruction
cmp dword ptr [ecx-7C98128Dh], edx
and dword ptr [4615E840h], edi
wait
lea edx, dword ptr [esi-7745B4A3h]
idiv byte ptr [edx]
dec edi
lodsd
xor ebx, dword ptr [ecx-48EE309Ah]
or al, 00h
stosb
add byte ptr [eax-2Dh], ah
xchg eax, ebx
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
add byte ptr [eax], al
cli
add eax, dword ptr [eax]
add byte ptr [edx+00h], al
add byte ptr [eax], al
add byte ptr [esi], al
add byte ptr [ebx+74h], dl
popad
je 00007FCAB490628Bh
outsd
add byte ptr [44000701h], cl
insb
je 00007FCAB4906294h
popad
xor al, 00h
sbb dword ptr [ecx], eax
add byte ptr [edx+00h], al
and al, byte ptr [00000724h]

Data Directories

Name	Virtual Address	Virtual Size	Is in Section
IMAGE_DIRECTORY_ENTRY_EXPORT	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_IMPORT	0x139d4	0x28	.text
IMAGE_DIRECTORY_ENTRY_RESOURCE	0x16000	0x894	.rsrc
IMAGE_DIRECTORY_ENTRY_EXCEPTION	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_SECURITY	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_BASERELOC	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_DEBUG	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_COPYRIGHT	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_GLOBALPTR	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_TLS	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_LOAD_CONFIG	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_BOUND_IMPORT	0x238	0x20	
IMAGE_DIRECTORY_ENTRY_IAT	0x1000	0x184	.text

Name	Virtual Address	Virtual Size	Is in Section
IMAGE_DIRECTORY_ENTRY_DELAY_IMPORT	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_COM_DESCRIPTOR	0x0	0x0	
IMAGE_DIRECTORY_ENTRY_RESERVED	0x0	0x0	

Sections

Name	Virtual Address	Virtual Size	Raw Size	Xored PE	ZLIB Complexity	File Type	Entropy	Characteristics
.text	0x1000	0x12fb8	0x13000	False	0.415989925987	data	6.26715450621	IMAGE_SCN_MEM_EXECUTE, IMAGE_SCN_CNT_CODE, IMAGE_SCN_MEM_READ
.data	0x14000	0x14b0	0x1000	False	0.00634765625	data	0.0	IMAGE_SCN_CNT_INITIALIZED_DATA, IMAGE_SCN_MEM_WRITE, IMAGE_SCN_MEM_READ
.rsrc	0x16000	0x894	0x1000	False	0.159423828125	data	1.84292323273	IMAGE_SCN_CNT_INITIALIZED_DATA, IMAGE_SCN_MEM_READ

Resources

Name	RVA	Size	Type	Language	Country
RT_ICON	0x16764	0x130	data		
RT_ICON	0x1647c	0x2e8	data		
RT_ICON	0x16354	0x128	GLS_BINARY_LSB_FIRST		
RT_GROUP_ICON	0x16324	0x30	data		
RT_VERSION	0x16150	0x1d4	data	Chinese	Taiwan

Imports

DLL	Import
MSVBVM60.DLL	_CIcos, _adj_fptan, __vbaHresultCheck, __vbaVarMove, __vbaFreeVar, __vbaLenBstr, __vbaFreeVarList, _adj_fdiv_m64, __vbaFreeObjList, _adj_fprem1, __vbaStrCat, __vbaHresultCheckObj, __vbaLenBstrB, _adj_fdiv_m32, __vbaAryDestruct, __vbaLateMemSt, __vbaExitProc, __vbaObjSet, __vbaOnError, _adj_fdiv_m16i, __vbaObjSetAddref, _adj_fdivr_m16i, __vbaFpR8, _CIsin, __vbaChkstk, EVENT_SINK_AddRef, __vbaStrCmp, __vbaVarTstEq, __vbaAryConstruct2, __vbaR4Str, __vbaObjVar, DllFunctionCall, _adj_fpatan, __vbaLateIdCallLd, __vbaRedim, EVENT_SINK_Release, _CIsqrt, EVENT_SINK_QueryInterface, __vbaExceptHandler, _adj_fprem, _adj_fdivr_m64, __vbaFPException, __vbaStrVarVal, __vbaDateVar, _CIlog, __vbaFileOpen, __vbaNew2, __vbaInStr, _adj_fdiv_m32i, _adj_fdivr_m32i, __vbaStrCopy, __vbaFreeStrList, _adj_fdivr_m32, _adj_fdiv_r, __vbaI4Var, __vbaVarDup, __vbaLateMemCallLd, _CIatan, __vbaStrMove, __vbaUI1Str, _allmul, _CItan, __vbaFPInt, _CIexp, __vbaFreeStr, __vbaFreeObj

Version Infos

Description	Data
Translation	0x0404 0x04b0
ProductVersion	1.00
InternalName	Raala
FileVersion	1.00
OriginalFilename	Raala.exe
ProductName	Logaritm

Possible Origin

Language of compilation system	Country where language is spoken	Map
Chinese	Taiwan	

Network Behavior

No network behavior found

Code Manipulations

Statistics

System Behavior

Analysis Process: 001982_Invoice_confirmation.exe PID: 7120 Parent PID: 5936

General

Start time:	20:09:39
Start date:	08/01/2021
Path:	C:\Users\user\Desktop\001982_Invoice_confirmation.exe
Wow64 process (32bit):	true
Commandline:	'C:\Users\user\Desktop\001982_Invoice_confirmation.exe'
Imagebase:	0x400000
File size:	90112 bytes
MD5 hash:	E0167E6A13FEA0D69A43E377FBA75AF4
Has elevated privileges:	true
Has administrator privileges:	true
Programmed in:	Visual Basic
Reputation:	low

File Activities

File Path	Offset	Length	Completion	Count	Source Address	Symbol

Registry Activities

Key Created

Key Path	Completion	Count	Source Address	Symbol
HKEY_CURRENT_USER\Software\VB and VBA Program Settings	success or wait	1	660E2872	RegCreateKeyW
HKEY_CURRENT_USER\Software\VB and VBA Program Settings\unwall	success or wait	1	660E2872	RegCreateKeyW
HKEY_CURRENT_USER\Software\VB and VBA Program Settings\unwall\Oculus	success or wait	1	660E2872	RegCreateKeyW

Key Value Created

Key Path	Name	Type	Data	Completion	Count	Source Address	Symbol
HKEY_CURRENT_USER\Software\VB and VBA Program Settings\unwall\Oculus	Karseklippet	unicode	prenominate	success or wait	1	660E2183	RegSetValueExW

Disassembly

Code Analysis