



链滴

# jenkins 编译.net 结合 ansible 操作 windows 进行发布

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来源网站: 链滴

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使用Jenkins编译.net项目需要用到windows的slave节点，安装依赖的工具：如MSBuild和.NET Framework, winrar等

MSBuild可以直接安装和开发使用一致版本的Visual Studio,使用其自带的MSBuild.exe, 比如我这里装了Visual Studio 2019对应的路径为C:\Program Files (x86)\Microsoft Visual Studio\2019\Community\MSBuild\Current\Bin\amd64\MSBuild.exe

把用到的工具的路径加入到windows slave配置环境变量path中

环境变量

键值对列表

键	node
值	D:\soft\node\node.exe
<a href="#">删除</a>	
键	path
值	rogram Files (x86)\Microsoft Visual Studio\2019\Community\MSBuild\Current\Bin\amd64;C:\Program Files\WinRAR;
<a href="#">删除</a>	

## jenkins pipeline

```
pipeline {
  agent { label 'windows-slave' }
  parameters{
    gitParameter branchFilter: '.*', tagFilter: '.*', defaultValue: 'dev', name: 'TAG', type: 'PT_BRANCH_TAG', selectedValue: 'TOP', sortMode: 'DESCENDING_SMART'
    choice(name: 'PLAYBOOK', choices: 'net\nnet-rollback', description: 'net 部署\nnet-rollback 回滚')
