simTiming

User guide

A simple to use ‘at a glance’ transponder result display, made specifically for British speedway.

Written and maintained by Digital Design and Programming LTD

www.ddnp.co.uk/simtiming

support@ddnp.co.uk

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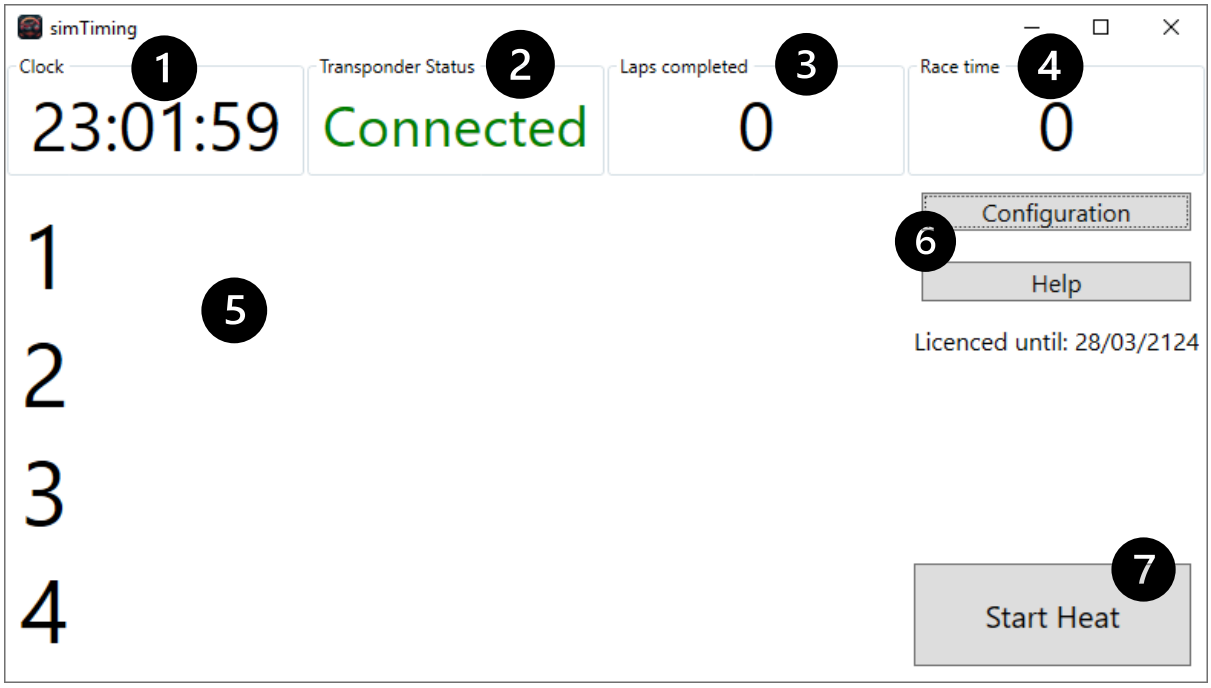
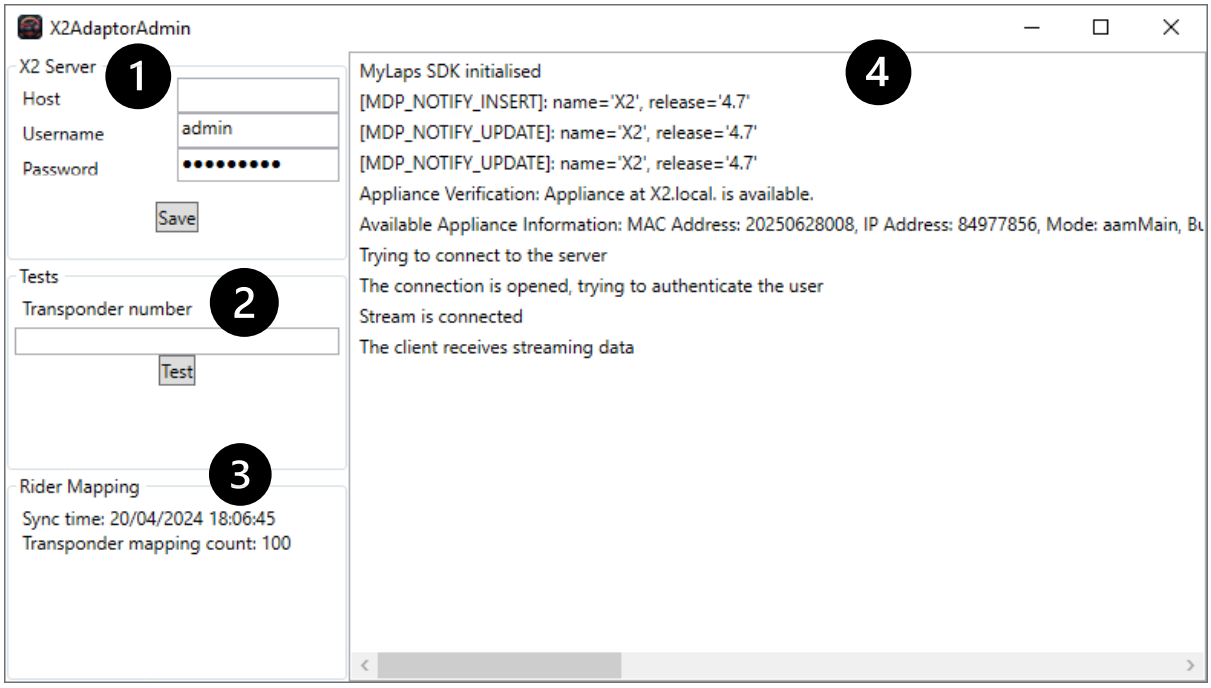
Screen explanation

