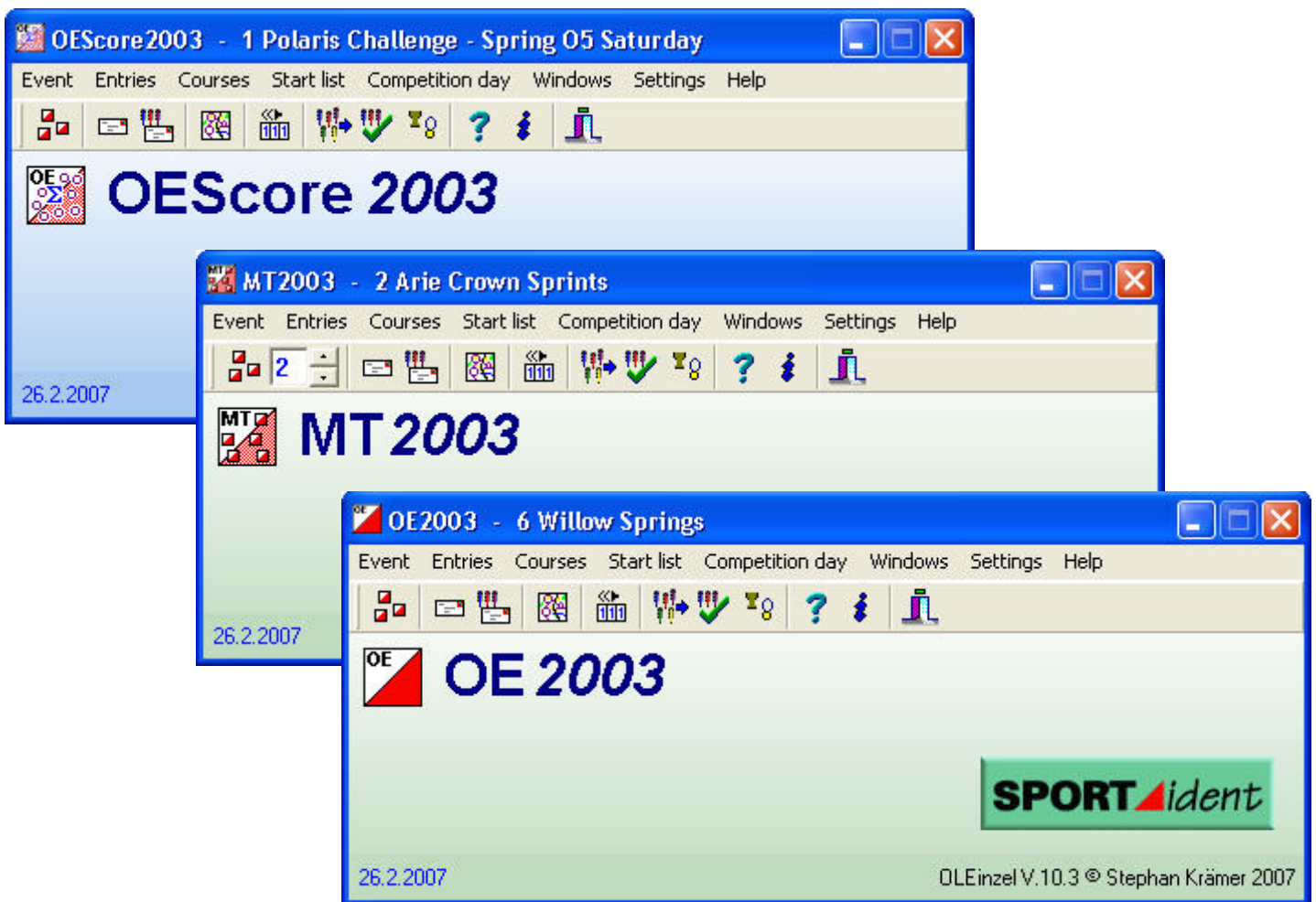


# Chicago Area Orienteering Club

## Instructions on the Installation and Use of Sport Software for Orienteering



# Introduction

This guide is for the use of members of the Chicago Area Orienteering Club (CAOC) and is not intended to replace or supersede any instructions from the owners of SPORTident, Sport Software or Brother. Should this guide be used by non-CAOC members they should be aware that much of the content has been derived from the methodology of “trial and error.”

The CAOC E-Punch system is made up of components from several different vendors of software and hardware. The names to become familiar with are:

- **SPORTident** – is the manufacturer of the physical equipment used by many orienteering clubs in North America and their web address is [www.sportident.com](http://www.sportident.com).
- **Sport Software** – is the leading manufacturer of software programs that manage the data being collected by SPORTident. Their web site at [www.sportsoftware.de/eng/home.html](http://www.sportsoftware.de/eng/home.html) is the source for almost all software used to run the e-punch system. Learning to use the Sport Software applications is the key to running the e-punch system and is the focus of this guide.

Other related vendors are:

- **Brother** – CAOC bought a Brother label printer to put the finishing touches to events by producing results on an adhesive label that can be attached to an individual's race map. The label layout is controlled through a Sport Software application and can be one of the harder parts of the system to learn. Many other report types are available for printing on regular paper but switching between printers during an event is not recommended. This is the reason that at least 2 laptops will be seen at A-meets, one to accept downloads and the other to print reports.
- **Route Gadget** – this is a website designed to combine the course map (from OCAD) and the race times (from Sport Software) in a format that allows competitors to draw their actual course onto the computer's version of the map. Controls on the website allow multiple runners to be selected and then “raced” against each other in a mass-start format. In addition to being highly amusing it is also an excellent method for comparing route choices with close rivals or elite runners.
- **Winsplits** – is a website that displays results in tabular form. Controls on the screen allow the results to be filtered in various ways and colors are used to highlight leg splits that were abnormally fast or slow. Calculations are made to show how much time was probably lost (or gained) on particular legs. Sport Software results are used for the upload to Winsplits and the process is covered later in this guide.