    choice(name: 'HOSTS', choices: 'test-pms-group', description: '选择发布的主机组: \ntest-pms-group 测试环境')
```

```

}

environment {
    GIT = 'http://example.com/mgpms/MG_HuiZhu.git'
    PROJECT = 'MG_HuiZhu'
    APP_PATH = 'D:\data\apps\MG_HuiZhu\'
    BUILDFILE = 'MG_HuiZhu2.0\Huazhu.PMS.WebSite\Huazhu.PMS.WebSite.csproj'
    SOLUTIONDIR = "${WORKSPACE}\MG_HuiZhu2.0\"
    PACKAGE = "${WORKSPACE}\MG_HuiZhu2.0\Huazhu.PMS.WebSite\obj\Release\Package\PackageTmp\"
    CONFIGURATION = 'Release'
    PLAYBOOK = "$PLAYBOOK" // ansible的的的palybook
    MAIL_TO = "yunwei@hhotel.com"
    ZIP = "target"
    CHECK_TAG = "${TAG}" // 分支或tag
}

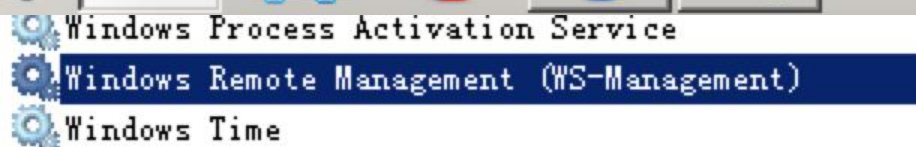
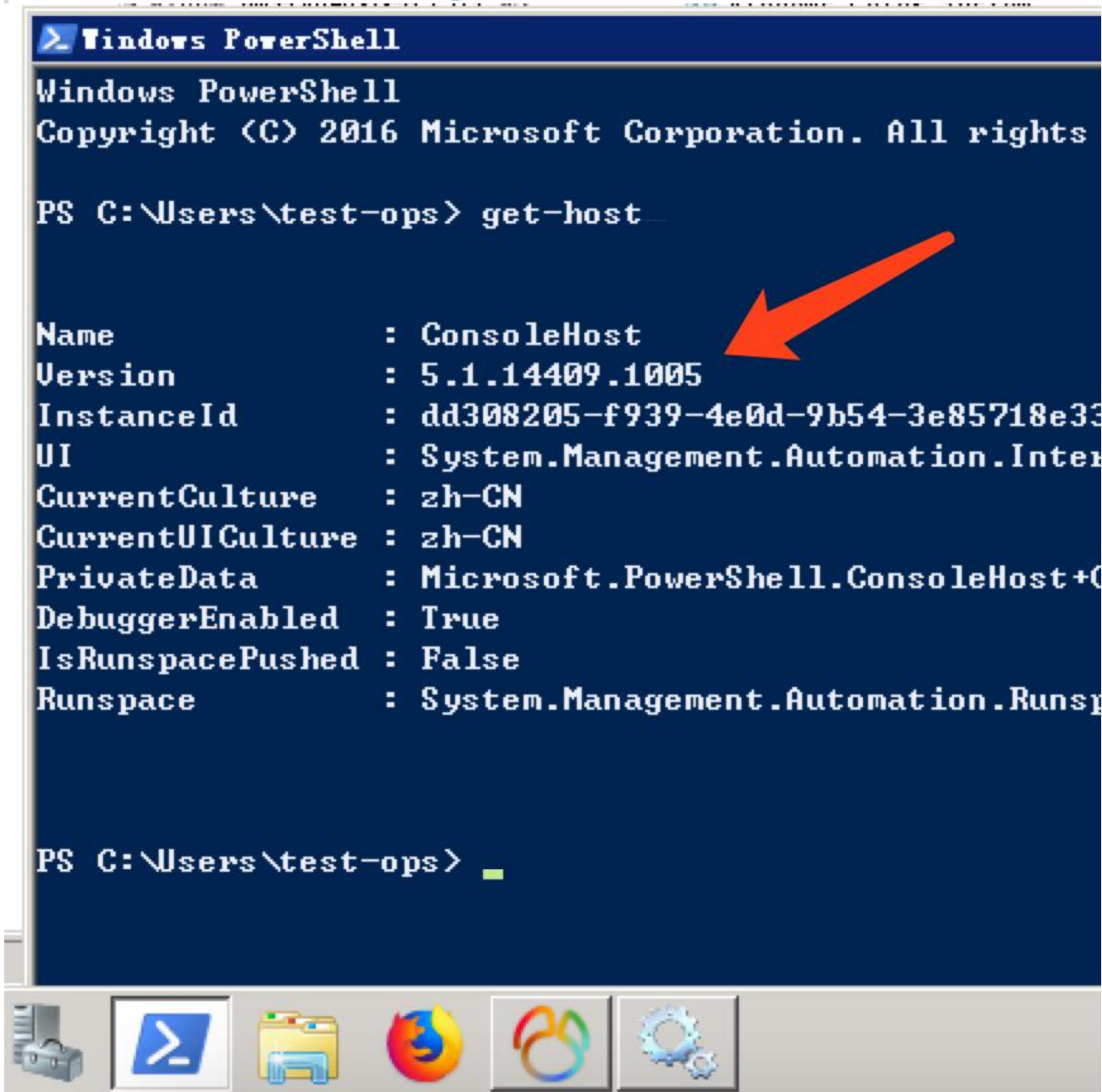
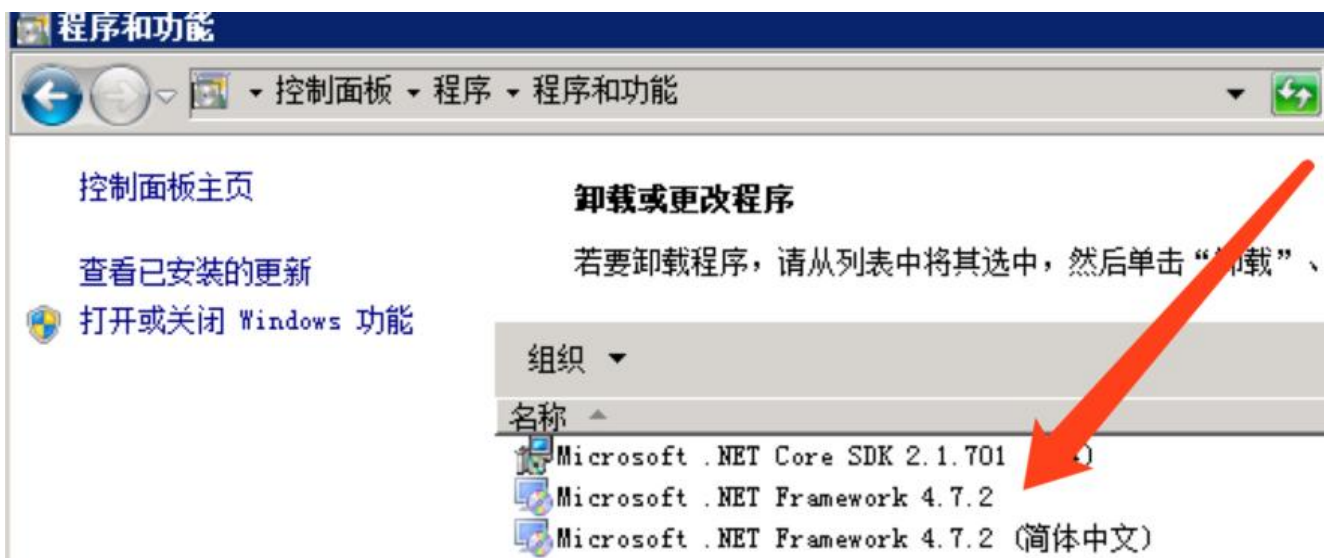
stages {
    stage ('克隆代码') {
        steps {
            deleteDir() // 清理工作目录
            git credentialsId: '9c9b7b17-04d5-47de-9b8f-6207a78e6973', url: "${GIT}"
            bat 'git checkout %CHECK_TAG%'
        }
    }

    stage ('编译打包') {
        steps {
            script {
                bat 'echo %TIME%'
                bat 'MSBuild %BUILDFILE% /p:Configuration=%CONFIGURATION% /p:SolutionDi
                =%SOLUTIONDIR% /t:Rebuild /p:DeployOnBuild=true /p:AllowUntrustedCertificate=True'
                bat 'rd /s/q D:\jenkins\workspace\test-MG_HuiZhu\MG_HuiZhu2.0\Huazhu.
                MS.WebSite\Scripts\Plugin\My97DatePicker\'
                bat 'winrar a -ep1 -r target.zip %PACKAGE%'
                stash(name: "target", includes: "target.zip")
            }
        }
    }

    stage ('部署') {
        agent { label "master" }
        environment {
            TIME = sh(script: "date '+%Y%m%d%H%M%S'", returnStdout: true).trim()
        }
        steps {
            deleteDir() // 清理工作目录
            unstash("target")
            ansiblePlaybook(
                playbook: "/data/ansible/playbook/${PLAYBOOK}.yml",
                extraVars: [
                    APP_PATH:"${APP_PATH}",
                    HOSTS:"${HOSTS}",
                    PROJECT:"${PROJECT}",
                ]
            )
        }
    }
}

