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## How to start X application from SSH [duplicate]

This question already has an answer here:

[How to start a GUI software on a remote Linux PC via SSH](#) 1 answer

I've tried to search this topic in google, but without any significant results.

I need to start some GUI app from terminal, but I don't care what this app is showing me. In addition, I need to start few instances of this application in different sessions. It's connected with some GUI automated tests, so I know what I want and I'm looking for an answer :).

I think the proper steps should be:

1. Init new X window session
2. Get my new session id
3. export it to env variable (export DISPLAY:13.0)
4. run my app

but I'm stuck at first step. does anybody here had similar problem?

--- EDIT: 1) I don't care about GUI output - i need only stdout and stderr from my app. - that's why this question is not duplicate - know google well :) . I don't want to redirect output to my own GUI.

command-line xorg ssh gui telnet

edited Jun 9 '15 at 6:27

asked Jun 8 '15 at 13:30

Pawel Wojtal

73 1 1 7

**marked** as duplicate by [Maythux](#), [Eric Carvalho](#), [Pilot6](#), [Anwar](#), [Volker Siegel](#) Jun 17 '15 at 7:53

This question has been asked before and already has an answer. If those answers do not fully address your question, please [ask a new question](#).

I think you can just start an X and then run it. - [Tim](#) Jun 8 '15 at 13:48

It's not clear. Do you have a graphic desktop running locally? Or do you want to run an X application with no real display, neither locally nor remotely? - [Rmano](#) Jun 8 '15 at 14:05

Look at [tldp.org/HOWTO/Remote-X-Apps.html](http://tldp.org/HOWTO/Remote-X-Apps.html) --- maybe it can help. - [Rmano](#) Jun 8 '15 at 15:08

Rmano: I need to run app and click into it with robot-framework + selenium library - but I don't need to see any output from GUI, just logs from my scripts - is it an answer for your question? - [Pawel Wojtal](#) Jun 8 '15 at 15:35

### 3 Answers

If you don't care to see what the application is doing, you can supply it with a "virtual" x server with xvfb:

Xvfb provides an X server that can run on machines with no display hardware and no physical input devices. It emulates a dumb framebuffer using virtual memory. The primary use of this server was intended to be server testing, but other novel uses for it have been found, including testing clients against unusual depths and screen configurations, doing batch processing with Xvfb as a background rendering engine, load testing, as an aid to porting the X server to a new platform, and providing an unobtrusive way to run applications that don't really need an X server but insist on having one anyway.

After installing it, you can start it with:

```
sudo Xvfb :10 -ac -screen 0 1024x768x24 &
```

it'll run in the background, then you start your clients with:

```
DISPLAY=:10 your-client
```

answered Jun 8 '15 at 15:13



**roadmr**  
25.4k 5 59 76

---

This is what I looked for! Thanks!!!! – Paweł Wojtal Jun 9 '15 at 6:36

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There is also nice script provided with Xvfb - xvfb-run which is doing exactly this thing which I need: create virtual display and execute command passed as argument. – Paweł Wojtal Jun 9 '15 at 7:00

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A short command:

```
ssh -X <username>@<host> gedit &
```

from `man ssh`

```
-X      Enables X11 forwarding.  
        This can also be specified on a per-host basis in a configuration file.
```

```
X11 forwarding should be enabled with caution. Users with the  
ability to bypass file permissions on the remote host (for the  
user's X authorization database) can access the local X11  
display through the forwarded connection. An attacker may then  
be able to perform activities such as keystroke monitoring.
```

1. Check `/etc/ssh/sshd_config` on the server side:

```
sudo nano /etc/ssh/sshd_config
```

for the lines below:

```
X11Forwarding yes  
X11UseLocalhost no
```

Restart the ssh server, if you have made changes:

```
sudo service ssh restart
```

2. Check `/etc/ssh/ssh_config` on the client side:

```
sudo nano /etc/ssh/ssh_config
```

for the lines below

```
ForwardX11 yes  
ForwardX11Trusted yes
```

edited Jun 8 '15 at 15:42

answered Jun 8 '15 at 15:37



**A.B.**  
62.3k 11 138 231

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You just need to run `export DISPLAY=:id#` in your ssh session and programs run will run on the remote display. A quick example:

```
maythux@maythuxPC:~$ ssh testSSH@myServer  
maythux@maythuxPC:~$ export DISPLAY=:0  
maythux@maythuxPC:~$ gedit
```

Now `gedit` will run on the user named testSSH display

You can shorten this all down into single command:

```
ssh testSSH@myServer "DISPLAY=:0 nohup gedit"
```

edited Jun 8 '15 at 15:33

answered Jun 8 '15 at 14:31



**Maythux**  
44.6k 27 148 199

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it doesn't work for me. This is what I get. – daltonfury42 Jun 8 '15 at 14:51

1 If the remote myServer is running X, the default `DISPLAY` is `:0`, not `:1`. It will only work if the user you connect to

( testSSH ) is the same one that is running the remote X server, otherwise auth tricks are needed. – Rmano Jun 8 '15 at 14:57

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See also [unix.stackexchange.com/questions/10121/...](http://unix.stackexchange.com/questions/10121/...) about the auth tricks. – Rmano Jun 8 '15 at 15:11

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@Rmano It was just example and not real value, The OP must put the correct number – Maythux Jun 8 '15 at 15:33

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You need `ssh -Y` or `ssh -X` . Exporting the display won't be enough. – terdon ♦ Jun 8 '15 at 15:41

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