This guide is in 4 Parts as follows:

- Part 1 gives a more detailed explanation of the SPORTident equipment as well as the instructions for installing the SPORTident, Sport Software and Brother label printer software on a personal computer.
- Part 2 details the steps to be taken when preparing for an event. This is based on a classic point-to-point event with an extra section for situations when non-standard courses are in use, e.g. butterfly loops, Goats, etc.
- Part 3 covers the procedure to be followed on race day, both during and after the event.
- Part 4 is a guide to configuring the e-punch equipment and some troubleshooting tips

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# Part 1 – System Installation

## SPORTident Equipment

The SPORTident e-punch equipment operates on a “stand alone” basis, meaning that the controls have no direct connection with each other. They should be synchronized with each other before being placed in location and then left in a suspended mode until a runner arrives to “punch” in. The station transfers it’s time to the SI Card on the runner’s finger and after several minutes it will go back to suspended mode to save battery power until it’s punched again.

1. The **SI Card 5** is the electronic control card of the SPORTident system. This is a Radio Frequency ID (RFID) chip encased in plastic that has the capacity to store up to 35 punches as the runner proceeds along a course. The SI card is attached to the runner's finger by an elasticated band.
  - CAOC uses red cards for sales and blue cards for rental. This is for the convenience of managing the inventory.
2. The **Control Station** (type BSF8) is the unit which replaces the traditional punch at the control. Electronic punching is done by inserting the SI card into the control station until a beep is heard. Besides normal control station mode, an SI control station can also be used to **Clear** and **Check** the SI cards before starting a race and as the **Start** and **Finish** stations. It is powered by an internal battery but the stand includes a conventional pin punch in case the station should fail.
  - CAOC uses red control stations for the course controls and blue control stations as the start and finish stations. This is for convenience only as all control stations can be programmed for any task.
3. A master station (the **SI Master**) is used to synchronize the internal clocks in the Control Stations before they are placed in location. It’s accessories are a purple SI Card for setting it to the appropriate mode and an **Induction Coupling**, which is a small (easily lost) metal rod providing an electrical conduit for the data from the master station to each control station.
  - CAOC stations are all configured for use and the information in paragraphs 1 – 3 above is mostly for background information only.
4. The **SI Main Station** (type BSF7) is used to download the time stamps from the runners SI card at the end of the race. It is connected to the computer through a USB port and is also used for the initial programming of the controls. Another useful function is the ability to take information from the actual control stations as a method of cross-checking event results to resolve issues that may occur.

## Sport Software Support Applications

1. CAOC has chosen to use Sport Software for event management. Several applications are required for the system to function correctly and are available online at [www.sportsoftware.de/support/supp\\_downloads.html](http://www.sportsoftware.de/support/supp_downloads.html). No special skills are necessary.
2. These support applications must be installed first and in the following order:
  - a. CheckPC (checkpc21setup.exe) – validates the Windows setup on your PC to ensure accurate database operation. Run this application immediately after installation to complete the validation process.
  - b. AM2003 (am103setup.exe) – this is the Archive Manager and is used to edit the database. May never have to be used but having it installed is a requirement.
  - c. LM2003 (layoutmanager103setup.exe) – this is the application used to design the layout of any printed output that may be required.
  - d. TestPrinter (testprinter10setup.exe) – confirms that your printer driver will work correctly with all Sport Software reports.

## SPORTident Software

1. This software is available at [www.sportident.com/likecms.php?site=site%2Ehtml&nav=255&siteid=0](http://www.sportident.com/likecms.php?site=site%2Ehtml&nav=255&siteid=0).
2. **SI Config** (siconfig\_1431.zip) – is the application used to manage the Control Stations (set up their numbering, function, etc.) and the Main Station (for downloading timing data from the SI Cards.)
3. **Main Station USB driver** (SI-USB-V3.zip) – needs to be available on the computer for the first time a Main Station is plugged in.
  - a. Once this file has been downloaded and unzipped the enclosed application (Preinstaller) is to be run first. A warning from Windows may appear caused by logo's not being recognized. Ignore this warning and continue the installation.
  - b. Plug the Main Station into a USB port and allow the New Hardware Wizard to install the appropriate drivers.
4. **SI Boot** (siboot\_555b.zip) – is used to upgrade the firmware in the control stations.

## Sport Software Event Software

1. Once the installation of the above applications is complete the computer is ready for the main event software to be installed. This software is available at [http://www.sportsoftware.de/support/supp\\_downloads.html](http://www.sportsoftware.de/support/supp_downloads.html) and may have already been downloaded with the Sport Software Support Applications.
  - a. OE2003 (oe103setup.exe) – this is the main event management software for single day events.
  - b. MT2003 (mt103setup.exe) – is an upgrade to OE2003 for multi-day or multi-stage events. This is not listed on the downloads page so use this link: <http://www.sportsoftware.de/download/lic103/mt103setup.exe>
  - c. OEScore (oescore103setup.exe) – is for managing Score-O events.

### Notes:

- The event software applications require a software key to be entered before they become functional. Contact the club President or Secretary for details.
- The applications will run on any PC under Windows 2000/XP/Vista. MS Internet Explorer 5.0 or higher must be installed on that PC as well as a spreadsheet program such as Excel. There are no additional hardware requirements. All Windows installed printers will work.

