Bmx Event Manager©

Entry Management

Scoring

Team Manager Race Sheets

Rotations

Race Order Analysis

Multiple Rule Support: BMXA, BCF, CCA, UCI, BMX Europe, Shootout, Orange Blossom, and UCI 4-Cross.

Easy to Use

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Program Version: 10.22.0 and 11.22.1
           Complies: AusCycling BMX Rules 2022.
                               UCI BMX Rule Book 2022.
                               UCI Pump Track Rules 2022.
                               British Cycle Federation BMX Regulations
                               Canadian Cycling Association BMX
                               BMX German Federation Rules
                               BMX Denmark Federation Rules
                               BMX Italy Federation Rules
                               BMX Finland Federation Rules
                               BMX South Africa Event Rules
                               Adelaide 2001 Shoot Out Rules
                               Castle Hill "Orange Blossom" Rules
                               Bmxultra.com BSX Event Rules
Document date: 9th March 2022
           All feedback (good and bad) appreciated.

CONTENTS

Program Overview - BEM Version 10/11/22/x

This user guide is applicable to both the BEM 10 and BEM 11 versions with the exception that the Pump Track, Mountain Bike Enduro and Mountain Bike Cross Country Eliminator event facilities are only in the 11 versions.

BEM is a UCI sanctioned race program designed to assist with running BMX and 4-Cross events by automating moto draws (both UCI and scrambled), scoring and draws as required for run offs, 1/16, 1/8, quarter, semi and finals.

This version of BEM supports the following race rules:

- UCI BMX rules using random, ranking or time trial seeding, UCI compliant scrambled motos and the 2021 World Cup transfer system per UCI BMX Rule Book **Version 01.01.2022.**
- Event formats per UCI MTB Rule Book 2021 **Version 01.01.2022.**
  - Pump Track for Solo Run, Head to Head Dual, Pursuit and Open Session formats.
  - Mountain Bike 4-Cross.
  - Mountain Bike Cross Country Eliminator (XCE).
  - Mountain Bike Enduro.
- AusCycling BMX Rule Book effective 1 Jan 2022
- British Cycle Federation (BCF) Rider Allocation Chart for non-rotated moto draws.
- British Cycle Federation (BCF) regulations for moto rotations.
- Canadian Cycling Association (CCA) BMX Rules.
- BMX South Africa Event Rules
- BMX Germany Rules
- BMX Denmark Rules
- BMX Finland Rules
- BMX Switzerland Rules
- New Zealand BMX Regulations.
- Shoot Out rules based on the 2001 Adelaide Australian Titles.
- Orange Blossom Rules based on the Castle Hill & Park Orchards Events.

Companion programs included in the BEM Package

- **BEM Toolbox3** used to manage rider lists (rider database), create and modify individual event files and import of on-line entries.
- **RRD** (Report and Results Display) to upload of near real time results to https://www.sportslists.eu/results/select/live web site, continuous of HTML scrolling results display, screen based call up, all normal BEM reports and individually named moto draws for Team Manager rider handout.
- **SERIES** program is used to calculate series points for Classes and / or Teams for up to 22 individual events.

Companion program available separately

- **BemTrain** provides a range of value adding facilities for BMX and other cycling disciplines using transponder systems.
  - A Training and Coaching aid providing Split Time Reporting from up to 10 timelines.
  - A transponder Fitting Station for verification that the correct transponder is fitted to the correct bike.
  - A Track Monitor application for use during practice to check for competitors with an unregistered transponder or practicing outside of their specified session.
  - A real time Scoreboard for commentary or public display with custom displays for BMX, Pump Track, Time Trial, race and practice sessions etc.

Capacity

BEM caters for BMX scrambled motos with up to eight motos (or seven + finals). Classes using non-UCI scrambled motos can have any number of riders per class.

Classes for UCI rules must be configured for 3 motos and can have up to 256 riders per class for conformance with UCI Regulations.

BCF rules can have up to 256 riders per class. Any number and type of classes can be defined. Scoring by Club (team) through motos is also available.

UCI / Red Bull Pump Track Rules: a nominal maximum of 110 per class in conformance with Red Bull regulations.

Mixed (Scrambled) Moto Rotation Strategy

BEM does not use any fixed pattern of rotations. The functions allocating riders in each moto is separated from lane draws.

For the first qualifying moto, riders are selected at random from the class and allocated evenly to the number of gates required.

For the second qualifying moto where more than one gate is required, the following algorithm is used:

i.   A profile is built as to how many times each rider has been in the same race as every other rider in the class. The riders are ranked from highest to lowest depending on the number of times they have been with the same riders.

ii.   From the highest ranked riders, one is selected at random and placed in the first gate.

iii.   The rider selected for the next gate is the one who has raced against the previous selected rider the highest number of times. Where more than one rider has the same ranking, one is selected at random.

iv   Step iii. is continued until all riders in the class are placed in gates for the moto.

For the third and subsequent qualifying motos, riders are allocated using a combination of the strategy described above for the second qualifying moto together with priority selections to put riders in the same gate who have not competed in the same race in earlier qualifying motos.

Moto Draws - UCI

For UCI, individual classes can be configured for moto building with any of the four UCI Rule Book options. I.e. random allocation to motos, moto seeding by ranking, seeding by time trial or scrambled seeding.

In addition to the formal UCI BMX rule compliance, non-complying variations used by several associations are supported by the program. See the individual Class Codes and Finals Codes descriptions.

Moto Draws - BCF non rotation Rules

For British Cycle Federation non-rotation Rules, riders are drawn at random from the class entry and allocated to motos. Transfer system is per BCF Rider Allocation Chart.

Rotation Strategy – Shoot Out

For the first qualifying round, riders are drawn at random from the class entries and allocated evenly to the number of gates required. For the second qualifying round, riders are allocated to the number of gates required using a zigzag allocation after sorting on their first round gate. This strategy is to minimise the number of riders meeting the same riders in the second round.

Lane Draw

Lanes are drawn once riders are allocated to each gate pool. Lanes are drawn using random allocation for the first moto. For non-UCI classes, a combination of random selection and pre-emptive lane allocation based on the lanes selected in previous motos is used.

For UCI transfer system, lane allocations are per UCI BMX rules Annex 2.

Scoring

Scoring of motos uses one of several user selectable points systems (see Score_Code setting below). Results may be entered by manually entered place, manually entered lap time or by importing results from transponder lap timing or from Lynx .lif result files. Several report formats are available for results.

Auto Back Up

BEM backs up the Event File automatically to a user-specified drive / directory. The user can specify an interval between 5 – 59 minutes between each backup (default is 5 minutes).

System Requirements

Hardware: Recommended minimum PC configuration is an i5 processor with 8gb of RWM. While the program will run on a lesser configuration, some patience may be required.

Operating System: Windows Vista (OK but best avoided if possible), Windows7, Windows 8 & 8.1. Windows 10, professional version recommended (full versions, not the RT tablet version).

**Microsoft Office:** Office 2010 (recommended), Office 2007 or Office 2003.

BEM does not run on Office 2013, 2016 or Office 365 as Microsoft have not maintained full backwards compatibility with Office 2010, 2007 and 2003 versions.
Suggest that if you need to have Office 2013 with either Win7 or Win8 that you do a partial installation of Office 2010 and add Excel 2010 which happily co-exists with Office 2013.

- To get BEM to open with Office 2010 when you also have a later version of Office installed then either:

    o Open Excel 2010 before clicking on the BEM icon.

    o Set up your own shortcuts to BEM, RRD, Series and Toolbox that direct to Office 2010. I.e. in the Shortcut Target use
    "C:\Program Files (x86)\Microsoft Office\Office14\EXCEL.EXE"
    "C:\BEM\Programs\Event\3.9.x\Bem2K3.xls"
    Refer to the latest Release and Installation Notes for more comprehensive information.

The following preparatory actions if not already implemented from earlier releases of BEM will avoid compatibility problems.

1. Download and install the latest applicable Office 2003 / 2007 / 2010 service packs and updates. This is very important as there is a history of unpredictable operation should the latest Microsoft updates not be installed.

2. For users running Office 2007 and Office 2010.

    2.1. Include the C:\BEM path and any other locations where you save BEM files in the list of Excel Trusted Locations.
    Method:
    2.1.1. Open Excel.
    2.1.2. Select **File** then **Options**.
    2.1.3. Select **Trust Center**.
    2.1.4. Click on **Trust Center Settings…** button.
    2.1.5. Click on **Add new location…** button and add any required paths and select the **Subfolders of this location are also trusted** if appropriate and then click on OK to accept and close the dialog
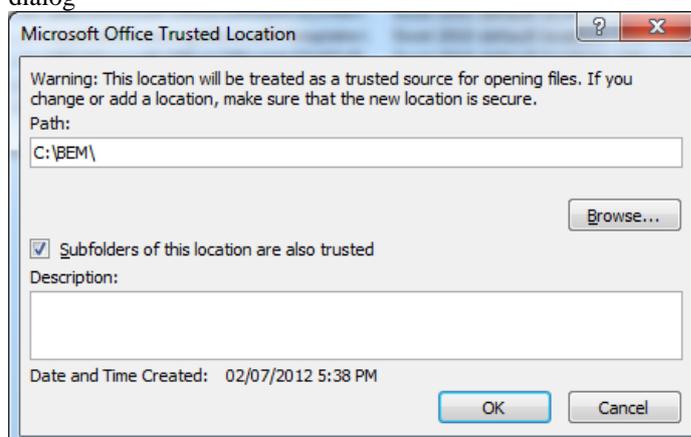
    2.1.6. . • Click on OK to close each of the dialogs until back in Excel which now can be closed.

Files

The BEM program installation files are packaged into a Microsoft Installer file (.msi) for distribution and installation. Running the installer unpacks the program files into version specific folders under the program defined c:\BEM\Programs\Event folder and creates shortcuts on the desktop for BEM, RRD and Series programs.

Please refer to the version specific related Release Note document for installation instructions.

Event Files (XL Workbook)

TEMPLATE2K3-47.bem
This workbook is a template that can be used as a last resort to create event specific workbook(s) manually. **The author strongly recommends that the BEM Toolbox3 be used to create all new event files.**

????????.BEM (based on TEMPLATE2K.BEM) where ???????? is an arbitrary name given to the workbook containing the data for one event. The event files can be in any directory, eg C:\BEM\EVENTS. An event file (workbook) contains details specific to one event. The workbook contains two visible worksheets.

EVENT worksheet containing event specific information that can be edited directly by the operator with Excel or with the BEM Toolbox3 program (recommended) to customise for the event requirement

> event name (used on printed and HTML reports)
> event sponsor (used on printed and HTML reports)
> number of motos before the finals round
> date for age determination
> date for licence check
> list of classes
> race order
> finals order
> minimum entries per class
> class code
> score code
> finals code
> class sponsors to be printed on the race sheets
> list of clubs / teams (optional)

RIDERS worksheet stores (in a XL database) riders details (name, class, plate, paid status and rotation detail, scores etc.). The user would normally not be required to enter or edit directly data in this worksheet.

Rider List File (XL Workbook)

To use the "pick rider from list" method of adding riders to the event and to have the program check for valid licences, a Rider List File is required. This file is an Excel Workbook typically created by extracting data from an administration database. File DMO_list.XLS distributed with BEM is an example of a Rider List File. The path and file name of this file is edited on the Event Worksheet as required Eg C:\BEM\DB\RIDERS.XLS.
Note that .XLSX files can be used with Office 2007 and 2010 but are not recommended for use with Office 2003 due to the delays introduced by the file conversion required.
Refer to Appendix 2 for the file specification.
As of the 2021 versions of BEM and the Toolbox program, the Rider List files are encrypted and password protected.

Label Mail Merge (MS Word)

Label_L7162_Main.doc
This file is an MS Word "Main" file used to create rider moto-draw stickers using Avery L7162 labels. The data source is created using the Export function of the program.
Other pre-formatted label main documents are available in the *Label Mail Merge Docs for BEM Export.zip* file from https://www.moto-sheets.com/index.php?p=manuals

BEM SET UP

Installation

For detailed installation instructions, please refer to the corresponding Release and Installation Note for the BEM version being installed.

Essentially the process is:

- Uninstall the previously installed version of BEM via Control Panel, Programs and Features.
- Unzip and save the MSI file contained in the distribution ZIP file (password required).
- Run the MSI file which will install the package into a user selected folder and create desktop shortcuts.
- Refer to the Release Note for any required first run set up instructions.

User Preferences

Settings for user preference configuration are stored in the file UserSettings.xls. **Under normal circumstances NO operator input or editing of this file is required.**

Barcode Scanner Set Up

BEM version 97.13 (and later) support barcode scanning of licence numbers in the Add Entry, Review Entry and Registration Screens and with the 10 and 11 versions scanning with QR codes. Most scanner settings can be left at the manufacturer's defaults however some scanner configuration is required to work with BEM. Note that the same configuration settings can be used for the 2006 versions of both BEM and Bmxcess race programs. Refer to the individual scanner handbook for how to configure the particular settings as there does not seem to be a common standard between manufacturers. Examples given here are changes required from the default settings for the Quickscan QS2500 barcode scanner.

1. **Global Minimum Code Length.** Set to the shortest licence number used if the default setting is longer than the shortest licence number. E.g. the QS2500 has a default Minimum Code Length of 4 which needs to be changed to 3 for Australia otherwise the three digit licence numbers, eg S31 will not be recognised.
2. **Prefix Character.** To indicate the start of licence number to the program, set the scanner to use the tilde "~" (ASCII Hex 7E) as a single prefix character.
3. **Suffix Character.** To indicate the end of licence number to the program, set the scanner to append the plus "+" (ASCII Hex 2B) as a single suffix character.
4. **Inter-character Delay.** The default setting for the QS2500 is 2ms and while the writer did not experience any problems with this value, a change to 10ms is recommended as 2ms may be too fast for some older PCs.

The following simple test can be uses to test if the scanner is configured correctly.

1. Ensure the scanner is correctly connected to the PC.
2. Open any text editor or word processor e.g. Notepad, MS Word etc.
3. Ensure the text editor / word processor program is the active window by clicking in it.
4. Scan a licence and check if the correct Prefix and Suffix are added. E.g. scanning licence number V4567 should display "~V4567+" (without the quotes). Successive scanning of the licence should display the details all on the one line. E.g. ~V4567+~V4567+~V4567+~V4567+
   If each scan is on a different line then the scanner is adding a CR or LF (or both) as a suffix and this needs to be turned off in the scanner set up.

To test if BEM is responding correctly to the Tilde prefix and Plus suffix, the following manual tests can be performed.

- The leading tilde character is to identify that a licence number is to follow and to jump the cursor into the licence number field. You can easily check that any problems with this are with the scanner or the program with the following non-scanner test.
  - Run BEM and open an event
  - Go to Add Entries
  - Put the cursor in the Form Ref field
  - Type a ~ on the keyboard and check that the cursor jumps to the Licence Number field.
  - If it does with a keyboard entry but doesn't do this with the scanner then there is a set up problem with the scanner.

- The trailing + character is an indication to BEM that the licence number entry is complete. Again a simple manual test will prove if there is a problem with the scanner or with BEM.
  - Run BEM and open an event
  - Go to Add Entries and ensure that a Rider List is opened.
  - Put the cursor in the Licence Number field.
  - Type in a known licence number of a rider in the List File and then type a +
  - Check that the rider details are transferred to the form.
  - If it does with a keyboard entry but doesn't with the scanner the there is a set up problem with the scanner.

OVERVIEW USER GUIDE

EVENT SET UP.

This section contains an overview and recommended sequence of the steps required to set up for a new event. More detail is provided in the Detailed User Guide section later in this document and the user guide distributed with the BEM Toolbox3 utility program.

1. Run the stand alone BEM Toolbox3 program.

2. Click on the **Create New Event** button, select the reference event, save the new file, then add or edit classes and class set up as required. For more detailed instructions refer to the BEM Toolbox3 User Manual.

3. Add entries as they arrive (to avoid a mad rush at the end). Be sure to back up the event file on a regular basis.

4. For a two-day event run as two individual events, the following process is recommended to reduce the amount of time processing entries. Set up a Day 1, Day 2 and Both Day event files. Enter riders in the Day 1 or Day 2 events if they are only entering for that single event and enter all other riders in the Both Day event. To merge the Both Day riders in the individual events, open the Day 1 event, got to **Add Entries**, select the Both Day event as the rider list file then use the **Add All** function. Repeat the process with the Day 2 event.

5. The program checks for duplicate plates and duplicate entries for each class. Note any duplicates and edit as required via "**Review Event**" or "**Edit Entries**", eg change the allocated number or add a "*" or other symbol to make a unique number.

6. When all riders have been entered, print both a "**Riders by Class**" (for reference) and a "**Count per Class**" report. On the Count per Class report mark with a highlighter or similar classes below minimum entry requirements.

6. Select "**Class Change**" from the main menu and move / amalgamate classes highlighted in the previous step.

7. Print another "**Count per Class**" report and verify class numbers are as expected.

8. From the main menu in the Draw Motos group, click on the **All Classes** button.

9. Select **"Race Order"** from the main menu. If a moto order has not been created then all classes with entries will be loaded. Change the order as required, checking the number of races between multi-entry classes with the **"Show Matrix"** button. Save the moto & final order with the Save List As buttons.
   If errors are reported in the moto and/or final order, the most common causes are (for a manually entered order) a skipped a number in the sequence, a class with entries left out or a class with no entries included.