Main screen



1. Clock: This displays an accurate time, taken from the GPS connected to the X2 server.
2. Transponder status: This can show one of three states.
   "Not available": simTiming has been unable to automatically find the X2 server.
   "Available": simTiming has found the X2 server and is trying to establish a connection.
   "Connected": simTiming is connected to the X2 server and is ready to receive data.
3. Laps completed: This will count the number of laps the rider in 1st has completed.
4. Race time: This will display the time of the race. Counting from when the heat is started it will display an accurate time after the rider in 1st has completed 4 laps.
5. Result display: This shows the current result and after 4 laps will show the final heat result.
6. Control buttons: Clicking these buttons will open a new window. Find details of each window below.
   This also shows when the licence expires.
7. Start Heat: If the X2 Decoder is not connected to the tape release system to automatically detect the start of a heat, then this button will start the heat. This also has shortcuts of F5 and the space bar.

Configuration



1. X2 server configuration: This is where the configuration is specified so simTiming can connect to the X2 server.
   Host: If left blank, simTiming will automatically detect the X2 server on the local network.
   Username: The username for the X2 server
   Password: The password for the X2 server
2. Tests: This allows you to run manual system test. This is useful to see how simTiming reacts to events.
   Transponder number: You can specify a transponder number and click test. This will simulate what happens when the X2 server reports that transponder number passing the detector loop.
3. Rider mapping: This gives you information about the local copy of the riders database that simTiming is currently using.
4. Logs: This displays a log history of what has happened since simTiming was launched.

Getting Started

simTiming is designed to be a simple and easy to use application to interpret data from the MyLaps X2 timing system specifically for British speedway.

Features

- Automatic heat starts (When the X2 decoder is connected to the starting gate)
- Heat time
- GPS backed accurate clock
- 1-4 heat finish order
- Riders database to map transponder numbers to rider names directly from the BSPL

This user guide assumes that simTiming is already installed. If it isn't, please follow the instructions found here www.ddnp.co.uk/simtiming

You will find an icon for simTiming on the desktop, double click it to start simTiming.

