

# ctys-distribute(1)

local and remote installation, bulk-distribution

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## Contents

<b>1</b>	<b>NAME</b>	<b>2</b>
<b>2</b>	<b>SYNTAX</b>	<b>2</b>
<b>3</b>	<b>DESCRIPTION</b>	<b>2</b>
<b>4</b>	<b>OPTIONS</b>	<b>3</b>
<b>5</b>	<b>ARGUMENTS</b>	<b>5</b>
<b>6</b>	<b>EXIT-VALUES</b>	<b>5</b>
<b>7</b>	<b>SEE ALSO</b>	<b>6</b>
<b>8</b>	<b>AUTHOR</b>	<b>6</b>
<b>9</b>	<b>COPYRIGHT</b>	<b>6</b>

## 1 NAME

**ctys-distribute** - local and remote installation, bulk-distribution

## 2 SYNTAX

```
[-d <debug-options>]
[-D (0|1)]
[-F (1|2|3|force|forceclean|forceall)]
[-h]
[-H <help-options>]
[-l <remote login>]
[-L <remote-login>]
[-M <access-mask>]
[-P (
    UserHomeCopy
    |UserHomeLinkonly
    |SharedAnyDirectory,<subopts>
    |SharedAnyLinkonly,<subopts>
    |AnyDirectory,<subopts>
)]
[-R <remote-host>]
[-V]
[-X]
<list-of-target-accounts>
```

## 3 DESCRIPTION

**ctys-distribute** is the main interface for local installation and remote distribution. The installation of a single target and an arbitrary list of targets for automated bulk installations is provided.

Various distribution and installation methods for distribution packages and installation types could be applied, these are for the current version:

### File based installation

File based installation uses an existing installation or any copy of the directory tree and either copies it and/or sets appropriate symbolic links for execution.

In case of remote installation the current version uses excessive local-remote-interaction by **ssh/scp** based commands, thus for practical reasons requires automated remote login procedures. These could be for example either based on Kerberos or SSH-Keys.

The following keys are required to be written literally when applied.

### UserHomeCopy

installs for the current local or remote user a user-local copy into it's HOME directory with the standard ctys-directory structure.

**UserHomeLinkonly**

installs for the current local or remote user a partial user-local copy, where the specific configuration files are copied, whereas the executables and documentation is set as symbolic links only.

**SharedAnyDirectory**

variant installs a local copy for share usaged, thus sets up a common installation within any directory, but should be in accordance to common standards of the actual UNIX variant.

**AnyDirectory**

variant installs a local copy only for shared usage.

**Package based installation**

Package based installation is foreseen by means of the standard mechanisms. "ctys-distribute" could be used as a installer for the following install applications:

**rpm-CentOS**

The distributions **rpm-CentOS**, **rpm-Fedora**, and **rpm-OpenSUSE** are supported by the provided rpms. In the "install section" ctys-distribute can be applied as:

```
INSTBASE=${RPM_BUILD_ROOT}/usr/share
INSTTARGET=${INSTBASE}/${RPM_PACKAGE_NAME}-${RPM_PACKAGE_VERSION}

${PWD}/bin/ctys-distribute.sh -F 1 -P AnyDirectory,${INSTTARGET} localhost
```

This installs the complete package without configuration of user accounts.

The user accounts have to be configured by calling:

```
/usr/share/bin/ctys-distribute.sh -F 1 -P UserHomeLinkonly localhost
```

**ATTENTION:**

When a previous installation is present the configuration directories should be updated too due to the circumstance, that these also contain some dynamic evaluation code. But these probably may contain some custom patches, thus the '-F 1' option preserves the configuration directory '\$HOME/.ctys'. For forced update these may either be removed manually, or by usage of '-F 2' option.

**deb-debian**

ffs.

**pkg-OpenBSD**

ffs.

**pkg-Solaris**

ffs.

The utility scp of the OpenSSH package is used for any transfer, thus remote SSH access is required.