```







使用管理员权限打开Powershell

查看版本

get-host

更改powershell策略为remotesigned

set-executionpolicy remotesigned

get-executionpolicy

查看winrm service listener

https方式的使用5986, http使用5985

winrm enumerate winrm/config/listener

```
PS C:\Users\Administrator> winrm enumerate winrm/config/listener
Listener
  Address = *
  Transport = HTTP
  Port = 5985
  Hostname
  Enabled = true
  URLPrefix = wsman
  CertificateThumbprint
  ListeningOn = 127.0.0.1, 192.168.247.151, ::1, fe80::5efe:192.168.247.151%13, fe80::5efe:192.168.247.151%14, fe80::5efe:192.168.247.151%15, fe80::5efe:192.168.247.151%16, fe80::5efe:192.168.247.151%17, fe80::5efe:192.168.247.151%18, fe80::5efe:192.168.247.151%19, fe80::5efe:192.168.247.151%1a, fe80::5efe:192.168.247.151%1b, fe80::5efe:192.168.247.151%1c, fe80::5efe:192.168.247.151%1d, fe80::5efe:192.168.247.151%1e, fe80::5efe:192.168.247.151%1f, fe80::5efe:192.168.247.151%20, fe80::5efe:192.168.247.151%21, fe80::5efe:192.168.247.151%22, fe80::5efe:192.168.247.151%23, fe80::5efe:192.168.247.151%24, fe80::5efe:192.168.247.151%25, fe80::5efe:192.168.247.151%26, fe80::5efe:192.168.247.151%27, fe80::5efe:192.168.247.151%28, fe80::5efe:192.168.247.151%29, fe80::5efe:192.168.247.151%2a, fe80::5efe:192.168.247.151%2b, fe80::5efe:192.168.247.151%2c, fe80::5efe:192.168.247.151%2d, fe80::5efe:192.168.247.151%2e, fe80::5efe:192.168.247.151%2f, fe80::5efe:192.168.247.151%30, fe80::5efe:192.168.247.151%31, fe80::5efe:192.168.247.151%32, fe80::5efe:192.168.247.151%33, fe80::5efe:192.168.247.151%34, fe80::5efe:192.168.247.151%35, fe80::5efe:192.168.247.151%36, fe80::5efe:192.168.247.151%37, fe80::5efe:192.168.247.151%38, fe80::5efe:192.168.247.151%39, fe80::5efe:192.168.247.151%3a, fe80::5efe:192.168.247.151%3b, fe80::5efe:192.168.247.151%3c, fe80::5efe:192.168.247.151%3d, fe80::5efe:192.168.247.151%3e, fe80::5efe:192.168.247.151%3f, fe80::5efe:192.168.247.151%40, fe80::5efe:192.168.247.151%41, fe80::5efe:192.168.247.151%42, fe80::5efe:192.168.247.151%43, fe80::5efe:192.168.247.151%44, fe80::5efe:192.168.247.151%45, fe80::5efe:192.168.247.151%46, fe80::5efe:192.168.247.151%47, fe80::5efe:192.168.247.151%48, fe80::5efe:192.168.247.151%49, fe80::5efe:192.168.247.151%4a, fe80::5efe:192.168.247.151%4b, fe80::5efe:192.168.247.151%4c, fe80::5efe:192.168.247.151%4d, fe80::5efe:192.168.247.151%4e, fe80::5efe:192.168.247.151%4f, fe80::5efe:192.168.247.151%50, fe80::5efe:192.168.247.151%51, fe80::5efe:192.168.247.151%52, fe80::5efe:192.168.247.151%53, fe80::5efe:192.168.247.151%54, fe80::5efe:192.168.247.151%55, fe80::5efe:192.168.247.151%56, fe80::5efe:192.168.247.151%57, fe80::5efe:192.168.247.151%58, fe80::5efe:192.168.247.151%59, fe80::5efe:192.168