

28.4. Kickstart Options

The following options can be placed in a kickstart file. If you prefer to use a graphical interface for creating your kickstart file, use the **Kickstart Configurator** application. Refer to [Chapter 29, Kickstart Configurator](#) for details.

Note

If the option is followed by an equals mark (=), a value must be specified after it. In the example commands, options in brackets ([]) are optional arguments for the command.

autopart (optional)

Automatically create partitions — 1 GB or more root (/) partition, a swap partition, and an appropriate boot partition for the architecture. One or more of the default partition sizes can be redefined with the **part** directive.

ignoredisk (optional)

Causes the installer to ignore the specified disks. This is useful if you use autopartition and want to be sure that some disks are ignored. For example, without **ignoredisk**, attempting to deploy on a SAN-cluster the kickstart would fail, as the installer detects passive paths to the SAN that return no partition table.

The **ignoredisk** option is also useful if you have multiple paths to your disks.

The syntax is:

```
ignoredisk --drives=drive1,drive2,...
```

where ***driveN*** is one of *sda, sdb,..., hda,...* etc.

autostep (optional)

Similar to **interactive** except it goes to the next screen for you. It is used mostly for debugging.

--autoscreenshot

Take a screenshot at every step during installation and copy the images over to **/root/anaconda-screenshots** after installation is complete. This is most useful for documentation.

auth or authconfig (required)

Sets up the authentication options for the system. It is similar to the **authconfig** command, which can be run after the install. By default, passwords are normally encrypted and are not shadowed.

--enablemd5

Use md5 encryption for user passwords.

--enablenis

Turns on NIS support. By default, **--enablenis** uses whatever domain it finds on the network. A domain should almost always be set by hand with the **--nisdomain=** option.

--nisdomain=

NIS domain name to use for NIS services.

--nissserver=

Server to use for NIS services (broadcasts by default).

--useshadow or --enablesshadow

Use shadow passwords.

--enableldap

Turns on LDAP support in `/etc/nsswitch.conf`, allowing your system to retrieve information about users (UIDs, home directories, shells, etc.) from an LDAP directory. To use this option, you must install the `nss_ldap` package. You must also specify a server and a base DN (distinguished name) with **--ldapserver=** and **--ldapbasedn=**.

--enableldapauth

Use LDAP as an authentication method. This enables the `pam_ldap` module for authentication and changing passwords, using an LDAP directory. To use this option, you must have the `nss_ldap` package installed. You must also specify a server and a base DN with **--ldapserver=** and **--ldapbasedn=**.

--ldapserver=

If you specified either **--enableldap** or **--enableldapauth**, use this option to specify the name of the LDAP server to use. This option is set in the `/etc/ldap.conf` file.

--ldapbasedn=

If you specified either **--enableldap** or **--enableldapauth**, use this option to specify the DN in your LDAP directory tree under which user information is stored. This option is set in the `/etc/ldap.conf` file.

--enableldaptls

Use TLS (Transport Layer Security) lookups. This option allows LDAP to send encrypted usernames and passwords to an LDAP server before authentication.

--enablekrb5

Use Kerberos 5 for authenticating users. Kerberos itself does not know about home directories, UIDs, or shells. If you enable Kerberos, you must make users' accounts known to this workstation by enabling LDAP, NIS, or Hesiod or by using the `/usr/sbin/useradd` command to make their accounts known to this workstation. If you use this option, you must have the `pam_krb5` package installed.

--krb5realm=

The Kerberos 5 realm to which your workstation belongs.

--krb5kdc=

The KDC (or KDCs) that serve requests for the realm. If you have multiple KDCs in your realm, separate their names with commas (,).

--krb5adminserver=

The KDC in your realm that is also running kadmind. This server handles password changing and other administrative requests. This server must be run on the master KDC if you have more than one KDC.

--enablehesiod

Enable Hesiod support for looking up user home directories, UIDs, and shells. More information on setting up and using Hesiod on your network is in `/usr/share/doc/glibc-2.x.x/README.hesiod`, which is included in the `glibc` package. Hesiod is an extension of DNS that uses DNS records to store information about users, groups, and various other items.

--hesiodlhs

The Hesiod LHS ("left-hand side") option, set in `/etc/hesiod.conf`. This option is used by the Hesiod library to determine the name to search DNS for when looking up information, similar to LDAP's use of a base DN.

