

# Powerview

Loading Powerview

```
. .\powerview.ps1
```

now getting the current domain information

```
Get-NetDomain
```

```
PS C:\Users\rem01x.crtpl\Desktop\tools> Get-NetDomain

Forest          : crtpl.local
DomainControllers : {WIN-Q4788GPE9L7.crtpl.local}
Children        : {}
DomainMode      : Unknown
DomainModeLevel : 7
Parent          :
PdcRoleOwner    : WIN-Q4788GPE9L7.crtpl.local
RidRoleOwner    : WIN-Q4788GPE9L7.crtpl.local
InfrastructureRoleOwner : WIN-Q4788GPE9L7.crtpl.local
Name            : crtpl.local

PS C:\Users\rem01x.crtpl\Desktop\tools> ■
```

Getting Info from another domain if we have trusts

```
Get-NetDomain -Domain crtpl.local
```

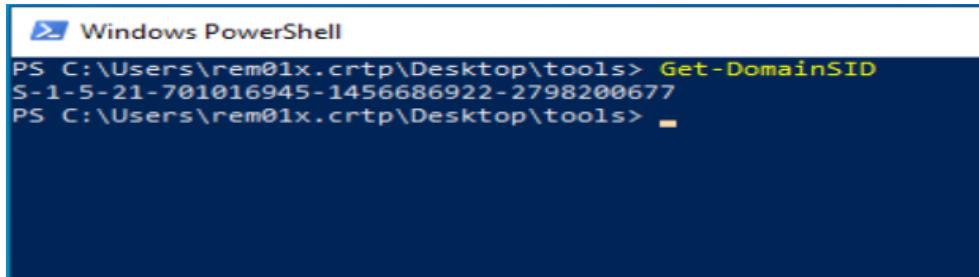
```
Windows PowerShell
PS C:\Users\rem01x.crtpl\Desktop\tools> Get-NetDomain -Domain crtpl.local

Forest          : crtpl.local
DomainControllers : {WIN-Q4788GPE9L7.crtpl.local}
Children        : {}
DomainMode      : Unknown
DomainModeLevel : 7
Parent          :
PdcRoleOwner    : WIN-Q4788GPE9L7.crtpl.local
RidRoleOwner    : WIN-Q4788GPE9L7.crtpl.local
InfrastructureRoleOwner : WIN-Q4788GPE9L7.crtpl.local
Name            : crtpl.local

PS C:\Users\rem01x.crtpl\Desktop\tools>
```

getting the domainSID

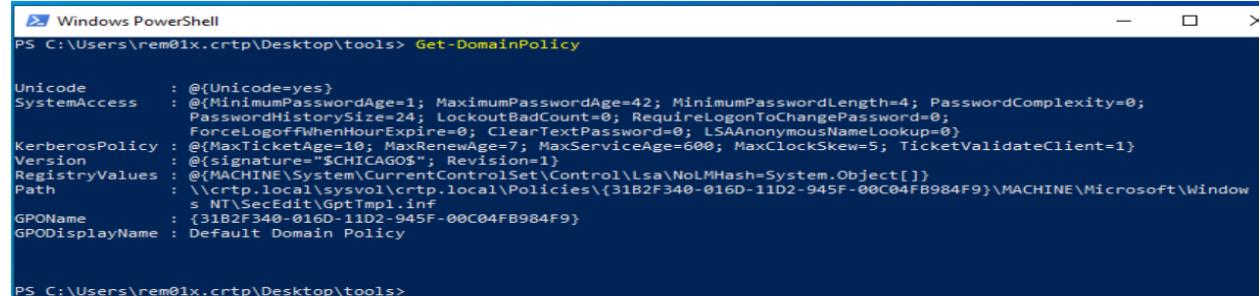
```
Get-DomainSID
```



```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-DomainSID
S-1-5-21-701016945-1456686922-2798200677
PS C:\Users\rem01x.crtp\Desktop\tools> -
```

getting domain policy

```
Get-DomainPolicy
```



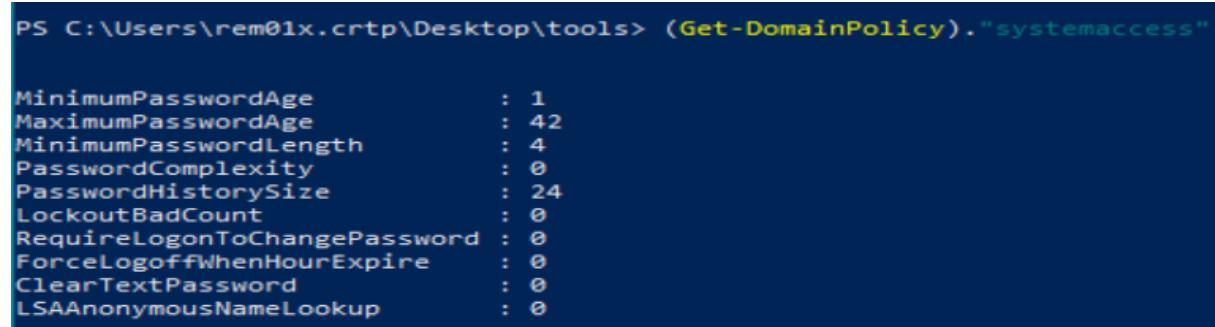
```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-DomainPolicy

Unicode          : @{Unicode=yes}
SystemAccess     : @{MinimumPasswordAge=1; MaximumPasswordAge=42; MinimumPasswordLength=4; PasswordComplexity=0;
                   PasswordHistorySize=24; LockoutBadCount=0; RequireLogonToChangePassword=0;
                   ForceLogoffWhenHourExpire=0; ClearTextPassword=0; LSAAnonymousNameLookup=0}
KerberosPolicy   : @{MaxTicketAge=10; MaxRenewAge=7; MaxServiceAge=600; MaxClockSkew=5; TicketValidateClient=1}
Version          : @{signature="$CHICAGO$"; Revision=1}
RegistryValues   : @{ACHINE\System\CurrentControlSet\Control\lsa\NoLMHash=System.Object[]}
Path              : \\crtplocal\sysvol\crtplocal\Policies\{31B2F340-016D-11D2-945F-00C04FB984F9}\MACHINE\Microsoft\Window
GPOName          : {31B2F340-016D-11D2-945F-00C04FB984F9}
GPODisplayName   : Default Domain Policy

PS C:\Users\rem01x.crtp\Desktop\tools>
```