10. Print a **Registration Report** for follow up on the day.

11. If a computer is not being used at the track, print moto sheets, result or manual score sheets as required.

RUNNING THE EVENT.

This section contains a generic overview to running the event. This is a guide only based on the author's experience and can be varied to suit the user's requirements. More detail on individual steps is provided in the Detailed User Guide section later in this document.

1.   Post the moto draws on the notice board. Recommended report format is **All Classes**, in **Class** Order with **List** format as this report groups all riders in the class together and uses less paper than BEM format.

2.   Print a list of **All Entries** sorted by name, and use this as a master list to record all required changes (I'm in the wrong class, I left my plate home, I really did post my entry last week etc).

3.   At the cut-off point (normally 30 minutes before start of racing) **Edit Entries** as required and re-draw any classes with changed riders.

4.   Print Sheets required for Call Up, Commentary, and Stewards etc. Recommended report format is **All Motos**, in **Race** Order with **BEM** format where mixed rotations are used or **UCI** format for UCI and BCF events. If you are running late (yes it does happen), consider printing and distributing sheets for moto 1 to get things started then print sheets for moto 2- n and distribute during moto 1.

5.   Print **Result Sheets** for **All Motos**. These sheets are recommended even when results are entered in the computer in real time as insurance against a computer crash.

6.   Enter results either across the line (if the computer is at the finish line) or from each Result Sheet as it is completed.

7.   When entering results for the last moto before the finals for BMXA and BCF rule multi gate classes, you will be prompted to check for run-offs as each class entry is completed. Note that the report available when checking for run-offs progressively is only available at this time. Use the normal moto sheet format reports by printing sheets for One Moto and selecting Run-off to get details of run-offs at other times.

As an alternative to progressive checking, Run-offs for all classes can be checked in one pass after all pre final moto results are entered. From the Finals Menu in the **Select Stage** group select **Run Off (End Motos)** then in the **Process Stage** group click on **All Classes** button.

There is one scenario with Run-Offs that has a rather obscure error message that starts with "Manual Intervention required ….". and no details on what manual intervention is required! The error message is for the scenario where one position is to be filled in the next stage and there are more riders in the run-off than can compete at the one time. Eg Nine riders on equal points for one position in the final.
The suggested method to resolve this situation (thanks to Phil Townsend from British Cycling) is to run the two run off races as drawn, but not to enter results at this time. A second run off race is then run with say the first two placed riders from each race. The winner of this second round run off race is the rider to transfer. To allow BEM to draw the next stage correctly, enter first place for the winner of the second run off and enter DNF for all other riders in both run off heats.

8.   Print Moto Sheets for posting and officials as required and Result Sheets for the Run-offs.

9.   When Run-off results are entered, generate the draws for the next stage of racing i.e. Quarter, Semi or Finals by clicking the **All Classes** button in the **Process Stage** group with the required final selected in the **Select Stage** group.

10.   Print moto and results sheets as required. Repeat the **Process Stage** steps for each final.

Configuration for Pump Track, MTB XCE and MTB Enduro Events

The facilities to run these event configurations require the 11 series of the BEM program. If you have upgraded to the 11 series then please refer to the separate Pump Track, XCE and Enduro Guides.

RUNNING A STAND ALONE TIME TRIAL EVENT.

This format is provided for an event with the Time Trial is an event in it's own right and does not feed in to motos. Options are provided for a Time Trial Super Final, a "Top 8" final or Finals for all Time Trial participants based on the Time Trial times.

1) To set the class up for this format you use:

Class_Code	TT
Score_Code	UCI
Finals_Code	TT, SF, AF or AXF

   Number of Time Trials, set to 1 or 2 as required.

   Note that Number of Time Trials must be set to 1 when running a Time Trial Super Final

2) Add entries in the normal way. Note that if rider rankings are entered, this data is used only to determine the run order for riders in the Time Trial such that the highest ranked riders run last.

3) Merge classes if required to make up minimum numbers and set the race order.

4) Draw the Time Trial by clicking on the **All Classes** button in the **Draw Time Trial** group.

5) Print the time trial sheets (common format for staging and commentary) by selecting **Race** in the **Moto Sheets** group then clicking on **One Moto** then selecting **Time Trial 1**.

6) If manual result recording sheets are required for the Time Trial, print these by selecting **Time Trial** from the **Manual Score** group then clicking on **All Classes**.

7) To enter results from the Time Trial manually, from the **Enter Results** group click on the **Select Round** button then select **Time Trial 1**. ENSURE THE **Set Place by Time** option is selected, then enter the lap time for each rider in turn then click on **Accept** to record the time.

   Repeat for Time Trial 2 if two time trials are to be run.

8) Where a Time Trial Super Final is to be run, i.e. Finals Code of SF, to draw the SuperFinal (when all results have been entered for Time Trial 1), go to the **Finals** menu, select **TT SuperFinal** in the **Select Stage** group then click on **All Classes** in the **Process Stage** group.

9) Where Deadman finals are to be run, i.e. Finals Code of AF or AXF, to draw the Final(s) when all the Time Trial results have been entered, go to the **Finals** menu, select **Final** in the **Select Stage** group then click on **All Classes** in the **Process Stage** group.

10) Time Trial results (including Super Final) can be displayed by going to the **Finals Menu** and selecting **Time Trial** in the **List Results** group.

    Results for Classes with a Final can be displayed with the normal Top 8, Finals Results or Full Results.

RUNNING AN EVENT WITH A TIME TRIAL FOR SEEDING.

This format event was first used for the Australian Champbikx Series in 2006. Each rider does a single lap time trial and the lap times are used to seed the riders to qualifying motos. From this point on, the event is the same as UCI appendix 4 transfer system.

1) To set the class up for this format you use one of the UCI-TT Class Codes:

    Class_Code   E.g. UCI-TT, UCI-TT-LANE, UCI-TT-SF:
    Score_Code   UCI
    Finals_Code   LANESEL (for UCI Rule compliance)

    Number of Time Trials, set to 1 or 2 as required.

    Note that Number of Time Trials must be set to 1 when running a Time Trial Super Final.

2) Add entries in the normal way. Note that if rider rankings are entered, this data is used only to determine the run order for riders in the Time Trial such that the highest ranked riders run last.

3) Merge classes are required to make up minimum numbers and set the race order.

4) Draw the Time Trial by clicking on the **All Classes** button in the **Draw Time Trial** group.

5) Print the time trial sheets (common format for staging and commentary) by selecting **Race** in the **Moto Sheets** group then clicking on **One Moto** then selecting **Time Trial 1**.

6) If manual result recording sheets are required for the Time Trial, print these by selecting **Time Trial** from the **Manual Score** group then clicking on **All Classes**.

7) To enter results from the Time Trial manually, from the **Enter Results** group click on the **Select Round** button then select **Time Trial 1**. ENSURE THE **Set Place by Time** option is selected, then enter the lap time for each rider in turn then click on **Accept** to record the time.

    Repeat for Time Trial 2 if two time trials are to be run.

8) Where a Time Trial Super Final is to be run, to draw the SuperFinal (when all results have been entered for Time Trial 1), go to the **Finals** menu, select **TT SuperFinal** in the **Select Stage** group then click on **All Classes** in the **Process Stage** group.

9) When Time Trial results are entered for all riders, **Draw Motos** and proceed as for a normal UCI event.

10) Time Trial results (including Super Final) can be displayed by going to the **Finals Menu** and selecting **Time Trial** in the **List Results** group.

RUNNING AN EVENT WITH 3HEAT FINALS.

The program caters for 3heat finals for Australian and British associations.
To set up for the 3 Heat Final you use:

Class_Code	EXPT or EXPTCONS
Score_Code	UCI or local rule requirements
Finals_Code	3HEAT or BCF-3HEAT

The Finals_Code 3HEAT gives semi and quarter final draws with BMXA rules and Olympic lane draws for the first of the 3 finals. The BCF-3HEAT Finals_Code gives BCF semi and quarter finals and uses computer allocated lane draws for all three finals.

Using a Class_Code of EXPTCONS gives separate 3 Heat finals for riders 1-8 (EXPT or A Final) and riders 9-16 (CONS or B Final).

Race Order

Managing the race order for the final stage with 3heat finals requires a few additional steps to separate the individual heats of each class.

1. Go to the race order dialog and set the moto and final order as per normal.
2. In the Load List From group, click on "Per Race Final" button. This will give a list of all races in the final with the normal grouping of all heats for the one class grouped together.
3. Use the "Move Up" and "Move Down" buttons as normal to change the order for the individual races. Ie move the heat 1 races to the start of the order, heat 2 to the middle and heat 3 races to the end.
4. In the Save List As group, click on the "Per Race Final" to save the changes. Note that the display matrix option is not available for this per-race listing.
5. From the Main Menu dialog, towards the bottom right there are two new buttons (yes even more buttons!) in the Race List group. These allow you to generate a report of a single moto (eg Final) listed per race or the complete event listing every race.

RUNNING 4Gate Eliminator Event.

EVENT SHEET SET UP.

1) With the Toolbox, configure the event for:
   Motos_Before_Finals = 2
   Number of Starting Lanes = 8

2) To set up the classes for 4Gate Eliminator you need the following settings:
   Class_Code   4GE
   No entry is required for Score_Code and Finals_Code.
   Minimum Entry = 5

3) Add entries in the normal way.
   Note that the draws for Moto 1 are seeded by ranking so check that this information is included with the entries. You can check this with the Rider Ranking report.

4) Before drawing motos, check for any classes with less than five entries. Merge classes as required. If you really want to run a class with less than five riders, add dummy riders to that class to make a class of five. When entering results, the dummy riders will get DNS and the real riders will progress.

5) Set the race order and draw motos for all classes.

6) Print (and post) an Entries per Class report in Moto Order with the "Include moto numbers" box checked. This report makes it very easy to identify which classes have which finals.

7) Print moto and result sheets for moto 1 as required. I recommend that the list format sheets not be used for the shootout as more information is provided on the normal BEM format sheets, in particular how many riders progress to the next stage from each moto.

MOTO 1 and 2.

8) Enter the results for moto 1.

9) When all results have been entered from moto 1, in the Finals Dialog select "Transfer to Moto 2" then click on the Process Stage "All Classes" button. This will generate the draws for moto 2.
   Note that you may get misleading warning messages when all results have been entered for moto 1 and moto 2. This is a bug that can be ignored.

10) Print moto and result sheets for moto 2.

11) Enter results for moto 2.

DRAWS for FIRST FINAL

12) When all results have been entered for moto 2, in the Finals Dialog select "First Final - All Classes" then click on the Process Stage "All Classes" button.
    Recommend that an Entries per Class report with the Include moto numbers report be printed as a reference as to which Classes have which Qualifier Stages.

13) Print race sheets for the highest applicable Qualifying stage (e.g. Eighth Finals).

14) Enter results for the qualifier races.

15) Print sheets and enter results for each qualifying stage and final in turn.

16) After the first final for each class, hold the riders transferring to the next stage of racing near the finish line to draw their opponents for their next race.

RUNNING a Pump Track Event (UCI and Red Bull rules).

Please refer to the separate BEM and Pump Track Events User Guide.

RUNNING A BSX RULES EVENT.

- To set the class up for the BSX format you need the following settings:
  Class_Code   BSX:
  Score_Code   DNS=OUT
  Finals_Code   DEADMAN
  Number of Time Trials, set to 1 or 2 as required (usually 1).
  Number of Lanes, set to 2

- Add entries in the normal way

- Merge classes if required to make up minimum numbers and set the race order.

- Draw the Time Trial by clicking on the **All Classes** button in the **Draw Time Trial** group.

- Print the Time Trial start lists by selecting **Race Order** then clicking on the **One Moto** button and selecting **Time Trial 1**.

- To enter results from the Time Trial, from the **Enter Results** group click on the **Select Round** button then select **Time Trial 1**. ENSURE THE **Set Place by Time** option is selected.

- Repeat for Time Trial 2 if running two Time Trials.

- Time Trial results can be displayed by going to the **Finals Menu** and selecting **Time Trial** in the **List Results** group.

- When Time Trial results are entered for all riders, go to the **Finals Menu**, select **First Final - All Classes,** then click **All Classes** in the **Process Stage** group.
  Note that under the BSX Rules, some riders may be eliminated at this stage of the event.
  Recommend that an Entries per Class report with the Include moto numbers report be printed as a reference as to which Classes have which Qualifier Stages.

- Print moto sheets for the highest Qualifying State (e.g. Eighth Final).

- Enter the results for the qualifier races.

- Print sheet and enter results for each qualifying stage and final in turn.

RUNNING A SHOOTOUT EVENT.

EVENT SHEET SET UP.
1. In the event sheet set the Motos_Before_Finals to 2; set up the list of required classes with a Minimum_Entry of 5 and a Class_Code of SHOOTOUT. No entry is required for Score_Code and Finals_Code.
2. Add entries in the normal way.
3. Before drawing motos, check for any classes with less than five entries. Merge classes as required. If you really want to run a class with less than five riders, add dummy riders to that class to make a class of five. When entering results, the dummy riders will get DNS and the real riders will progress to the finals.
4. Set the race order and draw motos for all classes.
5. Print (and post) an Entries per Class report in Moto Order with the "Include moto numbers" box checked. This report makes it very easy to identify which classes have which finals.
6. Print moto and result sheets for moto 1 as required. I recommend that the list format sheets not be used for the shootout as more information is provided on the normal BEM format sheets, in particular how many riders progress to the next stage from each moto.

MOTO 1 and 2.
7. Enter the results for moto 1.
8. When all results have been entered from moto 1, in the Finals Dialog select "Transfer to Moto 2" then click on the Process Stage "All Classes" button. This will generate the draws for moto 2.
9. Print moto and result sheets for moto 2.
10. Enter results for moto 2.

FINALS OPTIONS
BEM provides three options for the way the finals are run. They are:
*   BEM draws for the first final for all classes then manual draws for remaining finals. This was the option used in the Adelaide 2001 event.
*   Manual draws for all finals.
*   BEM draws for all finals.

BEM DRAWS for FIRST FINAL then MANUAL DRAWS
11. When all results have been entered for moto 2, in the Finals Dialog select "First Final - All Classes" then click on the Process Stage "All Classes" button.
12. Exit from the Finals Dialog.
13. On the Main Dialog Manual Score group, select "Shootout Finals" then click on All Classes.
14. At the prompt "Include BEM draws for first final on Manual Score Sheet?" answer YES.
15. Print and copy sheets as required.
16. After the first final for each class, hold the riders transferring to the next stage of racing near the finish line to draw their opponents for their next race.

MANUAL DRAWS FOR ALL FINALS
17. When all results have been entered for moto 2, in the Finals Dialog select "First Final - All Classes" then click on the Process Stage "All Classes" button.
18. Exit from the Finals Dialog.
19. On the Main Dialog Manual Score group, select "Shootout Finals" then click on All Classes.
20. At the prompt "Include BEM draws for first final on Manual Score Sheet?" answer NO.
21. Gate draw from listed riders would normally be performed at staging using this process.

BEM DRAWS for ALL FINALS
22. When all results have been entered for moto 2, in the Finals Dialog select "8th Final" then click on the Process Stage "All Classes" button.
23. Print moto and result sheets for the 8th final as required (assuming the event has 8th finals).
24. As results are entered for each final, repeat the process to draw and print sheets for the next final.

RUNNING A UCI WORLD CUP SUPERCROSS RULES EVENT.

This event format is per for the UCI BMX Part VI Rule Book Chapter III transfer system specific for SuperCross World Cup Events.
Notes:

- Round 1 in the UCI Rules is Moto 1 in BEM
- Last Chance in the UCI Rules is Moto 2 in BEM.

1. Set up the classes with the following settings:

Class_Code	Score_Code	Finals_Code	Comment
UCI-WC	UCI	LANE-SEL	Fully Rule Book compliant UCI BMX World Cup 2019Rules
UCI-WC-TT	UCI	LANE-SEL	Modified version of UCI BMX World Cup 2019 Rules. Time Trial used for seeding and starting lane selections for Round.
UCI-WC-TT-SF	UCI	LANE-SEL	Modified version of UCI BMX World Cup 2019 Rules. Time Trial plus Time Trial SuperFinal used for seeding and starting lane selections for Round 1.

2. General event settings:
   Motos before Final, set to 3 to cater for classes with 16 or less entries.
   Number of Lanes, set to 8.
   If using the TT option or TT-SF options, set the Number of Time Trials and Minimum Riders for a SuperFinal as required.

3. Add entries in the normal way

4. Merge classes if required to make up minimum numbers and set the race order.

5. If using the TT option:
   a) Draw the Time Trial by clicking on the **All Classes** button in the **Draw Time Trial** group.
   b) Print the Time Trial start lists by selecting **Race Order** then clicking on the **One Moto** button and selecting **Time Trial 1**.
   c) To enter results from the Time Trial, from the **Enter Results** group click on the **Select Round** button then select **Time Trial 1**. ENSURE THE **Set Place by Time** option is selected.
   d) Repeat for Time Trial 2 if running two Time Trials.
   e) Time Trial results can be displayed by going to the **Finals Menu** and selecting **Time Trial** in the **List Results** group.

