

SARA- CTIO @ Cerro Tololo CONNECTION

INSTRUCTIONS



Here you will find only the instruction to make the connections needed to carry out your observations with the CTIO telescope @ cerro Tololo. Read the user's manual to learn how to manage the telescope and the camera

For Mac Users

First, you need to make a **VPN connection**, before to connect to each of the computers. Fortunately, you don't need special software to do this, just follow these instructions:

1. Open your "system preferences", and choose "Network", you will see this window:

 O O Show All 	Network	
Show All Show A	Location: Automatic Status: Connect Time: IP Address: Server Address: Account Name: Password:	¢ Connected 00:40:30 139.229.31.122 139.229.10.50 tolgen Server will prompt for password
VPN (Cisco IPSec) Connected The second secon	Show VPN status i	Authentication Settings Disconnect n menu bar Advanced Assist me Revert

2. Click on "+" (bottom, left of the window) to create a new connection. Make sure that the "VPN Type" is "Cisco IPSec", in "Service Name" give your favorite name to this connection.

Interface:	VPN	1
VPN Type:	Cisco IPSec	;
Service Name:	VPN (Cisco IPSec) 2	

3. Introduce the following data: Server Address: 139.229.10.50 Account Name: tolgen Password: t01gEn_ (yes, it's a zero and one) 4. Click on "Authentication settings" button, and introduce this data: Group Name: tolvpn Shared secret: z0nkeR (again, it's a zero)

Mac	Shared Secret:
C	Certificate Select
	Group Name: tolvpn

It is done, just click on "Connect" button, and new window will bug you asking this (Account name: tolgen, Password: t01gEn_)

\bigcirc	VPN Connection Enter your user authentication
	Account Name:
	tolgen
	Password:
	Cancel OK

With the VPN connection working, then you can connect to the computers. To do so, we recommend **real VNC** (download the viewer from <u>here</u>).

There are **THREE computers** to connect to: the Telescope computer, the Camera computer & the Observatory computer. All these computers run under Windows.

The username & password is the same for all connections:

User: SARA Password: Kpn0CTI00rm

The port assignments for RealVNC is:

Computer	IP address	Port number
TELESCOPE	139.229.14.229	6229
OBSERVATORY	139.229.14.230	6230
CAMERA	139.229.14.231	6231

Note that you cannot use the default port assignment of 4899, you must use the port addresses

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shown above. For Linux Users

First, you need to make a **VPN connection**, before to connect to each of the computers. Fortunately, you don't need special software to do this, just follow these instructions:

NOTE that this is for FEDORA Linux, although for UBUNTU is even more simple.

1. Go to your System→Settings→Network, and you will see this:

<	Network	Airplane Mode OFF	_ ×
হ Wi-Fi	Wi-Fi Connected	[ON
C. Wired			
Network proxy	Jesus s WI-FI Network		• •
	jparranz's Wi-Fi Network		₽ 후
	Roi's Wi-Fi Network		₽ 후
	iacext	\$	
	SEGUNDO DERECHA		₽ 🛊
	eduroam		₽ 🗧
+ -	Use as Hotspot	onnect to Hidden Network	History

2. Click on "+" (bottom, left of the window) to create a new connection. A new window will appear and you have to choose the "Cisco Compatible VPN (vpnc) option.

	Add Network Connection
	Cisco AnyConnect Compatible VPN (openconnect) Compatible on the Cisco AnyConnect Science
C	Cisco Compatible VPN (vpnc) Compatible with various Cisco, Juniper, Neter Len, and Sonicwall IPsec-based VPN gateways.
	Layer 2 Tunneling Protocol (L2TP) Compatible with L2TP VPN servers.
	OpenVPN Compatible with the OpenVPN server.
	Point-to-Point Tunneling Protocol (PPTP) Compatible with Microsoft and other PPTP VPN servers.
	Import from file
	<u>C</u> ancel

3. Another window will appear and you have to introduce the following data in the right fields as illustrated in the screen capture picture:

Name: up to you Gateway: 139.229.10.50 User name: tolgen User password (select Saved): t01gEn_ Group name: tolvpn Group password (select saved): z0nkeR

		VPN CTIO VPN	
Details	Name VPN	СТІО]
ldentity	<u></u>		
IPv4	Firewall <u>Z</u> one Defa	ult	•
IPv6	Make available to	other users	
Reset	Make available to other users		
	General		
	Gateway	139.229.10.50]
	User name	tolgen]
	User password		Saved -
	Group name	tolvpn]
	Group password		Saved 🔻
		Sho <u>w</u> passwords	
	Use <u>h</u> ybrid au	uthentication	
	CA File	(None)]
			Advance <u>d</u>
			<u>C</u> ancel <u>A</u> p

4. Apply & Switch on...That's all.

With the VPN connection working, then you can connect to the computers. To do so, we recommend **real VNC** (download the viewer from <u>here</u>).

