MASTER – SIMPLE SLAVE CONFIGURATION
VERSION 1.0, AUGUST 2016

1 Introduction

The Master – Simple Slave configuration in Chronos V9.0 has been developed to facilitate your Timing Administration through the Slave-computer and avoid potential timing risks on your Master-computer when you're actually timing a race.

The Slave-computer will be used to achieve all kind of Administration Tasks like printing the race result or edit competitors while the main focus of the Master-computer will be the timing of the race itself.

As the Master – Simple Slave Configuration requires to work into a local network of 3 devices through a switch and sharing the Chronos folder, both Master and Slave-computer will mutually and automatically update each other when (administration) changes or (race) timings are done.

As you can consider the Master-computer being the "administrator with all rights"-computer, it's only this computer which can actually send commands to the decoder like starting and stopping the decoder/a race. When the Slave-computer applies administration changes like editing a competitor, an additional security window will appear to ask if you are sure about your changes and want to apply them to the master-computer. This to avoid any unwanted changes, as you can apply changes on the Slave-computer while the Master-computer is middle in a race timing.

2 Hardware setup

Needed equipment:

- Decoder
- Computer 1 = Master Computer
- Computer 2 = Simple Slave Computer
- Switch
- All necessary power supply cables and 3x Ethernet cables

Set up:

- Connect the Decoder, the Master and the Slave Computer to the switch by means of the 3x Ethernet cables
- IP Address Decoder = 192.168.0.251
- IP Address Master Computer = 192.168.0.(X)XX = e.g. 192.168.0.20
- IP Address Slave Computer = 192.168.0.(Y)YY = e.g. 192.168.0.21

Remark(s):

- All the devices need to be in the same network range to be able to communicate with each other

3 Verifying the interconnection of the devices by "pinging"

To see if you can connect the Master Computer to the Slave Computer and vice versa, you can "ping" to it. Type in the Command Prompt window the command "ping + IP address of remote computer". Ping also to the decoder from the Master Computer to see if you are correctly connected to it.

To open this Command Prompt window, type "cmd" or "command prompt" in the "Search programs and files" function next to or by clicking on the Windows Start Button and open this application (push Enter on your computer's keyboard).

In the picture below I tested if my computer was connected to the computers with IP addresses 172.16.100.19 and 172.16.100.200. The first connection was OK, the seconds one failed.


In your case and our given example in section 2 (hardware setup), you have to ping as follows:

- Master to the Slave; ping 192.168.0.21
- Master to the Decoder; ping 192.168.0.251
- Slave to the Master; ping 192.168.0.20

Do you encounter some troubles for interconnecting the devices ; the ping tests are failing ?

This can happens as your computer is standardly protected against general internet threats through the Windows Firewalls and your antivirus, as well as protected from other "malicious people/devices" to avoid unwanted access into your computer. Both computers are/should be dedicated to the transponder timing system without internet access and therefore you don't need all this kind of protection which can block the interconnection of the devices.

- Inactivate your antivirus as well as the firewalls of your antivirus
    - Preferably uninstall your antivirus through the Windows Control Panel (Programs)
- Turn off all Windows Firewall through the Windows Control Panel (System and Security)
   - Domain, Home, (Private) Work and Public Networks
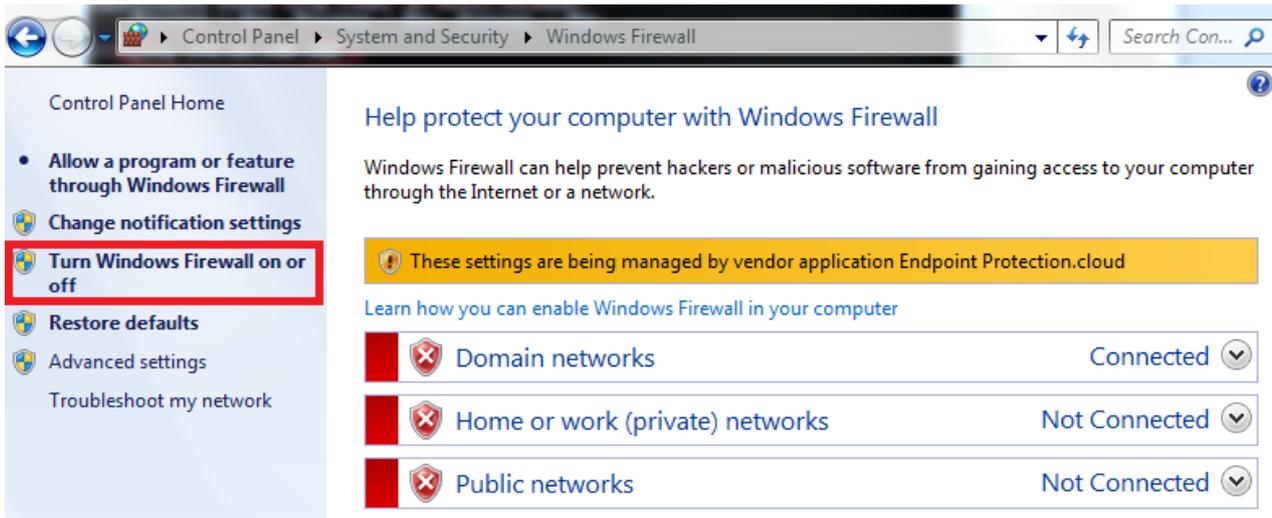
4 Sharing the Chronos Folder

