

## **LEGACY SEARCH PROCESSING LANGUAGE (SPL) SPLUNK FORMAT:**

### **Execution Of Whoami**

- FileName=whoami.exe

### **Netcat**

- FileName=netcat.exe OR FileName=ncat.exe OR CommandLine="\*nc\*"

### **Bloodhound Activity**

- event\_simpleName=NetworkConnect\* RemotePort\_decimal=445 AND FileName=ntoskrnl.exe AND FileName=\*
- FileTimestampsModified=sessions.csv OR FileTimestampsModified=acls.csv OR FileTimestampsModified=group\_membership.csv OR FileTimestampsModified=local\_admins.csv OR FileTimestampsModified=computer\_props.csv OR FileTimestampsModified=user.props.csv  
| table \_time FileTimestampsModified TargetFileName

### **Malicious Office Documents**

- (ParentBaseFileName=excel.exe OR ParentBaseFileName=winword.exe OR ParentBaseFileName=outlook.exe) AND FileName=csc.exe
- event\_simpleName=ProcessRollup2 (FileName=powerpnt.exe OR FileName=excel.exe OR FileName=word.exe)  
| rename FileName as ParentFile  
| rename CommandLine as ParentCmd  
| table aid TargetProcessId\_decimal ParentFile ParentCmd  
| join max=0 aid TargetProcessId\_decimal  
| [ search event\_simpleName=ProcessRollup2 FileName=cmd.exe OR FileName=powershell.exe OR FileName=cscript.exe OR FileName=wscript.exe  
| rename ParentProcessId\_decimal as TargetProcessId\_decimal  
| rename FilePath as ChildPath  
| dedup aid TargetProcessId\_decimal MD5HashData  
| fields aid TargetProcessId\_decimal FileName CommandLine]  
| table \_time ParentFile ParentCmd FileName CommandLine aid

### **Payload Download or Creation**

- event\_simpleName=ProcessRollup2 (FileName=excel.exe OR FileName=winword.exe OR FileName=outlook.exe)  
| rename FileName as ParentFile  
| rename CommandLine as ParentCmd  
| table aid TargetProcessId\_decimal ParentFile ParentCmd  
| join max=0 aid TargetProcessId\_decimal  
| [ search event\_simpleName=ProcessRollup2 FileName=csc.exe  
| rename ParentProcessId\_decimal as TargetProcessId\_decimal  
| rename FilePath as ChildPath  
| dedup aid TargetProcessId\_decimal MD5HashData  
| fields aid TargetProcessId\_decimal FileName CommandLine]  
| table \_time ParentFile ParentCmd FileName CommandLine aid
- (ParentImageFileName=powershell.exe OR ParentImageFileName=cmd.exe OR ParentImageFileName=mshta.exe OR ParentImageFileName=explorer.exe OR ParentImageFileName=wmiprvse.exe) AND FileName=msbuild.exe

## Execution/File Changes In C:\Perflogs

- (event\_simpleName=ProcessRollup2 OR event\_simpleName=SyntheticProcessRollup2) AND ImageFileName="\*\\perflogs\\" | regex ImageFileName=".\*\\\\perflogs\\\\w+\\.exe" | table ComputerName UserName ImageFileName FileName SHA256HashData

## Execution In C:\Temp

- (event\_simpleName=ProcessRollup2 OR event\_simpleName=SyntheticProcessRollup2) AND ImageFileName="\*\\temp\\" | regex ImageFileName=".\*\\\\temp\\\\w+\\.exe" | table ComputerName UserName ImageFileName FileName SHA256HashData
- (event\_simpleName=ProcessRollup2 OR event\_simpleName=SyntheticProcessRollup2) AND ImageFileName="\*\\windows\\temp\\" | regex ImageFileName=".\*\\\\windows\\\\temp\\\\w+\\.exe" | table ComputerName UserName ImageFileName FileName SHA256HashData

## Execution Of Scheduled Task Exe's

- event\_simpleName=ScheduledTask\*
- FileName=at.exe OR (FileName=schtasks.exe AND CommandLine=\*create)