getting system access policy

```
(Get-DomainPolicy)."systemaccess"
```



```
PS C:\Users\rem01x.crtp\Desktop\tools> (Get-DomainPolicy)."systemaccess"

MinimumPasswordAge      : 1
MaximumPasswordAge     : 42
MinimumPasswordLength   : 4
PasswordComplexity      : 0
PasswordHistorySize    : 24
LockoutBadCount         : 0
RequireLogonToChangePassword : 0
ForceLogoffWhenHourExpire : 0
ClearTextPassword       : 0
LSAAnonymousNameLookup  : 0
```

getting kerberos policy

```
(Get-DomainPolicy)."KerberosPolicy"
```

```
Windows PowerShell
PS C:\Users\rem01x.crt\Tools> (Get-DomainPolicy).KerberosPolicy

MaxTicketAge      : 10
MaxRenewAge       : 7
MaxServiceAge     : 600
MaxClockSkew      : 5
TicketValidateClient : 1
```

getting information about the domain controller

```
Get-NetDomainController
```

```
PS C:\Users\rem01x.crt\Tools> Get-NetDomainController

Forest          : crt.local
CurrentTime     : 10/15/2023 2:34:29 PM
HighestCommittedUsn : 32842
OSVersion       : Windows Server 2019 Standard Evaluation
Roles           : {SchemaRole, NamingRole, PdcRole, RidRole...}
Domain          : crt.local
IPAddress       : 10.0.0.7
SiteName         : Default-First-Site-Name
SyncFromAllServersCallback :
InboundConnections : {}
OutboundConnections : {}
Name             : WIN-Q4788GPE9L7.crt.local
Partitions       : {DC=crt,DC=local, CN=Configuration,DC=crt,DC=local,
                  CN=Schema,CN=Configuration,DC=crt,DC=local, DC=DomainDnsZones,DC=crt,DC=local...}
```

getting information about the domain controller of another domain **if we have trusts**

```
Get-NetDomainController -Domain crt.local
```

```
PS C:\Users\rem01x.crt\Tools> Get-NetDomainController -Domain crt.local

Forest          : crt.local
CurrentTime     : 10/15/2023 2:37:23 PM
HighestCommittedUsn : 32843
OSVersion       : Windows Server 2019 Standard Evaluation
Roles           : {SchemaRole, NamingRole, PdcRole, RidRole...}
Domain          : crt.local
IPAddress       : 10.0.0.7
SiteName         : Default-First-Site-Name
SyncFromAllServersCallback :
InboundConnections : {}
OutboundConnections : {}
Name             : WIN-Q4788GPE9L7.crt.local
Partitions       : {DC=crt,DC=local, CN=Configuration,DC=crt,DC=local,
                  CN=Schema,CN=Configuration,DC=crt,DC=local, DC=DomainDnsZones,DC=crt,DC=local...}

PS C:\Users\rem01x.crt\Tools>
```

getting domain users

```
Get-NetUser
```

```

logoncount : 11
badpasswordtime : 1/1/1601 2:00:00 AM
distinguishedname : CN=rem01x,CN=Users,DC=crtp,DC=local
objectclass : {top, person, organizationalPerson, user}
lastlogontimestamp : 10/15/2023 2:46:05 PM
userprincipalname : rem01x@crtp.local
name : rem01x
objectsid : S-1-5-21-701016945-1456686922-2798200677-1455
samaccountname : rem01x
codepage : 0
samaccounttype : USER_OBJECT
accountexpires : NEVER
countrycode : 0
whenchanged : 10/15/2023 12:46:05 PM
instancetype : 4
usncreated : 24620
objectguid : 85e5a49b-19bd-4203-aacf-1d7bdd4ac6c
sn : rem01x
lastlogoff : 1/1/1601 2:00:00 AM
objectcategory : CN=Person,CN=Schema,CN=Configuration,DC=crtp,DC=local
dscorepropagationdata : 1/1/1601 12:00:00 AM
givenname : rem01x
lastlogon : 10/15/2023 4:12:24 PM
badpwdcount : 0
cn : rem01x
useraccountcontrol : NORMAL_ACCOUNT
whencreated : 10/15/2023 12:45:52 PM
primarygroupid : 513
pwdlastset : 10/15/2023 2:45:52 PM
usnchanged : 24625

```

getting users cn name

```
Get-NetUser | select cn
```

```

PS C:\Users\rem01x.crtp\Desktop\tools> Get-NetUser | select cn

cn
--
Administrator
Guest
krbtgt
Susana Lorrie
Alvera Jill
Jessamine Lily
Koressa Kippy
Loy Lanette
Magda Lamond
Nelly Deva
Heath Carita
Fara Gerhardine
Darlleen Heath
Sondra Bobby
Cybil Katerina
Imogen Steffie
Phyls Emma
Kanya Sofie
Bertie Ilsa
Rowena Jasmine
Nikaniki Izabel
Maurine Opaline
Quintana Ainsley
Perry Sheilah
Rozanne Ortensia