4.1 Windows Settings

On both Master and Slave Computer Chronos V9.0 has to be installed. Standardly Chronos V9.0 will be installed on your C Drive (C:) unless you've changed this during the installation of the program. The created folder on your C Drive (C:) has following name: Chronos.

On both Master and Slave Computer you need to share the Chronos folder and give the necessary permissions to Everyone.
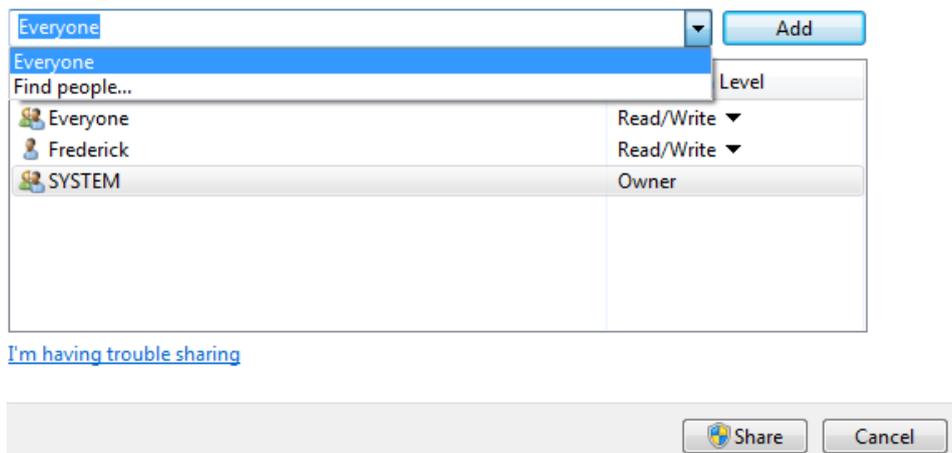
Right click on the Chronos folder ➔ Share with ➔ Specific people…
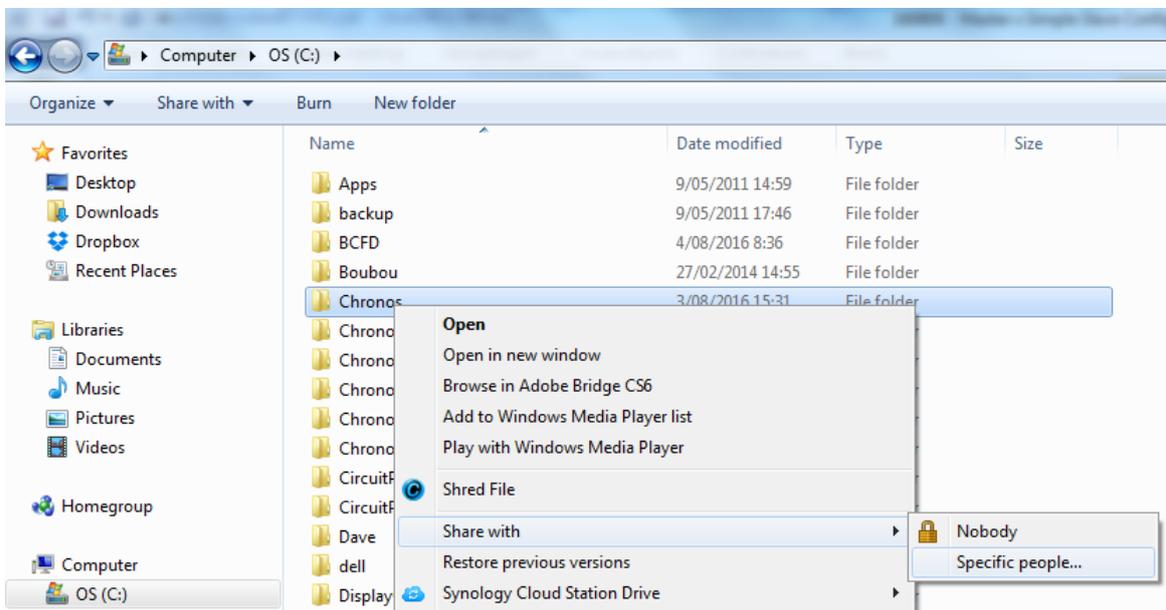
Select Everyone and click on Add.

