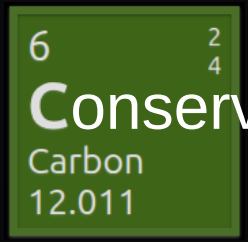
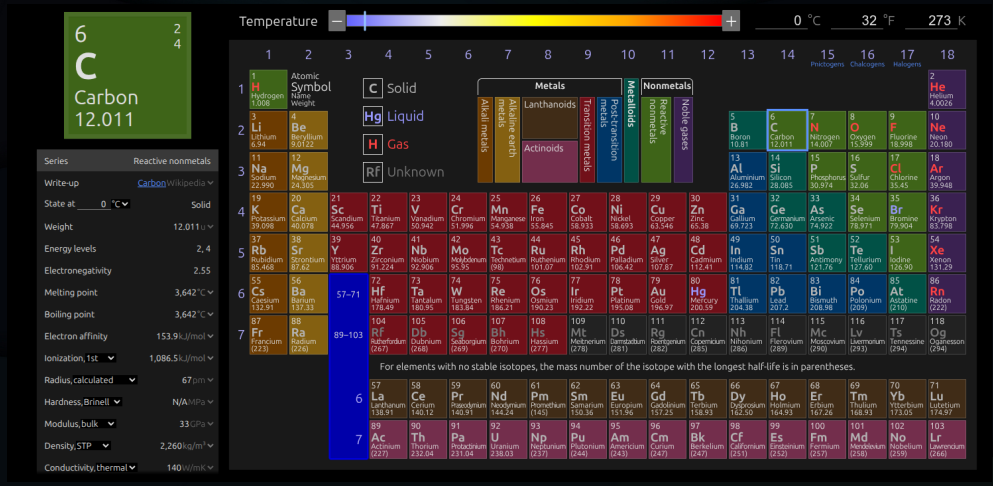
X2Go Server & Client

Remote Desktop for PCs &



https://ptable.com



-JMB

Usual disclaimer:

- Knowing that X2Go exists came from the local OpenWebUI AI machine besides some of the textual content.
  - LLM: gpt-oss:20b
- Some content came from the World Wide Web of course, and very little from my head ...
- Why use AI?
  - See how good the LLMs are in my local AI, being one reason.
  - Since this had worked previously, creating good (or bad) presentations is easier !
- Well, how good is the AI ?
  - Wait to hear the presentation & see the live demo ...

Who created X2Go ?

- Oleksandr Shneyder and Heinz-M. Graesing
- X2Go is a project under the umbrella of the Open Remote Computing Association - orca e.V. - a registered association under Germany's Civil Code and also registered as a charitable organization, similar to a 501(c)(3) organization in the US.
- Provides high-performance, SSH-based remote desktop that works well over low-bandwidth LANs.
- Open-Source, GPL & AGPL-3+ license, active community.
- Client packages can be run on OpenBSD, FreeBSD, Linux, macOS or Windows
- included in the official Ubuntu release starting from 17.04 and Debian Wheezy releases

  https://wiki.x2go.org/doku.php

  https://en.wikipedia.org/wiki/X2Go

Features:

- Graphical Remote Desktop that works well over both low bandwidth and high bandwidth connections
- The ability to disconnect and reconnect to a session, even from another client
- Support for sound
- Support for as many simultaneous users as the computer's resources will support
- Traffic is securely tunneled over SSH
- File Sharing from client to server
- Printer Sharing from client to server
- Easily select from multiple desktop environments (e.g., MATE, Gnome, KDE)
- Remote support possible via Desktop Sharing
- The ability to access single applications by specifying the name of the desired executable in the client configuration or selecting one of the pre-defined common applications

X2Go Server:

- The machine that runs the X2Go server (the remote machine).
- Applications / session are started on this remote machine and the applications transfer their windows / desktops to the client.