```

getting cn name and description

```
Get-NetUser | select cn,description
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-NetUser |select cn,description
cn                               description
--                               -----
Administrator          Built-in account for administering the computer/domain
Guest                Built-in account for guest access to the computer/domain
krbtgt               Key Distribution Center Service Account
Susana Lorrie
Alvera Jill
Jessamine Lily
Koressa Kippy
Loy Lanette
Magda Lamond
Nelly Deva
Heath Carita
Fara Gerhardine
Darleen Heath
Sondra Bobby
Cibil Katerina
Imogen Steffie
Phyllys Emma
Kanya Sofie
Bertie Ilsa
Rowena Jasmine
Nikaniki Izabel
Maurine Opaline
Quintana Ainsley
```

as we see we found some passwords in the description area

now let's take a look at all those users

Billie Caitlin	DNS Admin
Nona Donetta	Company default password(Reset ASAP)
Cymbre Goldina	New user generated password: sDjr\$!E
Dayle Kelcey	Company default password(Reset ASAP)
Aloysia Debbie	New user generated password: m:{jWvi
Illa Latashia	Company default password(Reset ASAP)
Lanette Kitty	Company default password(Reset ASAP)
Haleigh Shirlene	DNS Admin
Elenore Brandie	Company default password(Reset ASAP)
Delilah Alyss	Company default password(Reset ASAP)
Kimberlee Lorna	Company default password(Reset ASAP)
Reyna Ninon	New user generated password: B&wh/^#
Cibil Katerina	New user generated password: 6i5\$-s2
Loy Lanette	New user generated password: I!MWL=S
Jessamine Lily	New user generated password: 02j[^Am

taking a look at password last set

```
Get-NetUser | select cn,description,badpwdcount,pwdlastset
```

```
PS C:\Users\rem01x.crt\Tools> Get-NetUser | select cn,description,badpwdcount,pwdlastset
cn                               description                                badpwdcount    pwdlastset
--                               -----
Administrator          Built-in account for administering the computer/domain      984 10/14/2023 10:38:51 PM
Guest                Built-in account for guest access to the computer/domain      0 1/1/1601 2:00:00 AM
krbtgt               Key Distribution Center Service Account                  984 10/14/2023 10:47:00 PM
Susana Lorrie        New user generated password: O2j[^Am                  0 10/14/2023 10:54:07 PM
Alvera Jill          New user generated password: I!MWL=S                  0 1/1/1601 2:00:00 AM
Jessamine Lily       New user generated password: 6i5$-s2                  0 10/14/2023 10:54:07 PM
Koressa Kippy        New user generated password: 6i5$-s2                  0 1/1/1601 2:00:00 AM
Loy Lanette          New user generated password: I!MWL=S                  0 10/14/2023 10:54:07 PM
Magda Lamond         New user generated password: 6i5$-s2                  0 10/14/2023 10:54:07 PM
Nelly Deva           New user generated password: 6i5$-s2                  0 10/14/2023 10:54:07 PM
Heath Carita         New user generated password: 6i5$-s2                  0 10/14/2023 10:54:07 PM
Fara Gerhardine     New user generated password: 6i5$-s2                  0 10/14/2023 10:54:07 PM
Darleen Heath        New user generated password: 6i5$-s2                  0 1/1/1601 2:00:00 AM
Sondra Bobby         New user generated password: 6i5$-s2                  0 10/14/2023 10:54:07 PM
Cybil Katerina      New user generated password: 6i5$-s2                  0 1/1/1601 2:00:00 AM
Imogen Steffie       New user generated password: 6i5$-s2                  0 10/14/2023 10:54:08 PM
Phyllys Emma         New user generated password: 6i5$-s2                  0 1/1/1601 2:00:00 AM
Kanya Sofie          New user generated password: 6i5$-s2                  0 10/14/2023 10:54:08 PM
Rowena Jasmine       New user generated password: 6i5$-s2                  0 10/14/2023 10:54:08 PM
Nikaniki Isabel      New user generated password: 6i5$-s2                  0 10/14/2023 10:54:08 PM
Maurine Opaline      New user generated password: 6i5$-s2                  0 10/14/2023 10:54:08 PM
Quintana Ainsley    New user generated password: 6i5$-s2                  0 10/14/2023 10:54:08 PM
```

we take a look at those because there maybe any **decoys** that can be used as a **trap for hackers**

```
Get-NetUser | select cn,logoncount
```

```
PS C:\Users\rem01x.crt\Tools> Get-NetUser | select cn,logoncount
cn                           logoncount
--                           -----
Administrator          15
Guest                0
krbtgt               0
Susana Lorrie        0
Alvera Jill          0
Jessamine Lily       0
Koressa Kippy        0
Loy Lanette          0
Magda Lamond         0
Nelly Deva           0
Heath Carita         0
Fara Gerhardine     0
Darleen Heath        0
Sondra Bobby         0
Cybil Katerina      0
```

getting information about computers in the domain

```
Get-NetComputer
```

```
PS C:\Users\rem01x.crt\\Desktop\tools> Get-NetComputer

pwdlastset : 10/14/2023 10:47:17 PM
logoncount : 24
serverreferencebl : CN=WIN-Q4788GPE9L7,CN=Servers,CN=Default-First-Site-Name,CN=Computers,DC=crt,DC=local
badpasswordtime : 1/1/1601 2:00:00 AM
distinguishedname : CN=WIN-Q4788GPE9L7,OU=Domain Controllers,DC=crt,DC=local
objectclass : {top, person, organizationalPerson, user...}
lastlogontimestamp : 10/14/2023 10:47:38 PM
name : WIN-Q4788GPE9L7
objectsid : S-1-5-21-701016945-1456686922-2798200677-1000
samaccountname : WIN-Q4788GPE9L7$
localpolicyflags : 0
codepage : 0
samaccounttype : MACHINE_ACCOUNT
whenchanged : 10/14/2023 9:00:35 PM
accountexpires : NEVER
countrycode : 0
operatingsystem : Windows Server 2019 Standard Evaluation
instancetype : 4
msdfscomputerreferencebl : CN=WIN-Q4788GPE9L7,CN=Topology,CN=Domain System Volume,CN=Computers,DC=crt,DC=local
objectguid : fd11ef97-abba-4136-9f90-9f6adb95ac78
operatingsystemversion : 10.0 (17763)
lastlogoff : 1/1/1601 2:00:00 AM
objectcategory : CN=Computer,CN=Schema,CN=Configuration,DC=crt,DC=local
dscorepropagationdata : {10/14/2023 8:47:00 PM, 1/1/1601 12:00:01 AM}
serviceprincipalname : {Dfsr-12F9A27C-BF97-4787-9364-D31B6C55EB04/WIN-Q4788GPE9L7
ldap/WIN-Q4788GPE9L7.crt.local/ForestDnsZones.crt.local,
ldap/WIN-Q4788GPE9L7.crt.local/DomainDnsZones.crt.local,
```