## Webshell Activity

- ParentImageFileName=php.exe (FileName=cmd.exe OR FileName=powershell.exe)
- ParentImageFileName=w3wp.exe (FileName=cmd.exe OR FileName=powershell.exe)
- ParentImageFileName=httpd.exe (FileName=cmd.exe OR FileName=powershell.exe)
- ParentImageFileName=w3wp.exe AND (FileName=cmd.exe OR FileName=powershell.exe OR FileName=whoami.exe OR FileName=netstat.exe OR FileName=ipconfig.exe)

## WMI Process Creation & Activity

- FileName=wmic.exe AND CommandLine=\*create\*
- CommandLine="\*wmic /node:\*

## Cobalt Strike

- "\\windows\\syswow64\\ntmarta.dll" AND FileName=svchost.exe
- ("\\iertutil.dll" OR "\\ntmarta.dll") AND FileName=rundll32.exe

## Suspicious Powershell

- FileName=powershell.exe AND (CommandLine="\*-NoP" OR CommandLine="\*-NoProfile")
- FileName=powershell.exe AND event\_simpleName=NetworkConnect\*
- FileName=powershell.exe AND (CommandLine="\*-enc" OR CommandLine="\*-EncodedCommand" OR CommandLine="\*-E")
- FileName=powershell.exe AND CommandLine=\*hidden)
- FileName=powershell.exe AND CommandLine=\*iex

- ParentImageFileName=wsmprovhost.exe AND FileName=\*  
| stats count  
| where count > 1
- event\_simpleName=NetworkConnect\* ParentImageFileName=wsmprovhost.exe AND  
FileName=\*  
| stats count  
| where count > 1
- event\_simpleName=ProcessRollup2 FileName=powershell.exe (CommandLine=\*-enc\* OR  
CommandLine=\*encoded\*)

## Mimikatz

- FileTimestampsModified=advapi32.dll AND FileTimestampsModified=crypt32.dll AND  
FileTimestampsModified=cryptdll.dll AND  
FileTimestampsModified=gdi32.dll AND FileTimestampsModified=imm32.dll AND  
FileTimestampsModified=kernel32.dll AND  
FileTimestampsModified=KernelBase.dll AND FileTimestampsModified=msasn1.dll AND  
FileTimestampsModified=msvcrt.dll  
AND FileTimestampsModified=ntdll.dll AND FileTimestampsModified=rpcrt4.dll AND  
FileTimestampsModified=rsaenh.dll  
AND FileTimestampsModified=samlib.dll AND FileTimestampsModified=sechost.dll AND  
FileTimestampsModified=secur32.dll  
AND FileTimestampsModified=shell32.dll AND FileTimestampsModified=shlwapi.dll  
AND FileTimestampsModified=sspicli.dll AND FileTimestampsModified=user32.dll AND  
FileTimestampsModified=vaultcli.dll
- FileName=mimikatz.exe
- "gentilkiwi (Benjamin DELPY)"
- FileName=lsass.exe AND "\*mimilsa.log"

## Modifications To Files In C:\Windows\System32

- FileTimestampsModified="\*system32\\*"
  - | dedup FileName
  - | stats values(FileName)

## Files of Interest Making Connections

- event\_simpleName=NetworkConnect\* AND (FileName=cmd.exe OR FileName=powershell.exe  
OR FileName=wmic.exe OR FileName=msbuild.exe OR FileName=mshta.exe  
OR FileName=wscript.exe OR FileName=cscript.exe OR FileName=installutil.exe OR  
FileName=rundll32.exe OR FileName=regsvr32.exe OR FileName=msxml.exe OR  
FileName=regasm.exe)

## Use Of Meterpreter Default Port

- event\_simpleName=NetworkConnect\* AND "4444"

## Search For Remote Access Programs

- FileName=dameware\* OR FileName=vnc\* OR FileName=teamv\* OR FileName=screenc\* OR  
FileName=remcom\* OR FileName=logmein\*

## Data Exfiltration

- FileName=ssh.exe OR FileName=ftp\* OR FileName=sftp\* OR FileName=winscp\* OR FileName=filezilla\*

