### Windows 2000-XP V.N.C. Virtual Network Computing

Michel Cabaré Septembre 2004

Ver: 1.0

#### Institut National Polytechnique de Grenoble



# TABLE DES MATIÈRES

WHAT V.N.C. IS	3
VIRTUAL NETWORK COMPUTING	3
FREE DOWNLOAD INSTALLING VNC	3
Installing VNC	4
USING VNC	6
VIRTUAL NETWORK COMPUTING	6
ADVANCED FEATURES	
REGISTER PARAMETERS FOR VNC SERVER	
USING A WEB CONNECTION INSTEAD OF VNC VIEWER	9
CHANGING DEFAULT PORT OF VNC SERVER	11
VNC – FIREWALL - SSH	
REGISTER PARAMETERS FOR VNC SERVER	12



Ľ

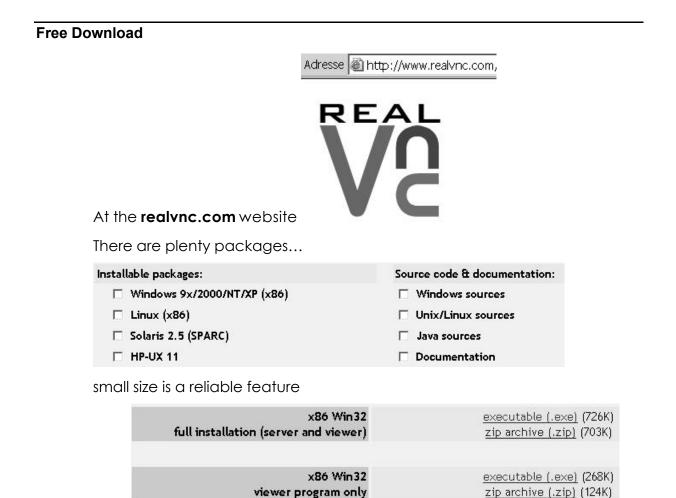
### WHAT V.N.C. IS

#### **Virtual Network Computing**

**VNC** (Virtual Network Computing) software makes it possible to view and fully-interact with one computer from any other computer or mobile device anywhere on the Internet.

VNC software is cross-platform, allowing remote control between different types of computer.

there is even a Java viewer, so that any desktop can be controlled remotely from within a browser without having to install software



The **server** program is the program you need to install on the machine you want to access....

The **viewer** program is the program you need to install on a machine, to accede to a server-installed machine.



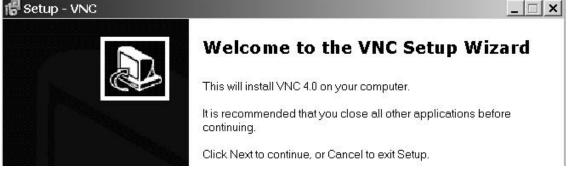
You can avoid viewer installation if you can have a recent browser with java machine.

#### **Installing VNC**

Install server program

You must start from the *full installation server and viewer package*, and then double click...

🐻 Setup - VNC



Setup - VNC	_ 🗆 🗙
Select Components Which components should be installed?	
Select the components you want to install; clear the compone Click Next when you are ready to continue.	ents you do not want to install.
Full installation	•
☑ VNC Server	564 KB
VNC Viewer	268 KB

if you want, you can register VNC like a windows service, which is mean that it could be launched at the beginning of setup, and that you can manage from the Windows 2000 classical service interface.

	up - VNC
S	elect Additional Tasks Which additional tasks should be performed?
	Select the additional tasks you would like Setup to perform while installing VNC, then click Next.
	VNC Server configuration:
	Register and configure VNC Server for Service-Mode
	Start the VNC Server in Service-Mode

automatically you will have to select a custom parameters if you install the server programm



It's really important to add a password, since VNC is a very powerfull toy!