6. From the main menu **Draw Motos** group, click **All Classes.**
   For classes with 17 or more riders, this will draw Round 1.
   For classes of 16 or less riders, this will draw all 3 motos as these classes revert to normal UCI rules.

7. Print sheets for moto 1 and enter results for that round.

8. As results are completed for each class with 17 or more riders, the Last Chance stage (moto 2 in BEM) will be auto drawn if the "**Auto Process Stage**" option is selected in Results Entry.
   If you need to manually draw the Round 1 to Last Chance, select "**Transfer to Moto 2**" in the he group in the Finals Menu.

9. Print sheets for Moto 2 (aka Last Chance) and enter results for that round.

10. Print moto sheets for the highest Qualifying Stage (e.g. Eighth Final).

11. Print sheets and enter the results for each of the qualifier stages.

12. Print sheets and enter the results for the final stage.

13. Print sheet and enter results for each qualifying stage and final in turn

RUNNING A UCI 4-CROSS EVENT.

Please Note: this description of setup and running a UCI 4-Cross event is applicable to BEM version 3.7.5 and later. Please refer to the appropriate manual if running an earlier version of BEM or better still, update to the latest BEM version.

OVERVIEW

The timed qualification run is handled by BEM as Time Trial 1. As the timed runs are done one rider at a time, only one rider is allocated to each gate.

The order riders are listed for the qualifying run is that all ranked riders will be listed in reverse order after all of the unranked riders so that the highest ranked rider has the last qualifying run in each class. The starting order for riders without a ranking is drawn by random computer selection.

For the first round of the main event, there will be at least three riders in each race. The following table based on UCI Rule 4.4.005 explains the logic used for the 64 rider maximum rule.

Riders in Class	Maximum Number of Rider Qualified	First Stage Heats in Main Event	First Stage Name in Main Event in BEM
48 or more	64	16	Sixteenth
24 to 47	32	8	Eighth
12 to 23	16	4	Quarter
6 to 13	8	2	Semi

Seeding of riders to gates (heats) complies with the tables in the UCI 4-Cross rulebook and is based on qualifying times.

EVENT SET UP for UCI 4-CROSS.
1) Set the following Event Level parameters with the Toolbox.
   Motos before final: 1 (not actually used).
   Number of Starting Lanes: 4
   Number of Time Trials   1
   Minimum Riders for Consolation Final   6 (controls draw of Small Final)
2) Set up the list of required classes with the Toolbox:
   Class_Code of **UCI4X-64** or **UCI4X-16** for a maximum of 64 or 16 riders to start in the main race after the Qualifying Time Trial round. No entry is required for Score_Code and Finals_Code as they are fixed in the program for UCI 4X to DNS=OUT and DEADMAN.
   Minimum Entries for Class   6
3) Add entries in the normal way ensuring that riders with a UCI 4X individual ranking have the ranking number entered.
4) Before drawing the Time Trial, check for any classes with less than 6 entries, the minimum number of entries per class under UCI 4X rules.
5) Set the race order for both Moto Order (qualifying round) and Finals Order (main event).
6) Draw the Time Trial by clicking on the **All Classes** button in the **Draw Time Trial** group. This sets the order of the riders for the qualifying run.
7) Print the Time Trial (aka Qualifying Round) start lists by selecting **Race Order** then clicking on the **One Moto** button and selecting **Time Trial 1**.
8) To enter results from the Time Trial, from the **Enter Results** group click on the **Select Round** button then select **Time Trial 1**. ENSURE THE **Set Place by Time** option is selected.
9) You can process each class individually when all Time Trial results are entered for that class or when Time Trial results are entered for all riders in all Classes, go to the **Finals Menu**, select **First Final - All Classes,** then click **All Classes** in the **Process Stage** group. Notes:
   a) You will be prompted at this time for each Class if you want to re-number the Race Plates with Time Trial Ranking. You would normally answer "Yes" to this prompt for compliance with Rule 4.4.005.
   b) Under the UCI 4X Rules, some riders may be eliminated at this stage of the event.
      Recommend that an Entries per Class report with the Include moto numbers option selected be printed as a reference as to which Classes have which Qualifier Stages.
10) Print moto and result recording sheets for this stage.
11) When entering results for the main event:
   a) If entering finishing place and not lap times, ensure the "Set Place by Time" box is not checked.
   b) Select Auto Process Stage so that the subsequent stage will be drawn as results are complete for each stage.

DETAILED USER GUIDE.

SET UP NEW EVENT

Create the Event Workbook

A unique workbook is required for each event based on the supplied template. Create the event workbook by running the BEM Toolbox3 program and clicking on the Create New Event button. Refer to the BEM Toolbox3 User Manual for detailed instructions.

Configure the Event Worksheet

EVENT DETAILS

The following data can be edited in the Event Setup screen in the BEM Toolbox3 utility program.

- `C_Event_Name.` Event Name to be printed on moto & result sheets. Eg. Park Orchards Metro Plate 4, 1997

- `Event_Sponsor.` Sponsor Name (or any other short text message) to be printed at the top of all reports. If nothing is required, either leave it set to "Event Sponsor" or clear the cell.

- `UCI Competition Code.` Enter the UCI allocated Competition Code for events that are to be awarded UCI Ranking points. The code is normally available from the UCI appointed PCP.

- `Date_for_Licence_Check.` Enter the date to be used to compare with licence expiry date in the Rider List File. Normally this would be the last day of competition for the event.

- `Date_for_Age_Determination.` Enter the date used to calculate the rider's age. For events using the year of birth rule, enter 31/12/20xx.

- `Valid_Licence_Types.` Entering data here enables a check the rider licence types in the rider list file are appropriate for the event. Eg for an open event run under BMX Australia Rules, enter O,S for Open and Sprocket licence types. Leave blank to disable the licence type check.

- `Motos_Before_Final.` Number of motos before the final. Eg For a meeting with 3 motos + final enter 3. Note: for Rule Sets where classes of less than one gate have an extra moto and for Participation classes under BMX Australia Rules, the program automatically does an additional moto draw and includes these races in the Final stage.

- `Number of Starting Lanes.` Number of lanes on the gate. Change from 8 on the template if required. Eg set to 4 for MTB 4Cross.

- `Minimum Riders for Consolation Final.` Minimum number of riders in a class before a B (Consolation) Final is run. Applicable to classes with a `Class_Code` of EXPTCONS, EXPTCONS-F or BCF with a `Finals_Code` of BCF.

- `Minimum Riders for Invitation Final.` Minimum number of riders in a class before B, C, D etc. (Invitation Finals) are run subject to settings for Minimum Riders for C Final and Number of Finals. Note this is only applicable to classes with a `Class_Code` of INV, INV-F or `Finals_Code` of FORMULA.

- `Minimum Riders for C Final.` Minimum number of riders in a class with a `Class_Code` of INV or INV-F before a C Final is drawn.

- `Maximum Number of Finals.` Maximum number of Finals to be drawn (subject to number if entries) in a class with a `Class_Code` of INV or INV-F.

- `Minimum Riders for OneGateFinal.` Minimum number of riders in a class before a "drop on rider" final is drawn for a single heat class.
  Note that this is only applicable to classes with a Class Code that allows a final for a single heat class. E.g. EXPT-F, UCI-F etc.

- `Number of Time Trials.` Set to 1 or 2 for the number of Time Trials where the Class Code invokes a Time Trial. Note that a value of 1 is set where a Time Trial Super Final is run. I.e. all entrants do one Time Trial before the top xx transfer to the Super Final.

- Minimum Riders for TT Super_Final. Minimum riders in a class with Class Codes for UCI-"SF" before the Time Trial Super Final is drawn. Note that 12 is the minimum specified in the UCI Rule Book but is made an operator selectable value so that local events can be run with less (or more) than this for the Super Final.
  The following table explains the implications of this setting:

BEM Min_SuperFinal Setting	Number in Class	Number in Super Final
12 (UCI Rule Compliant)	Less than 12	0
	12 to 15	6
	16 to 23	8
	24 or more	16
5 to 11	Less than Min_SuperFinal	0
	5 to 8	4
	9 to 11	6
	12 or more as per UCI rule	

- Print_Paper_Size. Paper Size used for printing moto sheets, results etc. Selecting the required paper size sets the data to the required xlPaper size setting,
  Eg 1=Letter(8 1/2 x 11 in.), 5=Legal(8 1/2 x 14 in.), 8=A3(297 x 420 mm), 9=A4(210 x 297 mm), 39=US Fanfold(14 7/8 x 11 in.). For other paper sizes, refer to Excel help on PaperSize Property.

CLASS DETAILS
The following class details can be configured with the BEM Toolbox.
Note that if manually editing data with Excel in the event file, each row corresponds to a single class and no blank rows are permitted in the Class_Text column as a blank cell is treated as the end of the list.

- CLASS_NO. Class number. Used for tracking of run-off details, individual race comments and when calculating Series Points using the SERIES program to correlate classes in the event with classes listed in the series.
  NOTE: EACH CLASS MUST HAVE AN UNIQUE CLASS_NO. They do not need to be in sequence.

- Class_Text. List of classes available. Any description can be used with the restriction that each class name must be unique. Caution is required if this list is changed once entries are made as the exact text is used to match riders in the database.

- Class_Short. Enter and abbreviated form of the Class_Text of up to eight characters. Used for some reports where a long class name will not fit in the space available.

- Minimum_Entry. Minimum number of entries required for a valid class. The entry here does not prevent a class with less than the minimum number being drawn, but generates a warning message when drawing motos if the number of entries is below this number.

- UCI Event Code. For events awarding UCI Ranking Points, enter the UCI defined Event Code for the Class.
  For other than UCI Ranking Events, the Event Code can be entered or just left blank.

- Class Type. Enter a value from 1 to 4. Suggested convention for Class Type values are:
  1 for 20" Classes with the possibility of transponder allocation.
  2 for Cruiser Classes with the possibility of transponder allocation.
  3 for Retro or Mountain Bike Classes with the possibility of transponder allocation.
  4 for Classes not to have transponders. E.g. Australian Sprocket classes (participation, not scored).

- Entry Fee 1 (2). The Entry Fee 1 and Entry Fee 2 fields allow pre-setting of two applicable entry fees for the class, e.g. Full Fee and Concession Fee.

- Fee Code 1 (2). The Fee Code fields are for a short code as a memory prompt as to the corresponding Entry Fee. E.g. enter "F" for Full Fee and "C" for Concession Fee.

- **`Class_Code.`** Used to indicate the type of class for finals and additional moto requirements.

Valid values are:

For Scrambled Moto Rotation Rules (BMXA, BCF, NZL, CCA, GER, RSA etc.)

PART	for Participation (Sprocket) Classes.
INV	Provides one Expert Final and Invitation Finals for all remaining riders, subject to number of entries. Semis & Quarters as required. Extra moto for one gate class.
INV-F	As for INV except for a single gate class, one rider is dropped after the motos and the remainder transfer to a final.
EXPT	One final only. Semis & Quarters as required. Extra moto for one gate class.
EXPT-F	As for EXPT except for a single gate class, one rider is dropped after the motos and the remainder transfer to a final.
EXPTCONS	Provides one Expert and one Consolation final subject to number of entries. Semis & Quarters as required. Extra moto for one gate class.
EXPTCONS-F.	As for EXPTCONS except for a single gate class, one rider is dropped after the motos and the remainder transfer to a final.
ALLMOTO	Class with no finals regardless of number of gates. Points through all motos. (BMXA Rule E.3).
ONEGATE	One gate only for final based on points for motos. No semis or quarterfinals regardless of number in class.

For UCI (non-scrambled motos) Class Rules.

Class Codes Conforming to UCI Rule Book.

UCI	UCI rule moto draws and finals transfer system.
	Results over three motos for a class of 8 or less (no final).
	Random allocation of Starting Lanes to Moto 1 then per Annex 2.
	Results over three motos for a class of 8 or less (no final).
UCI-S	UCI rule moto draws and finals transfer system.
	Riders are seeded to the motos using rider ranking.
	Riders choose a combination of starting lanes in order of ranking for Motos per UCI Annex 2.
	Results over three motos for a class of 8 or less (no final).
UCI-TT	UCI rule moto draws and finals transfer system.
	Riders are seeded to the motos using Time Trial results.
	Riders choose a combination of starting lanes in order of Time Trial results for Motos per UCI Annex 2.
	Results over three motos for a class of 8 or less (no final).
UCI-TT-SF	As for UCI-TT with the addition of a Time Trial Super Final. .
	Results over three motos for a class of 8 or less (no final).

The following Class Codes allow for variation to the standard UCI Rule Book.

UCI-S-RSL (was UCI-S-A)	As for UCI-S except that Random Starting Lanes are allocated for Moto 1 then following UCI BMX Annex 2 for Motos 2 and 3.
UCI-S-SSL	As for UCI-S except that Seeding for Starting Lanes are used. I.e. for each Moto heat, the highest ranked rider is allocated lane 8 for Moto 1 etc. then following UCI BMX Annex 2 for Motos 2 and 3.
UCI-F	As for UCI except that classes with 8 or less have a drop one rider final.
UCI-S-F	As for UCI-S except that classes with 8 or less have a drop one rider final.
UCI-S-F-RSL (was UCI-S-F-A)	As for UCI-S-F except that Random Starting Lanes are allocated, random for Moto 1 then per Annex 2 for Motos 2 and 3.
UCI-S-F-SSL	As for UCI-S-F except that Seeding for Starting Lanes are used. I.e. for each Moto heat, the highest ranked rider is allocated lane 8 for Moto 1 etc. then following UCI BMX Annex 2 for Motos 2 and 3.
UCIE	As for UCI except that classes with <9 have a fourth moto.
UCIE-S	As for UCI-S except that classes with 8 or less have a fourth moto.
UCIE-S-RSL	UCI Transfer Rules. Ranking used for moto seeding. Random assigned starting lanes for Moto 1 then per UCI Annex 2 for Motos 2 & 3. Extra moto for < 9 riders.
UCIE-S-SSL	UCI Transfer Rules. Ranking used for moto seeding and starting lanes for Moto 1. (Highest rank to lane 8). UCI Annex 2 for Motos 2 & 3. Extra moto for < 9 riders.
UCI-S-LANE	As for UCI-S except riders have pick of starting lane for the motos based on the results of the previous run.

UCI-S-LANE-F   As for UCI-S-LANE except that classes with 8 or less have a drop one rider final.

UCI-TT-F   As for UCI-TT except that classes with 8 or less have a drop one rider final.

UCIE-TT   As for UCI-TT except that classes with 8 or less have a fourth moto.

UCIE-TT-RSL UCI Transfer Rules. Time Trial for moto seeding. Random assigned starting lanes for Moto 1 then per UCI Annex 2 for Motos 2 & 3. Extra moto for < 9 riders.

UCIE-TT-SSL UCI Transfer Rules. Time Trial for moto seeding and starting lanes for Moto 1. (Highest rank to lane 8). UCI Annex 2 for Motos 2 & 3. Extra moto for < 9 riders.

UCI-TT-SF-F As for UCI-TT-SF except that classes with 8 or less have a drop one rider final.

UCIE-TT-SF As for UCI-TT-SF except that classes with 8 or less have a fourth moto.

UCIE-TT-SF-RSL UCI Transfer Rules. Time Trial plus Time Trial Super Final for moto seeding. Random assigned starting lanes for Moto 1 then per UCI Annex 2 for Motos 2 & 3. Extra moto for < 9 riders.

UCIE-TT-SF-SSL UCI Transfer Rules. Time Trial plus Time Trial Super Final for moto seeding and starting lanes for Moto 1. (Highest rank to lane 8). UCI Annex 2 for Motos 2 & 3. Extra moto for < 9 riders.

UCI-TT-LANE   As for UCI-TT except riders have pick of starting lane for the motos based on the results of the previous run.

UCI-TT-LANE-SF   As for UCI-TT-LANE with the addition of a Time Trial Super Final.

UCIE-TT-LANE As for UCI-TT-LANE-SF with the exception that classes with 8 or less have a fourth moto.

UCIE-TT-LANE-SF   As for UCIE-TT-LANE with the addition of a Time Trial Super Final.

BEM additions for UCI BMX Scrambled Moto Rules (introduced in 2017)

Class_Code	Score_Code	Finals_Code	Comment
XUCI	UCI	LANE-SEL①	Fully Rule Book compliant UCI BMX Scrambled moto rules Random computer allocated starting lanes for Moto 1. All subsequent runs (motos 2 & 3, qualifiers, final) have rider choice of starting lane based on lap time in previous run. Number of moto heats and transfer through qualifiers based on UCI BMX Rules Annex 1. Points on 3 motos for a class with 8 or less.
XUCI-A	UCI	LANE-SEL①	Modified version of UCI BMX Scrambled rules. Allocated starting lanes for all motos.
XUCI-F	UCI	LANE-SEL①	Modified version of UCI BMX Scrambled rules. Drop one rider after the motos final for a class of 8 or less.
XUCI-F-A	UCI	LANE-SEL①	Modified version of UCI BMX Scrambled rules. Drop one rider after the motos final for a class of 8 or less. Allocated starting lanes for all motos.
XUCI-E	UCI	LANE-SEL①	Modified version of UCI BMX Scrambled rules. Extra moto (4th) for a class of 8 or less.
XUCI-E-A	UCI	LANE-SEL①	Modified version of UCI BMX Scrambled rules. Extra moto (4th) for a class of 8 or less. Allocated starting lanes for all motos.

