

Guide to using PACER with bluetooth scanners at checkpoints

This guide relates to using the NETUM C740 bluetooth-connected barcode (BT) scanners at event checkpoints (CP) for time recording with PACER. There are several advantages of using BT scanners - the primary one being flexibility. A tethered or wired (USB) scanner requires a laptop. These need to be powered and can be difficult to protect from the weather at outside CPs. BT scanners, which come with their own internal power source, provide a much more flexible option since they can be paired to most smartphones and tablets including both Android and Apple devices.

The following is a step-by-step guide on how to setup the C740 scanner with a smartphone or tablet. It covers setting up before the event and scanning practice during the event. The following QuickStart guide is provided for those already familiar with the detail.

QuickStart Guide:-

- pair the scanner with the tablet/phone (for details see below)
- It will connect after a few seconds and remain connected until turned off. Note that when connected the keyboard on your device will remain hidden
- log In to your Checkpoint via bookmarked URL & 'remembered' Checkpoint Key
- select 'Scan Times - Mobile' screen
- tap cursor into yellow scanID field
- run PACER comms check - re-tap cursor into scanID field and you're ready to scan.

Always shield card from direct sun when scanning

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

If for any reason you need to access the keyboard then simply turn off the scanner. The keyboard will re-appear. When done just turn the scanner back on.

Detailed Setup

Prior to the event:

1. **Pair** your C740 scanner with your chosen recording device (smartphone or tablet):-
 1. turn on bluetooth on your device & go to bluetooth settings
 2. turn on the C740 scanner (small switch on underside)
 3. squeeze the scanner's trigger
 4. After a few seconds the scanner's name will appear (C barcode scanner). Tap to pair it. The flashing blue light on the scanner will become solid and the on-screen keyboard will suppress. (If needed it can be retrieved by simply turning off the scanner.)
2. **SIM** - if you are planning to use cellular (ie no wifi at your CP) you will need a SIM in your smartphone/tablet. All smartphones and many tablets already have a SIM installed. Recording at a CP will typically use a maximum of 50MB of data.
3. **Setting-up** the connection to PACER
 1. On your recording device go to PACER's CP login page at:-
https://www.ldwa.org.uk/admin_clubs_new/checkpoints/checkpoint_login.php
 2. 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: ☒

4. Now type the Checkpoint Key for your CP - as provided by the Event Organiser. Remember you may need to turn off your scanner if you need the keyboard.
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 a PACER comms test - or example type in an invalid entrant number such as 99999 - PACER will respond with invalid entrant. The response shows you have comms.

The day or night before the event:

1. Fully charge the scanner, your recording device & backup powerbank
2. Pack the necessary charging cable

On the day, prior to the start:

1. **Optionally change smartphone / tablet sleep mode & screen lock settings to NEVER. You then won't need to keep entering your passcode on time out.**
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. Turn on and squeeze the scanner's trigger to connect to your device. The keyboard will suppress.
6. **With the cursor in the ScanID field you are now ready to scan**
7. You can run the PACER comms test at any time to check that all is well. Simply scan either number on the PACER rooms check card attached to your scanner. PACER responds with an error message 'Invalid entrant'. Simply receiving this message serves to confirm the integrity of your connection to PACER. If you do a repeated test, you scan the test number numbers alternately - PACER is designed to ignore a second and any subsequent inputs of the same number.

During the event:

Scanning

8. **With the cursor in the ScanID field you are now ready to scan**
9. On scanning, the entrant's details will be returned into the other fields (name, status etc).
10. Whilst scanning keep an eye on the screen and respond to any warning prompts before scanning the next card.
11. If you feel there may have been a mis-scan, check to ensure the cursor is in the ScanID field and scan again. You can scan as many times as you like since only the first successful scan gets recorded - repeated scans are ignored.
12. Keep the scanner angled downwards. Avoid pointing at eyes.
13. 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.

Handling retirements

If an entrant wishes to retire at your CP:-

1. Scan card as usual - tap 'Active' button & select 'Retired'.
2. If entrant returns later to retire, scan card and click 'OK' to error message. Then tap 'Active' button & select 'Retired'.
3. **In either case ensure cursor is in Scan field before scanning next entrant.**
4. *It is recommended that the card be marked 'retired' and retained by the timekeeper. It should be returned to event HQ via the pick-up driver or close-down marshal. Returning it to the entrant could result in it being inadvertently re-scanned at the finish thus upsetting the stats (more finishing than started).*

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 from your list of entrants and 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

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. Pass this information to your event HQ.

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.

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.*

The following needs modification once the backup procedure is finalised

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)