M	VNC Server Prope	rties (Service-Mode	)	? >	K	
	Desktop	Hooks	1	Legacy	1	
	Authentication	Connections	Inputs	Sharing	ļ	
	C No Authentication			1		
	<ul> <li>VNC 3.3 Authentic</li> </ul>	ation, no Encryption	Set I	Password		
	Prompt local user	to accept incoming co	nnections			
				•		
		WinVNC Passw	ord			×
		New Password:	. Jobsk			
		Confirm Passwo	ord:			
				OK	Cancel	
you will see in	n the task bar th	ne vnc icon 🔽	08:52			

You can see here the service specific menu

RealVNC	🕨 🔚 VNC Server 4 (Service-Mode)	Configure VNC Service
	🗟 VNC Server 4 (User-Mode)	▶ 🚾 Register VNC Service
		V2 Start VNC Service
		VP Stop VNC Service
		VI Unregister VNC Service

You can see here the vnc user specific menu





## **USING VNC**

### Virtual Network Computing

You must have a machine running with a VNC server...and of course you must know the IP address of the machine (or at least the host name)

Va Run VNC Viewer	you have
VNC Viewer : Con	nection Details
V2 Server:	192.168.1.112
About	Options OK Cancel and then
VNC VI	iewer : Authentication [No Encryption]
V	Username: OK
	Password: Cancel

#### that's all !

<b>^</b>	₽					
Nes documente - W	ndows Madia	_4A				n i
Poste de traval	Mes documents Spybot - Sear Buckstop					2
E. Factoricaeu A	te Puske de traval					Compte ver Li (depuis 2004)
Corbelle	Favoris réseau					
data	Carbollo					
Acrobat Reader 5.1	Internat Explorer					rrents
	Microsoft Cuthait					
51140032+0	Acrobet Reader					
A Nicrosoft		A DATASA M				
Baseline Secur	BDémarrer 🛛 🖄 🕷 🕻		_		<b>□</b> ■♣@€ <b>○</b> ₩ 1641	
Démarrer	3.83.5 ≥	VPPOSTE2	Min Snagit/32	(p)	LIMU®∎TEO†⊄	59 <u>77</u> 16:46

**N.B**: you can have as many VNC session you want, each one controlling a distant computer....





if you want to send special keyboard touch, like **CTRL-ALT-DEL**, (end of session for example) as they are catched by your own system, you need to send these touch in a special way.

Full screen

Ctrl

Alt

Send Ctrl-Alt-Del

Refresh Screen

New Connection...

Options...

Connection Info...

About...

So you must have right clic on the VNC session you want to use





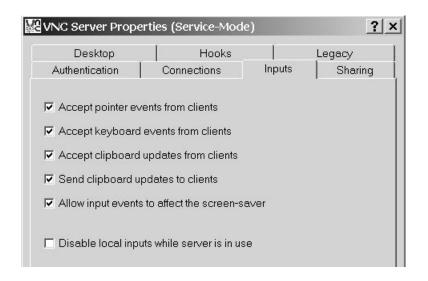
## **ADVANCED FEATURES**

#### register parameters for VNC server

for Configure VNC service double clic on RealVNC icon on the task bar:

Desktop	Hooks		Legacy
Authentication	Connections	Inputs	Sharing
No Authentication	n or Encryption		
No Authentication	n or Encryption	Pat	Password

Desktop	Hooks		Legacy
Authentication	Connections	Inputs	Sharing
ccept connections on (	port:	5900	
isconnect idle clients a	after (seconds):	3600	
Serve Java viewer vi	a HTTP on port:	5800	
Access Control			
C Only accept conne	ections from the loca	al machine	
+		A	bb
.86			





#### Using a Web connection instead of VNC viewer

Use a VNC Connection via a web browser , you must have a browser who enable **JAVA** machine, an must know that the default **TCP-IP port** used by VNC is **5800**.