## Brother QL550 Label Printer


1. The printer box should contain a CD, which is to be used to install the printer software before the printer is plugged into the computer.
2. Select **Standard Installation**, accept the License Agreement and, when prompted, enter **CAOC** as the User Name.
3. Allow the software to install to the default locations but you may not want to have shortcut icons placed on the Desktop and Quick Launch Bar.
4. Allow the Word and Excel add-ins to be installed but the Outlook add-in is unnecessary.
5. When prompted, connect the P-touch printer to a USB port and turn on its power.
6. Once the drivers have been installed the installation is complete.
7. It is recommended that the instruction manual is saved to the computer's hard drive before replacing the CD in the printer box.

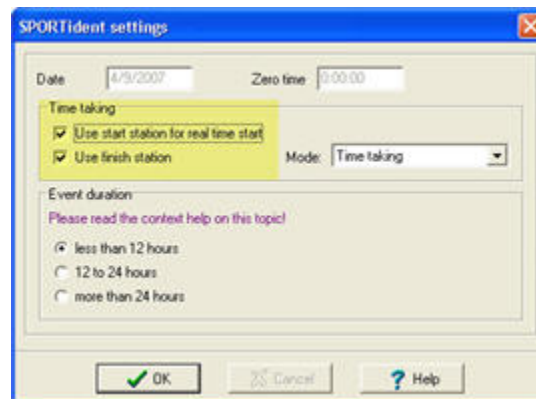
## Part 2 – Preparing the Event

The following instructions are based on the assumption that the event is a single-stage point-to-point event. I.e. a normal Sunday event for CAOC, which requires the use of OE2003. For a non-standard format (e.g. the Goat or a Box section) the variations are at the end of this section.

From the **Start** button of the computer launch **OE2003** and follow these steps in order.




### Creating an Event

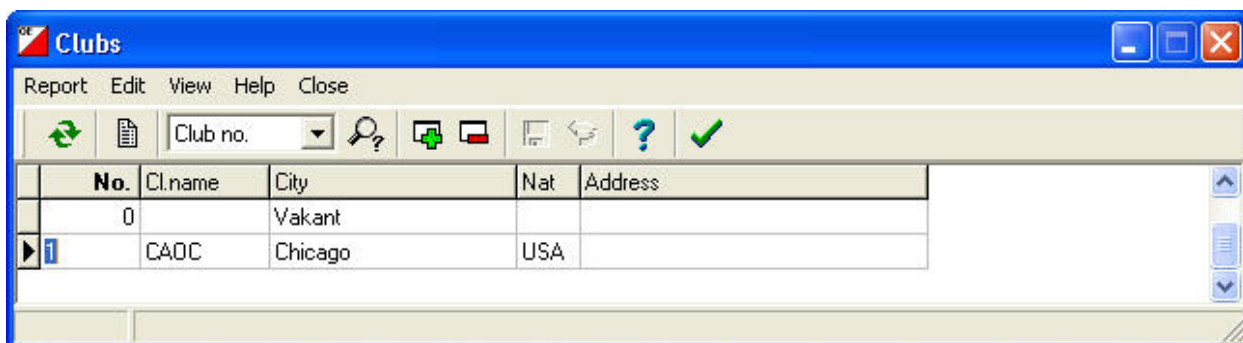
1. Open the **Event** menu and select **New**.
2. Enter a name for the event, the date of the event in the format **mm/dd//yy**, and zero '0' for the time.
3. Click the **Settings**  Settings button and ensure that both check-marks are in place for the **Time Taking** section. This is a vital step and must not be missed.




4. Once the event has been created its name will be displayed in the OE2003 title bar. If the software is shut down, and then re-launched, it will return to the last event that was in use.
5. To manage a different event open the **Event** menu and click **Select**. Highlight the desired event and click **OK**.
6. To delete an event open the **Event** menu and click **Delete**. Highlight the event to be deleted and click **OK**. This may be useful when test events are created to learn the software.
7. The same steps are taken to open one of the two demonstration events that are pre-loaded in the software. This can be useful to see examples of how events can be organized.

## Establishing a club

1. Open the **Entries** menu and select **Clubs**.
2. A window will open with a blank line entry numbered '0' with 'Vakant' as the City. This is a default that must not be removed or changed.
3. Click the **Create Club** button  and enter the following:
  - a. Club Name – **CAOC**
  - b. City – **Chicago**
4. Click the **Refresh table** button , then **Yes** on the **Save modifications** message.
5. Finally click the **Close form**  button.





Note: If guests from other clubs arrive at an event be sure to add their home club's details appropriately. There is an **Add Club** button  in the **Entries** window for quickly creating a new club.

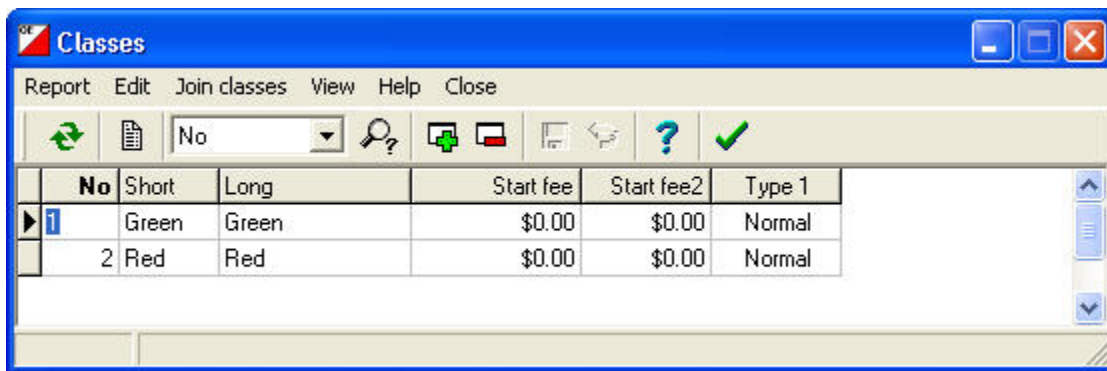
## Creating Entry classes

The term "classes" appears in 2 areas within the Sport Software. Entry Classes refers to age classes that are normally found at A-Meets and above. The Long class name is used when results are printed but the Short name allows for faster data entry when adding competitors. For CAOC purposes the course colors can be entered.