① Finals code of A-B can be used to give a B Final for drop out semi-finalists.

BEM additions for UCI BMX SuperCross World Cup Rules (introduced in 2017)

Class_Code	Score_Code	Finals_Code	Comment
UCI-WC	UCI	LANE-SEL	Fully Rule Book compliant UCI BMX World Cup 2019 Rules
UCI-WC-TT	UCI	LANE-SEL	Modified version of UCI BMX World Cup 2019 Rules. Time Trial used for Seeding to Round 1 and Round 1 starting lane selection.
UCI-WC-TT-SF	UCI	LANE-SEL	Modified version of UCI BMX World Cup 2019 Rules. Time Trial plus Time Trial SuperFinal used for seeding to Round 1 and Round 1 starting lane selection.

For Red Bull Pump Track Rules

PT-SR1   Pump Track, Solo Run, one or two Time Trials, knock out stages are one run per round.

PT-H2HD1   Pump Track, Head to Head Dual, one or two Time Trials, knock out stages are one run per round.

For BCF non moto rotation Class Rules

BCF   Moto draws and transfer system per British Cycle Federation NON-scrambled moto regulations.

For Moto Transfer and Shoot Out Event Rules

SHOOTOUT   Moto draws and transfers per "Adelaide 2001" shootout competition. For shootout events `Minimum_Entry` setting must be 5 or higher. A maximum of 64 riders per class is allowed.

4GE   Four Gate Eliminator. Seeding, moto draws and four rider finals. First used as a support event at the BMXA 2006 National Championships.

ABA2   Moto draws and transfers in the style of American Bicycle Association 2 moto transfer rules. A maximum of 64 riders per class is allowed.

For Orange Blossom Event Rules

ORANGE   Moto draws and transfers per "Castle Hill Orange Blossom 2001" shootout competition. For shootout events the `Minimum_Entry` setting is to be 4 for `Finals_Code` of AGE and 9 for `Finals_Code` of PRO. If less than four entries, defaults to an extra moto with results on points.

For UCI 4-Cross Event Rules

UCI4X-16   For classes with a maximum of 16 riders start the main event after the timed qualifying run. Eg. Female Classes

UCI4X-64   For classes with a maximum of 64 riders start the main event after the timed qualifying run. Eg. Male Classes

For stand alone Time Trial Events

TT   Time Trial competition without transfer to motos.
May have a SuperFinal or Deadman Final(s) dependant on the `Finals_Code`

- **Score_Code.** Used to indicate the type of scoring to be used. Valid values are:

Blank	Defaults to UCI. If you are unsure of the default then always specify the required code.
UCI	Complies with UCI BMX 2015, CCA BMX and BMXA Rules. Points system of 1, 2, 3 ....8 for first to eighth place. First DNS in motos gives credit points of number of riders + 2. A second DNS in the motos or qualifier bars transfer to the next stage of racing.
ESP	Provided specifically for Spanish Federation requirements. Points system of 1, 2, 3 ....8 for first to eighth place. A DNS in the first two motos allows the possibility of the rider transferring. A DNS in moto 3 bars transfer to the next stage of racing.
DNS=OUT	Points system of 1, 2, 3 ....8 for first to eighth place. Any single DNS does not transfer to the next stage of racing.
DNS=POINTS	Points system of 1, 2, 3 ....8 for first to eighth place. A DNS result gets points = number of starting lanes with no automatic bar to transfer.
NZ	Uses the now superceded New Zealand points system of 8, 7, 6 …..1 for first to eighth place.
SERIES	This function is superceded by the vastly superior facilities provided by the SERIES program and **is not recommended for use** (and will probably be removed). Refer to the "Series Points" button on the main menu. Uses points system of 10, 8, 6, 5 ......1 for first to eighth place.
MTB4	Provided for four lane Mountain Bike competitions. Note that the data `C_Num_Lanes` on the Event Sheet **must be set to 4**. Uses points system 4, 3, 2, 1 for first to fourth place.
PART	For participation classes where riders are not scored. Is the default Score Code for Class Code of PART and can also be used with a Class Code of UCIE to allow participation classes to use UCI moto draws.

- **`Finals_Code.`** Used to indicate the type of final to be used. Valid values are:

For moto rotation Class_Codes

Blank	Defaults to DEADMAN
DEADMAN	Deadman quarter and semi finals.
DM-LANE	Deadman quarter and semi finals with rider lane pick and seeding for qualifier and final stages based on the results of the previous round plus count back if required.
DM3-LANE	Deadman quarter and semi finals with rider lane pick and seeding for qualifier and final stages based on the results of the previous round plus count back if required. Final decided by points over three heats.
3HEAT	Deadman quarter and semi finals with the final being decided by points over three heats. Olympic lane draws for qualifier and first final.
BCF	Deadman quarter and semi finals per BCF 2003 rules.
BCF-3HEAT	Deadman quarter and semi finals under BCF random lane allocation for qualifier and final with the final decided on points over three heats.
POINTSTHRU	Points from motos carried through semis and quarters. (BMXA Rule E.1.ii).
ALLPOINTS	Similar to POINTSTHRU except points are carried through the final with the overall winner being decided on points.
NZPOINTS	New Zealand points through rules where points are carried through from motos to quarters, semis and final, double points awarded for quarters, semis and final, runoff used to split ties for last position at end of pre final motos, count back used to split ties for last position after quarter and semi finals.
CCA	Canadian Cycling Association, Canada Cup Rules scrambled moto rules.
CCA-PRO	Canadian Cycling Association Canada Cup Rules for PRO classes. With the exception of a mandatory "Last Chance" Run Off race for the last two positions in the final for a class of 10-12 riders, is identical to the Finals_Code of CCA.
4X	UCI style Four Cross elimination stage run after a scrambled moto qualification stage. Note that a Finals Code of 4X is only valid with Class Codes of EXPTCONS and EXPTCONS-F.

For Class_Code of INV and INV-F

Blank, DEADMAN, DM-LANE, FILLSPILL, NZPOINTS, ALLPOINTS and BCF, each Invitation final is filled to capacity (8) riders before creating further invitation finals.	
DIVIDE, Riders from the Invitation pool are divided as evenly as possible between gates.	

For all UCI Class_Codes.

Blank	Defaults to LANE-SEL
LANE-SEL	Starting lane selection for qualifier stages based on lap time or results from the previous run. See UCI Rule 6.1.021 A.
A-B	Subject to the numbers in the class, provides a normal Final (A) and a B final for riders in the Semi Final who did not qualify for the Final.

Superceded Finals Codes with the 2013 UCI Rules (i.e. do not use!)

~~TRANSFER~~ ~~Finals use standard UCI transfer system based on Appendix 3 of UCI rules.~~
~~RANKING~~ ~~Moto and Final draws are based on rider ranking as per Appendix 4 section A of UCI rules.~~

For Class_Code of UCI-TT, UCI-TT-LANE (and UCIE and -S, -F variants).

Blank	Defaults to LANE-SEL
LANE-SEL	Starting lane selection for motos dependant on Class Code (Annex 2 for this case) with starting lane selection for all finals (quarters, semis, finals) based on lap time from the previous run. See UCI Rule 6.1.021 A.
A-B	Provides a normal Final (A) and a B final for riders in the Semi Final who did not qualify for the Final.

For Class_Code of BCF (British non-rotation rules).

Blank	Defaults to BCF
BCF	Finals use standard BCF Rider Allocation Chart transfer system. B finals drawn if the number of riders in the class meets the minimum number set for `C_Min_Riders_Cons_Final`.
FORMULA	A finals per standard BCF Rider Allocation Chart. B, C, D etc finals drawn if the number of riders in the class meets the minimum number set for `C_Min_Riders_Inv_Final`.

For Class_Code of ORANGE

Blank	Defaults to AGE
AGE	Finals use Orange Blossom AGE transfer system.
PRO	Finals use Orange Blossom PRO transfer system. If insufficient numbers in class for PRO rules, reverts to AGE finals transfer system.

For Class_Code of TT

Blank	Defaults to TT.
TT	Time Trial Only. One or two runs dependent on setting of "Number of Time Trials"
SF	Time Trial (single run) + SuperFinal dependant on minimum entries per setting of "Minimum Riders for Time Trial Super Final"
AF	Time Trial + top 8 transfer to a single run Final. If less than 9 entries in Class then drop last placed from the Time Trial.
AXF	Time Trial + all entrants transfer to a single run Final. I.e. 1-8 to A Final, 9-16 to B Final etc.

- `Class_Sponsor.` Allows the name of sponsors (or in fact any other text / message) on a per class basis to be printed on the moto sheets. Leave blank if nothing is to be printed. Note that for classes with a class code of SHOOTOUT, any entry here will only be printed on the Final Moto Sheets as the field is used for transfer details (i.e. the number of riders to progress to the next round).

Matrix of Class, Score and Finals Code Options.

Entries marked with "*" are the default values if field is left blank.

Class_Code	Score_Code	Finals_Code	COMMENTS
PART	N/A	N/A	Participation Class, (non scoring). Additional moto in final round.
INV	DNS=POINTS* DNS=OUT UCI ESP NZ MTB4	DEADMAN* DM-LANE FILLSPILL BCF POINTSTHRU NZPOINTS ALLPOINTS CCA	Expert Final for top 8. Invitation final(s) dependent on class numbers and setting of Min_Riders_Invitation_Final. Semi and Quarter Finals as required. Extra moto if less than 9 riders. Invitation finals fill with 8 riders before creating subsequent invitation. Eg 17 riders in the invitation pool would result in gates of 8, 8 and 1 riders respectively.
		DIVIDE	All riders in the invitation pool are divided evenly between invitation finals. Eg 17 riders in the invitation pool would result in gates of 6, 6, and 5 riders.
INV-F	As for INV	DEADMAN* DM-LANE FILLSPILL DIVIDE	As for INV except that for a single gate class, the last placed rider is dropped after the motos and the remainder transfer to a final.
EXPT	DNS=POINTS* DNS=OUT UCI ESP NZ MTB4	DEADMAN* DM-LANE BCF CCA, CCA-PRO POINTSTHRU NZPOINTS ALLPOINTS	One final only for top 8 (4 for MTB). Semi and Quarter Finals as required.
		3HEAT DM3-LANE BCF-3HEAT	Three heat final for top 8 (4 for MTB). Semi and Quarter Finals as required.
EXPT-F	As for EXPT	DEADMAN* DM-LANE FILLSPILL DIVIDE	As for EXPT except that for a single gate class, the last placed rider is dropped after the motos and the remainder transfer to a final.
EXPTCONS	DNS=POINTS* DNS=OUT UCI ESP NZ MTB4	DEADMAN* DM-LANE BCF, CCA POINTSTHRU NZPOINTS ALLPOINTS	Expert Final for top 8. One Consolation final for 9-16 dependent on class numbers and setting of Min_Riders_Cons_Final. Extra moto if less that 9 riders.
		3HEAT DM3-LANE BCF-3HEAT	Three Heat Final (A Final) for top 8 (4 for MTB). Three Heat Final (B Final) for 9-16 (5-8) dependent on class numbers and setting of Min_Riders_Cons_Final. Extra moto if less that 9 riders.
EXPTCONS-F	As for EXPTCONS	DEADMAN* DM-LANE FILLSPILL DIVIDE	As for EXPTCONS except that for a single gate class, the last placed rider is dropped after the motos and the remainder transfer to a final.
EXPTCONS	As for EXPTCONS	4X	UCI style 4-Cross elimination stage following a scrambled motos qualifying stage. Extra moto if 4 or less riders.
EXPTCONS-F	As for EXPTCONS	4X	UCI style 4-Cross elimination stage following a scrambled motos qualifying stage. Drop one rider final if 4 or less riders.

ALLMOTO	DNS=POINTS* DNS=OUT, UCI, ESP, NZ, MTB4	N/A	No Finals regardless of numbers. Points through all motos, runoff if countback cannot determine places 1 to 8.
ONEGATE	DNS=POINTS* DNS=OUT, UCI, ESP, NZ, MTB4	N/A	Top 8 (or 4 for MTB4) riders in final regardless of numbers. No Semi or Quarter Finals. Extra moto if less than one full gate in class.
SHOOTOUT	N/A	N/A	Adelaide 2001 Shoot Out Rules. Refer to appendix 4 for Shootout race rules.
4GE	N/A	N/A	Four Gate Eliminator Shootout. Refer to appendix 5 for detailed rules for this race format.
ABA2	N/A	N/A	American Bicycle Association style 2 moto transfer rules.
ORANGE	N/A	AGE*	Castle Hill "Orange Blossom" Rules Refer to appendix 3 for Orange Blossom race rules.
		PRO	

UCI UCIE (UCIE Draws Fourth moto if < 9 riders).	UCI* ESP, PART	LANE-SEL	Rider choice of starting lanes for all stages after motos based on lap time from the previous run.
		A-B	Normal Final + B Final for 5th to 8th placed Semi Finalists.
UCI-S UCIE-S	UCI* ESP, PART	LANE-SEL	Rider choice of starting lanes for all stages after motos based on lap time from the previous run.
		A-B	Normal Final + B Final for 5th to 8th placed Semi Finalists.
UCI-TT UCI-TT-SF UCIE-TT UCIE-TT-SF	UCI* ESP, PART	LANE-SEL	Riders seeded to qualifying motos by time from a one or best of two lap Time Trial per UCI BMX rules section 11.
		A-B	Normal Final + B Final for 5th to 8th placed Semi Finalists.
UCI-TT-LANE UCI-TT-LANE-SF UCIE-TT-LANE UCIE-TT-LANE-SF Also -SSL and -RSL variants	UCI* ESP	LANE-SEL	Riders seeded to qualifying motos by time from a one or best of two lap Time Trial. Finals transfer per UCI Annex 2. Riders select their starting lanes on the principal of last run result determines next run lane pick.
		A-B	Normal Final + B Final for 5th to 8th placed Semi Finalists.
UCI-S-RSL UCI-S-F-RSL UCIE-S-RSL	UCI* ESP	LANE-SEL A-B	Riders seeded to motos. Random starting lanes for Moto 1 then following UCI BMX Annex2 for Motos 2 and 3. (UCIE Draws Fourth moto if < 9 riders).
UCI-S-SSL UCI-S-F-SSL UCIE-S-F-SSL			Riders seeded to motos. Seeding based starting lanes for each heat in Moto 1 with highest seed to lane 8, next to lane 7 etc then following UCI BMX Annex 2 for Motos 2 and 3. (UCIE Draws Fourth moto if < 9 riders).
BCF (2002 rules, non rotated moto draws)	DNS=OUT*	BCF*	Moto draws and finals transfer per BCF Rider Allocation Chart. B final for 9-16 dependent on class numbers and setting of Min_Riders_Cons_Final.
		FORMULA	Moto draws and finals transfer per BCF Rider Allocation Chart B, C D etc finals dependant on class numbers and setting of Min_Riders_Invitation_Final.
UCI4X-16 UCI4X-64	-	-	Timed qualifying run and transfer system per UCI Mountain Bike 4-Cross rules.

TT	UCI	TT	All competitors do one or two runs dependant on the setting of "Number of Time Trials" Results based on the fastest time from either run.
		SF	Time Trial + SuperFinal. All competitors do a single run then the fastest (as per UCI Regulations) transfer to a Time Trial SuperFinal
		AF	Time Trial + "Top 8" Final. All competitors do one or two runs dependant on the setting of "Number of Time Trials" The fastest 8 times transfer to a single 8 rider Final. If less than 9 entries in the Class then the last placed rider after the Time Trial is dropped with the remaining riders transferring to the Final. First use BMX Victoria.
		AXF	Time Trial + all transfer to a single run Final. All competitors do one or two runs dependant on the setting of "Number of Time Trials" The fastest 8 times transfer to the A Final, 9-16 to the B Final, 17-24 to the C Final etc. First use: BMX Peru

Class, Score and Finals Code Examples

This section gives some examples of how the various codes can be used to configure for particular race rules.

UCI 2016 BMX Rules

Class_Code	Score_Code	Finals_Code	Comment
UCI	UCI	LANE-SEL	Random allocation of riders to motos. Appendix 2 lanes for motos. Rider lane selection for qualifier and final stages.
UCI-S	UCI	LANE-SEL	Riders seeded to motos by ranking. Riders choose a combination of starting lanes for Motos per UCI Rules Annex 2. Rider lane selection for qualifier and final stages.
UCI-TT	UCI	LANE-SEL	Time trial to determine seeding to motos. Riders choose a combination of starting lanes for Motos per UCI Rules Annex 2. Rider lane selection for qualifier and final stages.
UCI-TT-SF	UCI	LANE-SEL	Time Trial plus Time Trial Super Final to determine seeding to motos. Riders choose a combination of starting lanes for Motos per UCI Rules Annex 2. Rider lane selection for qualifier and final stages.
UCI	UCI	A-B	Random allocation of riders to motos. Appendix 2 lanes for motos. Rider lane selection for qualifier and final stages. B Final for 5th to 8th place riders in Semi Final.