now we may filter the cn and the operating system of the computer

```
Get-NetComputer | select cn,operatingsystem
```

```
PS C:\Users\rem01x.crt\\Desktop\tools> Get-NetComputer | select cn,operatingsystem

cn          operatingsystem
--          -----
WIN-Q4788GPE9L7 Windows Server 2019 Standard Evaluation
DESKTOP-V0AN63P Windows 10 Pro N

PS C:\Users\rem01x.crt\\Desktop\tools>
```

getting operating system (os) information

```
Get-NetComputer -OperatingSystem "*server*" |select cn,operatingsystem
```

```
PS C:\Users\rem01x.crt\\Desktop\tools> Get-NetComputer -OperatingSystem "*server*" |select cn,operatingsystem

cn          operatingsystem
--          -----
WIN-Q4788GPE9L7 Windows Server 2019 Standard Evaluation
```

**note: finding a computer object in the active directory does not mean that this object must be connected with a real computer or server**

checking live machines

```
Get-NetComputer -Ping
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-NetComputer -Ping

pwdlastset          : 10/14/2023 10:47:17 PM
logoncount          : 24
serverreferencebl   : CN=WIN-Q4788GPE9L7,CN=Servers,CN=Default-First-Site-Name,CN=System,DC=local
badpasswordtime     : 1/1/1601 2:00:00 AM
distinguishedname   : CN=WIN-Q4788GPE9L7,OU=Domain Controllers,DC=crtp,DC=local
objectclass         : {top, person, organizationalPerson, user...}
lastlogontimestamp  : 10/14/2023 10:47:38 PM
name                : WIN-Q4788GPE9L7
objectsid           : S-1-5-21-701016945-1456686922-2798200677-1000
samaccountname      : WIN-Q4788GPE9L7$
localpolicyflags    : 0
codepage            : 0
samaccounttype     : MACHINE_ACCOUNT
whenchanged         : 10/14/2023 9:00:35 PM
accountexpires      : NEVER
countrycode         : 0
operatingsystem     : Windows Server 2019 Standard Evaluation
instancetype        : 4
msdfscomputerreferencebl : CN=WIN-Q4788GPE9L7,CN=Topology,CN=Domain System Volume,CN=DFSR-GlobalSettings,CN=System,DC=crtp,DC=local
objectguid          : fd11ef97-abba-4136-9f90-9f6adb95ac78
operatingsystemversion : 10.0 (17763)
lastlogoff          : 1/1/1601 2:00:00 AM
objectcategory       : CN=Computer,CN=Schema,CN=Configuration,DC=crtp,DC=local

```

getting information about groups

```
Get-NetGroup
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-NetGroup

groupstype          : CREATED_BY_SYSTEM, DOMAIN_LOCAL_SCOPE, SECURITY
admincount          : 1
iscriticalsystemobject : True
samaccounttype     : ALIAS_OBJECT
samaccountname      : Administrators
whenchanged         : 10/15/2023 12:53:50 PM
objectsid           : S-1-5-32-544
objectclass         : {top, group}
cn                 : Administrators
usnchanged         : 24701
systemflags         : -1946157056
name               : Administrators
```

more visable info

```
Get-NetGroup | select cn,member
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-NetGroup | select cn,member
cn                               member
--                               -----
Administrators
Users
Guests
Print Operators
Backup Operators
Replicator
Remote Desktop Users
Network Configuration Operators
Performance Monitor Users
Performance Log Users
Distributed COM Users
IIS_IUSRS
Cryptographic Operators
Event Log Readers
Certificate Service DCOM Access
RDS Remote Access Servers
RDS Endpoint Servers
RDS Management Servers
Hyper-V Administrators
Access Control Assistance Operators
Remote Management Users
Storage Replica Administrators
Domain Computers
Domain Controllers
Schema Admins
                                         CN=S-1-5-17,CN=ForeignSecurityPrinc
                                         CN=Administrator,CN=Users,DC=crt
                                         CN=Administrator,CN=Users,DC=crt
```

getting group info for another domain **if we have trusts**

```
Get-NetGroup -Domain crtpp.local
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-NetGroup -Domain crtpp.local

groupype          : CREATED_BY_SYSTEM, DOMAIN_LOCAL_SCOPE, SECURITY
admincount        : 1
iscriticalsystemobject : True
samaccounttype   : ALIAS_OBJECT
samaccountname   : Administrators
whenchanged      : 10/15/2023 12:53:50 PM
objectsid         : S-1-5-32-544
objectclass       : {top, group}
cn                : Administrators
usnchanged       : 24701
systemflags       : -1946157056
name              : Administrators
dscorepropagationdata : {10/15/2023 12:53:50 PM, 10/14/2023 8:47:00 PM, 1/1/1601}
description       : Administrators have complete and unrestricted access to all objects in the domain.
distinguishedname: CN=Administrators,CN=Builtin,DC=crtpp,DC=local
member            : {CN=Domain Admins,CN=Users,DC=crtpp,DC=local, CN=Enterprise Admins,CN=Users,DC=crtpp,DC=local}
usncreated        : 8199
whencreated       : 10/14/2023 8:46:06 PM
instancetype     : 4
```