--hesiodrhs

The Hesiod RHS ("right-hand side") option, set in `/etc/hesiod.conf`. This option is used by the Hesiod library to determine the name to search DNS for when looking up information, similar to LDAP's use of a base DN.

Tip

To look up user information for "jim", the Hesiod library looks up *jim.passwd<LHS><RHS>*, which should resolve to a TXT record that looks like what his passwd entry would look like (*jim:*:501:501:Jungle Jim:/home/jim:/bin/bash*). For groups, the situation is identical, except *jim.group<LHS><RHS>* would be used.

Looking up users and groups by number is handled by making "501.uid" a CNAME for "jim.passwd", and "501.gid" a CNAME for "jim.group". Note that the LHS and RHS do not have periods . put in front of them when the library determines the name for which to search, so the LHS and RHS usually begin with periods.

--enablesmbauth

Enables authentication of users against an SMB server (typically a Samba or Windows server). SMB authentication support does not know about home directories, UIDs, or shells. If you enable SMB, you must make users' accounts known to the workstation by enabling LDAP, NIS, or Hesiod or by using the `/usr/sbin/useradd` command to make their accounts known to the workstation. To use this option, you must have the `pam_smb` package installed.

--smbserver=

The name of the server(s) to use for SMB authentication. To specify more than one server, separate the names with commas (,).

--smbworkgroup=

The name of the workgroup for the SMB servers.

--enablecache

Enables the **nscd** service. The **nscd** service caches information about users, groups, and various other types of information. Caching is especially helpful if you choose to distribute information about users and groups over your network using NIS, LDAP, or hesiod.

bootloader (required)

Specifies how the boot loader should be installed. This option is required for both installations and upgrades.

--append=

Specifies kernel parameters. To specify multiple parameters, separate them with spaces. For example:

```
bootloader --location=mbr --append="hdd=ide-scsi ide=nodma"
```

--driveorder

Specify which drive is first in the BIOS boot order. For example:

```
bootloader --driveorder=sda,hda
```

--location=

Specifies where the boot record is written. Valid values are the following: **mbr** (the default), **partition** (installs the boot loader on the first sector of the partition containing the kernel), or **none** (do not install the boot loader).

--password=

If using GRUB, sets the GRUB boot loader password to the one specified with this option. This should be used to restrict access to the GRUB shell, where arbitrary kernel options can be passed.

--md5pass=

If using GRUB, similar to **--password=** except the password should already be encrypted.

--upgrade

Upgrade the existing boot loader configuration, preserving the old entries. This option is only available for upgrades.

clearpart (optional)

Removes partitions from the system, prior to creation of new partitions. By default, no partitions are removed.

Note

If the **clearpart** command is used, then the **--onpart** command cannot be used on a logical partition.

--all

Erases all partitions from the system.

--drives=

Specifies which drives to clear partitions from. For example, the following clears all the partitions on the first two drives on the primary IDE controller:

```
clearpart --drives=hda,hdb --all
```

--initlabel

Initializes the disk label to the default for your architecture (for example **msdos** for x86 and **gpt** for Itanium). It is useful so that the installation program does not ask if it should initialize the disk label if installing to a brand new hard drive.

--linux

Erases all Linux partitions.

--none (default)

Do not remove any partitions.

cmdline (optional)

Perform the installation in a completely non-interactive command line mode. Any prompts for interaction halts the install. This mode is useful on IBM System z systems with the x3270 console.

device (optional)

On most PCI systems, the installation program autoprobes for Ethernet and SCSI cards properly. On older systems and some PCI systems, however, kickstart needs a hint to find the proper devices. The **device** command, which tells the installation program to install extra modules, is in this format:

```
device <type><moduleName> --opts=<options>
```

<type>

Replace with either **scsi** or **eth**

<moduleName>

Replace with the name of the kernel module which should be installed.

--opts=

Options to pass to the kernel module. Note that multiple options may be passed if they are put in quotes. For example:

```
--opts="aic152x=0x340 io=11"
```

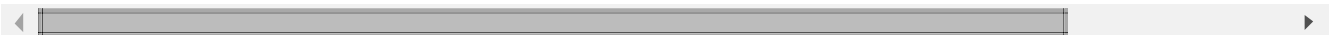
driverdisk (optional)

Driver diskettes can be used during kickstart installations. You must copy the driver diskettes's contents to the root directory of a partition on the system's hard drive. Then you must use the **driverdisk** command to tell the installation program where to look for the driver disk.

```
driverdisk <partition> [--type=<fstype>]
```

Alternatively, a network location can be specified for the driver diskette:

```
driverdisk --source=ftp://path/to/dd.img driverdisk --source=http://path/to/dd.img driverdisk --source=
```



<partition>

Partition containing the driver disk.