Scrambled Moto Examples

Class_Code	Score_Code	Finals_Code	Comment
EXPT	UCI	CCA	Use with Canada selected as the Association. Canadian Cycling scrambled moto rules for amateur classes.
EXPT	UCI	CCA-PRO	Use with Canada selected as the Association. Canadian Cycling Association Canada Cup, optional rule for PRO classes.
EXPTCONS	UCI	BCF	British Cycle Federation National Series with scrambled motos.
EXPTCONS	UCI	BCF-3HEAT	British Cycle Federation, Pro Class where the A and B Finals consist of 3 heats. Computer lane selection for all final stages.
INV	UCI	DEADMAN	Scrambled motos, Expert and Invitation Finals, UCI DNS Credit 2 strikes and you're out Rules. EG Australian Regional Series, Eg. Victorian Metro Plate, age classes
INV	DNS=POINTS	DEADMAN	As for example above except DNS given points equal to number of starting lanes
EXPT-F	UCI	DEADMAN	Single final for all classes including single gate.
EXPT	UCI	3HEAT	Australian unofficial rules used at selected events where the final stage consists of 3 Heats for the top 8 riders.
EXPT	UCI	NZPOINTS	New Zealand National Championship Rules.
UCI4X-16			UCI 4-Cross, maximum of 16 transfer from Time Trial.
UCI4X-64			UCI 4-Cross, maximum of 64 transfer from Time Trial

Stand alone Time Trial Examples

Class_Code	Score_Code	Finals_Code	Comment
TT	UCI	TT	All competitors do one or two runs dependant on the setting of "**Number of Time Trials**" Results based on the fastest time from either run.
TT	UCI	SF	Time Trial + SuperFinal. All competitors do a single run then the fastest (as per UCI Regulations) transfer to a Time Trial SuperFinal
TT	UCI	AF	Time Trial + "Top 8" Final. All competitors do one or two runs dependant on the setting of "**Number of Time Trials**" The fastest 8 times transfer to a single 8 rider Final. If less than 9 entries in the Class then the last placed rider after the Time Trial is dropped with the remaining riders transferring to the Final. First use BMX Victoria.
TT	UCI	AXF	Time Trial + all transfer to a single run Final. All competitors do one or two runs dependant on the setting of "**Number of Time Trials**" The fastest 8 times transfer to the A Final, 9-16 to the B Final, 17-24 to the C Final etc. First use: BMX Peru

TEAM / CLUB DETAILS

If automatic scoring of Club points is required and to include Club details on the Moto Sheets, include a list of Clubs or Teams on the Event Sheet. This information is normally populated and edited with the BEM Toolbox3 program. Details are included here for experienced Excel users who choose to edit the data directly in the event file. The following columns provide information required for each Club / Team. The only restriction is that no blank rows are permitted in the list.

- CLUB_NO. Club number. Used to set the Team_No if the "**Set Team_No to Club_No**" checkbox is set in the Add Entries Dialog. Used when the SERIES program is to be used to score a Club competition and by the BEM Toolbox3 program when riders are to be seeded in a UCI event on Club, State and Country.

- Group_Club_Team. List of Clubs or Teams available. The first entry should be 'Club Unknown then any description can be used for clubs or teams with the restriction that each name must be unique. Caution is required if this list is changed once entries are made as the exact text is used to match riders in the database.

- Group_Code. Short version of the Club or Team Name included in the Club column of the moto sheets. This field should be limited to five characters.

- State_No. State Number. Used to set the Team2_No if the "**Set Team2_No to State_No**" checkbox is set in the Add Entries Dialog. Used with the SERIES program is to be used to score a State or Region event and by the BEM Toolbox3 program when riders are to be seeded in a UCI event on Club, State and Country.

- State. Enter the State, Province or Region relevant to the Group_Club_Team. Used for sorting and printing of rider handout moto draws in RRD.

- Country_No. Country Number. Used by the BEM Toolbox3 program when riders are to be seeded in a UCI event on Club, State and Country.

- Country. Enter the Country relevant to the Group_Club_Team. Used for sorting and printing of rider handout moto draws in RRD.

While the following fields can be set up to score Club points, **the writer recommends that it not be used as it has been superceded by the superior and flexible Team Scoring in the Series program.**

- Factor. Used when BEM (not SERIES) is used to score Club points. It is a multiplier to adjust the earned (raw points) to determine the adjusted points. If no modification is required either leave blank or enter 1. First use of this facility was for Victorian Interclub competitions where the points earned by each Club is modified by the percentage of the Club's Licensed Riders entered in the event.

- Raw_Points. No entry required. Raw points for the Club / Team calculated by the program.

- Adjusted_Points. No entry required. Adjusted points for the Club / Team calculated by the program (Raw_Points * Factor).


RUNNING THE PROGRAM

Start the program by double clicking on the desktop shortcut which will open the file BEM2K3.XLS.
If Excel prompts to disable or enable macros, click on the "Enable Macros" buttons.

The opening banner displays BEM Version and also the Excel Version and Build on the user's computer. Please check that your Excel Build is at or near the version number as shown in the Release and Installation Notes.
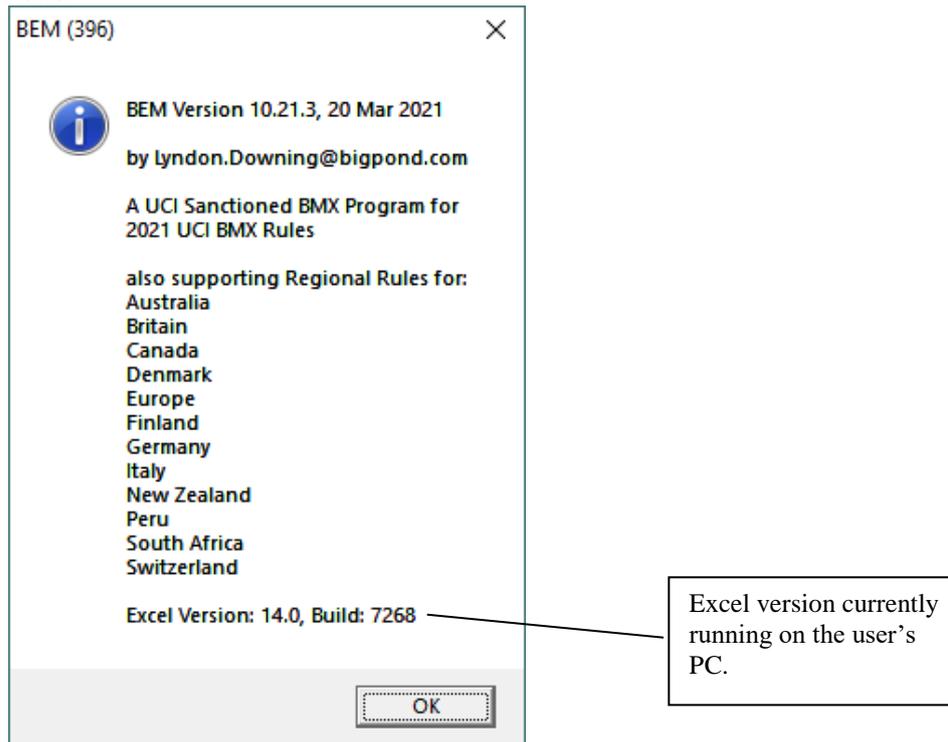
When the Association Selection dialog box is presented, make the appropriate selection. Note that if the event has been set up for "pure" UCI rules, the selection made here has no impact.
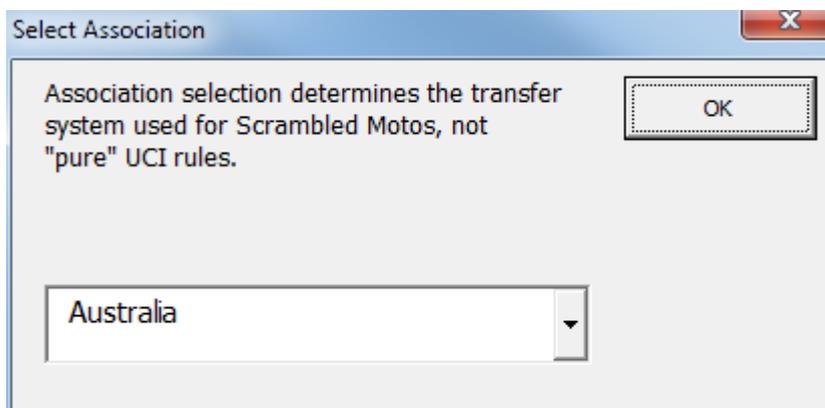
When the Association selection, is made, the options dialog is presented where a number of selections can be made as to the moto sheet layouts and report contents.

A dialogue box is then presented to select the ????????.BEM event file to use. Only one event file can be used at the one time.

On opening the event file a number of sanity checks are performed on the database and a profile is built for each class. The sanity checks are repeated after entries are added, edited or class changes made. Refer to the section Error and Warning Messages for detailed information.

An event summary dialogue box is presented as a reminder as to the status of the race and final order and number of entries. In the example below, 38 classes are listed in the Event Sheet of which all have entries and all are included in moto and finals order, 1176 entries are in the database from 972 riders. Note that Total riders will be shown as "?" if licence numbers are not entered for all riders as multi class entries are determined on licence number.

Main Menu

Next the main menu dialogue box is presented.

Entry Management Group

Add Entries Button

This button presents a rider entry dialogue box. Minimum requirement is to enter first or last name, plate and select class. For UCI classes set up for Time Trial or Seeding by Ranking, the UCI ranking number is also required.

If a valid Rider List File is specified in the Event Workbook, then the rider list will appear in the left pane sorted on last name. To select the rider list file or to change the file selection, click on the **"Select File"** button. Default file type for selection is .XLS or .XLSX however you can change the file type to Event File (*.BEM) to allow the import of riders from another event file.

The "**Transfer Rider >**" button transfers the selected rider details from the rider list file to the fields in the right pane. The details in the rider list file can be updated or a new rider added to the list with the "**< Update Details**" button. If the First Name and Last Name details in the right pane match the selected name in the rider list, details for that rider will be updated. If the names do not match, a new entry is made in the list.

If the **"Set Team_No to Club_No"** box is selected, the Team_No is set to the Club_No to allow the SERIES program to score Club competitions.

The **Set Team4_No to Sponsor_No** option has a special function where Sponsors are included in the Group (Club) list. Selection of this option changes the **Sponsor** entry from a text entry to a drop down list so that a Sponsor can be selected from the list.

To add the entry to the event, in the Accept Entry group click on the "**OK**" button or the "**Keep Rider**" button to add the entry to the event database but keep rider details for entry into another class. A warning message is given if duplicate rider entry or duplicate race plate in the class is detected.

The Entry Print group gives the option by selecting Enable Printer, to print all entry details for each rider when the **OK** button is clicked to accept the entry. Format can be selected for either A6, Receipt or A4/Letter format using the printer options set up in the Options screen.

Click on the "**Exit**" button to reject the displayed entry and to leave the entry mode. On exit from "add entries", the class details are re-built and the duplicate entry and plate check is repeated. Note that alpha characters in the plate field are converted to upper case, Eg 3v become 3V.

Click on the "**Clear**" button to delete details entered in the form but not accepted.

The "**Add All**" button is used to add all riders in the list file to the event. Typical use is where the list is from an on line entry web site or to enter all riders from one event to another event.

The "**Registration Updates**" button is enabled only when an event file is selected as the rider list. Use is where slave copies of the event file are used for multiple registration stations and will update the paid and registration status on the master event file.

NOTES: Entries can be made in any order.

Licence No, D.O.B., Age at Event and Classification are not mandatory. If the DOB is entered by the operator or from the rider list, the program calculates the Age at Event using the `Date_for_Age_Determination` date in the Event Worksheet.

Review Entries Button

The Review Entries function uses the Add Entries dialog to allow viewing and updating of entries in the event. Changes can be made here to Form Reference, Licence Number, Class, Plate (race number), Club, Paid status and Ranking. Changes to the Rider Name cannot be made in Review Entries, use Edit Entries if this needs to be done.

When selecting Review Entries, the list of riders presented are those previously entered for the event. To view / change details for a rider, select the rider from the list i.e. by scanning the licence number, entering the licence number then pressing <Enter>. If the licence number is not known then by typing the first few characters of the name in the edit box above the rider list will take you quickly to the rider. When the rider is selected, use the **Transfer Rider** button to display the details in the dialog.
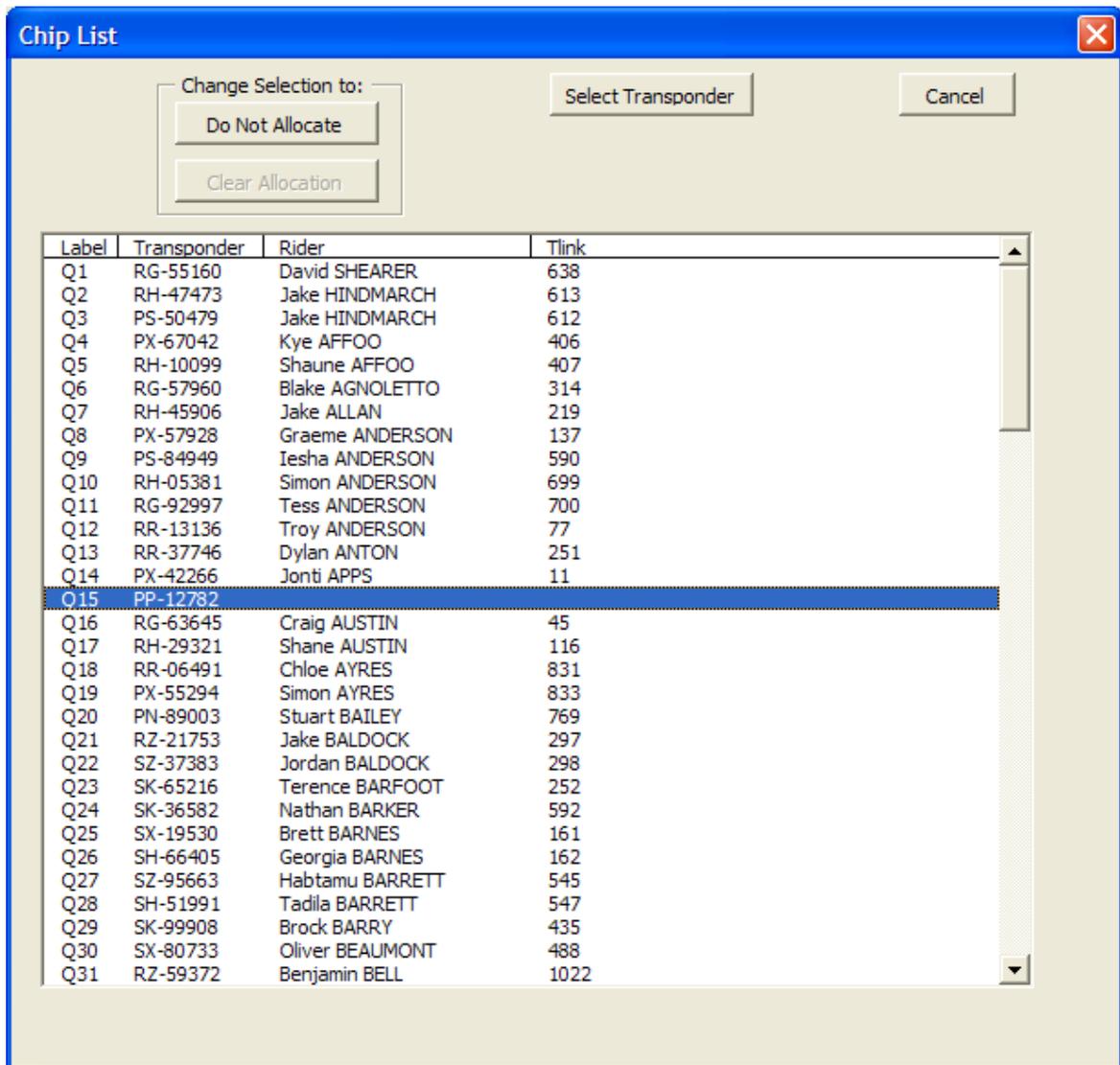
After making changes, use the **< Update Details** button to save the changes made on screen.

The ability to change a rider's class here should only be used to correct an input error. When merging classes to make up minimum numbers, use the **Merge Classes** function from the main dialog as that function checks the number in the class before the change is made and also allows control over the Class_No, important where the SERIES program is used for series or team points calculations.

Transponder Details

Where a rider notifies a personal transponder that is not already in the Rider List File, the Label (typically "P") for a personal transponder) and Number , e.g. AB-12345 can be entered in the Add Entries & Review Entries screens.