getting information about specific groups

```
Get-NetGroup 'IT Admins'
```

```
PS C:\Users\rem01x.crtpl\Desktop\tools> Get-NetGroup 'IT Admins'

usncreated          : 13199
admincount          : 1
groupstype          : GLOBAL_SCOPE, SECURITY
samaccounttype     : GROUP_OBJECT
samaccountname     : IT Admins
whenchanged         : 10/15/2023 12:53:50 PM
objectsid           : S-1-5-21-701016945-1456686922-2798200677-1204
objectclass         : {top, group}
cn                 : IT Admins
usnchanged          : 24676
dscorepropagationdata : {10/15/2023 12:53:50 PM, 10/14/2023 9:05:48 PM, 10/14/2023 9:05:41 PM, 10/14/2023 9:05:41 PM...}
memberof            : CN=Domain Admins,CN=Users,DC=crtpl,DC=local
distinguishedname   : CN=IT Admins,CN=Users,DC=crtpl,DC=local
name               : IT Admins
member              : {CN=Luise Lenna,CN=Users,DC=crtpl,DC=local, CN=Lilas Kip,CN=Users,DC=crtpl,DC=local, CN=Marlee
Charlot,CN=Users,DC=crtpl,DC=local, CN=Darleen Noreen,CN=Users,DC=crtpl,DC=local...}
whencreated         : 10/14/2023 8:54:12 PM
instancetype        : 4
objectguid          : 14315080-e179-465a-b45a-0835ffbb210a
objectcategory      : CN=Group,CN=Schema,CN=Configuration,DC=crtpl,DC=local
```

enumerating specific group in other domain if we have trusts

```
Get-NetGroup -Domain crtpl.local 'IT Admins'
```

```
PS C:\Users\rem01x.crtpl\Desktop\tools> Get-NetGroup -Domain crtpl.local 'IT Admins'

usncreated          : 13199
admincount          : 1
groupstype          : GLOBAL_SCOPE, SECURITY
samaccounttype     : GROUP_OBJECT
samaccountname     : IT Admins
whenchanged         : 10/15/2023 12:53:50 PM
objectsid           : S-1-5-21-701016945-1456686922-2798200677-1204
objectclass         : {top, group}
cn                 : IT Admins
usnchanged          : 24676
dscorepropagationdata : {10/15/2023 12:53:50 PM, 10/14/2023 9:05:48 PM, 10/14/2023 9:05:41 PM, 10/14/2023 9:05:41
PM...}
memberof            : CN=Domain Admins,CN=Users,DC=crtpl,DC=local
distinguishedname   : CN=IT Admins,CN=Users,DC=crtpl,DC=local
name               : IT Admins
member              : {CN=Luise Lenna,CN=Users,DC=crtpl,DC=local, CN=Lilas Kip,CN=Users,DC=crtpl,DC=local, CN=Marlee
Charlot,CN=Users,DC=crtpl,DC=local, CN=Darleen Noreen,CN=Users,DC=crtpl,DC=local...}
whencreated         : 10/14/2023 8:54:12 PM
instancetype        : 4
objectguid          : 14315080-e179-465a-b45a-0835ffbb210a
objectcategory      : CN=Group,CN=Schema,CN=Configuration,DC=crtpl,DC=local
```

using a wildcard in group name

```
Get-NetGroup *admin* | select cn
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-NetGroup *admin* | select cn  
cn  
--  
Administrators  
Hyper-V Administrators  
Storage Replica Administrators  
Schema Admins  
Enterprise Admins  
Domain Admins  
Key Admins  
Enterprise Key Admins  
DnsAdmins  
Office Admin  
IT Admins
```

getting information about group members

```
Get-NetGroupMember 'IT Admins' -Recurse | select membername
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-NetGroupMember 'IT Admins' -Recurse | select membername  
MemberName  
-----  
luise.lenna  
lilas.kip  
marlee.charlot  
darleen.noreen  
prissie.alice  
gratia.jillayne  
aida.gratianna  
riki.lynnell  
shelba.cassandra  
sabra.franky  
kalie.giana  
paloma.raeann  
dorena.athena  
christyna.dorothy  
kinnie.fiann  
althea.devan  
rosy.libbey  
rowena.jasmine
```

getting the groups that the user is member of

```
Get-NetGroup -UserName rem01x | select name
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-NetGroup -UserName rem01x | select name  
name  
----  
Domain Users
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> ■
```

```
PS C:\Users\rem01x.crt\Tools> Get-NetGroup -UserName shelba.cassandra | select name
name
-----
Denied RODC Password Replication Group
Domain Admins
Domain Users
IT Admins
```

enumerating the local groups of the machine require administrative access on non dc machines

```
Get-NetLocalGroup -ComputerName WIN-Q4788GPE9L7
```

