

Certified CyberDefender Cheat Sheet [Memory Forensics]

This cheat sheet is for CCD students who are getting ready for the exam.

System profiling

What to look for?	Plugin	Command line
<ul style="list-style-type: none">Identifying OS version	<ul style="list-style-type: none">imageinfo	<ul style="list-style-type: none">Python vol.py -f <memory_dump> imageinfo
<ul style="list-style-type: none">Analyzing KDBG Signatures	<ul style="list-style-type: none">kdbgscan	<ul style="list-style-type: none">Python vol.py -f <memory_dump> --profile=<profile> kdbgscan

Processes Analysis

What to look for?	Plugin	Command line
<ul style="list-style-type: none">Processes list	<ul style="list-style-type: none">pslist	<ul style="list-style-type: none">Python vol.py -f <memory_dump> --profile=<profile> -g <kdbg_address> pslist
<ul style="list-style-type: none">Processes' Parent-child relationship	<ul style="list-style-type: none">pstree	<ul style="list-style-type: none">Python vol.py -f <memory_dump> --profile=<profile> -g <kdbg_address> pstree
<ul style="list-style-type: none">Hidden Processes	<ul style="list-style-type: none">psxview	<ul style="list-style-type: none">Python vol.py -f <memory_dump> --profile=<profile> -g <kdbg_address> psxview
<ul style="list-style-type: none">Examining Process Details	<ul style="list-style-type: none">psinfo	<ul style="list-style-type: none">python vol.py -f <memory_dump> --profile=<profile> -g <kdbg_address> psinfo -o <process_physical_address>
<ul style="list-style-type: none">Process privilege	<ul style="list-style-type: none">getsids	<ul style="list-style-type: none">python vol.py -f <memory_dump> --profile=<profile> -g <kdbg_address> getsids -o <process_physical_address>

Checklist:

<https://cyberdefenders.org/courses/take/6133c324-7aef-4a75-b1ad-91f92e799ac3/#/memory-forensics/t2-processes-analysis-wrapping-up>

Network Connections

What to look for?	Plugin	Command line
<ul style="list-style-type: none">• Network connections	<ul style="list-style-type: none">• netscan	<ul style="list-style-type: none">• Python vol.py -f <memory_dump> --profile=<profile> -g <kdbg_address> netscan

Checklist:

<https://cyberdefenders.org/courses/take/6133c324-7aef-4a75-b1ad-91f92e799ac3/#/memory-forensics/t3-network-connections-analysis-wrap-up>

Persistence Techniques

What to look for?	Plugin	Command line
<ul style="list-style-type: none">• registry keys and values	<ul style="list-style-type: none">• printkey	<ul style="list-style-type: none">• Python vol.py -f <memory_dump> --profile=<profile> -g <kdbg_address> printkey -K <key_path>
<ul style="list-style-type: none">• Looking for all persistence techniques	<ul style="list-style-type: none">• winesap	<ul style="list-style-type: none">• Python vol.py -f <memory_dump> --profile=<profile> -g <kdbg_address> winesap

Checklist:

<https://cyberdefenders.org/courses/take/6133c324-7aef-4a75-b1ad-91f92e799ac3/#/memory-forensics/t4-detecting-persistence-techniques-common-persistence-related-registry-keys>

Filesystem

What to look for?	Plugin	Command line
<ul style="list-style-type: none">• Parse MFT entries	<ul style="list-style-type: none">• mftparser	<ul style="list-style-type: none">• Python vol.py -f <memory_dump> --profile=<profile> -g <kdbg_address> mftparser
<ul style="list-style-type: none">• Visualize memory filesystem	<ul style="list-style-type: none">• rstudio	<ul style="list-style-type: none">• N/A