Where transponders are provided for the event by the race organiser, typically they will be scanned and loaded into BEM in preparation for allocation to the riders. Note that the **Chip List** button will only be enabled when a transponder list has been loaded into the event and is used to manually allocate transponders, de-allocate transponders and to mark a transponder in the list no to be allocated in the case of where the transponder is faulty or lost.

Chip List

Change Selection to:

[Do Not Allocate]

[Clear Allocation]

[Select Transponder]   [Cancel]

Label	Transponder	Rider	Tlink
Q1	RG-55160	David SHEARER	638
Q2	RH-47473	Jake HINDMARCH	613
Q3	PS-50479	Jake HINDMARCH	612
Q4	PX-67042	Kye AFFOO	406
Q5	RH-10099	Shaune AFFOO	407
Q6	RG-57960	Blake AGNOLETTO	314
Q7	RH-45906	Jake ALLAN	219
Q8	PX-57928	Graeme ANDERSON	137
Q9	PS-84949	Iesha ANDERSON	590
Q10	RH-05381	Simon ANDERSON	699
Q11	RG-92997	Tess ANDERSON	700
Q12	RR-13136	Troy ANDERSON	77
Q13	RR-37746	Dylan ANTON	251
Q14	PX-42266	Jonti APPS	11
Q15	PP-12782		
Q16	RG-63645	Craig AUSTIN	45
Q17	RH-29321	Shane AUSTIN	116
Q18	RR-06491	Chloe AYRES	831
Q19	PX-55294	Simon AYRES	833
Q20	PN-89003	Stuart BAILEY	769
Q21	RZ-21753	Jake BALDOCK	297
Q22	SZ-37383	Jordan BALDOCK	298
Q23	SK-65216	Terence BARFOOT	252
Q24	SK-36582	Nathan BARKER	592
Q25	SX-19530	Brett BARNES	161
Q26	SH-66405	Georgia BARNES	162
Q27	SZ-95663	Habtamu BARRETT	545
Q28	SH-51991	Tadila BARRETT	547
Q29	SK-99908	Brock BARRY	435
Q30	SX-80733	Oliver BEAUMONT	488
Q31	RZ-59372	Benjamin BELL	1022

The controls on the Chip List screen have the following function.

Do Not Allocate Button. Enabled only when a non allocated transponder is selected. Marks the selected transponder not to be allocated.

Clear Allocation Button. Enabled only when an allocated transponder is selected. Removes all allocations of the selected transponder.

Select Transponder Button. Returns the selected Label and Transponder number to the Add / Review Entries screen in preparation for allocation to a rider.

Rider Registration at the Event

Rider Registration can be managed with the program where suitable facilities exist at the track to set up the PC and monitor in an indoor (usually it's too bright to read the screen outdoors) accessible location. When in Review Entries, click on the **Registration** button to open the registration screen. The **Auto** checkbox under the Registration button will automatically switch to the registration screen on transfer of a rider. **NOTE: With some combinations of Windows and Excel, you may need to click in the Licence edit box (lower left) on first entry to this screen before entering or scanning licence numbers.** This screen layout was developed with the aim of having a second monitor facing the riders so they can confirm with the operator that they are entered in the correct class(es) with the correct race number(s).

If a scanner is not being used, the licence number can be typed in the licence edit box at the bottom left of the screen then press Enter or click on **Display Details**. All class details for this rider in the event is then displayed. E.g. Licence Number, Expiry date (shown in red if expired), Entry Paid status (☺ or ☹) and the registration status shown initially as ☹. When all details have been confirmed as correct with the rider, click on the **Register** button, which changes the Registered faces to ☺ and updates the Registered count at the bottom of the screen.

The **Class** details are shown in Magenta text where the rider has been merged due to their entered class being under subscribed.

The **Auto Register** option when checked allows for automatic registration as licences are scanned.

The **Delete All** button is used to delete (after confirmation) ALL entries for the displayed rider.

The paid / non paid status can be toggled by clicking on the **Entry Paid** button.

The **Print** button and associated options allows the displayed rider details to be printed in either A6, Receipt or A4/Letter format. The **Reg and Print** option when selected registers the rider when the Print button is clicked. Note that the Receipt and A6 printers must be selected in the Options screen.

If a race number or any other details needs to be updated, clicking on the **<< Edit** button will return to the Review Entries screen with the rider details loaded ready for editing. Do not forget to click on the **< Update Details** button to save any changes made. If the registration Auto check box on the Review Entries screen is selected then the rider details will be re-displayed on the Registration screen after the update is saved.

Note that the Registration report from the main menu can be used to print a list of non-registered riders. The Rider Registration function is only used in BEM as a means of tracking which riders have registered or not. There is no exclusion of non-registered riders from the moto draws. Non-registered riders are automatically registered once they are scored in any moto.

Edit Entries Button

The Edit Entries function allows changes to be made to the entrant's Name, Class Number Entered or to manually enter Moto Draws to an entry made after the motos have been drawn when a complete re-draw of the motos for the Class is not appropriate.

NOTE: The **Review Entries** facility is where changes to a rider's Race Number, Class, Club, Transponder, Ranking, Team Number, Entry Paid status are made and to delete an entry.

Edit Entries displays a list of entries sorted by name.

An entry can be edited by either double clicking or by selecting and clicking the Edit Record button to display the Edit Name and/or Moto Draws form.

Once the desired changes are made to the Name, Class Number Entered or Moto Draws, click Accept to save the changes.

Merge Classes Button
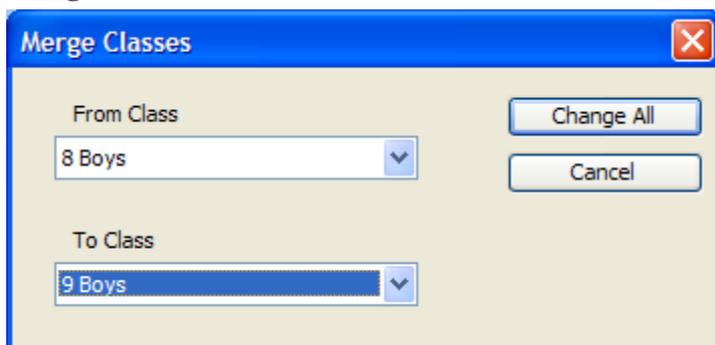
Use this function when it is required to change all riders in one class to another class. Usually this is required where the number of riders entered in one class is below the class minimum. Eg change all riders in 8 Boys to 9 Boys. After the change is made, the class details are re-built and the duplicate entry and plate check is repeated.

Note that this action does not change the riders Entered Class Number. This is important where the SERIES program is being used to score series points and where the series points are awarded against the class entered, not the class raced.

If the "To Class" has no entries or the classes have motos drawn, operator confirmation is required for the merge to proceed.

Split Merge

Use the Split Merge function to return riders to their initially entered class when a class has been merged in error or late entries allows minimum numbers to be met. A prompt is given before the split is actioned.
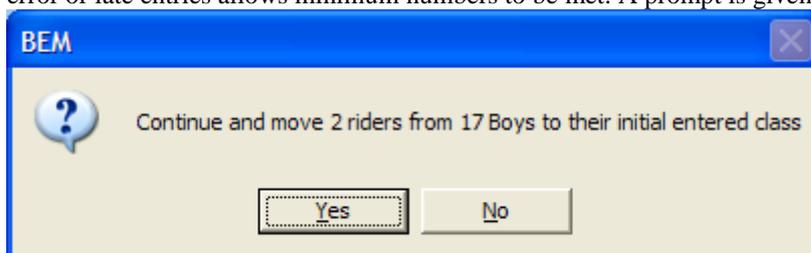
Race Order Button

The Race Order Dialog is opened, providing functions to set, change and perform analysis of the race and finals order. See section on Race Order Management for more detail.

Multi Class Button

A two part report is generated listing all riders who have entered more than one class.
Part 1 lists by riders alphabetically, all multi class entries.
Part 2 lists by Class, all Classes with multi class entries with details of the riders and the other Class they have entered.

Duplicate Plates

A report is generated listing all duplicate plates (race numbers) (if any) in all classes.

Registration

A report designed specifically for registration is generated listing all riders in the event. The user can select to include all entries, only registered riders or only un-registered riders in the event. The report has fields for reference, name, plate, class, birth date, group, paid status, licence number and expiry date.

Class Transponders

A report is generated listing riders by class with their transponder numbers and the number of passing records for each rider. (Transponder numbers are entered by the Add or Review Entries screens).

Ranking

If any ranking classes are defined in the event eg. UCI Time Trial or Seeding Rules, generates a report listing of all riders in those classes sorted by their ranking.

Export Button

The Export Dialog is opened.

The export type **CSV** and **Tab Delimited** puts rider details and moto draws for one class or all entry details to a CSV or Tab Delimited text file. The file can then be used as a data source to print moto draw stickers (see Create Moto Draw Stickers section), Merchandise stickers, Class Entry Labels (prints all entered classes on one label), printing certificates at the end of racing or for import to another application.

Note that to use the Race Number / Lane format for the Moto Field, the Moto Order must be set in the event file.

Export Type Orbits & DataCollector Competitor Import puts rider details and transponder numbers to a TAB delimited file in a compatible format for input of a competitor list into the AMB Orbits and Data Collector programs.

Export Type MyLaps Timing and Scoring Athlete Import puts rider details and transponder numbers into a compatible format for Athlete Import into the MyLaps Timing and Scoring (Toolkit) program that for reasons that are not know to the writer, requires the dash to be removed from transponder numbers.

Export Type RaceResult 11 Participant Import generates an export file suitable to importing participants into the RaceResult transponder system.

Export Type BeChronized Competitor Import generates an export file to import riders into the BeChronized transponder system.

The **Print by Class** Export generates a Tab delimited Riders by Class report suitable for use for importing into Word or Publisher for a printed event program.

The operator may select either Double Quote or Single Quote as a Text Qualifier to avoid clashes with the data. Note that some applications will only recognise double quotes as the qualifier for CSV files.

Character set defaults to utf-8 from version 3.8.9 with the older Windows character set available for selection if required.

Orbits5 Group and Run and Orbits Cycling Group and Run are used when scoring is being used on either of those two programs, typically where a track configuration that is not supported by BEM is being used. The exports generate an xml format file that can import race draws from BEM into Groups and Runs in Orbits. Typically the One Run per BEM Race is used for individual heats and the One Run per Class / Stage for Time Trials.

Draw Motos Group

Used to draw pre final motos / rotations or for a single class or for all classes. A warning is given for classes with no entries, numbers below minimum class number requirements or if moto draws already exists for the class. For BMXA and BCF classes without finals (eg participation or when extra moto is used for a one gate class) an additional moto draw / rotation is done for the final round.

Draw Time Trial Group

Note that buttons in this group will not be enabled if the event does not contain at least one class with a Time Trial Class Code. E.g. UCI-TT, UCIE-TT, UCI-TT-LANE and the Super Final versions of these Class Codes.
Used to draw the Time Trial for either a single class or for all classes. Time Trial results are used subsequently to seed riders to qualifying motos when the motos are drawn. Within each class, the running order for riders is reverse order of ranking such that the highest ranked rider is the last to do their time trial. When motos are subsequently drawn, the ranking will be over-written with the lap time from the time trial.

One Class Button

The class is selected from the drop down menu and moto draws / rotations calculated for that class.

All Classes Button

After confirming the action with the operator, moto draws / rotations are calculated for all classes

Preview / Print / Clipboard / HTML Option Buttons

Determines if the reports are previewed on screen (with print preview), sent directly to the printer, copied page at a time to the clipboard to enable pasting into another application Eg Word, Publisher, and PowerPoint or sent to a HTML file.
NOTE: not all reports are available in HTML format. Refer to the individual report descriptions.

For HTML format reports, checking the Y/N box in the Auto Scroll area makes the report auto refresh and auto scrolling for a continuous display. Scrolling rate can be changed with the spinner buttons from the default rate.

MOTO SHEET GROUP

Note that only the List format Moto Reports are available in HTML format. The layout (landscape or portrait) and number of motos per page for BEM and UCI format reports can be varied by the settings on the Options dialog.

One Class / One Moto Button

This button allows one class or one moto to be previewed or printed. The function of this button changes from Class to Moto dependant on the Order option button. The Class or Moto is selected from a drop down menu and a moto / rotation sheet prepared for that class or moto.

The moto sheets are viewed using print preview and may be printed if required. NOTE: motos must be drawn prior to this selection with DRAW MOTOS. The program is not yet smart enough to warn of this.

All Classes / All Motos Button

This button allows moto / rotation sheets for all classes or all motos (before finals/final round) to be previewed or printed. The function of this button changes from All Classes to All Motos dependant on the Order option button. NOTE: The All Moto option requires the race order to have been entered on the Event Sheet in the ????????.BEM workbook.

The moto / rotation sheet is prepared for each class or moto in turn. The sheets are viewed using print preview and may be printed if required. Draws must be calculated prior to this selection with DRAW MOTOS. The program is not yet smart enough to warn of this.
Note: The moto sheets are not saved in print format. It is built as required from the entries in the event workbook

Order Options

This group selects the print order for the moto sheets.
Class Button: All motos for the one class are printed together with each class on a new page. Typically this format is used for posting on notice boards.
Race Button: Motos are printed in race/finals order. Typically this format is used for call up, commentary and stewards.
Range Button. Allows the operator to select a range of race numbers to be printed in race/final order. Typical use of this option to print a selected range of events where a change is required after sheets have already been printed, eg late entry or rider put in the wrong class.
Multi Button. Allows the operator to select up to ten race number ranges for printing. This facility can be used where races are to be run in other than the moto or final order. Typical use is where semi finals are to be run in other than the finals order to give better split between classes with the same rider and to integrate UCI moto 3 in the final for classes with less than 9 riders (i.e. no finals)

Format Options

This group selects the print format for the moto sheets.

BEM Button: Prints in landscape mode where Class Order is selected or where Race Order is selected, in Landscape or Portrait mode depending on the preference setting. Each race is listed in an unique box. Exception is when printing One Moto for a Time Trial which lists the riders in run order in portrait mode for use by Commentary and Call Up.

List Button: Prints in Arev style list format. Typical use is for notice board posting. While not as popular with the riders where mixed rotations are used (it is harder to see which riders are grouped in the same motos), uses less paper than BEM format.

UCI Button: This option is enabled only when the event uses UCI or BCF `Class_Code` exclusively. The format takes advantage of all riders staying together through the qualifying motos reducing the number of sheets to print.

Score Board Report. This report is only available when the race order option is selected. It is a combination moto and results report and the format (landscape or portrait and number of motos per page is selected from the Options screen. If the report is printed before results are entered the results column is left blank allowing for the results to be manually entered as required.

Commentary - Sponsor Report. This report is only available when the race order option is selected. Used where individual rider sponsor details are required on the moto sheets. Portrait (4 motos per page) or Landscape (6 moto per page) formats are available.

Gate Check Report: This report is only available when the race order option is selected. The report is designed to allow for easy checking of the correct rider in the correct lane on the starting gate. It shows the lanes with the race number and rider names in portrait layout with eight motos per page.

L2R: Prints the lanes left to right across the page.

R2L: Prints the lanes right to left across the page.

Pump Track Grid: Generates a HTML or Printed grid format Pump Track event in the grid format per UCI Part 4 Mountain Bike regulations section 4.6.015.

MANUAL SCORE GROUP

None of the Manual Score reports are available in HTML format.

One Classes Button

A class is selected from the drop down menu and a manual Scoresheet is prepared for that class. Riders are sorted by PLATE (race number) to assist scorers. The Scoresheet is viewed using print preview and may be printed if required.
Note: The Scoresheet is not saved in print format. It is built as required from the entries in the event workbook.

All Classes Button

A manual Scoresheet is prepared for all classes in turn. The Scoresheet is viewed using print preview and may be printed if required. Riders are sorted by race number to assist scorers.
Note: The Scoresheet is not saved in print format. It is built as required from the entries in the event workbook.

Full Grid / Quick Print Options

This option selects the manual scoresheet format. The quick print option is provided specifically to speed printing on dot matrix or slow inkjet printers with the trade off that the format is not as nice.

Shootout Finals

This option prints a manual scoresheet for the finals of a Shoot Out event. If results have been entered for rounds 1 and 2 and the first final drawn then a list of riders qualified for the finals stage of racing is included.
The operator is also prompted "Include BEM draws for first final on Manual Score Sheet? This option adds flexibility to allow the first final from each class to use the computer generated draws and then to go manual (i.e. riders selecting their opponents) for the remaining finals.
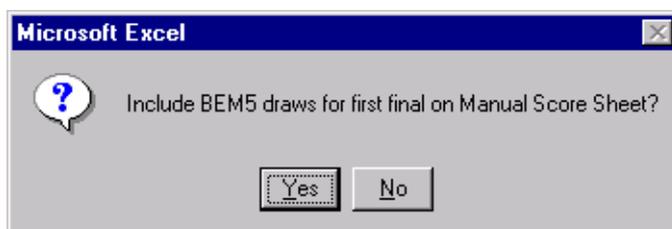
Time Trial

This option prints a common result recording sheet in run order for the Time Trial. A warning message is given if the selected class is not a Time Trial class.