The call evaluates its own actual physical file location by recursive dereferencing symbolic links and uses the actual containing distribution for further steps. Thus if a specific distribution outside the search path is to be installed, the call path has to be provided explicitly: <path-to-installbase>/bin/ctys-distribute

## 4 OPTIONS

**-d <debug-args>**

Refer to "ctys" generic options for additional information.

**-D <args>**

This option controls whether documentation is installed or not. For low-bandwidth the documentation could be suppressed.

**0** No documents

**1** With documents

**2** Only documents

**-F <args>**

Bypassed to ctys-install1.sh

**-h**

Print help, refer to "-H" for additional information.

**-H <help-option>**

The extended help option is based on system interfaces for display of manpages, PDF and HTML documents. This comprises the man pages and installed manuals.

For additional help refer to the documents or type **ctys -H help**.

**-l <remote login>**

The remote USER to be used as a EMail style prefix for all given remote hostnames within the <list-of-target-accounts>. This option is supported with hostname-only targets, it cannot be intermixed with EMail style <USER>@<HOST> targets.

**-L <remote login>**

The remote user for the inherent beamer function to place the execution immediately on an arbitrary execution relay. The semantics is somewhat different from the ordinary remote operations, which is application specific, whereas this 'beam-up' is a generic pre-execution forwarding.

**-M <access-mask>**

Access mask for post-chmod, where the value is literally passed to:

"chmod -R <access-mask> <base-lib-dir>"

The user-local file access permissions remain unmodified.

**-P <pkg-type>**

This option supports the selection of prepared installation packages, which are automated by preconfigured parameters or to be finished by interactive dialogue from the command line interface.

The packages are prepared during build operations within the local "packages" directory for the current version.

For system directory appropriate access permissions are required.

- **UserHomeCopy:**

Creates a copy in \$HOME/lib and sets links to \$HOME/bin.

- **UserHomeLinkonly:**

Creates sets links to \$HOME/bin from execution directory.

- **SharedAnyDirectory**, <install-directory>[, <link-directory>]:

The links will be set within the standard directory conventions.

- <install-directory>: Directory for installation of non-user specific files.
- <link-directory>: The links to be set, default is "\$HOME/bin".

- **SharedAnyLinkonly**, <reference-directory>, <link-directory>:

Any directory could be linked, this could be used e.g. for providing symbolic links within standard search PATH.

- <reference-directory>: Directory for targets of symbolic links to non-user specific files.
- <link-directory>: The links to be set.

- **AnyDirectory**, *<install-directory>*:

Copies only without setup of configuration. Foreseen for build process only.

- *<install-directory>*: Directory for installation of non-user specific files.

**-R <remote-host>**

The remote host for the inherent beamer function to place the execution immediately on an arbitrary execution relay.

**-V**

Version.

**-X**

Terse output format, effects "-V" when set left-of.

.

## 5 ARGUMENTS

The target accounts appropriate for the ssh/scp-call, where the install process should be executed.

The provided formats are a list of EMail style hostnames or pure hostnames. EMail style hostnames are not supported in conjunction with the "-l" option.

For any hostname without a user-prefix either the current USER or the user from the "-l" option is prepended.

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## 6 EXIT-VALUES

**0: OK:** Result is valid.

**1: NOK:** Erroneous parameters.

**2: NOK:** Missing an environment element like files or databases.

## 7 SEE ALSO

**ctys use-cases** ffs.

**ctys plugins**

**PMs** *ctys-PM(7)*

**VMs** *ctys-KVM(7)*, *ctys-QEMU(7)*, *ctys-VMV(7)*, *ctys-XEN(7)*, *ctys-VBOX(7)*

**HOSTS** *ctys-CLI(7)*, *ctys-PM(7)*, *ctys-VNC(7)*, *ctys-X11(7)*

**ctys executables** *ctys-genmconf(1)*, *ctys-install(1)*, *ctys-plugins(1)*, *ctys-vhost(1)*

**system executables** ffs.

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