## Ntds.Dit Theft

- FileName=esentutl.exe OR FileName=ntdsutil.exe OR FileName=wbadmin.exe

## Net Activity

- FileName=net\*.exe AND CommandLine="\*user /add\*"
- FileName=net\*.exe AND CommandLine="\*localgroup\*"
- FileName=net\*.exe AND CommandLine="\*group\*"
- FileName=net\* AND CommandLine="\*active\*"
- FileName=net\* AND CommandLine="\*add\*"

## Common Recon Tools

- event\_simpleName=ProcessRollup2 (FileName=net.exe OR FileName=ipconfig.exe OR FileName=whoami.exe OR FileName=quser.exe OR FileName=ping.exe OR FileName=netstat.exe OR FileName=tasklist.exe OR FileName=Hostname.exe OR FileName=at.exe)

## Execution From Recycle Bin

- ImageFileName=\*\$Recycle.Bin\* event\_simpleName=ProcessRollup2 | stats values(name) values(MD5HashData) values(ComputerName) values(ImageFileName) count by aid

## Svchost Running Outside Of System32

- event\_simpleName=ServiceStarted ImageFileName="\*\svchost.exe"  
ImageFileName!="\*\System32\\*" | table aid ServiceDisplayName ImageFileName  
CommandLine ClientComputerName RemoteAddressIP4 RemoteAddressIP6

## Lsass Running Outside System32

- ImageFileName!="\*\Windows\System32\lsass.exe" AND "lsass.exe"

## **NEW LogScale CROWDSTRIKE QUERY LANGUAGE (CQL) FORMAT:**

### **Execution Of Whoami**

- #event\_simpleName=ProcessRollup2  
| FileName = whoami.exe  
| rename(field="@timestamp", as="Time")  
| Time:=formatTime(format="%F %T", field="Time")  
| table([Time, ComputerName, UserName, FileName, FilePath])

### **Netcat**

- #event\_simpleName=ProcessRollup2  
| FileName = netcat.exe OR FileName = ncat.exe  
| rename(field="@timestamp", as="Time")  
| Time:=formatTime(format="%F %T", field="Time")  
| table([Time, ComputerName, UserName, FileName, FilePath, CommandLine])

### **Bloodhound Activity**

- #event\_simpleName=NetworkConnect\*  
| RPort=445 AND FileName = ntoskrnl.exe  
| rename(field="@timestamp", as="Time")  
| Time:=formatTime(format="%F %T", field="Time")  
| table([Time, ComputerName, UserName, FileName, FilePath, CommandLine, RPort])
- FileTimestampsModified = sessions.csv OR FileTimestampsModified = acls.csv OR  
FileTimestampsModified = group\_membership.csv OR FileTimestampsModified =  
local\_admins.csv OR FileTimestampsModified = computer\_props.csv OR  
FileTimestampsModified = user\_props.csv  
| rename(field="\_time", as="Time")  
| Time:=formatTime(format="%F %T", field="Time")  
| select [Time, FileTimestampsModified, TargetFileName]

## Malicious Office Documents

- #event\_simpleName=ProcessRollup2  
| ParentBaseFileName=winword.exe or ParentBaseFileName=excel.exe or  
ParentBaseFileName=outlook.exe  
| FileName = csc.exe  
| rename(field="@timestamp", as="Time")  
| Time:=formatTime(format="%F %T", field="Time")  
| table([Time, ComputerName, UserName,ParentBaseFileName, FileName, FilePath,  
CommandLine])
- #event\_simpleName=ProcessRollup2  
| ParentBaseFileName=word.exe or ParentBaseFileName=excel.exe or  
ParentBaseFileName=powerpnt.exe  
| FileName = cscript.exe or FileName=powershell.exe or FileName=cmd.exe or  
FileName=wscript.exe  
| rename(field="@timestamp", as="Time")  
| Time:=formatTime(format="%F %T", field="Time")  
| table([Time, ComputerName, UserName,ParentBaseFileName, FileName, FilePath,  
CommandLine])

## Payload Download or Creation

- #event\_simpleName=ProcessRollup2  
| ParentBaseFileName=word.exe or ParentBaseFileName=excel.exe or  
ParentBaseFileName=outlook.exe  
| FileName = csc.exe  
| rename(field="@timestamp", as="Time")  
| Time:=formatTime(format="%F %T", field="Time")  
| table([Time, ComputerName, UserName,ParentBaseFileName, FileName, FilePath,  
CommandLine])