X2Go Client:

- The X2Go Client is the application that allows one to connect to a remote server and display a graphical desktop / application on the client machine.
- X2Go Client requires a local X11 server to display the remote sessions.
- On Linux, the client part of X2Go uses the local Xorg server
- On Mac OS X, the XQuartz X11 server needs to be installed as an extra component.
- On MS Windows such an X11 server is shipped with X2Go Client.

Comparisons:

Feature	X2Go	TightVNC	RDP (Windows)
Transport	SSH (encrypted, compressed)	Raw VNC, optional SSH tunnel	RDP protocol (unencrypted unless TLS)
Performance on 10 Mbps	Very good (compression)	Poor (bandwidth heavy)	Average (depends on settings)
Audio support	Yes	No	Yes
Clipboard sync	Yes	No	Yes
File transfer	Built-in	No	No
Authentication	Public-key or password	Password	Integrated Windows auth
Server OS	Linux only	Linux / Windows	Windows only
Client OS	Linux / Windows / macOS	Linux / Windows / macOS	Windows / macOS / Linux (via third-party)
Multi-session	Yes	No	Yes (Remote Desktop Services)
License	GPL-v3	GPL	Proprietary

...needs to be closely fact checked, but seems by and large plausible

Installation (Ubuntu):

Server:

sudo apt update

sudo apt install x2goserver

sudo ufw allow 22/tcp *OR*

sudo ufw allow from 192.168.1.0/24 to any port 22

systemctl status x2goserver

Client:

sudo apt update

sudo apt install x2goclient

Launch (Client)