--type=

File system type (for example, vfat or ext2).

firewall (optional)

This option corresponds to the Firewall Configuration screen in the installation program:

```
firewall --enabled|--disabled [--trust=] <device> [--port=]
```

--enabled or --enable

Reject incoming connections that are not in response to outbound requests, such as DNS replies or DHCP requests. If access to services running on this machine is needed, you can choose to allow specific services through the firewall.

--disabled or --disable

Do not configure any iptables rules.

--trust=

Listing a device here, such as `eth0`, allows all traffic coming from that device to go through the firewall. To list more than one device, use `--trust eth0 --trust eth1`. Do NOT use a comma-separated format such as `--trust eth0, eth1`.

<incoming>

Replace with one or more of the following to allow the specified services through the firewall.

» **--ssh**

» **--telnet**

» **--smtp**

» **--http**

» **--ftp**

--port=

You can specify that ports be allowed through the firewall using the port:protocol format. For example, to allow IMAP access through your firewall, specify `imap:tcp`. Numeric ports can also be specified explicitly; for example, to allow UDP packets on port 1234 through, specify `1234:udp`. To specify multiple ports, separate them by commas.

firstboot (optional)

Determine whether the **Setup Agent** starts the first time the system is booted. If enabled, the **firstboot** package must be installed. If not specified, this option is disabled by default.

--enable or --enabled

The **Setup Agent** is started the first time the system boots.

--disable or --disabled

The **Setup Agent** is not started the first time the system boots.

--reconfig

Enable the **Setup Agent** to start at boot time in reconfiguration mode. This mode enables the language, mouse, keyboard, root password, security level, time zone, and networking configuration options in addition to the default ones.

halt (optional)

Halt the system after the installation has successfully completed. This is similar to a manual installation, where anaconda displays a message and waits for the user to press a key before rebooting. During a kickstart installation, if no completion method is specified, the **reboot** option is used as default.

The **halt** option is roughly equivalent to the **shutdown -h** command.

For other completion methods, refer to the **poweroff**, **reboot**, and **shutdown** kickstart options.

graphical (optional)

Perform the kickstart installation in graphical mode. This is the default.

The **halt** option is roughly equivalent to the **shutdown -h** command.

For other completion methods, refer to the **poweroff**, **reboot**, and **shutdown** kickstart options.

install (optional)

Tells the system to install a fresh system rather than upgrade an existing system. This is the default mode. For installation, you must specify the type of installation from **cdrom**, **harddrive**, **nfs**, or **url** (for FTP or HTTP installations). The **install** command and the installation method command must be on separate lines.

cdrom

Install from the first CD-ROM drive on the system.

harddrive

Install from a Red Hat installation tree on a local drive, which must be either vfat or ext2.

» **--biospart=**

BIOS partition to install from (such as 82).

» **--partition=**

Partition to install from (such as sdb2).

» **--dir=**

Directory containing the *variant* directory of the installation tree.

For example:

```
harddrive --partition=hdb2 --dir=/tmp/install-tree
```

nfs

Install from the NFS server specified.

» **--server=**

Server from which to install (hostname or IP).

» **--dir=**

Directory containing the *variant* directory of the installation tree.

» **--opts=**

Mount options to use for mounting the NFS export. (optional)

For example:

```
nfs --server=nfsserver.example.com --dir=/tmp/install-tree
```

url

Install from an installation tree on a remote server via FTP or HTTP.

For example:

```
url --url http://<server>/<dir>
```

or:

```
url --url ftp://<username>:<password>@<server>/<dir>
```

ignore disk (optional)

Used to specify disks that anaconda should not touch when partitioning, formatting, and clearing. This command has a single required argument, which takes a comma-separated list of drive names to ignore.

```
ignoredisk --drives=[disk1,disk2,...]
```

interactive (optional)

Uses the information provided in the kickstart file during the installation, but allow for inspection and modification of the values given. You are presented with each screen of the installation program with the values from the kickstart file. Either accept the values by clicking **Next** or change the values and click **Next** to continue. Refer to the **autostep** command.

iscsi (optional)

iscsi --ipaddr= [options].