1. From the **Entries** menu select **Classes**.
2. Enter the following:
  - a. No – 1
  - b. Short – **Green**



- c. Long – **Green**
  - d. Press **Enter** on the keyboard.
3. A message will appear asking for confirmation that “This class will not pay any start fees.” Click **Yes**.
  4. Enter a second Class with **Red** as the Short and Long names.
  5. Click the **Refresh table** button , then **Yes** on the **Save modifications** message.
  6. Finally click the **Close form**  button.





### Recording Controls

Before the courses can be entered the software must have the control numbers being used.

1. From the **Courses** menu select **Controls**.
2. Enter # **1** in the first field. “Control” and “Control 1” will appear in the same line.
3. Change the Type to **Start**. The description field can be left untouched. Press **Enter**.

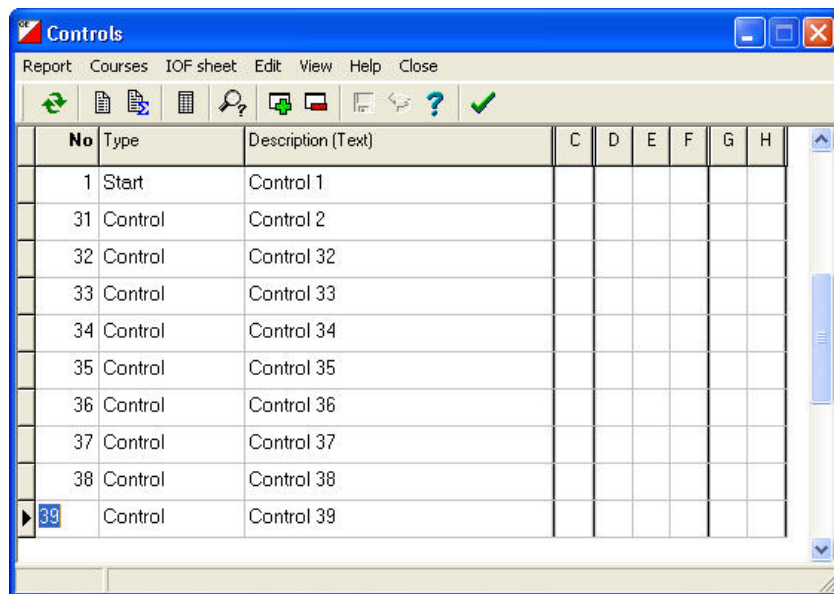
Note: The CAOC inventory of e-punch equipment shows that the Start control has been numbered “1”, which is the reason why the first line in the Control setup is as above. The following instructions are for the field controls, which CAOC’s numbering system has starting at 31.

4. A second row appears with the number 2. This must be changed to the lowest control number being used in the event, e.g. **31**.
5. Press **Enter** repeatedly and a new row will appear with the control numbers incrementing automatically.

7. When the last required number appears click the **Refresh table** button  then **Yes** on the **Save modifications** message.
6. Click the **Close**  button.

Notes:

- Control # 31 doesn't always have to be the first control used.
- Some controls may no longer be in the inventory so don't assume that the list will be a single sequence.
- If random controls are being used then the data entry above should be done carefully to reflect the correct control stations.
- A safe way to ensure that the correct controls are entered is to use the master control description printout from OCAD.



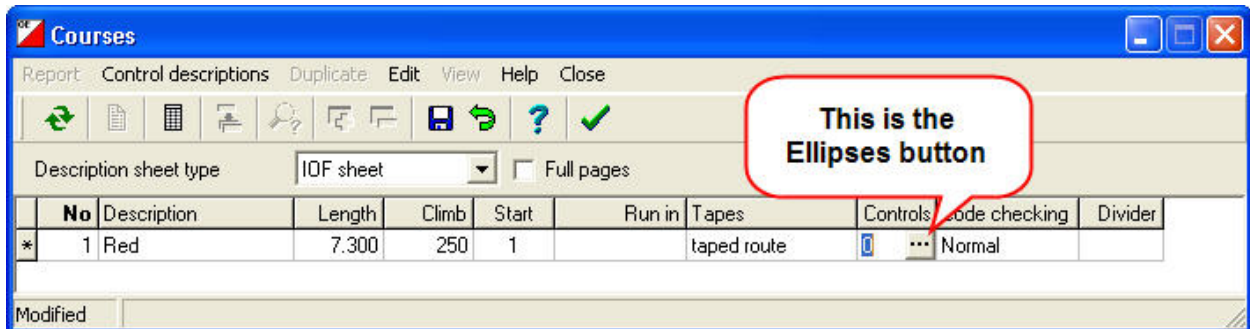
The screenshot shows a window titled 'Controls' with a menu bar (Report, Courses, IOF sheet, Edit, View, Help, Close) and a toolbar with icons for refresh, print, search, add, delete, undo, redo, help, and a green checkmark. Below the toolbar is a table with the following data:

No	Type	Description (Text)	C	D	E	F	G	H
1	Start	Control 1						
31	Control	Control 2						
32	Control	Control 32						
33	Control	Control 33						
34	Control	Control 34						
35	Control	Control 35						
36	Control	Control 36						
37	Control	Control 37						
38	Control	Control 38						
39	Control	Control 39						

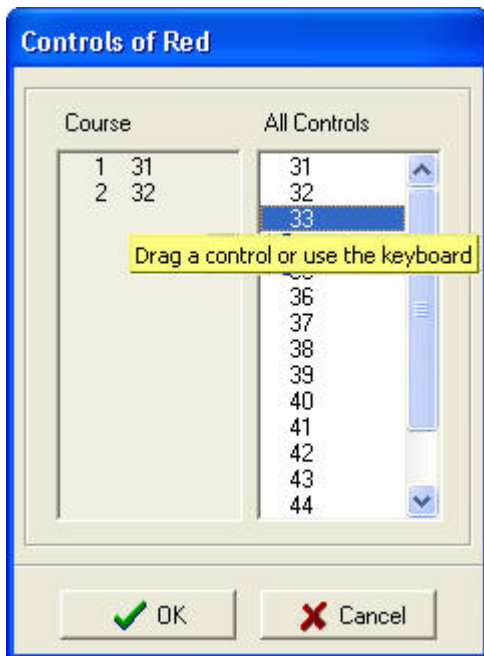
### Creating Courses

1. From the **Courses** menu select **Courses**.
2. Enter **1** in the first field and the name of a course in the second field, i.e. **Red** or **Green**.
3. Enter the **Length** and **Climb**. This has no effect on the courses other than to display on the results.

4. Enter the number '1' for **Start**. The software is now programmed to get each competitor's start time from this control because of the entries made when 'Creating the event' and 'Recording the controls.'




5. Click the **Ellipses** button to open a window containing all available controls.
6. Pay close attention to the message that appears as the mouse passes over the left pane.



7. The 2 methods for entering the controls into a course are either:
  - a. Drag each control, in the correct order, from the right pane to the left pane.
  - b. Highlight a control by clicking it then press the **Enter** key on the keyboard.
8. If a control is entered into a course by mistake then highlight the control (in the left pane) and press **Delete** on the keyboard.
9. In a long course the left pane may be filled with controls and be difficult to manage. Stretch the window vertically by dragging either the top or bottom with the mouse so that all controls are visible.

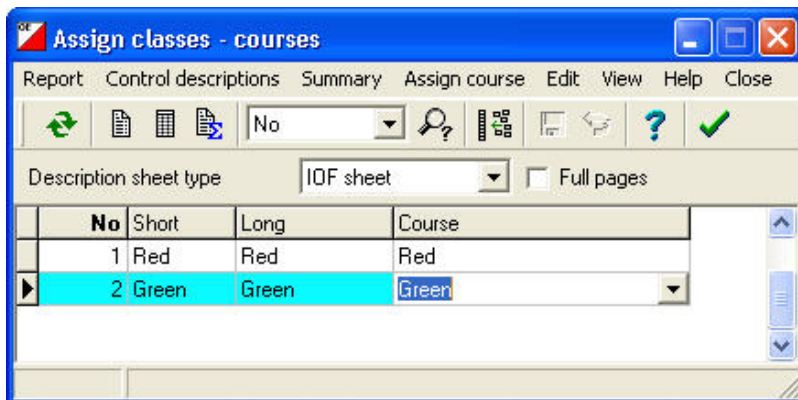
10. Click **OK** to save the course then repeat the steps for all other courses.

11. Click the **Close form**  button.

## Linking Entry Classes to Courses

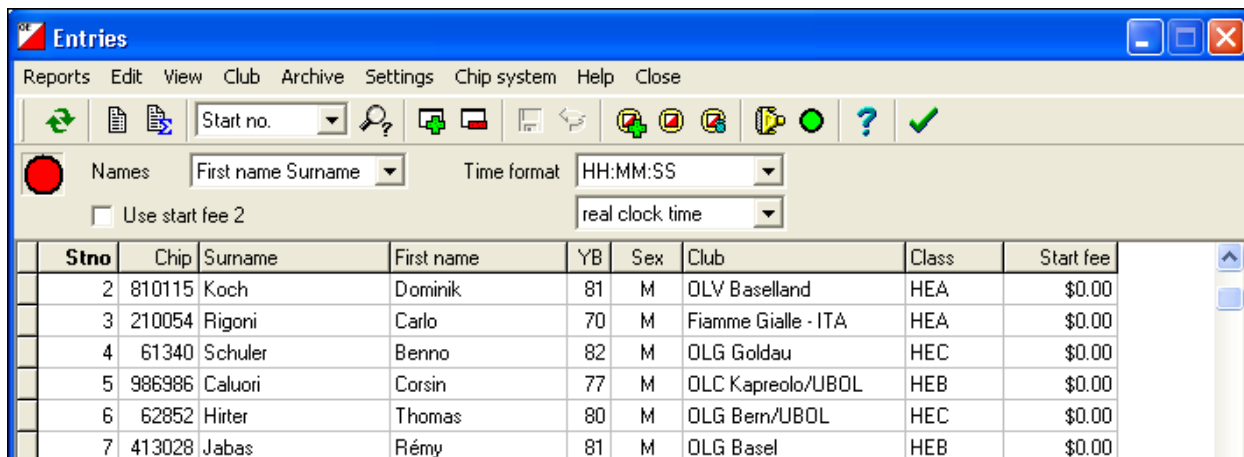
The final step before starting to enter competitor's details is to link the entry classes to the courses. In an A-meet this would mean linking M21+ to Blue, F45 to Orange, etc. For CAOC club meets it can be confusing as both selections are based on the course color.