- Menu → x2goclient
- New session

  Host: 192.168.1.xxx

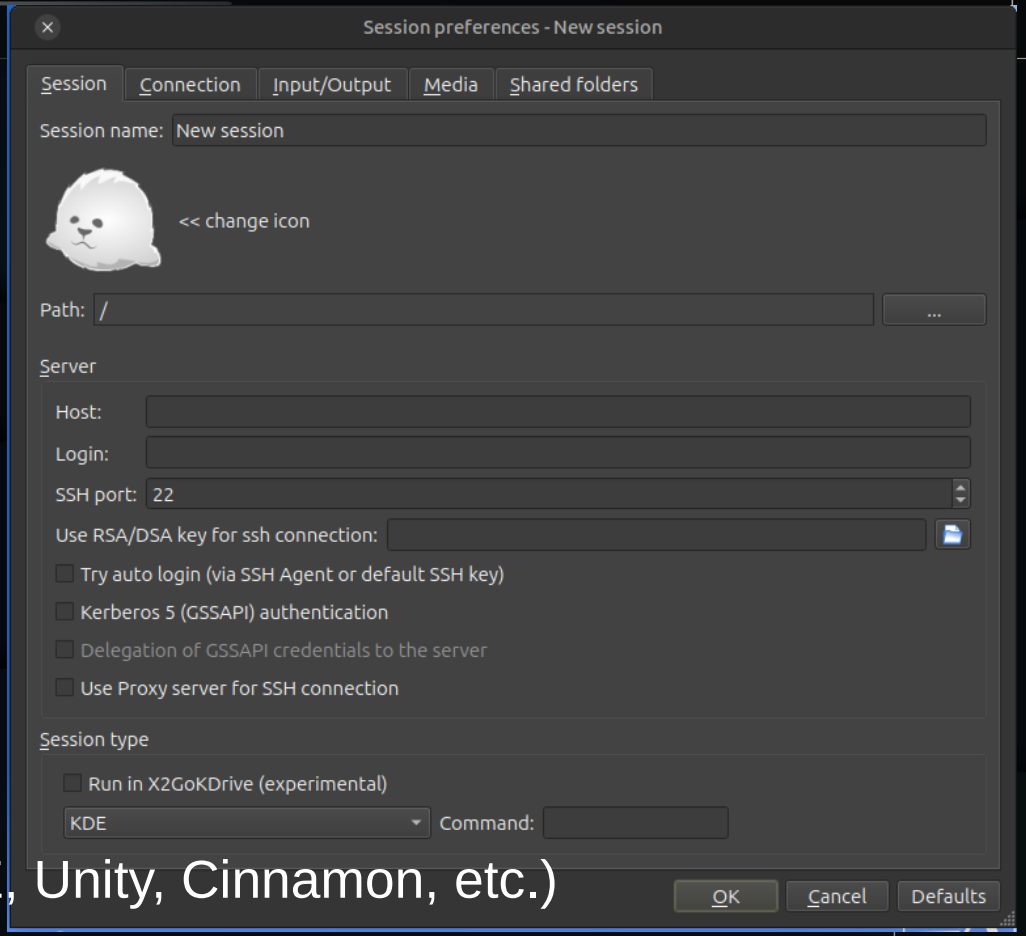
  Login: <user_id>

  SSH Port: 22

  [ ] Try auto login

  Desktop: MATE

  (KDE, Gnome, LXDE, XFCE, Unity, Cinnamon, etc.)



Input / Output

- Display
  - [ ] Fullscreen
  - [ ] Custom Width [1680] Height [1024]
  - [ ] Use whole display
    - Display [ ] (Identify all displays)
  - [ ] Not resizeable
  - [ ] Set display DPI [ ]
  - [ ] Xinerama extension (support for 2 or more displays)

Input / Output

- Clipboard mode
  - [ ] Bidirectional
  - [ ] Copy & paste from client to server
  - [ ] Copy & paste from server to client
  - [ ] Disable clipboard completely

Input / Output

- Keyboard
  - [ ] Auto-detect keyboard settings
  - [ ] Do not configure keyboard
  - [ ] Configure keyboard

Media

- Sound:
  - [ ] Enable sound support
  - [ ] Pulse audio
  - [ ] arts
  - [ ] esd

[ ] Use SSH port fwd'ing to tunnel sound system connections through firewalls

[ ] Use default sound port

Sound port [4173]

Shared folders

- Shared Folders:

  Path: [ ] Add

  /home/user/Documents

  /home/user/Pictures

  /home/user/Music

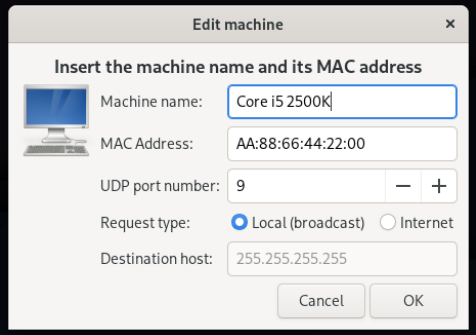
[ ] Use SSH port fwd’ing to tunnel file system connections through firewalls

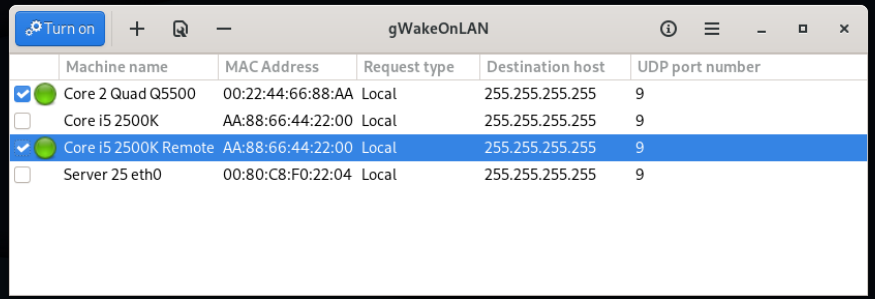
Power Management:

- Server:

  sudo apt update

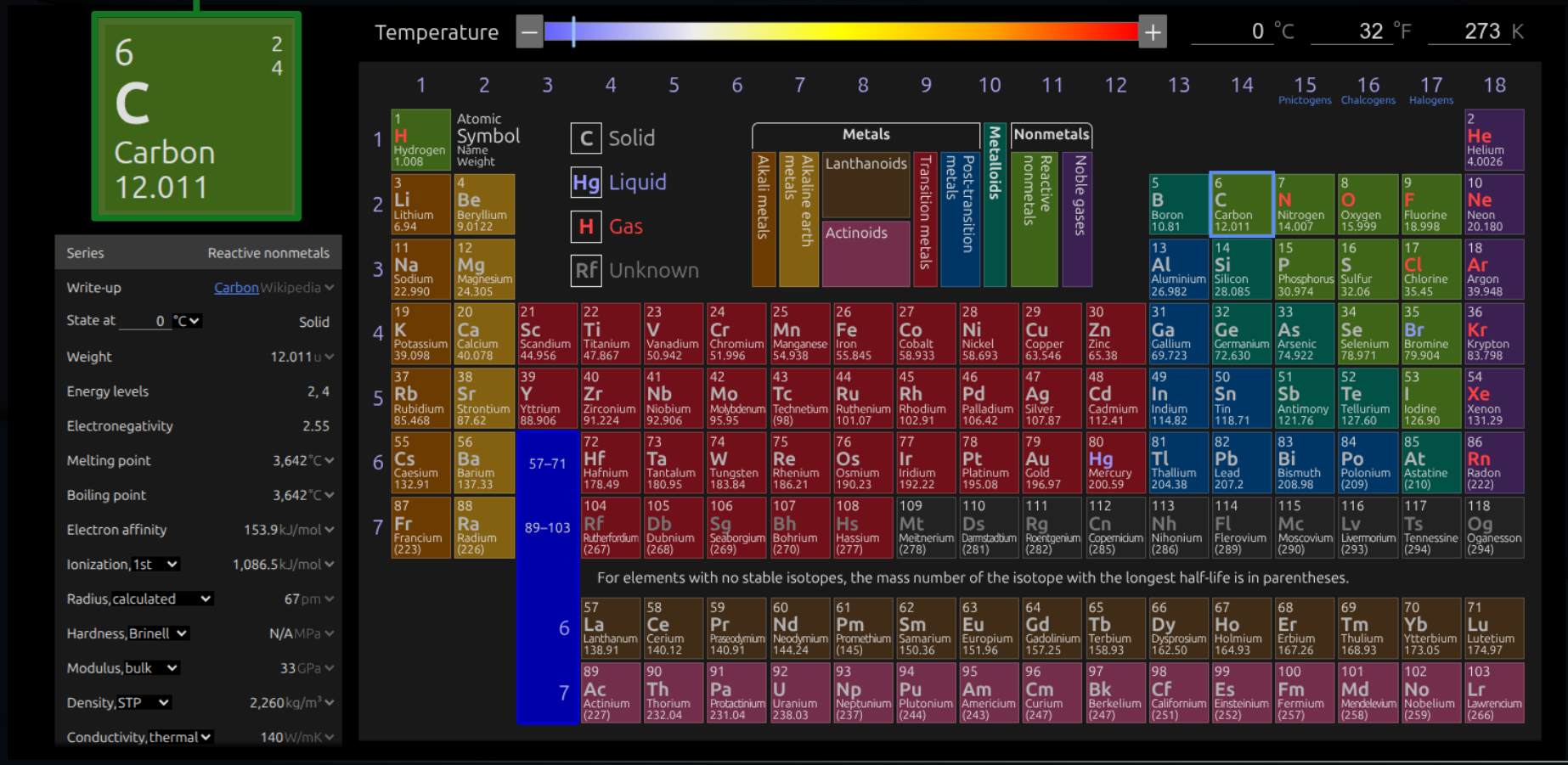
  sudo apt install gWakeOnLan *(enable 'WOL' feature in the BIOS)*



