

Setting up the computers to run a Swim Meet

This document is a guide to how to configure the computers used to run a Swim Meet using the Swiss Timing Omega Semi-Automatic Timing (SAT) system.

The components being discussed are:-

- the Meet Manager computer
- the ARES computer
- the Meet Manager program
- the ARES 21 program
- the cable linking the two computers together

This guide will describe how to configure the operating systems and the programs on each computer so that events and results can be transferred between them.

The Meet Manager Computer

This is the computer used to gather the times swimmers achieves in each event, collate those times and produce reports. In 2016, the most widely used version of Meet Manager is v5.0. Obtain a legal copy of the program on CD and install it onto the computer. The installation is simple and straight-forward. When inserted the program should commence the installation procedure. If not, locate and execute the **setup.exe** program. Accept all the default choices given as they will suit 99/100 installations. More experienced computer users may change the defaults if desired.

The ARES computer

This is the computer used to connect to the Omega SAT timing device – the flat red box. It's connected to the red box by a DB9 serial cable wired to Swiss Timing's specification. Your local computer store will be able to build one for you if you have the wiring diagram. See the user manual for details. As times are captured by the SAT they are written via the serial cable to a folder managed by the ARES program that you have specified. The computer port used for this operation is known to the operating system as **COM1**.

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A bit about serial ports

The Meet Manager computer and the ARES computer also communicate with each other via their serial ports. These ports can be defined to the respective operating systems as any COM port **except** COM1. A special cable, known as a **null modem** cable, is used to join the computers together. The technique of using a null modem cable to link two computers together is as old as computing itself. It's a simple and reliable method. Any computer store will have in stock null modem cables of varying lengths. The cable will sport a DB9 serial interface at each end.

However, most modern computers no longer come built with a corresponding DB9 serial interface to plug the cable into. Problem! Not at all. Modern computers come with two or three serial interfaces in the form of **USB** ports. USB is an acronym for Universal Serial Bus. What you need is a device to convert the DB9 serial interface to a USB serial interface. Your computer store will also have in stock a range of USB-Serial adapters. These devices have a USB interface on one end, a short cable and a DB9 interface on the other end. You'll need two of these devices – one for the Meet Manager computer and one for the ARES computer, joined together by the null modem cable.

Assigning a COM port to a USB port

This is an important procedure. Once it is successfully completed you need not do it again as long as all your hardware, software and operating systems remain unchanged.

Select a USB port on your computer. Make it one that will be convenient to use with the recording desk setup you prefer to have. Make a permanent mark near the port. You will use this same port every time. The USB-Serial adapter will come with a CD that contains **driver** software. Insert the CD in the computer and install the software. Now connect the USB-Serial adapter. Your computer will recognise the device, add it to the operating system and assign a COM port number. You need to find out what that number is.

Start the operating system's **Device Manager** program (*My Computer* → *Manage*)

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- Select **Device**
- Select **Ports (COM & LPT)**

The USB-Serial adapter will be listed along with the COM port that has been assigned. Record this number.

For the sake of simplicity it's recommended that the COM port be named consistently on both computers. I'd recommend using **COM2**. If the operating system has automatically assigned COM2 then your done here. If not, then follow these steps to assign the number you'd prefer.

- Right click on the USB-Serial adapter description
- Select *Properties* → *Port Settings* → *Advanced*
- Select the drop-down box adjacent to **COM Port Number:**
- Select **COM2**
- Press *OK* → *OK*
- Right Click on the USB-Serial adapter again
- Select **Scan for hardware changes**

The USB-Serial adapter description will have changed to show COM2. **Record this number.** Close the Device Manager.

Important: From now on, every time you connect the USB-Serial adapter to the USB port you have chosen the operating system will assign the COM port you told it to. COM2, in the example above. This is important because you need to tell the Meet Manager program and the ARES program the COM port number they should use for inter-computer communications.

Assigning a COM port to the programs

ARES

- Connect the USB-Serial adapter to the USB port you've chosen.

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- Start the ARES program
- Select or Create the folder for your Meet
- Select *Configuration* → *DH*
- In the section IF-ARES GP PORT, select **None**
- In the section DH ON PC COM PORT, select **Bi-Directional**
- In the drop-down list, select the COM port you've chosen. In this example: **2** . Press *OK*

Meet Manager

- Connect the USB-Serial adapter to the USB port you've chosen
- Start the Meet Manager program
- Set-up your Meet
- Select *Run* → *Interfaces* → *Set-up* → *Timing Console Interface (Pool 1)*
- Select **Omega ARES21 Bi-Directional**
- Select *Interfaces* → *Timer (ARES) – Pool 1* → *Open/Close Serial Port for ARES*
- In the field **Serial Com Port for ARES Timer (0-60)** enter the COM port you chose earlier. In this example: **2** . Press *OK*.

The program will attempt to communicate with the ARES program. If it's successful the message **Communication Passed** will be displayed.

Downloading Events

The events you've set-up in Meet Manager can now be downloaded to ARES.

- Select *Run* → *Session : F7* → *chose the Session you wish to download*
- Select *Interfaces* → *Timer (ARES) - Pool 1* → *Download Events to ARES*

A window will appear on the ARES computer requesting confirmation to accept the events from Meet Manager. Say **OK** if you're happy. **You're ready to GO!!!**

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Producing Results

As the Meet progresses and each Heat finishes you can copy the results from the ARES computer to the Meet Manager computer.

From the **Run** screen on the Meet Manager computer:-

- Select the **Event** and **Heat**
- Press **Get Times : F3**

The times for each Lane will appear in the **Finals** column. When every Heat has a value in the Finals column the Event will be marked as **Done**. You can now produce the **Results** report for that Event. Press **List : Ctrl-L** to do that.

Tip

Very often, Meet Manager has problems picking up times for Events that are longer than 100m. Because you're using Meet Manager to produce the Results report there's a work-around to overcome that.

From the **Timetable** window of the ARES program:-

- Select the "GT 100m event" you wish to gather results for. Say, *Ev 14 - 200m Free*.
- Select **Edit Competition**
- In the **Race** section change the race distance to 50m
- Press **OK**

Meet Manager will now be able to gather the results from ARES. The stroke, gender and race distance that ARES knows about are not copied across to Meet Manager. Only the event number and the times for each lane are copied.

This works for Relays too!!

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Appendix A: SAT cabling

Start from either end, finish at one end. ie: the starter moves, the time-keepers do not.