So the URL you have to write seems something like that, for a machine with IP adress 192.168.1.11 :

http://192.168.1.11:5800

you obtain

Adresse 😹 http://192.168.1.11:5800	
Google -	🛛 💏 Recherche Web 🔹 👘 P 🔤 PageRank 🗗 123 bloquée(s) 🕴 💽 Op
VNC viewer for Java version 4.0 Copyright (C) 2002-2004 Real/VNC Ltd. See http://www.real/vnc.com for informatic	VNC server: 192.168.1.11:0 About Options OK Cancel Attention : fenêtre d'applet
	VNC Authentication [No Encryption]         Username:         Password:
and after identification	Attention : fenêtre d'applet

you have quiet a normal VNC screen

**N.B:** The main difference, is that you don't have the possibility to send keyboard touch or configure screen resolution...

for security if you want, you can disconnect Java viewer

Desktop	Hooks		Legacy
Authentication	Connections	Inputs	Sharir
Accept connections o	n port.	5900	
Disconnect idle client	s after (seconds):	3600	
🔽 Serve Java viewer	via HTTP on port:	5800	
-Access Control		1	
C Only accept con	nections from the loc	al machine	
+		A	dd







#### Changing default port of VNC server

you must know that the default **TCP-IP port** used by VNC is **5800 and 5900**.

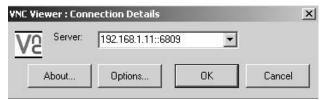
Starting nmap 3.50 < http://www.insecure.org/nmap > at 2004-10-15 18:52 Paris,   adrid (heure d'útú)	
Interesting ports on PORTABLE (192.168.1.11):	
(The 1653 ports scanned but not shown below are in state: closed)	
PORT STATE SERVICE	
135/tcp open msrpc	
139/tcp open netbios-ssn	
445/tcp open microsoft-ds	
1025/tcp open NFS-or-IIS	
5800/tcp open vnc-http	
5900/tcp open vnc	
Nmap run completed 1 IP address (1 host up) scanned in 2.234 seconds	

imagine you want ehanced your security, so you want change de default VNC port 5800 by a personnal port 6809, and disconnect responding to a java browser, just configure like this

Desktop	Hooks		Legacy
Authentication	Connections	Inputs	Sharing
n shas a	- 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20	0000	
	ents after (seconds):	3600	

Now, if you want to connect to this particular VNC server, you must specify in your IP address the Ip port by : : like this example :

#### 192.168.1.11::6809





## VNC – FIREWALL - SSH

#### register parameters for VNC server

Access to your VNC desktop generally allows access to your whole environment, so security is obviously important. VNC uses a challengeresponse password scheme to make the initial connection: the server sends a random series of bytes, which are encrypted using the password typed in, and then returned to the server, which checks them against the 'right' answer. After that the data is unencrypted and could, in theory, be watched by other malicious users, though it's a bit harder to snoop a VNC session than, say, a telnet, rlogin, or X session. Since VNC runs over a simple single TCP/IP socket, it is easy to add support for SSL or some other encryption scheme if this is important to you, or to tunnel it through something like SSH or Zebedee.

SSH allows you to redirect remote TCP/IP ports so that all traffic is strongly encrypted, and this can be combined with VNC. SSH can also compress the encrypted data - this can be very useful if using VNC over slow links. See the '<u>Using SSH with VNC</u>' page. Zebedee is a similar system which can be sometimes simpler to use. You can find info <u>here</u>.

While we're on the subject of security, you should also be aware that only the first 8 characters of VNC passwords are significant. This is because the 'getpass' call used in the Unix server to read a password has this restriction, and the other platforms have been made compatible with this.





The default action for packets not matching following rules: Block

🗹 Default Permit Log

No.	Source IP	Destination IP	Service	Action	Log
1	Any 💌	Any 💌	BOOTP_CLIENT(UDP:68)	Forward	None
2	Any 💌	Any 💌	PING(ICMP:0)	Forward	None
3	Any 💌	192.168.1.103 💌	HTTP(TCP:80)	Forward	Both
4	Any 💌	192.168.1.101 💌	*VPN-srvdc1(TCP:6801) 💌	Forward	None
5	Any 💌	192.168.1.103 💌	*VPN-Web(TCP:6803) 💌	Forward	None
<u>6</u>	Any 💌	192.168.1.10 💌	*VPN-travail(TCP:6810) 💌	Forward	None
7	•	•			
8	•	•			
9		•			
<u>10</u>	•				

Rules Reorder: Move rule number 1 💌 to rule number 1 💌 Move



Cancel



Ľ