1. From the **Courses** menu select **Classes**.
2. Match each Entry Class with the corresponding Course and save the results.



## Entering Competitor Information

1. From the **Entries** menu select **Entries**



2. After entering the first competitor the Start Number (Stno) will increment automatically. Enter the competitors Chip Number from the SI Card and their Last and First Names.

Hint: Using the **Tab** key on the keyboard is an easy way to move from field to field.

- Year of Birth is not necessary and **Sex**, **Club** and **Class** can all be entered by pressing the first letter of the selection. E.g. to select Female press “**F**”.
- When the last field has been completed, and tab pressed, the “Save modifications?” message will appear. Click **OK** to complete the process and a new line will appear ready for the next competitor.

### Non-classic events

Most non-standard events are managed in the alternative applications, which are MT2003 for Multi-stage or Multi-day events and OEScore for score events. Some events, however, are designed to give runners the option of either purposely missing controls (i.e. the annual Goat event) or a ‘box’ of controls may be set up where runners can choose the order in which they visit the controls.

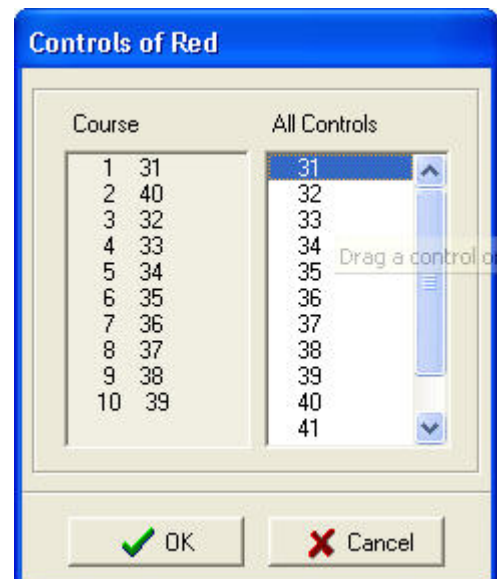
For these styles of event a ‘divisor’ is used to separate the list of controls that must be taken in order from the controls that can be taken in any order. The divisor is a control number and must be the last control that will be taken in a specific order. Therefore it is usually the control number of the last control.

To show examples of how this works assume that the controls being used are 31, 32, 33, 34, 35, 36, 37, 38, 39, 40 with #31 being Control 1 and #40 being the last control.

### Example 1 – The Goat

In this style of event the rules are that the first and last controls cannot be skipped but any 2 (non-consecutive) controls may be missed at each runner’s discretion. To create this is OE2003:

- Assuming that #31 is the first control and #40 is the last control, enter the controls in the order 31, 40 then 32 through 39.
- In the **Code Checking** field select **Mixed**
- In the **Divider** field enter the number ‘40’ as it is the last control that must be taken in order.
  - As each runner will purposely miss 2 controls the software must be set to not check the controls after the divisor (in this example from #32 - #39)
  - At download the results will be accepted but the label should be checked to confirm that no more than 2 controls were missed and that they were non-consecutive.

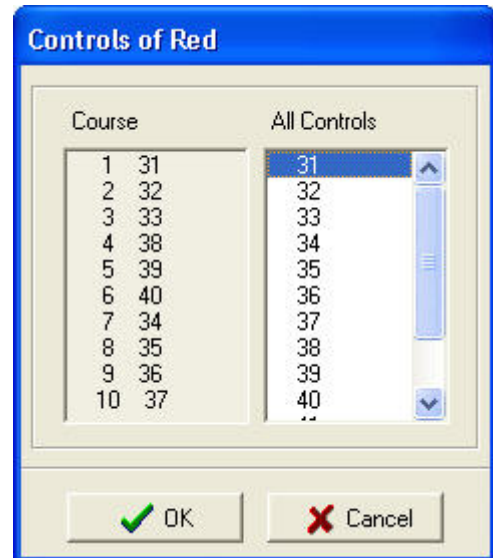


## Example 2 – Box Orienteering

The purpose of a box of controls is to give runners more route choices, as each runner can visit the controls in any order they choose. The rule is that by the time the runner leaves the box they will have been to all the controls.

Using the same sequence of controls as above, and assuming that the controls in the box are numbers 34 through 37, the procedure is the same as for the Goat but in this case the controls would be listed in the order 31, 32, 33, 38, 39, 40, 34, 35, 36, 37.

All controls that must be visited in order (before and after the box) and listed first with the divisor control being the final control on the course. The controls that can be visited in any order are listed last.



No	Description	Length	Climb	Start	Run in	Tapes	Controls	Code checking	Divider
2	Green Goat	14.000	250	1		None	8 ...	Mixed	40
3	Red Goat	19.000	350	1		None	10 ...	Mixed	40

## Part 3 – Race Day

### Course Setter

The Course Setter is probably the first person to arrive in the woods on race day and its this person's responsibility to ensure that all the control stations (including Clear, Check, Start and Finish) have their clocks synchronized.

Remember that each piece of equipment has its own internal clock and these clocks have a tendency to drift away from each other. The standard time is controlled by a unique station known as the **SI Master**. It is blue in color and will never be attached to a stand. It will be stored with a purple card and a small metal rod known as the **Induction Coupling**.