## Execution/File Changes In C:\Perflogs

- (#event\_simpleName=ProcessRollup2 OR #event\_simpleName=SyntheticProcessRollup2) AND  
ImageFileName="\*\\perflogs\\"\*"  
| regex ImageFileName=".\*\\\\perflogs\\\\w+\\.exe"  
| table([ComputerName, UserName, ImageFileName, FileName, SHA256HashData])

## Execution In C:\Temp

- (#event\_simpleName=ProcessRollup2 OR #event\_simpleName=SyntheticProcessRollup2) AND  
ImageFileName="\*\\temp\\"\*"  
| regex ImageFileName=".\*\\\\temp\\\\w+\\.exe"  
| table([ComputerName, UserName, ImageFileName, FileName, SHA256HashData])
- (#event\_simpleName=ProcessRollup2 OR #event\_simpleName=SyntheticProcessRollup2) AND  
ImageFileName="\*\\windows\\temp\\"\*"  
| regex ImageFileName=".\*\\\\windows\\\\temp\\\\w+\\.exe"  
| table([ComputerName, UserName, ImageFileName, FileName, SHA256HashData])

## Execution Of Scheduled Task Exe's

- #event\_simpleName=ScheduledTask\*  
| FileName=at.exe OR (FileName=schtasks.exe AND CommandLine=\*create)  
| table([ComputerName, UserName, ImageFileName, FileName, SHA256HashData])

## Webshell Activity

- ParentImageFileName=php.exe AND (FileName=cmd.exe OR FileName=powershell.exe)  
| table([ComputerName, UserName, ImageFileName, FileName, SHA256HashData])
- ParentImageFileName=w3wp.exe AND (FileName=cmd.exe OR FileName=powershell.exe)  
| table([ComputerName, UserName, ImageFileName, FileName, SHA256HashData])
- ParentImageFileName=httpd.exe AND (FileName=cmd.exe OR FileName=powershell.exe)  
| table([ComputerName, UserName, ImageFileName, FileName, SHA256HashData])
- ParentImageFileName=httpd.exe AND (FileName=cmd.exe OR FileName=powershell.exe)  
| table([ComputerName, UserName, ImageFileName, FileName, SHA256HashData])
- ParentImageFileName=w3wp.exe AND (FileName=cmd.exe OR FileName=powershell.exe OR  
FileName=whoami.exe OR FileName=netstat.exe OR FileName=ipconfig.exe)

## WMI Process Creation & Activity

- FileName=wmic.exe AND CommandLine=\*create\*  
| table([ComputerName, UserName, ImageFileName, FileName, SHA256HashData])

## Cobalt Strike

- "\*"\\windows\\syswow64\\ntmarta.dll" AND FileName=svchost.exe  
| table([ComputerName, CommandLine, LocalAddressIP4, LocalPort\_decimal,  
RemoteaddressIP4, RemotePort])
- ("\*\\iertutil.dll" OR "\*"\\ntmarta.dll") AND FileName=rundll32.exe  
| select ComputerName, UserName, CommandLine

## Suspicious Powershell

- FileName=powershell.exe AND (CommandLine="\*-NoP" OR CommandLine="\*-NoProfile")  
| table([ComputerName, CommandLine, UserName])
- FileName=powershell.exe AND #event\_simpleName=NetworkConnect\*  
| table([ComputerName, CommandLine, UserName])
- FileName=powershell.exe AND (CommandLine="\*-enc" OR  
CommandLine="\*-EncodedCommand" OR CommandLine="\*-E")  
| table([ComputerName, CommandLine, UserName])
- CommandLine=\*iex  
| table([ComputerName, CommandLine, UserName])
- #event\_simpleName:"ProcessRollup2" AND process\_name:"powershell.exe" AND  
(command\_line:\*-enc\* OR command\_line:\*encoded\*)  
| rename(field="@timestamp", as="Time")  
| Time:=formatTime(format="%F %T", field="Time")

```
| table([Time, ComputerName, UserName,ParentBaseFileName, FileName, FilePath,
CommandLine])
```