ComputerName	GroupName	Comment
WIN-Q4788GPE9L7	Server Operators	Members can administer domain servers.
WIN-Q4788GPE9L7	Account Operators	Members can administer domain user accounts.
WIN-Q4788GPE9L7	Pre-Windows 2000 Compatible Access	A backward compatibility group.
WIN-Q4788GPE9L7	Incoming Forest Trust Builders	Members of this group can create incoming forest trust relationships.
WIN-Q4788GPE9L7	Windows Authorization Access Group	Members of this group have access to Windows Authorization API.
WIN-Q4788GPE9L7	Terminal Server License Servers	Members of this group can update terminal server license files.
WIN-Q4788GPE9L7	Administrators	Administrators have complete administrative privileges.
WIN-Q4788GPE9L7	Users	Users are prevented from making changes to system security settings.
WIN-Q4788GPE9L7	Guests	Guests have the same access as regular users.
WIN-Q4788GPE9L7	Print Operators	Members can administer printers.
WIN-Q4788GPE9L7	Backup Operators	Backup Operators can override security settings.
WIN-Q4788GPE9L7	Replicator	Supports file replication in a distributed environment.
WIN-Q4788GPE9L7	Remote Desktop Users	Members in this group are granted remote desktop access.
WIN-Q4788GPE9L7	Network Configuration Operators	Members in this group can have network configuration rights.
WIN-Q4788GPE9L7	Performance Monitor Users	Members of this group can access performance counter data.
WIN-Q4788GPE9L7	Performance Log Users	Members of this group may schedule performance logs.
WIN-Q4788GPE9L7	Distributed COM Users	Members are allowed to launch, register, and release objects.
WIN-Q4788GPE9L7	IIS_IUSRS	Built-in group used by Internet Information Services.
WIN-Q4788GPE9L7	Cryptographic Operators	Members are authorized to perform cryptographic operations.
WIN-Q4788GPE9L7	Event Log Readers	Members of this group can read event log data.
WIN-Q4788GPE9L7	Certificate Service DCOM Access	Members of this group are allowed to access certificate services via DCOM.
WIN-Q4788GPE9L7	RDS Remote Access Servers	Servers in this group enable remote desktop services.
WIN-Q4788GPE9L7	RDS Endpoint Servers	Servers in this group run virtual desktop sessions.
WIN-Q4788GPE9L7	RDS Management Servers	Servers in this group can perform management tasks.
WIN-Q4788GPE9L7	Hyper-V Administrators	Members of this group have complete control over Hyper-V resources.
WIN-Q4788GPE9L7	Access Control Assistance Operators	Members of this group can remotly access other users' accounts.
WIN-Q4788GPE9L7	Remote Management Users	Members of this group can access remote management services.
WIN-Q4788GPE9L7	Storage Replica Administrators	Members of this group have complete control over storage replicas.
WIN-Q4788GPE9L7	Cert Publishers	Members of this group are permitted to publish certificates.

getting local groups with a little filter

```
Get-NetLocalGroup -ComputerName WIN-Q4788GPE9L7 |select groupname
```

```
PS C:\Users\rem01x.crt\Tools> Get-NetLocalGroup -ComputerName WIN-Q4788GPE9L7 | select groupname  
GroupName  
-----  
Server Operators  
Account Operators  
Pre-Windows 2000 Compatible Access  
Incoming Forest Trust Builders  
Windows Authorization Access Group  
Terminal Server License Servers  
Administrators  
Users  
Guests  
Print Operators  
Backup Operators  
Replicator  
Remote Desktop Users  
Network Configuration Operators  
Performance Monitor Users  
Performance Log Users  
Distributed COM Users  
IIS_IUSRS
```

getting the active logged in users on the machine needs **local administrative access on the target**

```
Get-NetLoggedon -ComputerName DESKTOP-V0AN63P
```

```
PS C:\Users\rem01x.crt\Tools> Get-NetLoggedon -ComputerName DESKTOP-V0AN63P  
  
UserName      : rem01x  
LogonDomain   : crt  
AuthDomains   :  
LogonServer    : WIN-Q4788GPE9L7  
ComputerName   : DESKTOP-V0AN63P  
  
UserName      : DESKTOP-V0AN63P$  
LogonDomain   : crt  
AuthDomains   :  
LogonServer    :  
ComputerName   : DESKTOP-V0AN63P  
  
UserName      : DESKTOP-V0AN63P$  
LogonDomain   : crt  
AuthDomains   :  
LogonServer    :  
ComputerName   : DESKTOP-V0AN63P  
  
UserName      : DESKTOP-V0AN63P$  
LogonDomain   : crt  
AuthDomains   :  
LogonServer    :  
ComputerName   : DESKTOP-V0AN63P
```

same command with little filter

```
Get-NetLoggedon -ComputerName DESKTOP-V0AN63P |select username
```

```
PS C:\Users\rem01x.crt\Tools> Get-NetLoggedon -ComputerName DESKTOP-V0AN63P |select username  
UserName  
-----  
rem01x  
DESKTOP-V0AN63P$  
DESKTOP-V0AN63P$  
DESKTOP-V0AN63P$  
DESKTOP-V0AN63P$  
DESKTOP-V0AN63P$
```

getting locally logged on users requires [remote registry on the target](#)

```
Get-LoggedOnLocal -ComputerName DESKTOP-V0AN63P
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-LoggedOnLocal -ComputerName DESKTOP-V0AN63P
PS C:\Users\rem01x.crtp\Desktop\tools>
```

getting the last logged in user on the machine requires [administrative access and remote registry](#)

```
Get-LastLoggedOn -ComputerName DESKTOP-V0AN63P
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-LastLoggedOn -ComputerName DESKTOP-V0AN63P
ComputerName      LastLoggedOn
-----      -----
DESKTOP-V0AN63P  crtpp\rem01x
```

finding shares on the hosts in current domain

```
Invoke-ShareFinder -Verbose
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Invoke-ShareFinder -Verbose
VERBOSE: [Find-DomainShare] Querying computers in the domain
VERBOSE: [Get-DomainSearcher] search base: LDAP://WIN-Q4788GPE9L7.CRT.P.LOCAL/DC=CRTP,DC=LOCAL
VERBOSE: [Get-DomainComputer] Get-DomainComputer filter string: (&(samAccountType=805306369))
VERBOSE: [Find-DomainShare] TargetComputers length: 2
VERBOSE: [Find-DomainShare] Using threading with threads: 20
VERBOSE: [New-ThreadedFunction] Total number of hosts: 2
VERBOSE: [New-ThreadedFunction] Total number of threads/partitions: 2
VERBOSE: [New-ThreadedFunction] Threads executing
VERBOSE: [New-ThreadedFunction] Waiting 100 seconds for final cleanup...
VERBOSE: [New-ThreadedFunction] all threads completed
Name          Type   Remark      ComputerName
----          ---   ---      -----
ADMIN$        2147483648 Remote Admin    WIN-Q4788GPE9L7.crtpp.local
C$           2147483648 Default share  WIN-Q4788GPE9L7.crtpp.local
Common        0          0          WIN-Q4788GPE9L7.crtpp.local
IPC$          2147483651 Remote IPC     WIN-Q4788GPE9L7.crtpp.local
NETLOGON       0          Logon server share  WIN-Q4788GPE9L7.crtpp.local
SYSVOL        0          Logon server share  WIN-Q4788GPE9L7.crtpp.local
ADMIN$        2147483648 Remote Admin    DESKTOP-V0AN63P.crtpp.local
C$           2147483648 Default share  DESKTOP-V0AN63P.crtpp.local
IPC$          2147483651 Remote IPC     DESKTOP-V0AN63P.crtpp.local
```