The purple card is pre-loaded with a signal that gives it control over the SI Master, which in turn is programmed with multiple modes that are used to set the other stations to specific roles. Each time the card is inserted into the SI Master it changes it's mode through the sequence:

SERVMT –  
TIMEMR – Time Master  
EXT MA –  
Off

Most of the above is background information to give an understanding of what's being done and why. The procedure for synchronizing the control stations is as follows:

1. Lay out all the controls that are going to be used for the event, including the Clear, Check, Start and Finish controls.
2. Punch the SI Master with the purple stick to turn it on then punch it again to set it to TIMEMR mode.
3. Insert the Induction Coupling rod into the SI Master then, while holding the rod in place, put the SI Master on top of the control so that the rod is effectively punching the control. The normal beep will be heard when the coupling is complete.
4. Repeat this process on all controls then place them in location.

### Meet Director


The Meet Director's priority is to have the Registration and conventional Start & Finish tables set up in time for the arrival of the first runners and the Course Setters word that the courses are placed and the event can start.

The laptop being used should have all software

The normal safeguards should be taken when setting up the E-Punch Start/Finish area:

- Ensure that the equipment is protected from any water and (as much as possible) dust.
- Connect all the components to the laptop except the download station, which should not be plugged into the laptop until the first competitor finishes. Its internal battery is in use for as long as it's plugged in so this will prolong it's life.
- Plug the laptop and printer power cords into the power-strip, which can be powered from a vehicle through the Pocket Inverter and extension cord that should all be part of the E-Punch equipment inventory.
- Once the laptop has booted up launch OE2003 (or other appropriate program.)

### Entries

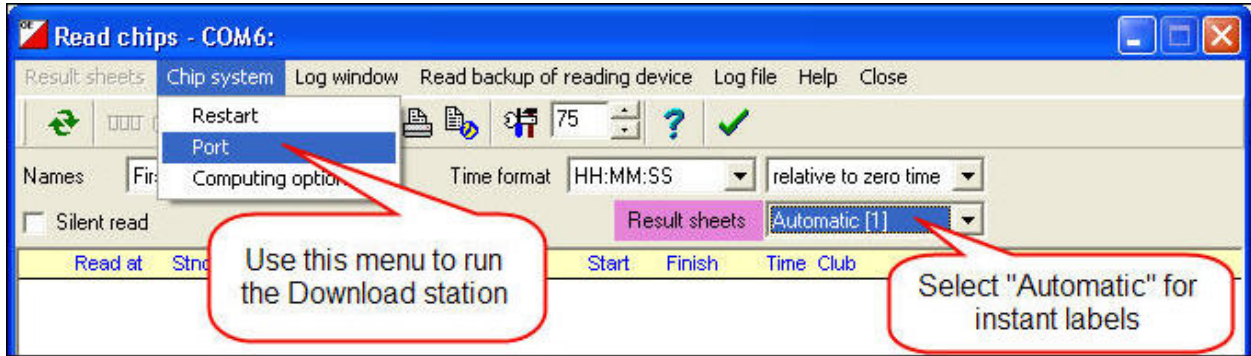
1. From the **Entries** menu select **Entries**.
2. If the club membership has been loaded into the event then it's simply a case of checking the details for each competitor as they arrive at the start table. Take care with this check to ensure that the SI Card number is correct and that the competitor is running the course that is listed for them.
3. If competitors have to be entered manually click the **Create new competitor** button  to start a new row.
  - a. The **Chip** column is for the serial number on the SI Card
  - b. All other fields are self-explanatory but care should be taken with the **Sex** and **Class** fields as they will automatically carry forward the previous entry. So if a Male Green runner follows a Female Red runner through the Start then these fields will need to be changed.

### Downloading Results

1. Plug the Download Station into an available USB port.
2. From the **Competition Day** menu select **Read Chips**.
3. If the **COM port not ready** message appears it's because the software hasn't recognized the port that the Download Station has been plugged into. Click **OK** to close the message then select **Port** from the **Chip System** menu.
4. In the **Port** field change the setting to the port that has **SPORTident USB to UART Bridge Controller** in its details.



- For the label printer to produce splits the software must be set to print automatically when a download occurs. In the **Result sheets** field select **Automatic**.

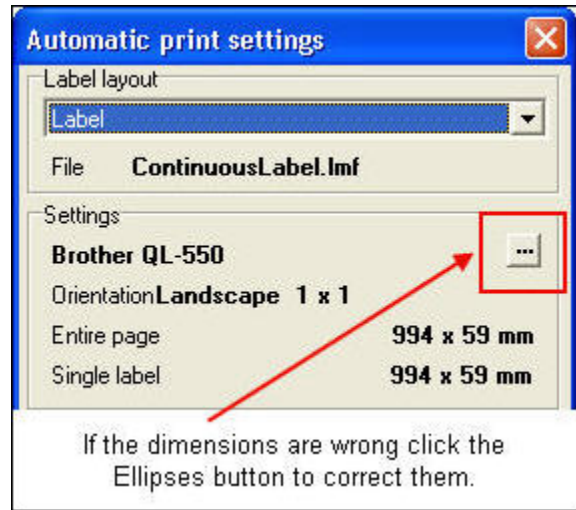


- The automatic print settings window will appear and should contain the following information:

- Label Layout – **Label**. The corresponding file should be called **ContinuousLabel.lmf**