Standard operation

The aim for simTiming is for it to be completely automated without needing an operator. This requires the X2 decoder to be connected to the starting gate. If it is connected to the starting gate then there are no tasks for an operator to perform during normal operation.

If the X2 decoder is not connected to the starting gate then an operator is required to tell simTiming when the tapes are released and the heat has started. This is the equivalent of pressing start on a stopwatch for timing a race.

There are 3 ways to trigger the race start. Click the "Start Heat" button, press the space bar or press the F5 key. All of these methods perform the same task, it's up to the operator to choose which method they prefer to use.

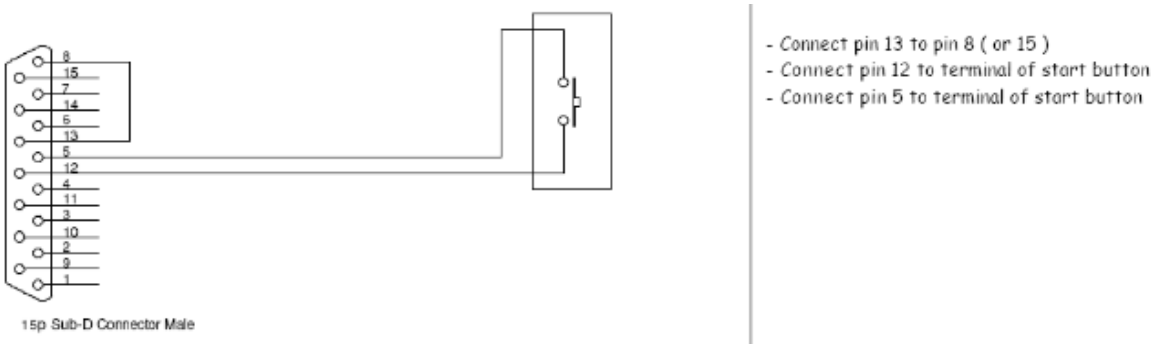
To help simTiming be fully automated it has been designed to understand speedway heats and makes some assumptions to avoid needing an operator to intervene. These are the assumptions which simTiming makes:

- simTiming ignores any transponder detections in the first 10 seconds of a heat. This means that any riders starting from 15m don't count as having completed a lap when they cross the start line.
- simTiming ignores any transponder hits after the 4th lap. This means that riders completing a celebration lap aren't included in the heat result.
- simTiming ignores anything over 3 minutes from the start of the heat.

Starting gate integration

When the X2 decoder is connected to the start gate, this tells the system when a heat is started.

This diagram taken from the X2 system user guide shows how the decoder is expecting a start gate connection to be connected.



Digital Design and Programming LTD provides pre-wired cables. Please contact support@ddnp.co.uk for further information.

Offline mode

Modern software and IT systems are heavily reliant on being connected to the internet. simTiming is no exception, however it does contain an 'offline mode'.

simTiming uses the internet for three main things.

- Auto-updates. New features and bug fixes can be published at any time. When simTiming is launched it will check for updates then automatically download and install any updates.
- Riders database. The central database of riders transponder numbers is maintained by the BSPL. simTiming downloads this when it is launched so that it can display rider names rather than their transponder numbers.
- Licence validation. When launched simTiming will validate your licence to ensure it is active. This licence represents the agreement for maintenance by Digital Design and Programming LTD.