There are **THREE computers** to connect to: the Telescope computer, the Camera computer & the Observatory computer. All these computers run under Windows.

The username & password is the same for all connections:

User: SARA Password: Kpn0CTI00rm The port assignments for RealVNC is:

Computer	IP address	Port number
TELESCOPE	139.229.14.229	6229
OBSERVATORY	139.229.14.230	6230
CAMERA	139.229.14.231	6231

Note that you cannot use the default port assignment of 4899, you must use the port addresses shown above.

For Windows Users

First, you need to make a **VPN connection**, before to connect to each of the computers. Unfortunately, you need a specific software to do this, just follow these instructions:

You can skip these steps if you will observe from the IAC control room

- 1. Download and install vpnclient-win-msi-5.0.00.0340-k9-bundle.exe
- 2. Run the software and introduce this data, under the "Athentication" tag:

Host: 139.229.10.50 Name: tolvpn

Password: z0nkeR	(yes, it's a zero)
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🗳 VPN Client 🕴	Properties for "SARA SC)UTH"	X
Connection Entry: SAR	A SOUTH		
Description: sara	south		ahaha
Host 139.	229.10.50		cisco
Authentication Tr	ansport Backup Servers	Dial-Up	
 Group Authentica 	tion	O Mutual Gro	up Authentication
Name:	tolvpn		
Password:	*****		
Confirm Password:	*****		
C Certificate Authen Name: C Send CA Certifi	tication vicate Chain		
Erase User Password		Save	Cancel

3. Make sure that "IPSec over UDP" is activated, under the "Transport" tag.

VPN Client Properties for "SARA SOUTH"	
Connection Entry: SARA SOUTH	
Description: sara south	cisco
Host: 139.229.10.50	
Authentication Transport Backup Servers Dial-Up	
✓ Enable Transparent Tunneling	
IPSec over UDP (NAT / PAT)	
C IPSec over TCP TCP Port: 10000	
Allow Local LAN Access	
Peer response timeout (seconds): 90	
Erase User Password Save	Cancel

4. Save the data, and make the connection. Then a new window will bug you asking username (tolgen) & password (t01gEn_)

VPN Client User Authentication for "SARA SOUTH" X
Enter Username and Password.
uluulu Username: tolgen
CISCO Password: ******
OK Cancel

If you are using a computer of the IAC control room, just call VPN Client, and make connection, only the above username & password will be required (step 4).

Now you can proceed with the connection to the computers. Our recommendation is to use **Remote Admin** (download the viewer from <u>here</u>). This software is already installed in any computer of the IAC control room.

There are **THREE computers** to connect to: the Telescope computer, the Camera computer & the Observatory computer. All these computers run under Windows.

The username & password is the same for all connections:

User: SARA Password: Kpn0CTI00rm

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The port assignments for Radmin is:

Computer	IP address	Port number
TELESCOPE	139.229.14.229	5229
OBSERVATORY	139.229.14.230	5230
CAMERA	139.229.14.231	5231

Note that you cannot use the default port assignment of 4899, you must use the port addresses shown above.

For the system to work efficiently the screen resolution of your computer must be equal or greater than the (1920 x 1080) setting of the remote computer otherwise the screen will pan and scroll all the time making the experience very slow and frustrating. To avoid this problem right mouse, click on the connection icon and select Properties from the pop-up menu. Select Fullscreen from the Video Mode. You can dramatically speed up the connection by reducing the amount of color. For normal use 16 bits is fine. It even works with 1 bit although the screen looks odd!

	Properties		×
General Windows Security Remote Screen Full Control Chat Voice Chat	Color Format The color depth to be used when transfering over a network. (@ 24 bits () 8 bits () 4 bits () 2 bits () 2 bits () 2 bits () 2 bits () 1 bit () 1 bits () 2 bits () 1 bits () 2 bits () 1 bits () 2 bits	View Mode Normal Fullcoreen Stretch Fullscreen stretch Maximum number of updates per second 100	
		OK Cancel	1

General view of the CAMERA computer:



General view of the TELESCOPE control computer:

General view of the windows in the OBSERVATORY computer:



SARA - CTIO