.247.151%5a, fe80::5efe:192.168.247.151%5b, fe80::5efe:192.168.247.151%5c, fe80::5efe:192.168.247.151%5d, fe80::5efe:192.168.247.151%5e, fe80::5efe:192.168.247.151%5f, fe80::5efe:192.168.247.151%60, fe80::5efe:192.168.247.151%61, fe80::5efe:192.168.247.151%62, fe80::5efe:192.168.247.151%63, fe80::5efe:192.168.247.151%64, fe80::5efe:192.168.247.151%65, fe80::5efe:192.168.247.151%66, fe80::5efe:192.168.247.151%67, fe80::5efe:192.168.247.151%68, fe80::5efe:192.168.247.151%69, fe80::5efe:192.168.247.151%6a, fe80::5efe:192.168.247.151%6b, fe80::5efe:192.168.247.151%6c, fe80::5efe:192.168.247.151%6d, fe80::5efe:192.168.247.151%6e, fe80::5efe:192.168.247.151%6f, fe80::5efe:192.168.247.151%70, fe80::5efe:192.168.247.151%71, fe80::5efe:192.168.247.151%72, fe80::5efe:192.168.247.151%73, fe80::5efe:192.168.247.151%74, fe80::5efe:192.168.247.151%75, fe80::5efe:192.168.247.151%76, fe80::5efe:192.168.247.151%77, fe80::5efe:192.168.247.151%78, fe80::5efe:192.168.247.151%79, fe80::5efe:192.168.247.151%7a, fe80::5efe:192.168.247.151%7b, fe80::5efe:192.168.247.151%7c, fe80::5efe:192.168.247.151%7d, fe80::5efe:192.168.247.151%7e, fe80::5efe:192.168.247.151%7f, fe80::5efe:192.168.247.151%80, fe80::5efe:192.168.247.151%81, fe80::5efe:192.168.247.151%82, fe80::5efe:192.168.247.151%83, fe80::5efe:192.168.247.151%84, fe80::5efe:192.168.247.151%85, fe80::5efe:192.168.247.151%86, fe80::5efe:192.168.247.151%87, fe80::5efe:192.168.247.151%88, fe80::5efe:192.168.247.151%89, fe80::5efe:192.168.247.151%8a, fe80::5efe:192.168.247.151%8b, fe80::5efe:192.168.247.151%8c, fe80::5efe:192.168.247.151%8d, fe80::5efe:192.168.247.151%8e, fe80::5efe:192.168.247.151%8f, fe80::5efe:192.168.247.151%90, fe80::5efe:192.168.247.151%91, fe80::5efe:192.168.247.151%92, fe80::5efe:192.168.247.151%93, fe80::5efe:192.168.247.151%94, fe80::5efe:192.168.247.151%95, fe80::5efe:192.168.247.151%96, fe80::5efe:192.168.247.151%97, fe80::5efe:192.168.247.151%98, fe80::5efe:192.168.247.151%99, fe80::5efe:192.168.247.151%9a, fe80::5efe:192.168.247.151%9b, fe80::5efe:192.168.247.151%9c, fe80::5efe:192.168.247.151%9d, fe80::5efe:192.168.247.151%9e, fe80::5efe:192.168.247.151%9f, fe80::5efe:192.168.247.151%a0, fe80::5efe:192.168.247.151%a1, fe80::5efe:192.168.247.151%a2, fe80::5efe:192.168.247.151%a3, fe80::5efe:192.168.247.151%a4, fe80::5efe:192.168.247.151%a5, fe80::5efe:192.168.247.151%a6, fe80::5efe:192.168.247.151%a7, fe80::5efe:192.168.247.151%a8, fe80::5efe:192.168.247.151%a9, fe80::5efe:192.168.247.151%aa, fe80::5efe:192.168.247.151%ab, fe80::5efe:192.168.247.151%ac, fe80::5efe:192.168.247.151%ad, fe80::5efe:192.168.247.151%ae, fe80::5efe:192.168.247.151%af, fe80::5efe:192.168.247.151%b0, fe80::5efe:192