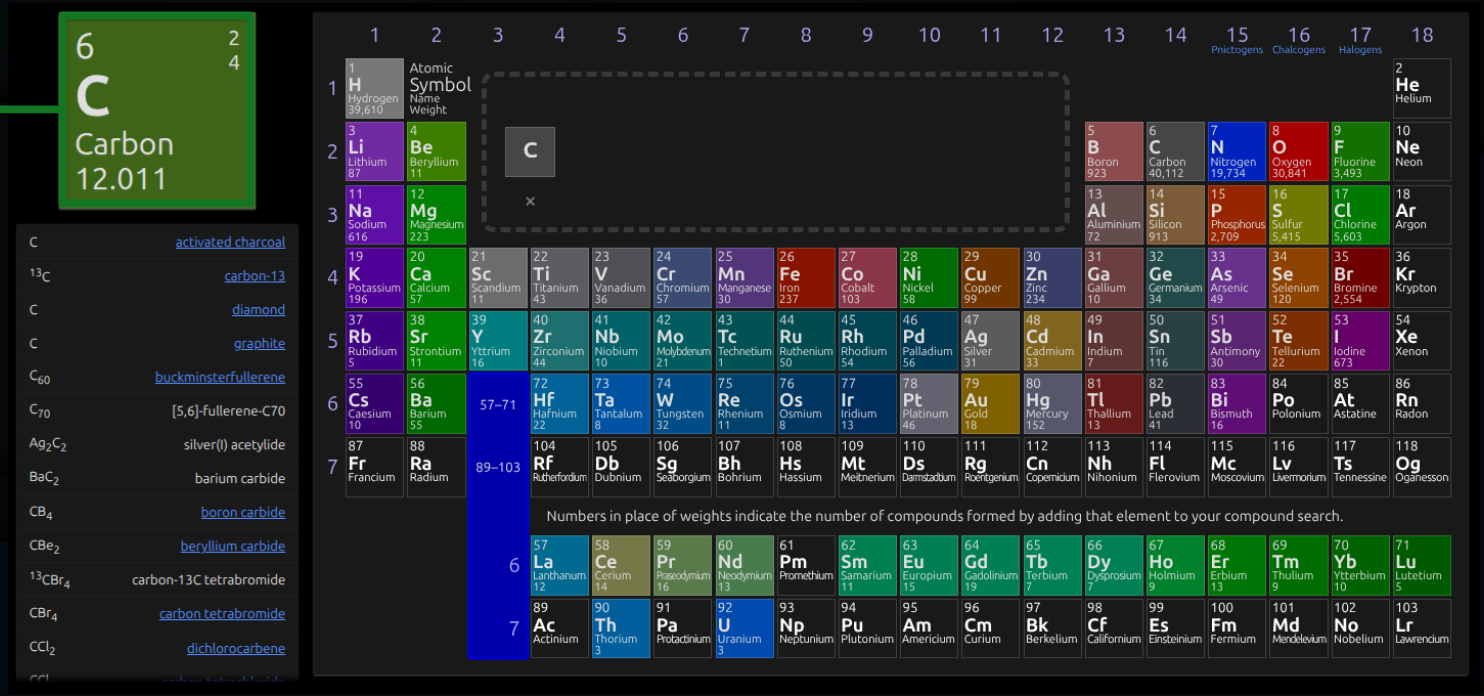


https://github.com/muflone/gwakeonlan

Conservation = Power Management



https://ptable.com



https://en.wikipedia.org/wiki/Carbon_dioxide

Power Management:

- **Server:**

  sudo apt update

  sudo apt install pm-utils

- Suspend command line:

  USER_ID=’jmb’

  host=Dell-01’

  ssh -t '${USER_ID:+$USER_ID@}$host' 'sudo pm-suspend'

Power Management:

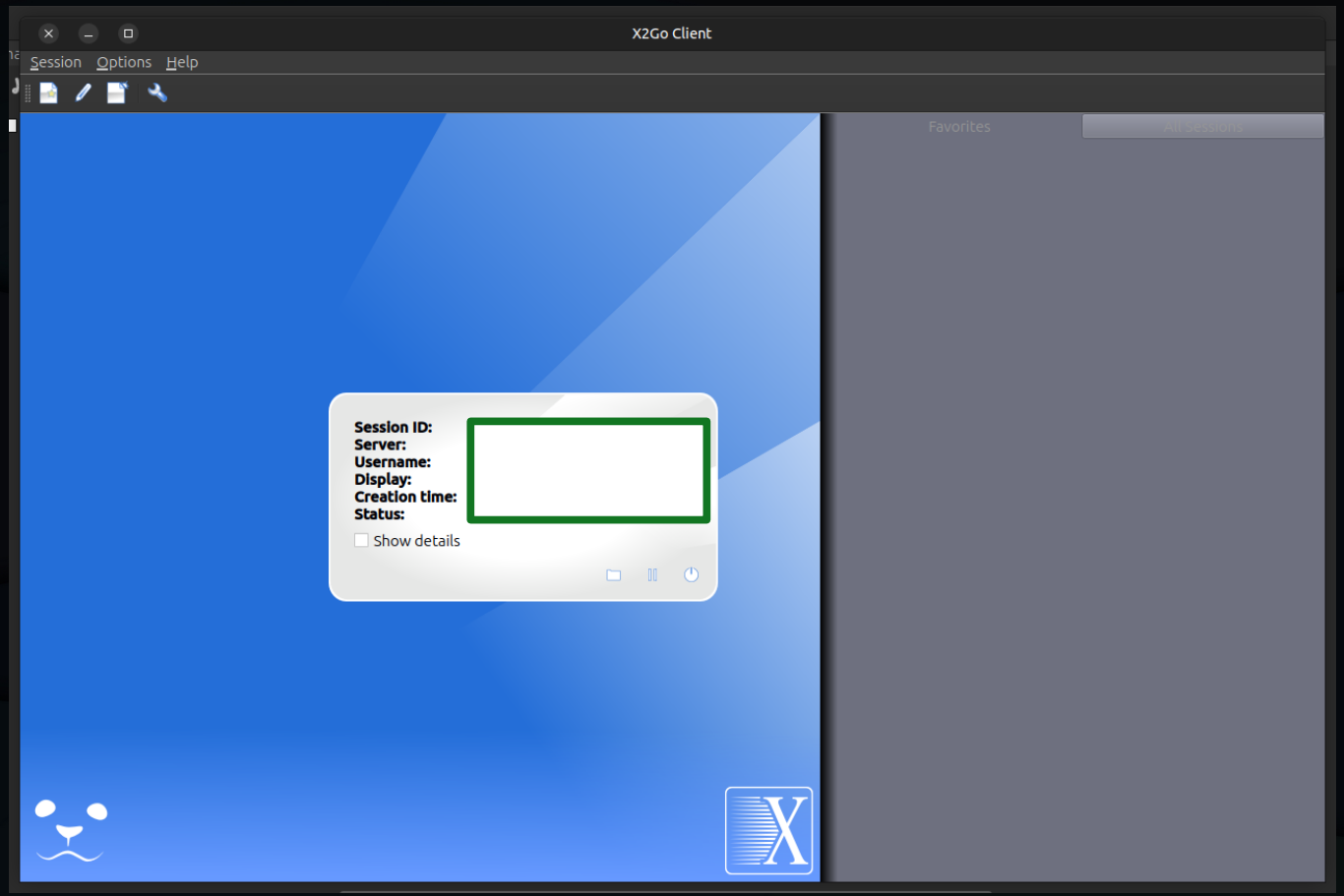
- **Server** (timed suspend):

  crontab -e

  # Example: suspend at 17:00 every day

  0 17 * * /usr/sbin/pm-suspend*

Live Demo


X2Go Client
Session Options Help
Favorites
All Sessions
Session ID:
Server:
Username:
Display:
Creation time:
Status:
Show details

Questions,comments or rewards:

? ! $