RESULTS SHEET GROUP

This group is used to generate results recording sheets. Typical use is for recording results at the finish line to take to the computer operator to enter and to provide a back up should the unthinkable happened and the computer crashes. One of several formats can be selected from a 9 race per page format similar to the moto sheets in race / finals order with entries for each race sorted by plate to assist the scorers to pencilling sheets for UCI events. NOTE: Race and final order must be set use this group. These reports are not available in HTML format.

One Moto Button

The moto or final is selected from the drop down menu and the Result sheet is prepared. When the final is selected and the 9 race / page option is selected, the operator is asked if they want "Awards over the Line Format". This option provides a manual scoresheet for the final designed for use when the computer is used for scoring but is not located at the finish line. For classes where the results are based on total points the pre final points are included on the sheet.

All Motos

Result recording sheets are prepared for all motos before finals. To print Result Sheets for finals use the One Moto option and select the required final from the drop down menu.

Race Range

The selected format result recording sheets are prepared for the selected range of race numbers.

Multi Ranges

The operator can set up to ten individual race number ranges to be printed contiguously.

Format and Race per Page Options

9 (landscape).
 Traditional BEM format of nine races per page printed in landscape orientation.
4 (portrait).
 Designed for use at Championship events, provides four races per page in portrait orientation with areas for recording protests, camera requests etc.
3 Pencillers (one page per race).
Designed for use where the French pencilling system with three pencillers is used. Provides three pencilling sheets with race numbers and a summary sheet per page (but you need to cut them up). First used at the Australian Nationals 2003.
5 Pencillers (two pages per race).
Designed for use where the UCI pencilling system with five pencillers is used. Provides five pencilling sheets with race numbers and a summary sheet per race (but again, you need to cut them up).

A6 Paper Options
As not all printers have the capability to print on A6 paper, this should be researched before attempting to print this format report. The printer to be used should be loaded with A6 paper and if a separate printer is being used for the A6 format, ensure it is selected under the **Options, A6 Printer** setting.

Pencilling
Designed for use where the UCI pencilling system is used to record placing's at the finish line. Set the copies to the number of pencillers used (eg 3 or 5).
Race Summary
Designed as a result consolidation cover sheet for the Pencilling sheets. Format is similar to each of the 4 race per page results report.

LISTS GROUP

Riders by Class

This function lists all entries under class headings. Under each class heading the operator is able to select riders sorted by last name, by plate or by entry reference number. Available as an HTML report.

All Entries

This function lists all entries for the event. The following selection box is presented to determine how the entry list is sorted before printing. Available as an HTML report.
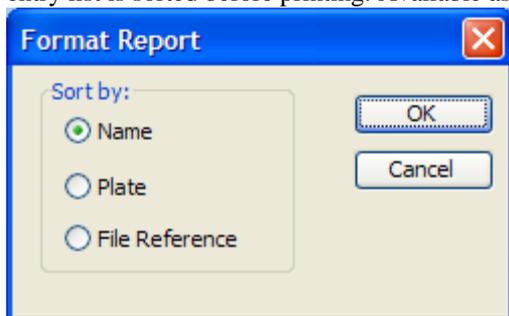
Non Payers

This function generates a report of riders entered as not paid. Available as an HTML report.

Expired Licence

This function generates a report of all riders entered the event whose licence is expired on the event date or their licence type is not a valid type for the event, eg. a club permit for an open event. The licence expiry date used for comparison is from the Rider List File specified in the Event Sheet. Where an entered riders licence number cannot be found in the Rider List File or the expiry date field has an invalid date, they are also included in the report with an expiry date of ??-??-????. Available as an HTML report.

Riders by Club

This function lists all riders under team/club headings with riders sorted by last name. Available as an HTML report.

Riders by Country

This function lists all riders under Country headings with riders sorted by last name. Available as an HTML report.
Note that riders who are not allocated to a Group that has a valid Country Code in the list of Groups (Clubs / Teams) will be shown as Country Unknown in this report.

Entries per Class Group

Lists classes with the number of entries in each. Classes can be listed in Class Order (as they are listed in the Event Sheet and includes classes with no entries), in Moto Order or Final Order by clicking on the appropriate button. A total rider entry is also calculated. Used when checking for minimum entry requirement. Available as an HTML report.
By checking the "Include Moto Numbers" option, once the moto and final order has been entered, an expanded report is generated detailing the moto and final race numbers for all classes.

Race Order List

Generates a report with multiple moto and final order lists per page designed to be cut up and handed out to riders. The format and number of reports per page varies depending on the number of classes in the order.

ENTER RESULTS GROUP

Select Class Button

Allows selection of Class, Stage and Gate for result entry

Select Race Button

Selects the race for result entry.

Select Round Button

Selects the first race in the selected round for result entry.

CALCULATE GROUP

Team (Club) Points

NOTE. This option is superceded by the facilities provided by the Series program. Use of the Series program is recommended as a superior and more flexible alternative.
This function provides a quick and somewhat restrictive means of calculating Team (Club) points using a fixed points scheme of (10, 8, 6, 5,….1) for teams (clubs) listed on the Event worksheet. Provided initially for BMX Victoria Interclub events where an All Moto event is run. The number of motos used to calculate the points is on the Event worksheet for C_Motos_for_Team_Points. The report is initially presented on screen and can be printed if required.

RACE LIST GROUP

This group generates a race by race report listing the individual race number to Round, Class and Gate. The option selections allow the report to be viewed on screen, printed or to generate FinishLynx files so that the Event details can be imported into a FinishLynx system.

One Moto

Generates a list for the selected round

Complete Event

Generates a list for the complete event in running order per Moto and Final Order.

Output Selections

Print / Preview. Prints or previews the report using the Report Type settings.
Lynx Events. Generates a FinishLynx Event file (.evt) file for the round or complete event.
Lynx Schedule. Generates a FinishLynx Schedule (.sch) file for the round or complete event.

TRANSPONDERS GROUP

This group accesses the Transponder utility functions to load a Transponder Allocation list and to sign out and generate a non returned transponder list post event.
Refer to the BEM Transponder Operating Guide for more details.

AUTO PLATE NUMBERS GROUP

This group enables auto allocation of race numbers for a selected Class or the entire event where the operator assigns and provided race plates.

The operator can select one of the pre-set numbers or use the spinner buttons in blue to select a start allocation (10 to 101) for each class.
Auto numbers can be allocated for riders where the race number is currently blank or is set to XXX.
No change is made to already allocated numbers within the class.

Options

Brings up the options dialog for the operator to set their preferences.

Race Order Moto Sheets

Applies to UCI format sheets and BEM format sheets in race order. Select from landscape or portrait page portrait layout.

Motos per Page

Provides options from the traditional 9 motos per page landscape and 8 motos per page portrait where a larger typeface is more important that the quantity of paper used. Where the event is set up for a four-lane track eg Mountain Bike 4-Cross, a four-lane moto sheet is provided.

Note that the Portrait 4 + UCI ID format meets UCI requirements to show the rider's UCI ID on the moto draws.

Class Moto Sheets

These options are only applicable for race rules where classes without finals have an additional moto run in the final stage for a moto sheet per Class report. They determine only what is printed, not what moto draws are calculated.

Up to Final Button: Motos up to the final round are printed. Typical uses when manual sheets are written for finals or when this program is used on the day for scoring and printing final sheets.

Include Last Moto Button: Classes without finals (eg Participation and classes with one gate) will have the final round details printed. Classes with finals will print motos before final round.

Score Board Moto Sheets

Applies to UCI format sheets and BEM format sheets in race order. Select from landscape or portrait page portrait layout. Where the event is set up for a four-lane track eg Mountain Bike 4-Cross, a four-lane moto sheet is provided.

Show Rider's UCI identity when available.

Applies to reports (HTML mostly) that have provision for UCI identity details. Selection of UCI ID or UCI Code is dependent on the event file being built on template 45 or later.

Register riders as they are entered. When checked, the Registered check box on the Add Entries screen is set to register riders as they are entered. Normally left unchecked.

Show Rider Comment in Registration. When checked, any comment details in the event file will be displayed on the Registration screen.

Mute Sounds. When selected confirmation and alert sounds are turned off.

Use UCI style Moto Numbering.

Provides an alternative format preferred by some European and South American users for events that are set up exclusively for UCI Rules where the same riders are together in all three rounds of motos.

        Moto 1: Races numbered 1.1 to 45.1

        Moto 2: Races numbered 1.2 to 45.2

        Moto 3: Races numbered 1.3 to 45.3

Report Group Type (show group as)

Selects which data column from the Club List on the Event Sheet to read the Group information for moto sheets and result reports. Eg select Club for regional, State for National and Country for international events.

Name Format

Provides options on the capitalisation of the rider names.

Name Alignment

Provides options for the name position within the box for moto, scoreboard and commentary sheets.

Logo Print Control

Provides operator selections to control logos on printed reports.

- `Default`: The logo printed is determined by the Association selection.
- `User Defined`: This option allows the user to use a Header Left logo of their choosing.
  To use this option, you need to create appropriately named .bmp files in the appropriate folders.

- For the Registration Screen bmp logos, up to 4 user defined logos can be specified:

- For the BEM-RRD-Series Report bmp logos, two user defined logos can be specified for right and left headers:

  User_HL_Logo.bmp   Header Left logo.
  User_HR_Logo.bmp   Header Right Logo.

- To test the User Defined logo once the file is created:
  - Run BEM
  - In the Logo Print Control group, select User Defined
  - Note that an error message is given if the expected User_HL_Logo.jpg file does not exist and the selection changed to Default.
  - Generate a printed report and check that the user logo is displayed as expected.
  - Adjust the scaling of the User_HL_Logo.jpg graphic if required for correct display.
- `None:` logos are not printed.
- `Embed Logo in HTML reports:` Use this option when generating HTML reports that are to be distributed beyond the scoring computer so that logos will still be viewable. Note that this will greatly increase the file size.

Upload Key

To use the RRD facility to upload progressive results to the eZeventing web site's eZresults service or to SportsLists web and SportsLists Lite phone App, a event specific upload key is required to be entered.

The key is provided per event and requires a subscription to the relevant service provider.

For eZeventing see http://www.ezeventing.com.au/pricing.php

For SportsLists see www.sportslists.eu

Note: the event file must be open to enter the Upload Key.

Default Printer

Selects the printer used for all reports except for those using A6 paper. Set initially to the windows default printer.

A6 Printer

Selects the printer used for reports designed for A6 paper. May be the same as the default printer.

Receipt Printer

Selects the receipt printer used when the Receipt option is selected in the Registration Screen to print registration receipts / transponder allocation slips.

Printer Scaling.

Used to adjust the printer scaling for reports where pages are buffered before printing. E.g. moto sheets in race order, result reports, pencilling sheets. The writer's expectation is that this setting can be left at 0 for most laser printers but if report pages are split spilling over) to a second page (certainly the case with some HP inkjet printers), set the scale back to -1, -2 or whatever is required.

UCI Moto 1 Lane Draws

For UCI moto draws, allows the operator to select the starting lane allocation type from either random allocation or the traditional (manual) UCI style starting lane allocation where for Moto 1, riders are allocated starting lanes in the order 8, 7, 6 ….. 1.

Scrambled Motos Run-off

The setting is applicable to Scrambled Motos only, not UCI "always have the same riders compete together for all three motos" rules.

The setting is initially set from the Association default the first time the program is run after installation however this can be set for your preferred option at any time.

- **Equal on Points** will always draw a run-off tie break race for a tie on points for last place transfer at the end of the motos.
- **Can't Split on Count-back** will only draw a run-off tie break race for a tie on points for last place transfer at the end of the motos where the tie cannot be split on points count-back and if a tie still exists then on lap time count-back.

Event File Back-up Path

Use the Select button to initially set or change the required path used for auto back up of the Event file.

Passing Files Back-up Path

Use the Select button to initially set or change the required path used to back up transponder Passing Files before processing.

Note that this path must be set to a valid folder even when transponder timing is not used.

Transponder and Camera Settings.

Allows the operator to configure data for transponder race timing and Lynx camera results import.

QUIT

The current event workbook is closed and the operator is prompted to open a new event file. Selecting "No" will exit from the program.

Race Order Management
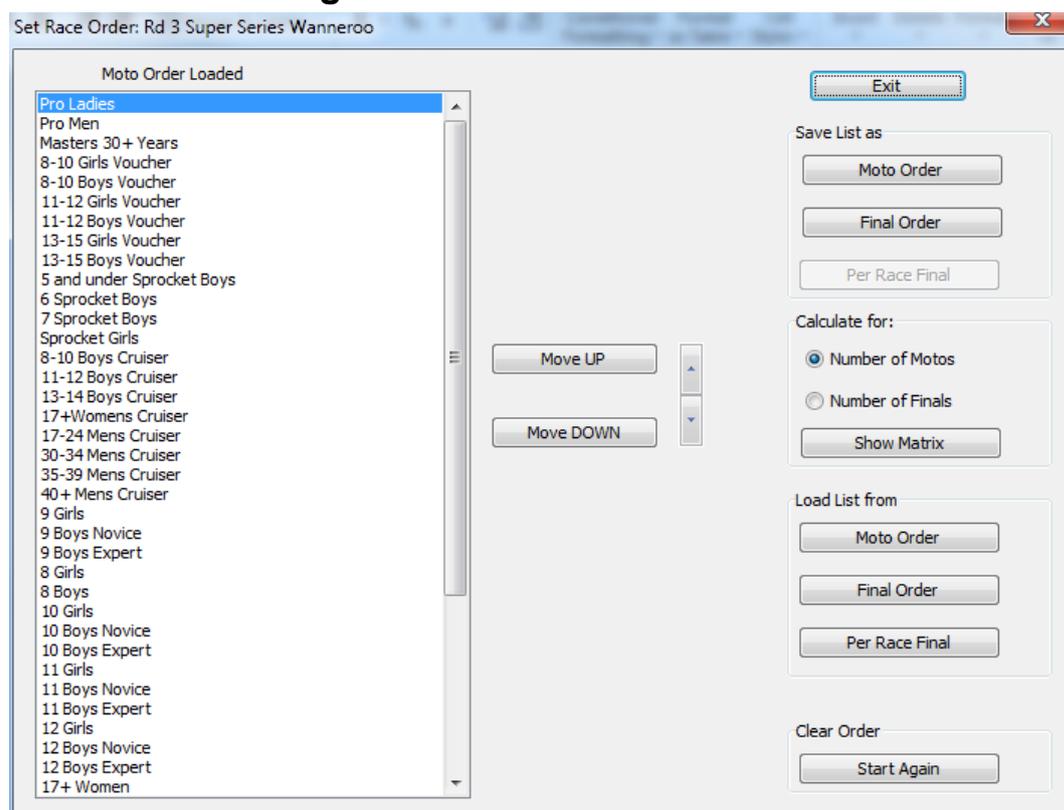
The Race Order Dialogue is selected from the **Set Race Order** Button in the Main Menu. On entry, if the moto order has not been entered previously then all classes with entries will be displayed. In the example shown the Moto Order is loaded as indicated by the text above the class list.

Move Up Button

The selected class is moved higher in the order by one place for each click.

Move Down Button

The selected class is moved lower in the race order by one place for each click.

Up and Down Move Arrows

The arrows to the right of the move buttons give a repeating function to the class move up / move down for click and hold.

Save List As Group

Moto Order Button
Classes in the order displayed are saved as the Race_Order in the Event Worksheet. If the moto order is already set, confirmation is required by the operator before the new order is saved.
Final Order Button
Classes in the order displayed are saved as the Final_Order in the Event Worksheet.
Per Race Final
Saves the individual race order for the final Stage. Note that this button is only enabled when the Per Race Final order is loaded.

Load List From Group

Note that these buttons are disabled if no moto or final order exists.
Moto Order Button
Loads the classes in moto order.

Final Order Button
Loads the classes in finals order.
Per Race Final
Note that this button is only enabled for events built on templates from version 3.18 or later. The final stage of racing is loaded with each race shown individually, rather than on a per class basis. Use of this feature is to enable manipulation of the final stage of racing to accommodate 3 Heat Finals or for any other reason where the operator does not want to run all finals for the one class adjacent to each other. E.g. To run all the B finals as a group then run all the A finals as a group.

Clear Order

Start Again
The Start Again button clears the current moto and final order then re-loads classes with entries. Normally only required after the order has been saved and additional classes are to be added or a class removed.

Show Matrix Button

This button lists the classes in the current order shown in the Race Order dialog with a matrix showing where rider(s) have entered more than one class and the number of races between those classes. Note that this function is only available when all riders in the event have their licence number entered, as this is the only criterion used to determine multi class entries.
The operator can select the gap calculation from either number of Motos or number of Finals.

A couple of examples from the matrix shown (taken from a real event) describe the information available.
Example 1. Riders in 8-10 Cruiser only have 10 Boys as a second class. There are 26 races between the 8-10 Cruiser and 10 Boys in the same moto and 31 races from 10 Boys in one moto to the 8-10 Cruiser in the subsequent moto.
Example 2. Riders in 19+ Cruiser are also riding in 18 Boys, 19+ Men and Junior Elite Men. There are 28 races between 19+ Cruiser and 18 Boys in the same moto and 31 races between the 18 Boys in one moto to the 19+ Cruiser in the subsequent moto.