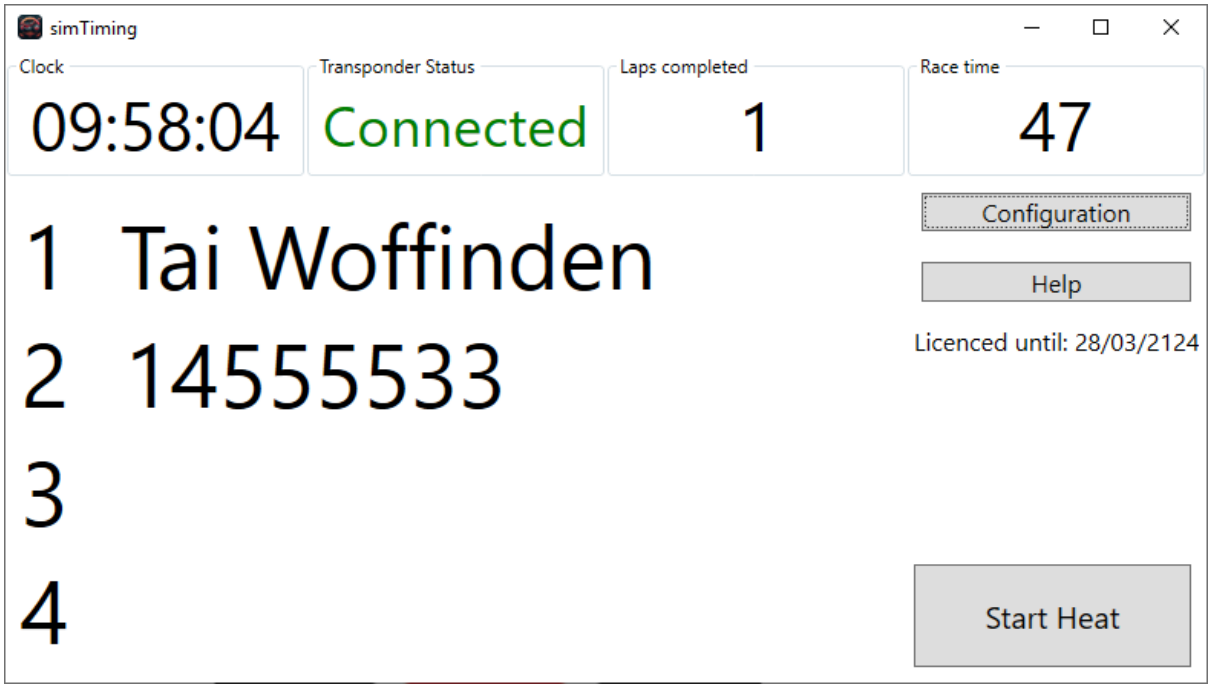
If an internet connection is not available when simTiming is launched then the following functionality changes.

- Auto-updates. simTiming will not download any new updates.
- Riders database. simTiming will use a local copy of the database from the last time the internet was available. The date and time of this snapshot can be seen on the configuration screen.
- Licence Validation. simTiming allows a 30 day grace period before it will need to be connected to the internet to validate it's licence.

If a permanent internet connection for simTiming is not available, then it's recommended to connect it to the internet and launch simTiming once a week.

Riders database

The BSPL maintain a database of all riders with their transponder numbers. This is the database simTiming uses to display a riders name rather than their transponder number.



In this example we can see that Tai Woffinden is displayed along with a transponder number. If you see a number instead of a name it means that the BSPL has not been informed who owns this transponder. Please contact the BSPL to have the database updated with the number and riders name.

Once the database has been updated then the next time simTiming is launched, it will download the updates and display the riders name.

If you are using simTiming in offline mode then you will need to connect it to the internet for the new updates to be downloaded.

Troubleshooting

The most complicated aspect of simTiming is connecting to the X2 server, so this is likely to be the place where a problem occurs. simTiming uses a MyLaps created module to interact with the X2 server.

