

This is a brief overview of how you would manage a MTB gravity enduro type event with SPORTident Air+ contactless timing and the SiTiming software. For more details documentation on SiTiming and to download the latest version of the software, please visit www.sportident.co.uk/sitiming/.

It is assumed that:

- You have hired all the timing equipment from SPORTident UK and therefore all the stations and beacons have been programmed correctly.
- SPORTident UK has set up the event in SiTiming and sent you the event backup.
- You have an understanding of SiTiming and can do things such as add or edit an entry and display results.

The kit

You may have been provided with more than one for some items (such as Master Stations) where they are critical for the success of the event.

Your own laptop(s) with SiTiming installed

Please install SiTiming and gain familiarity with the software prior to the event.

SIAC Active Card

These timing cards come on a wrist strap and you need one for each participant. Ask all riders to put it on the same wrist and locate the Start and Finish Beacons (BS11-BS and BS11-BL, see below) for each stage on this side. The SIAC will beep and flash when it has recorded a stage start or finish time – occasionally the beep is very quiet, that is fine and the card can still be used.



Master Station BSM-USB

This connects to your computer and is used at registration when allocating the SIACs (timing cards) to participants.



Dongle

This can be connected to your computer to collect data from a SIAC. Only for use in exceptional situations as advised by SPORTident.



Stations - either BSF7 (top image) or BSF8 (bottom image)

You will have stations set up with one of the following uses – they will be labelled to show which one they are

Clear

Put the tip of the SIAC in the hole to remove all previous times from the SIAC. The station will beep and flash to show that this has been completed.

Check

This Station switches on a Cleared SIAC. If the SIAC has previous data on (i.e. hasn't been cleared), then it will not beep and flash and will not turn the SIAC on. If you are doing 'Punch Registration (Check)' [see below] the SIACs will already be switched on so there is no need to use this Check box.

SIAC On

Switches the SIAC on when it is dibbed, no matter if the SIAC is Cleared or not.

SIAC Off

This switches the SIAC off and should be used at the end of a race after the data has been downloaded using a SIAC Read Out Station and Dongle.

Switch off all SIACs

Does as it says on the tin. Dib a SIAC in the hole to turn the station on, and any SIAC that gets within 30 cm of the station in the next 2 minutes will be turned off. Wave over the bag of all SIACs at the end of the event to switch all SIACs off.



SIAC Battery Test Station

This is used to check the voltage of the SIACs. Dib the SIAC in the hole and the Station will beep and 'OK' will be displayed on the LCD screen. If the voltage is too low the LCD display will display 'LOW' and the station will not beep. In this case the SIAC should not be used until the battery has been replaced so the rider will need to be given a new SIAC before they start. If you get 5 beeps then the battery has limited life but should last for the current event unless a lot of data is being collected from the chip for live timing.



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BS11-BS-Blue (Beacon Station Small)

These beacons have a range of about 1.5 metres. They are used at the beginning of the journey (typically at the event centre) and the start of each stage to record the time on the SIAC.



Journey Start (Pre Start Test)

Riders pass this beacon as they leave the event centre at the beginning of the event. You need to have a marshal here checking that the SIAC beeps and flashes as the rider passes. It also shows the riders what to expect on the course.

Stage Start

One for the start of each stage in the event.

Switching a small beacon on

Place the magnet (on the lanyard) on the left hand side of the display where it says '1 / 0'. The display will activate and the beacon will beep and flash. The beacon will switch off after a pre-set amount of time (usually 12 hours), so do this on the morning of the event rather than the night before



Switching a small beacon off

Hold the magnet in the same position as for switching the beacon on, but leave it on for longer (it will double-flash several times) until the display goes off.

BS11-BL (Beacon Station Large)

These beacons have a range of around 3 metres and record a riders SIAC travelling at up to 40km per hour. They are used for the finish of each stage.



Stage Finish

One for the end of each stage.

Switching a large beacon on

Either press the red button on the reverse of the beacon, or place a magnet on the symbol to the left of the LCD display, depending on the type of Beacon. The LCD display will scroll through a number of screens.

Switching a large beacon off

Depending on the type of Beacon, either press and hold the red button or place a magnet on the symbol to the left of the LCD display. Hold for a few seconds while the display counts down and scrolls through a number of screens. Release the red button/remove the magnet when the LCD display goes off.



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Lanyard with a magnet

To switch the Beacon stations on or off.

Epsom Splits Printer

Prints out a 'receipt' showing the riders time and current position. It should be noted that the position on the bottom of the print out is only of those who have already downloaded so could well change as others download.



Prior to the event

1. If you have not used SiTiming on your computer(s) before, make sure you install the software a week or so before the event to give yourself plenty of time to explore it's functionality. You will also need to install the SPORTident USB-Driver and Epson Driver for the TM series from the SPORTident downloads page (<http://www.sportident.co.uk/downloads/index.php>). When installing the Epson Driver install the TM-88IV, TM-88V and TM-T90.
2. If you are going to connect two laptops together, for instance to connect a screen to one to display results, you need to make sure that they work together with SiTiming before the event. If networking, you will need to edit your firewall settings to allow port 1433 to accept incoming traffic.
3. Perform a tabletop run through of the event with the kit, computers and software to ensure that you understand how everything works to ensure race day runs smoothly.

At registration

You will be doing 'Punch Registration' which means that the SIAC (timing chip) is allocated to the rider when they come to register on the morning of the event. At a typical event the rider would arrive at registration to see a number of desks with a range of surnames. They would go to the desk for their surname and be given their race number and any other goodies. If you need the rider to physically sign anything then this is where it would be done. The rider would then be directed to the computer desk where they will receive their SIAC.