--target

--port=

--user=

--password=

iscsiname (optional)

key (optional)

Specify an installation key, which is needed to aid in package selection and identify your system for support purposes. This command is Red Hat Enterprise Linux-specific; it has no meaning for Fedora and will be ignored.

--skip

Skip entering a key. Usually if the key command is not given, anaconda will pause at this step to prompt for a key. This option allows automated installation to continue if you do not have a key or do not want to provide one.

keyboard (required)

Sets system keyboard type. Here is the list of available keyboards on i386, Itanium, and Alpha machines:

```
be-latin1, bg, br-abnt2, cf, cz-lat2, cz-us-qwertz, de, de-latin1,
de-latin1-nodeadkeys, dk, dk-latin1, dvorak, es, et, fi, fi-latin1,
fr, fr-latin0, fr-latin1, fr-pc, fr_CH, fr_CH-latin1, gr, hu, hu101,
is-latin1, it, it-ibm, it2, jp106, la-latin1, mk-utf, no, no-latin1,
pl, pt-latin1, ro_win, ru, ru-cp1251, ru-ms, ru1, ru2, ru_win,
se-latin1, sg, sg-latin1, sk-qwerty, slovene, speakup, speakup-lt,
sv-latin1, sg, sg-latin1, sk-qwerty, slovene, trq, ua, uk, us, us-acentos
```

The file `/usr/lib/python2.2/site-packages/rhpl/keyboard_models.py` also contains this list and is part of the `rhpl` package.

lang (required)

Sets the language to use during installation and the default language to use on the installed system. For example, to set the language to English, the kickstart file should contain the following line:

```
lang en_US
```

The file `/usr/share/system-config-language/locale-list` provides a list of the valid language codes in the first column of each line and is part of the `system-config-language` package.

Certain languages (mainly Chinese, Japanese, Korean, and Indic languages) are not supported during text mode installation. If one of these languages is specified using the `lang` command, installation will continue in English though the running system will have the specified language by default.

langsupport (required)

The `langsupport` keyword is deprecated and its use will cause an error message to be printed to the screen and installation to halt. Instead of using the `langsupport` keyword, you should now list the support package groups for all languages you want supported in the `%packages` section of your kickstart file. For instance, adding support for French means you should add the following to `%packages`:

```
@french-support
```

logvol (optional)

Create a logical volume for Logical Volume Management (LVM) with the syntax:

```
logvol <mntpoint> --vgname=<name> --size=<size> --name=<name><options>
```

The options are as follows:

--noformat

Use an existing logical volume and do not format it.

--useexisting

Use an existing logical volume and reformat it.

--fstype=

Sets the file system type for the logical volume. Valid values are ext2, ext3, swap, and vfat.

--fsoptions=

Sets the file system type for the logical volume. Valid values are ext2, ext3, swap, and vfat.

--bytes-per-inode=

Specifies the size of inodes on the filesystem to be made on the logical volume. Not all filesystems support this option, so it is silently ignored for those cases.

--grow=

Tells the logical volume to grow to fill available space (if any), or up to the maximum size setting.

--maxsize=

The maximum size in megabytes when the logical volume is set to grow. Specify an integer value here, and do not append the number with MB.

--recommended=

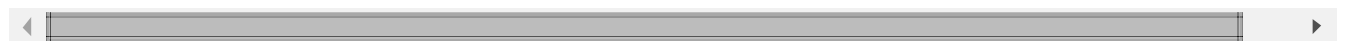
Determine the size of the logical volume automatically.

--percent=

Specify the size of the logical volume as a percentage of available space in the volume group.

Create the partition first, create the logical volume group, and then create the logical volume. For example:

```
part pv.01 --size 3000 volgroup myvg pv.01 logvol / --vgname=myvg --size=2000 --name=root
```



logging (optional)

This command controls the error logging of anaconda during installation. It has no effect on the installed system.

--host=

Send logging information to the given remote host, which must be running a syslogd process configured to accept remote logging.

--port=

If the remote syslogd process uses a port other than the default, it may be specified with this option.

--level=

One of debug, info, warning, error, or critical.

Specify the minimum level of messages that appear on tty3. All messages will still be sent to the log file regardless of this level, however.

mediacheck (optional)

If given, this will force anaconda to run mediacheck on the installation media. This command requires that installs be attended, so it is disabled by default.

monitor (optional)

If the monitor command is not given, anaconda will use X to automatically detect your monitor settings. Please try this before manually configuring your monitor.