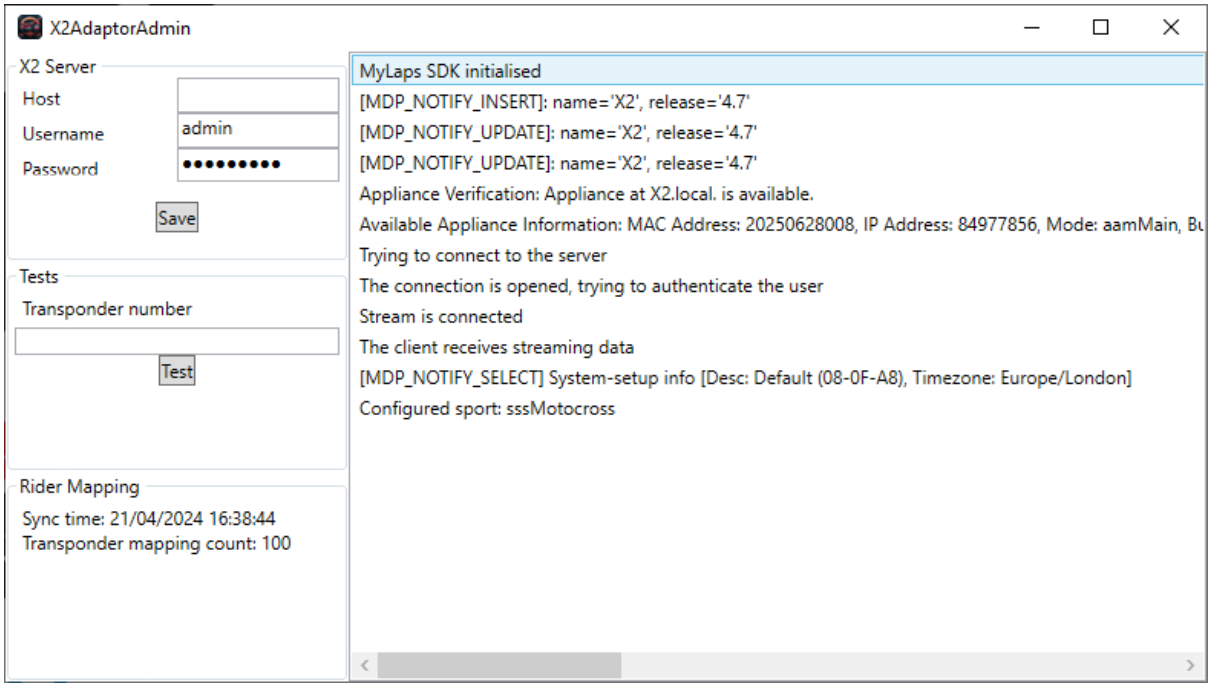
Transponder Status

The transponder status will give an indication of any and what problems could be occurring. These are the possible values of the status:

- Not available
  This means that no X2 server has been detected. From the configuration screen you can try setting the hostname to be the IP address displayed on the screen of the X2 server.
- Available
  This means that simTiming has detected and can attempt to connect to the X2 server. If simTiming stays at this status, then check the username and password on the configuration screen.
- Connected
  This means that simTiming has connected and is receiving data from the X2 server.

Log information

On the configuration screen you will see a list of log entries, which should look something like this:



If something isn't working correctly, it's worth checking this to see if there are any errors. Often the logs will give an indication of what the problem is.

Some specific things to look out for in this are lines like "Appliance Verification" this should state "is available".

Another important entry is "Configured sport" this should display "sssMotocross".

If these entries show a different value, or there are no logs or errors displayed the best course of action would be to get in touch with Digital Design and Programming LTD for support.

Frequently Asked Questions

Q: Why is a transponder not showing up?

A: Ensure the transponder is charged and correctly fitted to the bike. The transponder should be in the 'H' of the forks, behind the covers, with the orange part pointed down towards the track.

Q: Why is a transponder number showing instead of the name?

A: The BSPL maintain a database of transponder numbers which rider has them. If the number is showing, that means that the number isn't mapped to a rider in the database. Send an email to the BSPL with the transponder number and rider's name for them to update the database.

Q: What does "Offline mode expired. Please connect to the internet" mean?

A: Offline mode gives a 30 days grace period before the licence key needs to be checked online. Please connect the computer to the internet then restart simTiming