.168.247.151%b1, fe80::5efe:192.168.247.151%b2, fe80::5efe:192.168.247.151%b3, fe80::5efe:192.168.247.151%b4, fe80::5efe:192.168.247.151%b5, fe80::5efe:192.168.247.151%b6, fe80::5efe:192.168.247.151%b7, fe80::5efe:192.168.247.151%b8, fe80::5efe:192.168.247.151%b9, fe80::5efe:192.168.247.151%ba, fe80::5efe:192.168.247.151%bb, fe80::5efe:192.168.247.151%bc, fe80::5efe:192.168.247.151%bd, fe80::5efe:192.168.247.151%be, fe80::5efe:192.168.247.151%bf, fe80::5efe:192.168.247.151%c0, fe80::5efe:192.168.247.151%c1, fe80::5efe:192.168.247.151%c2, fe80::5efe:192.168.247.151%c3, fe80::5efe:192.168.247.151%c4, fe80::5efe:192.168.247.151%c5, fe80::5efe:192.168.247.151%c6, fe80::5efe:192.168.247.151%c7, fe80::5efe:192.168.247.151%c8, fe80::5efe:192.168.247.151%c9, fe80::5efe:192.168.247.151%ca, fe80::5efe:192.168.247.151%cb, fe80::5efe:192.168.247.151%cc, fe80::5efe:192.168.247.151%cd, fe80::5efe:192.168.247.151%ce, fe80::5efe:192.168.247.151%cf, fe80::5efe:192.168.247.151%d0, fe80::5efe:192.168.247.151%d1, fe80::5efe:192.168.247.151%d2, fe80::5efe:192.168.247.151%d3, fe80::5efe:192.168.247.151%d4, fe80::5efe:192.168.247.151%d5, fe80::5efe:192.168.247.151%d6, fe80::5efe:192.168.247.151%d7, fe80::5efe:192.168.247.151%d8, fe80::5efe:192.168.247.151%d9, fe80::5efe:192.168.247.151%da, fe80::5efe:192.168.247.151%db, fe80::5efe:192.168.247.151%dc, fe80::5efe:192.168.247.151%dd, fe80::5efe:192.168.247.151%de, fe80::5efe:192.168.247.151%df, fe80::5efe:192.168.247.151%e0, fe80::5efe:192.168.247.151%e1, fe80::5efe:192.168.247.151%e2, fe80::5efe:192.168.247.151%e3, fe80::5efe:192.168.247.151%e4, fe80::5efe:192.168.247.151%e5, fe80::5efe:192.168.247.151%e6, fe80::5efe:192.168.247.151%e7, fe80::5efe:192.168.247.151%e8, fe80::5efe:192.168.247.151%e9, fe80::5efe:192.168.247.151%ea, fe80::5efe:192.168.247.151%eb, fe80::5efe:192.168.247.151%ec, fe80::5efe:192.168.247.151%ed, fe80::5efe:192.168.247.151%ee, fe80::5efe:192.168.247.151%ef, fe80::5efe:192.168.247.151%f0, fe80::5efe:192.168.247.151%f1, fe80::5efe:192.168.247.151%f2, fe80::5efe:192.168.247.151%f3, fe80::5efe:192.168.247.151%f4, fe80::5efe:192.168.247.151%f5, fe80::5efe:192.168.247.151%f6, fe80::5efe:192.168.247.151%f7, fe80::5efe:192.168.247.151%f8, fe80::5efe:192.168.247.151%f9, fe80::5efe:192.168.247.151%fa, fe80::5efe:192.168.247.151%fb, fe80::5efe:192.168.247.151%fc, fe80::5efe:192.168.247.151%fd, fe80::5efe:192.168.247.151%fe, fe80::5efe:192.168.247.151%ff

PS C:\Users\Administrator> winrm quickconfig
已在此计算机上运行 WinRM 服务。
WinRM 没有设置成为了管理此计算机而允许对其进行远程访问。
必须进行以下更改:

配置 LocalAccountTokenFilterPolicy 以远程向本地用户授予管理权限。
执行这些更改吗[y/n]? y
WinRM 已经进行了更新, 以用于远程管理。

已配置 LocalAccountTokenFilterPolicy 以远程向本地用户授予管理权限。
```