--hsync=

Specifies the horizontal sync frequency of the monitor.

--monitor=

Use specified monitor; monitor name should be from the list of monitors in /usr/share/hwdata/MonitorsDB from the hwdata package. The list of monitors can also be found on the X Configuration screen of the Kickstart Configurator. This is ignored if --hsync or --vsync is provided. If no monitor information is provided, the installation program tries to probe for it automatically.

--noprobe=

Do not try to probe the monitor.

--vsync=

Specifies the vertical sync frequency of the monitor.

mouse (required)

The mouse keyword is deprecated and its use will now cause an error message to be printed to the screen and installation to halt.

network (optional)

Configures network information for the system. If the kickstart installation does not require networking (in other words, it is not installed over NFS, HTTP, or FTP), networking is not configured for the system. If the installation does require networking and network information is not provided in the kickstart file, the installation program assumes that the installation should be done over eth0 via a dynamic IP address (BOOTP/DHCP), and configures the final, installed system to determine its IP address dynamically. The **network** option configures networking information for kickstart installations via a network as well as for the installed system.

--bootproto=

One of **dhcp**, **bootp**, or **static**.

It defaults to **dhcp**. **bootp** and **dhcp** are treated the same.

The DHCP method uses a DHCP server system to obtain its networking configuration. As you might guess, the BOOTP method is similar, requiring a BOOTP server to supply the networking configuration. To direct a system to use DHCP:

```
network --bootproto=dhcp
```

To direct a machine to use BOOTP to obtain its networking configuration, use the following line in the kickstart file:

```
network --bootproto=bootp
```

The static method requires that you enter all the required networking information in the kickstart file. As the name implies, this information is static and are used during and after the installation. The line for static networking is more complex, as you must include all network configuration information on one line. You must specify the IP address, netmask, gateway, and nameserver. For example: (the "\" indicates that this should be read as one continuous line):

```
network --bootproto=static --ip=10.0.2.15 --netmask=255.255.255.0 \  
--gateway=10.0.2.254 --nameserver=10.0.2.1
```

If you use the static method, be aware of the following two restrictions:

- » All static networking configuration information must be specified on *one* line; you cannot wrap lines using a backslash, for example.
- » You can only specify one nameserver here. However, you can use the kickstart file's **%post** section (described in [Section 28.7, "Post-installation Script"](#)) to add more name servers, if needed.

--device=

Used to select a specific Ethernet device for installation. Note that using **--device=** is not effective unless the kickstart file is a local file (such as **ks=floppy**), since the installation program configures the network to find the kickstart file. For example:

```
network --bootproto=dhcp --device=eth0
```

--ip=

IP address for the machine to be installed.

--gateway=

Default gateway as an IP address.

--nameserver=

Primary nameserver, as an IP address.

--nodns

Do not configure any DNS server.

--netmask=

Netmask for the installed system.

--hostname=

Hostname for the installed system.

--ethtool=

Specifies additional low-level settings for the network device which will be passed to the ethtool program.

--essid=

The network ID for wireless networks.

--wepkey=

The encryption key for wireless networks.

--onboot=

Whether or not to enable the device at boot time.

--class=

The DHCP class.

--mtu=

The MTU of the device.

--noipv4=

Disable IPv4 on this device.

--noipv6=

Disable IPv6 on this device.

multipath (optional)

`multipath --name= --device= --rule=`

part or partition (required for installs, ignored for upgrades)

Creates a partition on the system.

If more than one Red Hat Enterprise Linux installation exists on the system on different partitions, the installation program prompts the user and asks which installation to upgrade.

Warning

All partitions created are formatted as part of the installation process unless **--noformat** and **--onpart** are used.

For a detailed example of **part** in action, refer to [Section 28.4.1, "Advanced Partitioning Example"](#).

<mntpoint>

The **<mntpoint>** is where the partition is mounted and must be of one of the following forms:

» **/<path>**

For example, **/**, **/usr**, **/home**

» **swap**

The partition is used as swap space.

To determine the size of the swap partition automatically, use the **--recommended** option:

```
swap --recommended
```

The minimum size of the automatically-generated swap partition is no smaller than the amount of RAM in the system and no larger than twice the amount of RAM in the system.

» **raid.<id>**

The partition is used for software RAID (refer to **raid**).

» **pv.<id>**

The partition is used for LVM (refer to **logvol**).

--size=

The minimum partition size in megabytes. Specify an integer value here such as 500. Do not append the number with MB.