Change the Permission level from Read to Read/Write.
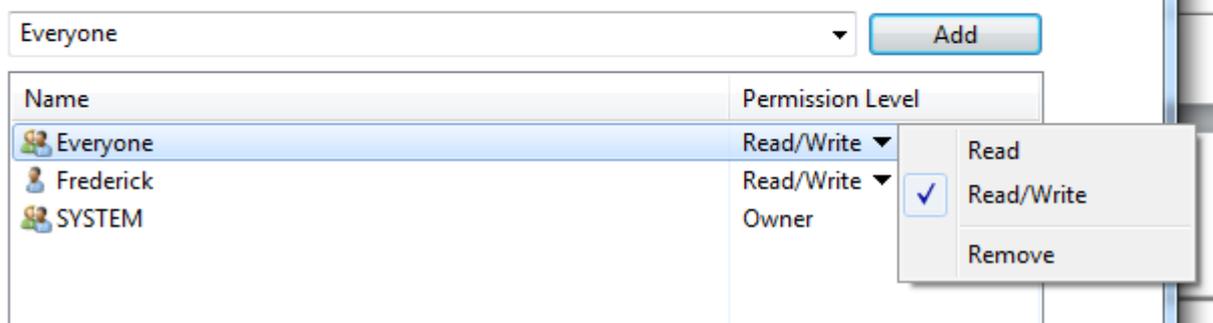
There are 2 additional settings which need to be modified:

Make sure that "sharing" is "on" for "Public folder sharing", but that "Password protected sharing" is "off" in the "Advanced sharing settings"; especially for mixed versions of Windows.
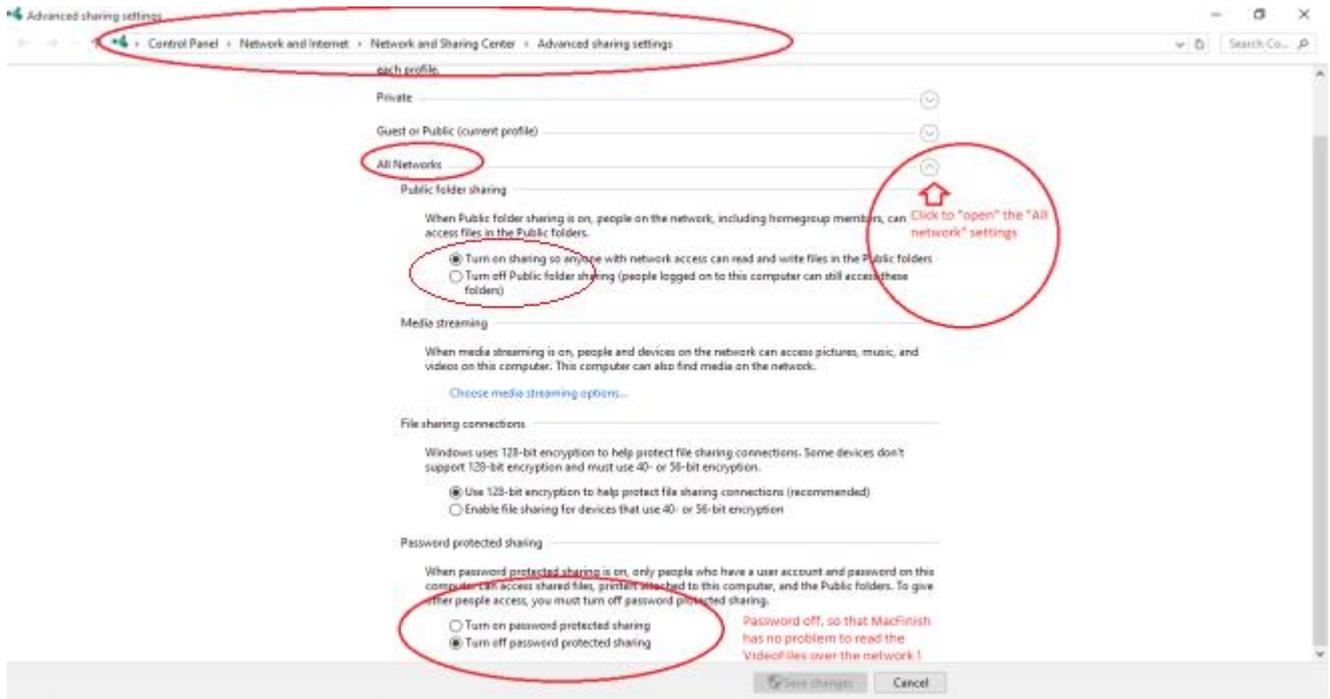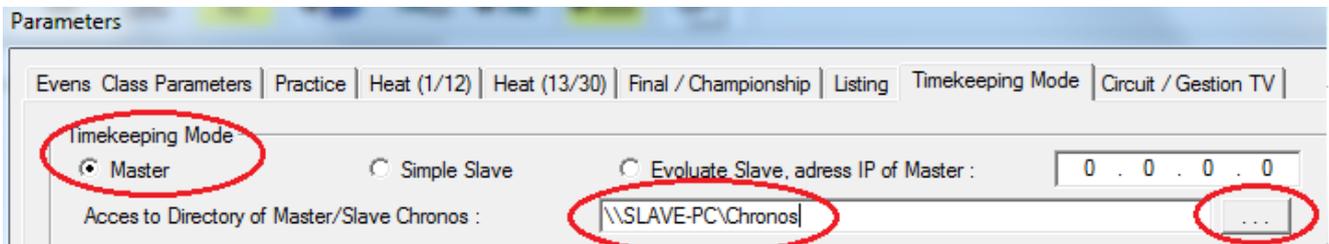
4.2 Chronos Settings

4.2.1 Master Computer

Go the "Timekeeping Mode"-tab of the Event Parameters:
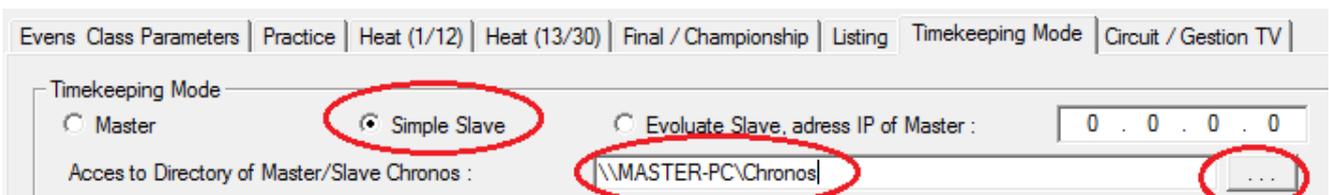
- Select Master
- Give access to the Chronos directory of the Slave-computer
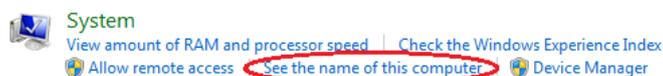

4.2.2 Slave Computer

Go the "Timekeeping Mode"-tab of the Event Parameters:

- Select Simple Slave
- Give access to the Chronos directory of the Master-computer

4.2.3 Remarks

Each computer has a given name which you can view or change in the Windows settings

5   General Remarks

When you're preparing your race event on the Master or Slave computer a few days or weeks preliminary to the race day, copy pace the complete event folder (xxxx.CHR) to the other computer.

The Parameters "Evens Class Parameters", "Practice", "Heat (1/12)", "Heat 13/30" will be taken over when you copy a xxxx.CHR event folder. The Parameters "Final / Championship", "Listing" and "Timekeeping Mode" must be entered manually on each computer.