

Guide to using PACER for Checkpoint Timing Marshals

Typically each checkpoint (CP) is covered by 2 timing marshals who record for the duration of the CP opening time.

One marshal records with PACER whilst the other operates a local backup system just in case PACER loses connectivity with the Internet. The backup may be electronic (albeit local requiring no internet connection) or it may be paper based.

QuickStart Guide:-

Set Auto-Lock to Never and Passcode to Off - pair scanner with tablet/phone - log In to your CP via bookmarked URL & 'remembered' Checkpoint Key - select 'Scan Times - Mobile' screen - tap cursor into yellow scanID field (keyboard will appear) - squeeze scanner's trigger, scanner beeps then beeps again 5secs later (keyboard disappears) - run PACER comms check - re-tap cursor into scanID field and you're ready to scan.

Do not be pressurised by waiting entrants - you cannot scan unless the cursor is in the scanID field and keyboard is suppressed

Detailed Setup

Prior to the event:

1. **Pair** your Bluetooth* scanner to your chosen recording device (smartphone or tablet):-
 1. Turn on Bluetooth on your device & go to Bluetooth in Settings
 2. Squeeze and hold scanner's trigger during device discovery
 3. After several seconds NETUM bluetooth... will appear. Tap to connect
 4. The scanner will beep once to indicate pairing and the keyboard will also suppress
2. **SIM** - if provided, install into the smartphone / tablet or if you are happy to use your own SIM feel free to claim £10 to cover data use. (You may choose to continue using wifi and delay SIM swapping until just before the event).
3. **Set-up** connection to PACER
 1. Using your recording device, go to Surrey's website and click the URL shown in the 'more.../PACER' menu. Alternatively, if you have a QR scanner app, point your camera at this QR code. Either will take you to -
 2. PACERs CP login page - bookmark this for future logins
 3. Select your Group (e.g. Surrey) in the drop down window & check Remember Me



* Local Group:

* Checkpoint Key:

Remember Me:

scan or type 12 digit
Checkpoint Key here

4. Now scan or type the Checkpoint Key as shown in the CP details on last page. This Key is also replicated on a card attached to your barcode scanner.
5. Tap Log In to go to the CP timing page
6. **Check that you have accessed the correct CP, ie the one you should be timing at**
7. Finally, run the PACER comms test as described on the other card attached to your scanner

* The bluetooth technology allows two device to be 'associated' or 'paired' with one another. Once paired the devices are able to communicate using their bluetooth network. To save internal battery many bluetooth devices (including bluetooth barcode scanners) lapse into a standby or sleep mode when they are inactive. In this dormant state, whilst they remain paired, they drop their connection. Once activated they automatically re-connect to their paired associate and are then able to pass data.

The day or night before the event:- fully charge phone / tablet

1. Fully charge BC scanner (leave it on charge overnight)
2. Fully charge the powerbank battery (leave it on charge overnight)
3. Pack your USB-to-device charging cable to connect to powerbank
4. If you have not already done so insert the provided SIM and re-run the PACER comms check

On the day, prior to the start:

1. **Change smartphone / tablet sleep mode & screen lock settings to NEVER. (On iOS devices set Auto-lock to NEVER & Passcode to OFF)**
2. Login to PACER via the bookmarked URL and the 'remembered' CP KEY
3. From the CP page select 'Scan Times - mobile'
4. Tap into the yellow ScanID field - the keyboard will appear
5. Briefly squeeze the scanner's trigger to wake it. It will beep once then, 5secs later, will beep again and the keyboard will suppress.
6. **With the cursor in the ScanID field and the keyboard suppressed you are now ready to scan - if either of these conditions are not met scanning will not take place**
7. During use your scanner will go dormant after 30secs of inactivity to conserve its internal battery - when it does it will beep and the keyboard will re-appear. (If you want you can delay sleep by intermittently squeezing the trigger)
8. To re-connect and make ready for scanning repeat steps 4 & 5
9. You can run the PACER comms test at any time to check that all is well (this test simply enters the (invalid) entry number of 9998 or 9999. Being invalid PACER responds with an error message. Simply receiving this message serves to confirm the integrity of your connection to PACER. When testing you can scan either number. If you do repeated tests, one after the other, you will need to scan the numbers alternately. PACER is designed to ignore a second and any subsequent scans of the same number.