--grow

Tells the partition to grow to fill available space (if any), or up to the maximum size setting.

--maxsize=

The maximum partition size in megabytes when the partition is set to grow. Specify an integer value here, and do not append the number with MB.

--noformat

Tells the installation program not to format the partition, for use with the **--onpart** command.

--onpart= or --usepart=

Put the partition on the *already existing* device. For example:

```
partition /home --onpart=hda1
```

puts **/home** on **/dev/hda1**, which must already exist.

--ondisk= or --ondrive=

Forces the partition to be created on a particular disk. For example, **--ondisk=sdb** puts the partition on the second SCSI disk on the system.

--asprimary

Forces automatic allocation of the partition as a primary partition, or the partitioning fails.

--type= (replaced by fstype)

This option is no longer available. Use **fstype**.

--fstype=

Sets the file system type for the partition. Valid values are **ext2**, **ext3**, **swap**, and **vfat**.

--start=

Specifies the starting cylinder for the partition. It requires that a drive be specified with **--ondisk=** or **ondrive=**. It also requires that the ending cylinder be specified with **--end=** or the partition size be specified with **--size=**.

--end=

Specifies the ending cylinder for the partition. It requires that the starting cylinder be specified with **--start=**.

--bytes-per-inode=

Specifies the size of inodes on the filesystem to be made on the partition. Not all filesystems support this option, so it is silently ignored for those cases.

--recommended

Determine the size of the partition automatically.

--onbiosdisk

Forces the partition to be created on a particular disk as discovered by the BIOS.

Note

If partitioning fails for any reason, diagnostic messages appear on virtual console 3.

poweroff (optional)

Shut down and power off the system after the installation has successfully completed. Normally during a manual installation, anaconda displays a message and waits for the user to press a key before rebooting. During a kickstart installation, if no completion method is specified, the **reboot** option is used as default.

The **poweroff** option is roughly equivalent to the **shutdown -p** command.

Note

The **poweroff** option is highly dependent on the system hardware in use. Specifically, certain hardware components such as the BIOS, APM (advanced power management), and ACPI (advanced configuration and power interface) must be able to interact with the system kernel. Contact your manufacturer for more information on you system's APM/ACPI abilities.

For other completion methods, refer to the **halt**, **reboot**, and **shutdown** kickstart options.

raid (optional)

Assembles a software RAID device. This command is of the form:

```
raid <mntpoint> --level=<level> --device=<mddevice><partitions*>
```

<mntpoint>

Location where the RAID file system is mounted. If it is **/**, the RAID level must be 1 unless a boot partition (**/boot**) is present. If a boot partition is present, the **/boot** partition must be level 1 and the root (**/**) partition can be any of the available types. The **<partitions*>** (which denotes that multiple partitions can be listed) lists the RAID identifiers to add to the RAID array.

--level=

RAID level to use (0, 1, or 5).

--device=

Name of the RAID device to use (such as md0 or md1). RAID devices range from md0 to md7, and

each may only be used once.

--bytes-per-inode=

Specifies the size of inodes on the filesystem to be made on the RAID device. Not all filesystems support this option, so it is silently ignored for those cases.

--spares=

Specifies the number of spare drives allocated for the RAID array. Spare drives are used to rebuild the array in case of drive failure.

--fstype=

Sets the file system type for the RAID array. Valid values are ext2, ext3, swap, and vfat.

--fsoptions=

Specifies a free form string of options to be used when mounting the filesystem. This string will be copied into the /etc/fstab file of the installed system and should be enclosed in quotes.

--noformat

Use an existing RAID device and do not format the RAID array.

--useexisting

Use an existing RAID device and reformat it.

The following example shows how to create a RAID level 1 partition for `/`, and a RAID level 5 for `/usr`, assuming there are three SCSI disks on the system. It also creates three swap partitions, one on each drive.

```
part raid.01 --size=60 --ondisk=sda
part raid.02 --size=60 --ondisk=sdb
part raid.03 --size=60 --ondisk=sdc

part swap --size=128 --ondisk=sda
part swap --size=128 --ondisk=sdb
part swap --size=128 --ondisk=sdc

part raid.11 --size=1 --grow --ondisk=sda
part raid.12 --size=1 --grow --ondisk=sdb
part raid.13 --size=1 --grow --ondisk=sdc

raid / --level=1 --device=md0 raid.01 raid.02 raid.03
raid /usr --level=5 --device=md1 raid.11 raid.12 raid.13
```

For a detailed example of **raid** in action, refer to [Section 28.4.1, "Advanced Partitioning Example"](#).

reboot (optional)

Reboot after the installation is successfully completed (no arguments). Normally, kickstart displays a message and waits for the user to press a key before rebooting.