1. Before registration begins, set up your computer and connect the Master Station. You can run registration on two or more laptops networked together, in which case they all need to be running off the same database on one of the laptops.
2. In SiTiming open your event and go to Entries >> Registration >> **Punch Reg by Number (Clear)**. This will clear the SIAC of all the timing data from the previous event. The SIAC will **not** be switched on at this point which means that you can hand out SIACs before riders do their practice runs if you so wish. The other option is to do Punch Registration by Number



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(Check) which switches the SIAC on there and then, but you need to have Cleared the SIACs first.

3. Select the COM Port and 'Connect'. If you plugged in the Master Station after opening SiTiming you will need to 'Refresh Port List' first.
4. When a rider comes along, take a SIAC from the box and place it in the hole in the Master Station – the SIAC will beep and flash (if it doesn't then you are in the wrong mode). The card number will be displayed on the screen and you enter the riders race number into the relevant box. Click 'Search' (or press Enter) and details of the rider will come up on screen. Make sure that the rider on the screen is the same as the rider in front of you then click 'Assign'. If it is the wrong rider click 'Cancel' and check that the rider has been given the correct race number.
5. The rider should be told which wrist to attach the SIAC to. This will be the side on which the stage Start and Finish beacons will be located. **It is recommended that a GPS watch is not worn of the same wrist as the SIAC.**

As the rider starts the course

If you did 'Punch Registration (Clear)' the SIACs will not be switched on and therefore the riders can ride the stages as much as they like but no times will be recorded. This is great if riders are allowed to practice the stages while the Beacons are deployed, but you need to switch the SIACs on before they go out on their timed run. There are three steps, and Steps 1 and 2 can be done in either order (often one person would hold both Stations and do steps 1 and 2 together):

1. **Test the voltage in the riders SIAC** by dibbing it into the Battery Test Station. If the voltage of the SIAC is fine the Station will beep and the LCD screen will display 'OK'. If the voltage is too low the Station **will not beep** and the LCD screen will show '**LOW**'. In this case the rider should be given a new SIAC – make sure that it is Cleared and allocated to the rider in SiTiming! If you get 5 beeps then the battery has limited life but should last for the current event unless a lot of data is being collected from the chip for live timing.
2. **Turn the SIAC on** by using the Check (or SIAC On) Station. The Station will beep and the SIAC may beep and flash. This step isn't needed if you have done 'Punch Registration (Check)'.
3. **Confirm that proximity punching is activated.** As a final check to ensure that the riders SIAC has been switched on and is working contactlessly, riders will cycle slowly past a Journey Start beacon (sometimes called the pre start test beacon). You will have a marshal there watching as each rider passes to make sure their SIAC beeps and flashes. If the SIAC only flashes, that is fine and the SIAC can still be used, but if it doesn't beep or flash ask the rider to go back to registration to be given another SIAC. If the marshal misses the beep / flash there is no harm in getting the rider to go past the Journey Start beacon again.



Out on the course

Always remember – Roll through the start, fly through the finish!

At the top of each stage you have a 'Stage Start' Beacon (BS11-BS-Blue). At most events this will be attached to an electric fencing post at about handle-bar height part way along a 1.5 metre wide channel (SPORTident can provide suitable stakes or holders). Before the first rider comes through the channel, the beacon needs to be switched on. This must be done on the morning of the event as it will switch off automatically after a pre-set amount of time (usually 12 hours).

At the bottom of each stage you have a 'Stage Finish' Beacon (BS11-BL), which again should be about handle-bar height at the edge of the trail and needs to be switched on that morning. The finish channel must be less than 3 metres wide.

The starts and finishes must be set up to ensure that no rider can get within 2 metres of a Start beacon or 4 metres of a Finish beacon until they pass through the start or finish channel.

As a rider rolls past the Stage Start beacon the time is recorded on the SIAC attached to their wrist and the rider will see their SIAC flash. At the bottom of the stage, the stage finish time is recorded when they fly by finish beacon.

Downloading rider times

With SiTiming it is possible to download competitor's data from their SIAC at points throughout the day as well as at the finish. So if the riders come back to the event centre for lunch, you can download their times and show the results for the morning. The event needs to be set up specifically in SiTiming to cater for multiple downloads so if SPORTident UK is setting up the software for you tell them you need this functionality in advance.

Whether you are downloading at the end or during the event this is done in Data Collection >> Downloads >> Download SI-Card. Select the Download Control Master depending on whether you are doing an Intermediate download or a Final download. Riders with only an Intermediate download will still be shown as outstanding in the Safety Check screens.

At the end of the event dib a SIAC in 'Switch off all SIACs' station and then wave this station over the pile of SIACs to turn them all off. Note that this station will switch off after 2 minutes. If any rider has their own SIAC then this should be dibbed in a SIAC OFF station when they download at the finish.

As you do not know who has finished until you have done a Final Download of their SIAC, it is important to make sure that riders don't get side tracked in the car park and forget to download and hand their SIAC in!



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Ensure that beacons are switched off after a stage

When marshals return beacons to the event centre, ensure that they don't come into close contact with a rider who still has a switched on SIAC, otherwise spurious times will be added to the riders SIAC!

If the event includes stages on more than one day

For events where the timed stages are on different days, you will want to turn the SIACs Off at the end of the day and use the SIAC On Station at the beginning of the next day.



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