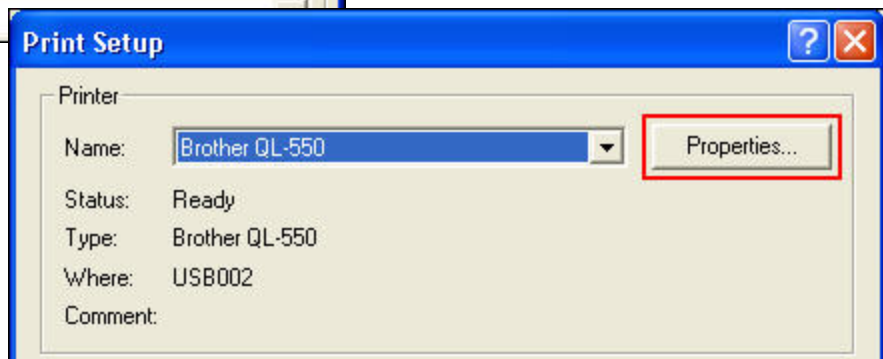
Note: this is a custom designed file and will not be downloaded with the software. Contact the president or secretary to receive the file by e-mail.

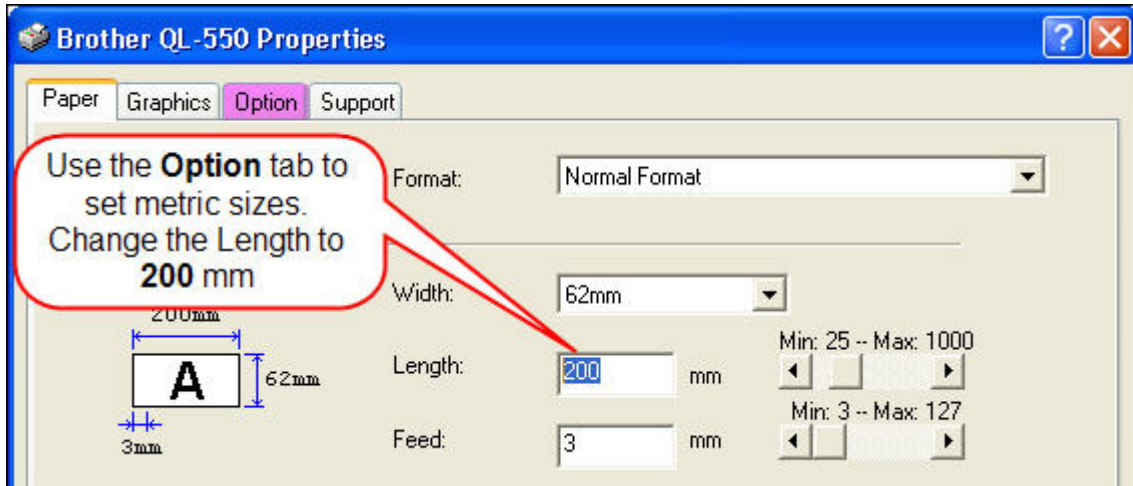
- Settings – **Brother QL-550, Landscape 1 x 1, 194 x 59 mm**



Step 2 is to click the **Printer** ellipses button in the Label Settings window.

Step 3 is to click the **Properties** button in the Print Setup window.





- Click the **Properties** button and change the **Length** to 200mm. There is an default margin of 3 mm that reduces the actual label size to 194 mm. This is enough for courses with up to 24 controls.
- Click **OK** four times to return to the Direct Entries window.
- The Label layout should now be set correctly.

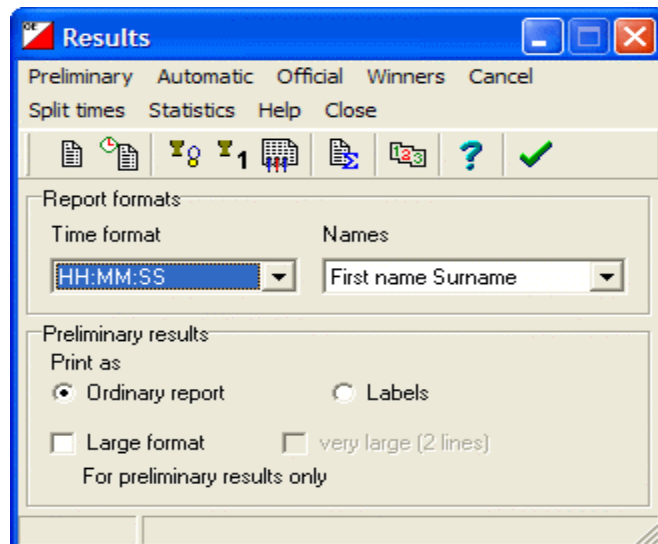
### Race Results

For most CAOC events there are 3 sets of results produced. For the website the **Standard** and **Extended** results are both posted. The Standard results show the elapsed time when each competitor punched the controls along with the split time for each individual leg. The Extended results add on the overall time behind the current leader as well as the overall time behind the winner of that leg with the runners current position in the race for both instances.

The final set of results is for use with the Route Gadget website.

### Splits for the website:

- From the **Competition Day** menu select **Results** and when the Results window opens select **Split Times**.
- In the Select Report window select **Classes** for the Report Type and **Standard** for the Split Time Results. Both options are on the left side of the window. Then click **OK**.



3. In the results window now displayed select the **Publish** menu. Use the browse button at the end of the **File** field to specify the location for the file.

a. To keep the results archive organized the recommended file structure is:

My Documents\Orienteering\Epunch Results\20\*\*\##2008\

(where \*\* is the year's digit and ## would be an abbreviation for the site of the meet. E.g. 2008\WG2008 for Waterfall Glen)

b. Using **Standard** as the file name will help others understand the file's contents.

4. Repeat the steps above for the Extended results, which

5.