## Mimikatz

- ```
CommandLine="*user" OR CommandLine="*pwd" OR CommandLine="*username" OR
CommandLine="*password"
| select ComputerName, UserName, CommandLine
FileTimestampsModified=advapi32.dll AND FileTimestampsModified=crypt32.dll AND
FileTimestampsModified=cryptdll.dll AND
FileTimestampsModified=gdi32.dll AND FileTimestampsModified=imm32.dll AND
FileTimestampsModified=kernel32.dll AND
FileTimestampsModified=KernelBase.dllANDFileTimestampsModified=msasn1.dll AND
FileTimestampsModified=msvcrt.dll AND
FileTimestampsModified=ntdll.dll AND
FileTimestampsModified=rpcrt4.dll AND FileTimestampsModified=rsaenh.dll
AND FileTimestampsModified=samlib.dll AND FileTimestampsModified=sechost.dll AND
FileTimestampsModified=secur32.dll
AND FileTimestampsModified=shell32.dll AND FileTimestampsModified=shlwapi.dll
AND FileTimestampsModified=sspicli.dll AND FileTimestampsModified=user32.dll AND
FileTimestampsModified=vaultcli.dll
| table ([ComputerName, CommandLine, UserName])
```
- ```
| search "gentilkiwi (Benjamin DELPY)"
```
- ```
FileName=lsass.exe AND "*mimilsa.log"
```

## Modifications To Files In C:\Windows\System32

- ```
FileTimestampsModified="*system32\*"
| dedup FileName
| table([ComputerName, CommandLine, UserName])
```

## Files of Interest Making Connections

- ```
#event_simpleName=NetworkConnect* AND (FileName=cmd.exe OR FileName=powershell.exe
OR FileName=wmic.exe OR FileName=msbuild.exe OR FileName=mshta.exe OR
FileName=wscript.exe OR FileName=cscript.exe OR FileName=installutil.exe OR
FileName=rundll32.exe OR FileName=regsvr32.exe OR FileName=msxsl.exe OR
FileName=regasm.exe)
```

## Use Of Meterpreter Default Port

- ```
#event_simpleName=NetworkConnect*
| RPort = 4444
```

## Search For Remote Access Programs

- ```
FileName=dameware* OR FileName=vnc* OR FileName=teamv* OR FileName=screenc* OR
FileName=remcom* OR FileName=logmein*
```

## Data Exfiltration

- ```
FileName=ssh.exe OR FileName=ftp* OR FileName=sftp* OR FileName=winscp* OR
FileName=filezilla*
```



## Ntds.Dit Theft

- FileName=esentutl.exe OR FileName=ntdsutil.exe OR FileName=wbadmin.exe

## Net Activity

- process\_name:"net\*.exe" AND command\_line:"\*user /add\*"

## Common Recon Tools

- event\_simpleName:"ProcessRollup2" AND (process\_name:"net.exe" OR process\_name:"ipconfig.exe" OR process\_name:"whoami.exe" OR process\_name:"quser.exe" OR process\_name:"ping.exe" OR process\_name:"netstat.exe" OR process\_name:"tasklist.exe")  
| rename(field="@timestamp", as="Time")  
| Time:=formatTime(format="%F %T", field="Time")  
| table([Time, ComputerName, UserName, ParentBaseFileName, FileName, FilePath, CommandLine])

## Execution From Recycle Bin

- ImageFileName="\*\$Recycle.Bin\*" AND event\_simpleName="ProcessRollup2"  
| rename(field="@timestamp", as="Time")  
| Time:=formatTime(format="%F %T", field="Time")  
| table([Time, ComputerName, UserName, ParentBaseFileName, FileName, FilePath, CommandLine])

## Svchost Running Outside Of System32

- event\_simpleName="ServiceStarted" ImageFileName="\*\\svchost.exe" NOT ImageFileName="\*\\System32\\\*"   
| rename(field="@timestamp", as="Time")  
| Time:=formatTime(format="%F %T", field="Time")  
| table([aid, ServiceDisplayName, ImageFileName, CommandLine, ClientComputerName, RemoteAddressIP4, RemoteAddressIP6])

## Lsass Running Outside System32

- NOT ImageFileName="\*\\Windows\\System32\\lsass.exe" AND ImageFileName="\*lsass.exe"