finding sensitive files on computers in the domain

```
Invoke-FileFinder -Verbose
```

```
PS C:\Users\rem01x.crt\Tools> Invoke-FileFinder -Verbose
VERBOSE: [Find-InterestingDomainShareFile] Querying computers in the domain
VERBOSE: [Get-DomainSearcher] search base: LDAP://WIN-Q4788GPE9L7.CRT.LOCAL/DC=CRTP,DC=LOCAL
VERBOSE: [Get-DomainComputer] Get-DomainComputer filter string: (&(samAccountType=805306369))
VERBOSE: [Find-InterestingDomainShareFile] TargetComputers length: 2
VERBOSE: [Find-InterestingDomainShareFile] Using threading with threads: 20
VERBOSE: [New-ThreadedFunction] Total number of hosts: 2
VERBOSE: [New-ThreadedFunction] Total number of threads/partitions: 2
VERBOSE: [New-ThreadedFunction] Threads executing
VERBOSE: [New-ThreadedFunction] Waiting 100 seconds for final cleanup...
VERBOSE: [New-ThreadedFunction] all threads completed
```

we don't have sensitive files here 😊

getting all file servers in the domain

```
Get-NetFileServer -Verbose
```

```
PS C:\Users\rem01x.crt\Tools> Get-NetFileServer -Verbose
VERBOSE: [Get-DomainSearcher] search base: LDAP://WIN-Q4788GPE9L7.CRT.LOCAL/DC=CRTP,DC=LOCAL
PS C:\Users\rem01x.crt\Tools> ■
```

getting information about group policy

```
Get-NetGPO
```

```
PS C:\Users\rem01x.crt\Tools> Get-NetGPO

usncreated : 5672
systemflags : -1946157056
displayname : Default Domain Policy
gpcmachineextensionnames : [{35378EAC-683F-11D2-A89A-00C04FBBCFA2}{53D6AB19E-6EAC-11D2-A4EA-00C04F79F83A}{803E14A0-B4FB-11D2-A4EA-00C04F79F83A}{53D6AB1B-2488-11D1-A28C}
whenchanged : 10/14/2023 9:05:26 PM
objectclass : {top, container, groupPolicyContainer}
gpcfunctionalityversion : 2
showinadvancedviewonly : True
usnchanged : 16624
dscorepropagationdata : {10/14/2023 8:47:00 PM, 1/1/1601 12:00:00 AM}
name : {31B2F340-016D-11D2-945F-00C04FB984F9}
flags : 0
cn : {31B2F340-016D-11D2-945F-00C04FB984F9}
iscriticalsystemobject : True
```

getting information about group policy for another computer

```
Get-NetGPO -ComputerName WIN-Q4788GPE9L7
```

```
PS C:\Users\rem01x.crt\Desktop\tools> Get-NetGPO -ComputerName WIN-Q4788GPE9L7

usncreated : 5675
systemflags : -1946157056
displayname : Default Domain Controllers Policy
gpcmachineextensionnames : [{827D319E-6EAC-11D2-A4EA-00C04F79F83A}{803E14A0-B4FB-11D0-A0D0-00A0C90F574B}]
whenchanged : 10/14/2023 8:46:05 PM
objectclass : {top, container, groupPolicyContainer}
gpcfunctionalityversion : 2
showinadvancedviewonly : True
usnchanged : 5675
dscorepropagationdata : {10/14/2023 8:47:00 PM, 1/1/1601 12:00:00 AM}
name : {6AC1786C-016F-11D2-945F-00C04fB984F9}
flags : 0
cn : {6AC1786C-016F-11D2-945F-00C04fB984F9}
iscriticalsystemobject : True
gpcfilesyspath : \\crt.local\sysvol\crt.local\Policies\{6AC1786C-016F-11D2-945F-00C04fB984F9},CN=Policies,CN=System,DC=crt,DC=local
distinguishedname : CN={6AC1786C-016F-11D2-945F-00C04fB984F9},CN=Policies,CN=System,DC=crt,DC=local
whencreated : 10/14/2023 8:46:05 PM
versionnumber : 1
instancetype : 4
objectguid : 464079e4-19ee-4029-acde-3a614497c62d
objectcategory : CN=Group-Policy-Container,CN=Schema,CN=Configuration,DC=crt,DC=local
```

getting filtered name

```
Get-NetGPO | select displayname
```

```
PS C:\Users\rem01x.crt\Desktop\tools> Get-NetGPO | select displayname

displayname
-----
Default Domain Policy
Default Domain Controllers Policy
Disable Windows Defender
```

getting information about restricted group policy

```
Get-NetGPOGroup
```

```
PS C:\Users\rem01x.crt\Desktop\tools> Get-NetGPOGroup
PS C:\Users\rem01x.crt\Desktop\tools>
```

as we see we didn't get any because there is no misconfiguration for this

getting information about users which are part of local group using group policy

```
Find-GPOComputerAdmin -ComputerName WIN-Q4788GPE9L7
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Find-GPOComputerAdmin -ComputerName WIN-Q4788GPE9L7
PS C:\Users\rem01x.crtp\Desktop\tools>
```

