

ctys-X11(1)

September 29, 2020

Contents

1 NAME	2
2 SYNTAX	2
3 DESCRIPTION	2
4 OPTIONS	2
5 SEE ALSO	5
6 AUTHOR	5
7 COPYRIGHT	5

1 NAME

ctys-X11 - X11 Interface

2 SYNTAX

```
ctys -t X11 -a action[=<suboptions>] ...
ctys -T X11 -a action[=<suboptions>] ...
ctys -T ALL -a action[=<suboptions>] ...
```

3 DESCRIPTION

The X11-plugin starts a remote shell within a terminal emulation by default. Alternatively any X11 command with an arbitrary shell could be executed. When executing a command, the functionality is almost equivalent to the CLI plugin. The primary application of X11 is to utilize the default behaviour of starting an Xsession within it's own terminal emulation on the desktop. Therefore the pre-configured choices are: XTERM, GTERM, and EMACS, which is started in "shell-mode".

The X11 plugin opens an X terminal window with an interactive bash. Various consoles could be used, which are actually X-terminals such as Xterm ore gnome-terminal.

Due to the different usage of hyphens for the variuos graphical user interfaces the suboptions 'SH' and 'DH' - 'single hyphen' and 'double hyphen' - were introduced. The "SH" suboption is here mandatory for the usage of Xterm, because the Xterm emulation requires a single-hyphen for it's options, default is "DH".

The default behaviour concerning the terminal emulation is to scan for a gnome-terminal first and prefer it if found, else an xterm emulation will be started by default.

It should be mentioned and explained here that there are two quite similar suboptions, which on the first view seems to be redundant, which is actually not the case. The main **difference between** the **CMD** and **SHELL** suboptions is the behaviour. Whereas the SHELL just overlays the standard shell within a Session - here within a defined CONSOLE, the CMD suboption executes a command from within the executed shell - either the standard shell, or a pre-set custom shell.

Additional information containing use-cases with application examples is available from **ctys-uc-X11**.

4 OPTIONS

-a action[=<suboptions>]

CANCEL

Not applicable.

CREATE

```

CREATE=<machine-address> [,]
[
  (CONSOLE: XTERM|GTERM|EMACS|EMACSA)
  |
  (CMD:<cmd>)
] [,]
[(CALLOPTS|C):<callopts>] [,]
[CD:<working-directory>] [,]
[(XOPTS|X):<xopts>] [,]
[(SHELL|S):<shell>] [,]
[(STUBMODE|STUB) [:on]] [,]
[(DH|SH)] [,]
[(TITLEKEY:<key-name-label>|NOTITLE)]

```

<machine-address>

The LABEL suboption is here the only supported and mandatory part.

<callopts>

Refer to common options parts description.

CD:<working-directory>

Change current working directory for the started command. This provides for example the pre-configuration of specific work-sets, where each terminal could be opened for a specific directory.

CMD:<cmd>

Refer to common options parts description. The CMD could be provided alternatively to a fixed CONSOLE.

CONSOLE:(XTERM|GTERM|EMACS|EMACSA)

A fixed type of a CONSOLE, following types are supported.

CONSOLE:GTERM Starts the "gnome-terminal".

CONSOLE:XTERM Starts the Xterm.

CONSOLE:EMACS Starts an emacs and opens a "shell" buffer.

CONSOLE:EMACSA Starts an emacs and opens an "ansi-term" buffer.

(DH|SH)

Sets a double-hyphen or a single-hyphen for call arguments. Where the single hyphen e.g. is required for old style X11 utility options, the double-hyphen for new options style of Gnome.

NOTITLE

Suppresses the generation of title either from LABEL, or from default. Be aware, that dynamic sessions like X11 without an LABEL visible by ps, are not - or just limited - recognized by LIST action. Thus the only reliable support for sessions started with this flag is the start itself.

SHELL|S:<shell>

Refer to common options parts description.

(STUBMODE|STUB)[:on]

The STUBMODE suppresses the remote execution of the full ctys set, instead just a remote shell by a simple SSH call is executed. This could be utilized particularly for sessions to machines without an installed ctys.

TITLEKEY:<title-name-key>

Alters the options keyword to be used to set the title of an Xwindow, which is set by default to "title". Some older applications, like Xclock support different, e.g. "name" as options keyword only. Due to the crucial role of the window title, which is the LABEL, this approach should be preferred when "title" is not supported. Do use NOTITLE only if definitely unavoidable.

<xopts>

Refer to common options parts description.

- A specific exception to the synchronous character of an X11 shell occurs, when multiple execution instances are addressed by the arguments of current call. When the "-b off" option for background a.k.a asynchronous operations is selected, the standard synchronous foreground operation works quite well. The list of arguments is just executed sequentially as expected.

In current implementation the user is responsible for handling the appropriate values, which are assigned by default. The enforcement of resetting user defined values could be somewhat tricky due to permutation of bulk arguments, thus is shifted because of priorities. Resulting of this, the actual environment is a superposition of all previous executed target options with the global options.

ENUMERATE

Not applicable to X11.

LIST

Almost the same output as common standard, with following changes in semantics.

id The PID of the first local call below of SSH termination point, which is the locally executed relay-instance of ctys and is the parent shell of actual running batch/interactive shell. Thus the topmost ctys-call.

pid PID of current ctys sessions top. The following values are not applicable: uuid, mac, dsp, cp, sp

-L (LOCALONLY|LO) | (DISPLAYFORWARDING|DF)

The location provides **DISPLAYFORWARDING** - and **CONNECTIONFORWARDING** . **CONNECTIONFORWARDING**. In case of **CONNECTIONFORWARDING** the terminal is executed locally, whereas a remotesession is opened from within the contained shell. In case of additional **STUBMODE** the shell is a lean SSH login only.

5 SEE ALSO

ctys(1) , *ctys-plugins(1)* , *bash(1)*, *xterm(1)*

For standards:

Freedesktop: <<http://www.freedesktop.org>>

Xorg: <<http://www.x.org>>

For implementations:

FVWM: <<http://www.fvwm.org>>

Gnome: <<http://www.gnome.org>>

KDE: <<http://www.kde.org>>

XFCE: <<http://www.xfce.org>>

6 AUTHOR

Arno-Can Uestuensoez <<https://arnocan.wordpress.com/>>
<<https://unifiedsessionsmanager.sourceforge.io/>>
<<https://github.com/unifiedsessionsmanager>>



7 COPYRIGHT

Copyright (C) 2008, 2009, 2010, 2011, 2020 Ingenieurbuero Arno-Can Uestuensoez
This is software and documentation from **BASE** package,

- for software see GPL3 for license conditions,
- for documents see GFDL-1.3 with invariant sections for license conditions.
The whole document - all sections - is/are defined as invariant.

For additional information refer to enclosed Releasenotes and License files.