The **reboot** option is roughly equivalent to the **shutdown -r** command.

Note

Use of the **reboot** option *may* result in an endless installation loop, depending on the installation media and method.

The **reboot** option is the default completion method if no other methods are explicitly specified in the kickstart file.

For other completion methods, refer to the **halt**, **poweroff**, and **shutdown** kickstart options.

repo (optional)

Configures additional yum repositories that may be used as sources for package installation. Multiple repo lines may be specified.

```
repo --name=<repoId> [--baseline=<url>| --mirrorlist=<url>]
```

--name=

The repo id. This options is required.

--baseurl=

The URL for the repository. The variables that may be used in yum repo config files are not supported here. You may use one of either this option or --mirrorlist, not both.

--mirrorlist=

The URL pointing at a list of mirrors for the repository. The variables that may be used in yum repo config files are not supported here. You may use one of either this option or --baseurl, not both.

rootpw (required)

Sets the system's root password to the *<password>* argument.

```
rootpw [--iscrypted] <password>
```

--iscrypted

If this is present, the password argument is assumed to already be encrypted.

selinux (optional)

Sets the state of SELinux on the installed system. SELinux defaults to enforcing in anaconda.

```
selinux [--disabled|--enforcing|--permissive]
```

--enforcing

Enables SELinux with the default targeted policy being enforced.

Note

If the **selinux** option is not present in the kickstart file, SELinux is enabled and set to **--enforcing** by default.

--permissive

Outputs warnings based on the SELinux policy, but does not actually enforce the policy.

--disabled

Disables SELinux completely on the system.

For complete information regarding SELinux for Red Hat Enterprise Linux, refer to the **Red Hat Enterprise Linux Deployment Guide**.

services (optional)

Modifies the default set of services that will run under the default runlevel. The services listed in the disabled list will be disabled before the services listed in the enabled list are enabled.

--disabled

Disable the services given in the comma separated list.

--enabled

Enable the services given in the comma separated list.

shutdown (optional)

Shut down the system after the installation has successfully completed. During a kickstart installation, if no completion method is specified, the **reboot** option is used as default.

The **shutdown** option is roughly equivalent to the **shutdown** command.

For other completion methods, refer to the **halt**, **poweroff**, and **reboot** kickstart options.

skipx (optional)

If present, X is not configured on the installed system.

text (optional)

Perform the kickstart installation in text mode. Kickstart installations are performed in graphical mode by default.

timezone (required)

Sets the system time zone to **<timezone>** which may be any of the time zones listed by **timeconfig**.

```
timezone [--utc] <timezone>
```

--utc

If present, the system assumes the hardware clock is set to UTC (Greenwich Mean) time.

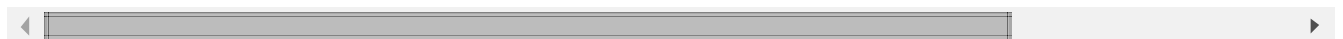
upgrade (optional)

Tells the system to upgrade an existing system rather than install a fresh system. You must specify one of **cdrom**, **harddrive**, **nfs**, or **url** (for FTP and HTTP) as the location of the installation tree. Refer to **install** for details.

user (optional)

Creates a new user on the system.

```
user --name=<username> [--groups=<list>] [--homedir=<homedir>] [--password=<password>] [--iscrypted] [-
```



--name=

Provides the name of the user. This option is required.

--groups=

In addition to the default group, a comma separated list of group names the user should belong to.

--homedir=

The home directory for the user. If not provided, this defaults to /home/<username>.

--password=

The new user's password. If not provided, the account will be locked by default.

--iscrypted=

Is the password provided by --password already encrypted or not?

--shell=

The user's login shell. If not provided, this defaults to the system default.

--uid=

The user's UID. If not provided, this defaults to the next available non-system UID.

vnc (optional)

Allows the graphical installation to be viewed remotely via VNC. This method is usually preferred over text mode, as there are some size and language limitations in text installs. With no options, this command will start a VNC server on the machine with no password and will print out the command that needs to be run to connect a remote machine.

```
vnc [--host=<hostname>] [--port=<port>] [--password=<password>]
```

--host=

Instead of starting a VNC server on the install machine, connect to the VNC viewer process listening on the given hostname.