we didn't find any for this but it may be a good hit

finding the machines where the user is a part of a specific group

```
Find-GPOLocation rem01x -Verbose
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Find-GPOLocation rem01x -Verbose
VERBOSE: [Get-DomainSearcher] search base: LDAP://WIN-Q4788GPE9L7.CRTP.LOCAL/DC=CRTP,DC=LOCAL
VERBOSE: [Get-DomainObject] Get-DomainObject filter string:
(&(|((samAccountName=rem01x)(name=rem01x)(displayname=rem01x))))
VERBOSE: [Get-DomainGPOUserLocalGroupMapping] Enumerating nested group memberships for:
'S-1-5-21-701016945-1456686922-2798200677-1455'
VERBOSE: [Get-DomainSearcher] search base: LDAP://WIN-Q4788GPE9L7.CRTP.LOCAL/DC=CRTP,DC=LOCAL
VERBOSE: [Get-DomainSearcher] search base: LDAP://WIN-Q4788GPE9L7.CRTP.LOCAL/DC=CRTP,DC=LOCAL
VERBOSE: [Get-DomainObject] Get-DomainObject filter string:
(&(|(objectsid=S-1-5-21-701016945-1456686922-2798200677-1455)))
VERBOSE: [Get-DomainSearcher] search base: LDAP://WIN-Q4788GPE9L7.CRTP.LOCAL/DC=CRTP,DC=LOCAL
VERBOSE: [Get-DomainObject] Get-DomainObject filter string:
(&(|(objectsid=S-1-5-21-701016945-1456686922-2798200677-513)))
VERBOSE: [Get-DomainGPOUserLocalGroupMapping] Target localgroup SID: S-1-5-32-544
VERBOSE: [Get-DomainGPOUserLocalGroupMapping] Effective target domain SIDs:
S-1-5-21-701016945-1456686922-2798200677-1455 S-1-5-21-701016945-1456686922-2798200677-513
VERBOSE: [Get-DomainSearcher] search base: LDAP://WIN-Q4788GPE9L7.CRTP.LOCAL/DC=CRTP,DC=LOCAL
VERBOSE: [Get-DomainGPO] filter string: (&(objectCategory=groupPolicyContainer))
VERBOSE: [Get-GptTmpl] Parsing GptTmplPath:
```

getting information about the Organizational Units OU

```
Get-NetOU -Verbose
```

getting information about acl

```
Get-ObjectAcl -Name rem01x -ResolveGUIDs
```

```
PS C:\Users\rem01x.crtp\Desktop\tools> Get-ObjectAcl -Name rem01x -ResolveGUIDs

AceQualifier          : AccessAllowed
ObjectDN              : CN=rem01x,CN=Users,DC=crtpp,DC=local
ActiveDirectoryRights : ReadProperty
ObjectAceType         : User-Account-Restrictions
ObjectSID              : S-1-5-21-701016945-1456686922-2798200677-1455
InheritanceFlags       : None
BinaryLength           : 56
AceType                : AccessAllowedObject
ObjectAceFlags         : ObjectAceTypePresent
IsCallback             : False
PropagationFlags        : None
SecurityIdentifier      : S-1-5-21-701016945-1456686922-2798200677-553
AccessMask              : 16
AuditFlags             : None
IsInherited            : False
AceFlags                : None
InheritedObjectAceType : All
OpaqueLength            : 0
```

now applying some filters

```
Get-ObjectAcl -Name rem01x -ResolveGUIDs | select ObjectDN,AceType,ActiveDirectoryRights,InheritanceFlags,IsInherited
```

AcType	ActiveDirectoryRights	InheritanceFlags	IsInherited
AccessAllowedObject	ReadProperty	None	False
AccessAllowedObject	ReadProperty	FailIfHeld	False
AccessAllowedObject	ReadProperty	None	False
AccessAllowedObject	ReadProperty	None	False
AccessAllowedObject	ReadProperty	None	False
AccessAllowedObject	ReadProperty, WriteProperty	None	False
AccessAllowedObject	ReadProperty	None	False
AccessAllowedObject	ReadProperty, WriteProperty	None	False
AccessAllowedObject	ReadProperty, WriteProperty	None	False
AccessAllowedObject	ReadProperty, WriteProperty	None	False
AccessAllowedObject	ExtendedRight	None	False
AccessAllowedObject	ExtendedRight	None	False
AccessAllowedObject	ExtendedRight	None	False
AccessAllowedObject	ReadProperty	None	False
AccessAllowedObject	ReadProperty	None	False
AccessAllowedObject	ReadProperty	None	False
AccessAllowedObject	ReadProperty	None	False
AccessAllowedObject	ReadProperty, WriteProperty	None	False
AccessAllowedObject	ReadProperty, WriteProperty	None	False
AccessAllowedObject	ReadProperty, WriteProperty	None	False
AccessAllowedObject	GenericAll	None	False
AccessAllowedObject	GenericAll	None	False
AccessAllowedObject	ReadControl	None	False
AccessAllowedObject	GenericRead	None	False
AccessAllowedObject	GenericAll	None	False

getting information about interesting aces

```
Invoke-ACLScanner -ResolveGUIDs
```

```
PS C:\Users\rem01x.crt\Tools> Invoke-ACLScanner -ResolveGUIDs

ObjectDN          : DC=crt,DC=local
AceQualifier      : AccessAllowed
ActiveDirectoryRights : ExtendedRight
ObjectAceType    : DS-Replication-Get-Changes-In-Filtered-Set
AceFlags          : None
AceType           : AccessAllowedObject
InheritanceFlags : None
SecurityIdentifier : S-1-5-21-701016945-1456686922-2798200677-1203
IdentityReferenceName : Office Admin
IdentityReferenceDomain : crt.local
IdentityReferenceDN   : CN=Office Admin,CN=Users,DC=crt,DC=local
IdentityReferenceClass : group

ObjectDN          : DC=crt,DC=local
AceQualifier      : AccessAllowed
ActiveDirectoryRights : ExtendedRight
ObjectAceType    : DS-Replication-Get-Changes
AceFlags          : None
AceType           : AccessAllowedObject
InheritanceFlags : None
SecurityIdentifier : S-1-5-21-701016945-1456686922-2798200677-1203
IdentityReferenceName : Office Admin
IdentityReferenceDomain : crt.local
IdentityReferenceDN   : CN=Office Admin,CN=Users,DC=crt,DC=local
IdentityReferenceClass : group
```