配置winrm服务

winrm quickconfig

配置auth 为true(默认为false)

winrm set winrm/config/service/auth '@{Basic="true"}'

配置允许非加密方式

winrm set winrm/config/service '@{AllowUnencrypted="true"}'

```

PS C:\Users\Administrator> winrm set winrm/config/service/auth '@{Basic="true"}'
Auth
Basic = true
Kerberos = true
Negotiate = true
Certificate = false
CredSSP = false
CbthHardeningLevel = Relaxed

PS C:\Users\Administrator> winrm set winrm/config/service '@{AllowUnencrypted="true"}'
Service
RootsDDL = 0:NSG:BAD:P(A;;GA;;;BA)(A;;GR;;;IU)S:P(AU;FA;GA;;;WD)(AU;SA;GXGW;;;WD)
MaxConcurrentOperations = 4294967295
MaxConcurrentOperationsPerUser = 1500
EnumerationTimeoutms = 240000
MaxConnections = 300
MaxPacketRetrievalTimeSeconds = 120
AllowUnencrypted = true
Auth
Basic = true
Kerberos = true
Negotiate = true
Certificate = false
CredSSP = false
CbthHardeningLevel = Relaxed
DefaultPorts
HTTP = 5985
HTTPS = 5986
IPv4Filter = *
IPv6Filter = *
EnableCompatibilityHttpListener = false
EnableCompatibilityHttpsListener = false

```

激活 Windows  
转到“控制面板”中的“系统”以激活 Windows。

安装ansible依赖包pywinrm模块

`pip install pywinrm`

模块路径

```

[root@jenkins windows]# ls *.py
__init__.py          win_domain_membership.py  win_find.py             win_iis_website.py      win_power_plan.py      win_say.py             win_toast.py
win_acl_inheritance.py  win_domain.py            win_firewall.py        win_lineinfile.py      win_psexec.py          win_scheduled_task.py  win_unzip.py
win_acl.py            win_domain_user.py      win_firewall_rule.py  win_mapped_drive.py    win_psmodule.py        win_security_policy.py  win_updates.py
win_chocolatey.py     win_dotnetngen.py       win_get_url.py         win_msg.py              win_rabbitmq_plugin.py  win_service.py         win_uri.py
win_command.py        win_dsc.py               win_group_membership.py  win_msi.py              win_reboot.py          win_share.py           win_user.py
win_copy.py           win_environment.py      win_group.py           win_nssm.py             win_regedit.py         win_shell.py           win_user_right.py
win_defrag.py         win_eventlog_entry.py   win_hotfix.py          win_owner.py            win_region.py          win_shortcut.py        win_wait_for.py
win_disk_image.py     win_eventlog.py         win_iis_virtualdirectory.py  win_package.py         win_regmerge.py        win_stat.py           win_wakeonlan.py
win_dns_client.py     win_feature.py          win_iis_webapplication.py  win_pagefile.py        win_reg_stat.py        win_tempfile.py        win_webpicmd.py
win_domain_controller.py  win_file.py             win_iis_webapppool.py   win_path.py             win_reg.py              win_path.py            win_webcopy.py
win_domain_group.py   win_file_version.py     win_iis_webbinding.py   win_ping.py             win_route.py            win_timezone.py

```

常用模块

- win\_acl 设置文件/目录属主属组权限;
- win\_copy 拷贝文件到远程Windows主机;
- win\_file 创建, 删除文件或目录;
- win\_lineinfile 匹配替换文件内容;
- win\_package 安装/卸载本地或网络软件包;
- win\_ping Windows系统下的ping模块, 常用来测试主机是否存活;
- win\_service 管理Windows Services服务;
- win\_user 管理Windows本地用户。

使用方法可以直接阅读源码中的说明

`/usr/lib/python2.7/site-packages/ansible-2.4.1.0-py2.7.egg/ansible/modules/windows/`

ansible配置inventory

用户名密码使用windows普通用户账号即可, 端口使用之前查到的5985, 注意不是3389

```
[test-group]
test-01 ansible_host=IP ansible_ssh_port=5985 ansible_ssh_user=USER ansible_ssh_pass=PAS
WD ansible_connection=winrm ansible_winrm_server_cert_validation=ignore ansible_winrm_t
ansport=ssl
```

测试一下

```
ansible test-group -m win_ping
```

返回如下信息则成功

```
test-group | SUCCESS => {
  "changed": false,
  "failed": false,
  "ping": "pong"
}
```