--port=

Provide a port that the remote VNC viewer process is listening on. If not provided, anaconda will use the VNC default.

--password=

Set a password which must be provided to connect to the VNC session. This is optional, but recommended.

volgroup (optional)

Use to create a Logical Volume Management (LVM) group with the syntax:

```
volgroup <name><partition><options>
```

The options are as follows:

--noformat

Use an existing volume group and do not format it.

--useexisting

Use an existing volume group and reformat it.

--pesize=

Set the size of the physical extents.

Create the partition first, create the logical volume group, and then create the logical volume. For example:

```
part pv.01 --size 3000 volgroup myvg pv.01 logvol / --vgname=myvg --size=2000 --name=root
```



For a detailed example of **volgroup** in action, refer to [Section 28.4.1, “Advanced Partitioning Example”](#).

xconfig (optional)

Configures the X Window System. If this option is not given, the user must configure X manually during the installation, if X was installed; this option should not be used if X is not installed on the final system.

--driver

Specify the X driver to use for the video hardware.

--videoram=

Specifies the amount of video RAM the video card has.

--defaultdesktop=

Specify either GNOME or KDE to set the default desktop (assumes that GNOME Desktop Environment and/or KDE Desktop Environment has been installed through **%packages**).

--startxonboot

Use a graphical login on the installed system.

--resolution=

Specify the default resolution for the X Window System on the installed system. Valid values are 640x480, 800x600, 1024x768, 1152x864, 1280x1024, 1400x1050, 1600x1200. Be sure to specify a resolution that is compatible with the video card and monitor.

--depth=

Specify the default color depth for the X Window System on the installed system. Valid values are 8, 16, 24, and 32. Be sure to specify a color depth that is compatible with the video card and monitor.

zerombr (optional)

If **zerombr** is specified, and **yes** is its sole argument, any invalid partition tables found on disks are initialized. This destroys all of the contents of disks with invalid partition tables. This command should be in the following format:

```
zerombr yes
```

No other format is effective.

zfcg (optional)

```
zfcplun=<fcplun>] [--scsiid=<scsiid>] [--scsilun=<scsilun>] [--wwpn=<wwpn>]
```

%include

Use the `%include /path/to/file` command to include the contents of another file in the kickstart file as though the contents were at the location of the `%include` command in the kickstart file.

28.4.1. Advanced Partitioning Example

The following is a single, integrated example showing the `clearpart`, `raid`, `part`, `volgroup`, and `logvol` kickstart options in action:

```
clearpart --drives=hda,hdc --initlabel
# Raid 1 IDE config
part raid.11    --size 1000    --asprimary    --ondrive=hda
part raid.12    --size 1000    --asprimary    --ondrive=hda
part raid.13    --size 2000    --asprimary    --ondrive=hda
part raid.14    --size 8000                    --ondrive=hda
part raid.15    --size 1 --grow                --ondrive=hda
part raid.21    --size 1000    --asprimary    --ondrive=hdc
part raid.22    --size 1000    --asprimary    --ondrive=hdc
part raid.23    --size 2000    --asprimary    --ondrive=hdc
part raid.24    --size 8000                    --ondrive=hdc
part raid.25    --size 1 --grow                --ondrive=hdc

# You can add --spares=x
raid /          --fstype ext3 --device md0 --level=RAID1 raid.11 raid.21
raid /safe      --fstype ext3 --device md1 --level=RAID1 raid.12 raid.22
raid swap       --fstype swap --device md2 --level=RAID1 raid.13 raid.23
raid /usr       --fstype ext3 --device md3 --level=RAID1 raid.14 raid.24
raid pv.01      --fstype ext3 --device md4 --level=RAID1 raid.15 raid.25

# LVM configuration so that we can resize /var and /usr/local later
volgroup sysvg pv.01
logvol /var      --vgname=sysvg --size=8000    --name=var
logvol /var/freespace --vgname=sysvg --size=8000    --name=freespacetouse
logvol /usr/local --vgname=sysvg --size=1 --grow --name=usrlocal
```

This advanced example implements LVM over RAID, as well as the ability to resize various directories for future growth.

[Prev](#)

[Up](#)

[Home](#)

[Next](#)

[28.3. Creating the Kickstart File](#)

[28.5. Package Selection](#)

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