During the event:

Scanning

1. With the inevitable gaps between the arrival of participants, inactivity will cause the scanner to go dormant to conserve its internal battery - indicated by a beep and the appearance of the keyboard. (if you give the trigger an occasional squeeze it will stay awake).
2. As an entrant approaches, point the scanner towards the ground and give the trigger a quick squeeze - the scanner will beep then, about 5secs later it will beep again and the keyboard will suppress
3. **With the cursor in the ScanID field and the keyboard suppressed you are now ready to scan (with Auto-Lock set to 'never' the cursor should remain in the scanID field)**
4. With a good signal the entrant's details will be returned into the other fields (name, status etc) with minimal delay after scanning. With a weaker signal there may be a more noticeable delay before details appear. Don't worry, just keep scanning - data will be buffered.
5. Whilst scanning keep an eye on the screen and respond to any warning prompts before scanning the next card.
6. **Experience has shown that the best way to scan is to tilt the card (45-60deg) away from the beam. Scanning face-on does not always result in a successful scan.**
7. If an electronic backup is being used, BOTH timekeepers need to scan the card before handing it back to the entrant.
8. When scanning ensure the card is shaded from bright sunlight.

9. If you feel there may have been a mis-scan, check to ensure the cursor is in the ScanID field, the keyboard is suppressed and scan again. You can scan as many times as you like since only the first successful scan gets recorded - repeated scans are ignored.
10. Keep the scanner angled downwards. Avoid pointing at eyes.
11. Although the scanner is waterproof, try to keep the scanner's lens from getting wet. If it does wipe with a soft cloth. Rain on the lens will adversely affect scanning.

Do not be pressurised by waiting entrants - you cannot scan unless the cursor is in scanID field and keyboard is suppressed

Handling retirements

If an entrant wishes to retire at your CP:-

1. Scan card as usual - tap 'Active' button & select 'Retired'. **Retain card.**
2. If entrant returns later to retire, scan card and click 'OK' to error message - tap 'Active' button & select 'Retired'. **Retain card.**
3. **In either case ensure cursor is in Scan field before scanning next entrant.**
4. You may need to contact Event HQ to request a pick up.

*If in doubt phone or text Number and Name to event HQ.

If an entrant arrives without a card - do NOT take their word for their number - entering the wrong number can take considerable time to resolve

1. Ask them to wait and deal first with any entrants waiting to be scanned
2. When time permits look up their name on the Entrant List to get their number*
3. Manually enter the number into PACER, tap return - you may need to wait for up to 30 secs until the scanner goes dormant and for the keyboard to appear.
4. Tap the cursor back into the ScanID window and squeeze scanner to continue

** if the name given is not listed then the person is NOT on the event and should be diverted away from the CP (on occasion a friend who failed to get in will sometimes try to accompany a valid entrant).*

Entrant arrives at a CP and is not expected

1. PACER 'knows' which entrant should pass through which CPs (defined by their selected route). If an entrant changes route or loses their way they may arrive at a CP they are not expected at.
2. A warning will appear when their card is scanned - "... is on route which does not pass through this CP".
3. tap OK (to record a time) and note Name & Number
4. Determine from entrant any reasons and pass this to Event Control.

Making and receiving calls

1. If you are recording on a smartphone you can still use its phone function.
2. If you want to make a call, choose a quiet moment, access the phone screen, make the call, return to the PACER screen, tap into the ScanID field and continue.
3. If you receive a call there are 2 scenarios:-
 - **the scanner is dormant with keyboard visible:-**
 - a. answer the call - finish the call
 - b. smartphone auto returns to the scan screen with the cursor still in the ScanID window.
 - c. squeeze the BT trigger its usual, beep, 5secs, beep, keyboard suppresses and you're good to scan
 - **call comes in whilst in the process of scanning:-**
 - a. **the card you are scanning at the instant the call arrives will NOT get recorded** and scanning is prevented for the duration of the call.
 - b. once finished you are back to c. above BUT **the card being scanned when the call comes in will need to be rescanned**

In either case if an entrant appears whilst on the call then either don't pick-up, ask the entrant to wait or make a note the entrant's number and time for later manual entry. Preference would be to cut the call so obviating any typing and potential mistakes.

Backup timekeeper:

Backup timekeeping (needed just in case PACER fails) is either by conventional paper or a local electronic system.

Paper - record numbers as called out by the PACER marshal on the supplied 'arrivals' sheets. Also note arrival time.

Please only record numbers called out by your colleague. Disregard numbers called out by entrants (they are often wrong)

Electronic - this is being trialled at CP3 on the 2017 event - the marshal concerned (Frank Eberle) is fully familiar with system being tested - an inexpensive, commercial app called Scan 2 Spreadsheet.

Ensure your device is set to the correct time. Most modern tablets and smartphones auto set their time.

Following the event:

1. *Go to the Bluetooth settings on your recording device and 'forget' the scanner. This is most important since not doing so prevents the scanner from being paired to another device.*
2. Please return any recording equipment to the finish (including the SIM if supplied by the group) or leave with the close down marshal