Gates	Class List															
1	8-10 Cruiser	26														
2	11-12 Cruiser		28	31												
1	U5 Sprocket															
1	5 Sprocket															
2	6 Sprocket															
2	7 Sprocket															
1	Sprocket Girls															
1	13-14 Cruiser				26	30										
2	15-16 Cruiser						30	33								
1	8 Girls															
3	8 Boys															
2	9 Boys															
2	25-29 Cruiser								28							
2	35-39 Cruiser									28						
1	40-44 Cruiser								27							
1	Ladies Cruiser										28					
1	19+ Cruiser											28	29	31		
1	Elite Cruiser														30	32
3	10 Boys	31														
1	11 Girls															
3	11 Boys		28													
2	12 Boys			26												
1	13 Girls															
3	13 Boys				31											
1	14 Girls															
2	14 Boys					28										
3	15 Boys						26									
2	16 Boys							24								
1	17 Boys															
2	25-29 20"								29							
2	35-39 20"									31	29					
1	19+ Women										31					
1	18 Boys											31				
2	19+ Men												29			
2	Junior Elite Men													27	28	
2	Elite Men															26

Scoring

The Finals Menu button from the main menu displays the Finals Menu dialogue.
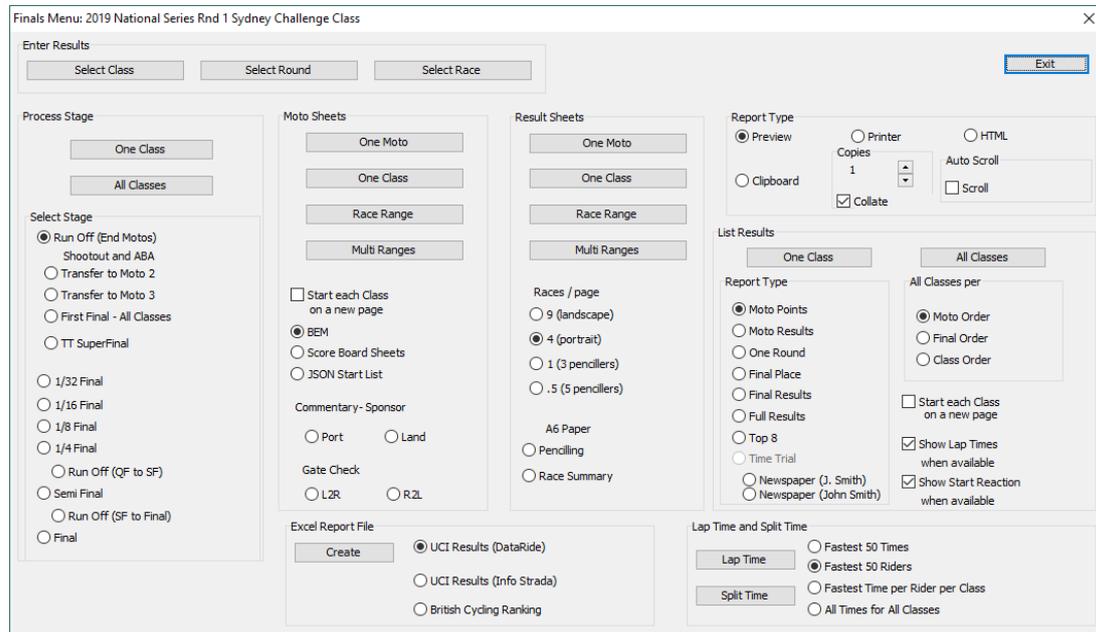
ENTER RESULTS GROUP

Select Class Button

This button brings up the select race dialogue to select the class, moto and gate to enter results.
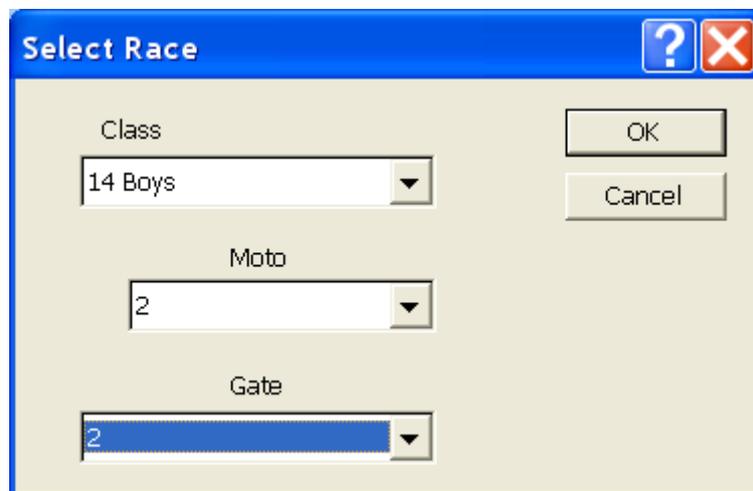
Once the details are selected, the OK button brings up the Enter Results dialogue.

Select Round Button

This button brings up the select moto dialogue to select the moto or final round. This will select the first class in the moto or final per the race or final order.
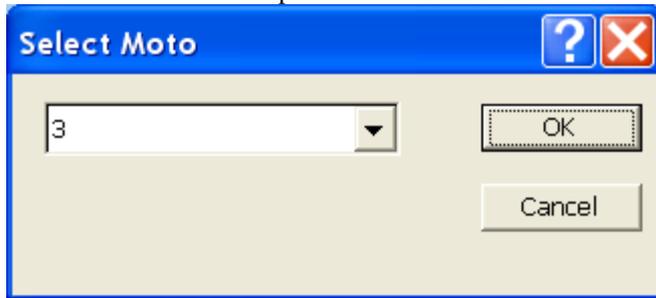
Once the details are selected, the OK button brings up the Enter Results dialogue.

Select Race Button

This button brings up the event select dialogue to select the race based on event number, Quarter Final 1 in the example.

Once the details are selected, the OK button brings up the Enter Results dialogue.

NOTE: the program calculates Points. DNF points are initially set to 999 with the valid value calculated only when the Accept button pressed. This is to allow points calculation to take in to account any DNS riders. For Score_Codes where a DNS result does not permit a rider to progress to the next stage of racing (eg UCI, BCF), the DNS result sets points to 99 as "not to progress" flag.

Plate and Rider Name Buttons

By clicking on the plate or rider name buttons in finishing order, the results are entered in the Place dropdowns.

Place Drop Downs

By selecting the dropdown, the result for the rider can be selected from the list by mouse, up / down arrows or by entering the place number.

Lap Time

Where lap times are required to be entered manually, type the time into the appropriate box. If places are to be determined by lap times, ensure the Set Place by Time option is selected.

For time trial results where the riders are being timed by stop watches and the average taken between two time keepers, select the **Stop Watch Pop Up** to auto open the form or manually open it by entering a + in the lap time box. The two manual times can be entered and the program will calculate the average.

Operation is:

Enter Stopwatch 1 time and press Enter.

Enter Stopwatch 2 time and press Enter. The average is then calculated and written to the time box on the result dialog.

Press Enter to Accept the result.
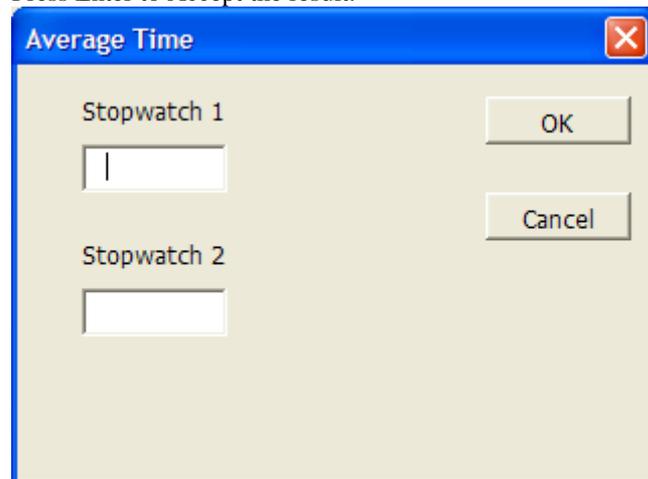
Accept Button

Used to update the database with the results. Sanity checks are performed to ensure results are entered for all riders and no placing are skipped. The program allows for dead heats after verification with the operator.

If the "**Next on Accept**" box is checked then the next race in the moto or final order is selected.

For multi gate Scrambled Moto classes, e.g. BMXA and BCF classes, when results are entered for the last gate in the last moto before the finals, a check is made for a tie-break runoff at this time.

Manual runoff checks can be performed from the Finals Menu Dialogue if required.

Note: For BCF Classes, the Run Off function performs both run off checking and draws for qualifier races.

The **Accept without check** box allows on an individual race basis, the operator to accept the results without the normal sanity checking. This facility is provided to cater for the situation where the riders in a particular race don't match the moto draws, Eg a late entry in the class that changes the number of gates, staging deciding to combine classes without reference to scoring etc. The box is always reset after every Accept so that explicate action is required by the operator each time the sanity checking is to be bypassed. Note that DNF results can not be processed this way, as calculation of DNF points requires valid entries for all riders.

Exit Button

Returns to score menu. If results have been entered but not accepted, the operator is prompted as to the action required.

Clear Button

Clears all entered results for the race after confirming with the operator.

Race Select Group

Next Button

Selects the next race per the moto or final order.

Previous Button

Selects the previous race per the moto or final order.

Class Button

Brings up the Select Race by Class, Moto and Gate Dialogue.

Race Button

Allows selection of the race by race number.

Check Box Options

Next on Accept

If the **Next on Accept** box is checked then the next race in the moto or final order is selected with the **Accept** button.

Anticipate DNS

When the **Anticipate DNS** box is checked and results are being entered for Motos 2 – 8, if the rider was scored DNS in the previous moto then the result of DNS is anticipated for the current moto. The setting of this check box is saved on exit in the BEM_SET.XLS file.

Set Place by Time

When this option is checked, lap times (either manually entered or from transponder passing record import) are used to calculate placing's when the Accept button is clicked. A warning message is issued if lap times have not been entered for all riders.

Stop Watch Pop Up

When this option is checked together with the Set Place by Time option, the Stop Watch time entry form pops up each time a new event is selected. See description above for use of this screen.

Auto Readback

When this option is selected, once results are entered for all riders, the riders are re-sorted into finishing order.

Auto Process Stage

When this option is selected, when the final heat for each class in each stage of the event is scored, the next stage of the event for that class is automatically drawn.
Caution: the auto process is not a background task so if you go back and change any results for other than the last heat, the auto draw function will not be called and you must manually draw the stage.

15 min Finish to Score Check.

When this option is selected for transponder scoring, an alert is given if the finish time for the race is more than 15 minutes earlier than the PC time.
The motive for this alert is a sanity check that the correct passing records are being used to score the race as a guard against passings from an earlier cleared or missed being scored race being used in error.

Write Lynx LIF on Accept.

When this option is selected, as each race is scored, a FinishLynx .lif format result file is written in the folder selected for the Lynx Events and/or Lynx Schedule files from the Race List (Main Menu).

Riders Sorted by Options

The setting of this option is saved on exit in the BEM_SET.XLS file.

Plate

Riders in the moto are sorted by race plate. This option (default in earlier versions of BEM) will present the riders in the same order that they appear on the BEM generated "Result Recording" sheets.

Moto Points

Riders in the moto are sorted moto points to date. This option is designed to present the riders in the "most likely" order they will finish. Typically used when results are being entered in real time at the finish line or where results are recorded (on paper) in finishing order before being entered in the computer.

Name

Riders in the moto are sorted by last name then first name. The writer has no idea where this option would be useful.

Spontaneous Print Reports

Controls for the four spontaneous reports are by means of spinners. By setting the counter to 0 the reports are suppressed; setting to any other value (1-16) enables the report and sets the number of copies to be printed.

Print Results - Each Race

When this report is enabled, the report is printed after results are entered for each race.

Print Results - Each Class

When this report is enabled, the report is printed after results are entered for all riders in each class for the particular moto. The report format varies depending on the stage of the event from a moto results report to a stage report for quarter, semi etc to a full results report for finals.

Run Off

When this report is enabled, the run off notification report is printed after checking for run offs during result entry. (This replaces the prompt "Do you want to print a report" prompt in earlier versions).

Class, Next Stage

When this report is enabled, it works in association with the Auto Draw Next Stage option to spontaneously print each stage as it is drawn for a single class.

Race Comment Area

The Race Comment Area allows the operator to enter a short comment specific to the race being displayed. E.g. DNF for 34 called by Commissaire.
Note that this feature is not available for events built on templates prior to 2K3.00 release.

Transponder Control Group

Refer to the BEM Transponder Operating Guide for details of the settings and scoring operation with a transponder system.

PROCESS FINALS GROUP

This group is used to instruct the program to build the finals data for the selected final.

A check is made that all results for the previous stage have been entered. If results are incomplete the final is not drawn and a warning issued

.
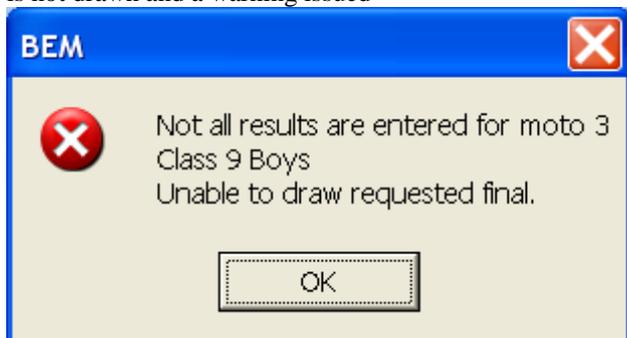
Warning messages are also given if an attempt is made to draw a final a second time.
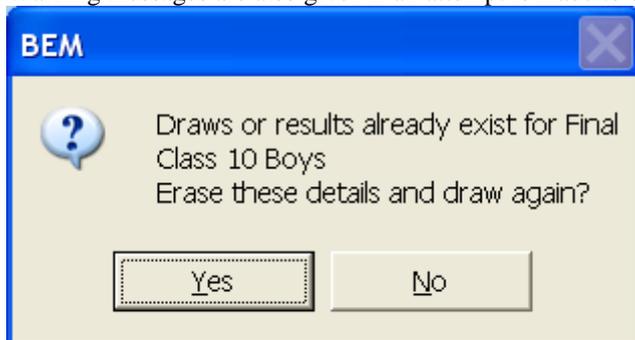
When a Run-Off is required, the message indicates the number of riders involved and the number to progress to which final.
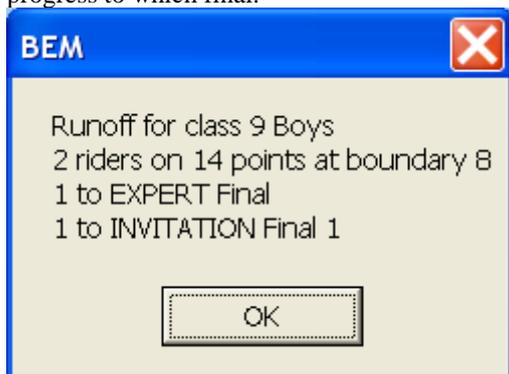
One Class

The selected final is built for the selected class.

All Classes

The selected final is built for all classes.

NOTE: The Shoot Out "**First Final – All Classes**" is designed for use when manual draws and scoring are used for the one on one races. This option builds the first final for all classes after the two transfer rounds (1/8th, ¼ or semi final dependant on class numbers) so the qualified riders can be listed on the manual shoot out score sheets.

MOTO SHEETS GROUP and RESULTS SHEET GROUP

Prints or previews moto and final sheets or result recording sheets. The default Moto Sheet format is the generic BEM sheets (in portrait or landscape as selected on the Options Dialog) with the option to create Json format start lists. The Sponsor format (assuming the latest event template is being used) and Gate Check format moto sheets can also be selected here.

One Moto Button

Prints or previews the race sheets for all classes for the selected moto or final.

One Class Button

Prints or previews the race sheets for one selected class for one selected moto or final.

Race Range Button

Prints or previews the selected format sheets for the selected range of race numbers.

Multi Ranges Button

The operator can set up to ten individual race number ranges to be printed contiguously.

LIST RESULTS GROUP

Prints, previews, copies to the clipboard or writes to an HTML file the results for one or all classes in the selected format. All result reports are available in HTML format.

One Class Button

Prints or previews the results type as selected in the "Report Type" box for the class.

All Classes Button

Prints or previews the results type as selected in the "Report Type" box for all classes. The classes can be listed in class order (as listed in the event sheet), race order or finals order.

Report Type Group

Selections are made here for the various format of result report available.

Moto Points.	A two column report giving total points at the end of the qualifying motos.
Moto Result.	The report gives total points and individual race results for the qualifying motos.
One Round	A detailed results report for a single round showing Place, Lap Time (when available) and transfer details for the next round or stage.
Final Place.	A two column report giving overall placing for all riders.
Final Results.	A report giving placing's for all races post qualifying motos.
Full Results.	A landscape layout report with results of all races for all riders.
Top 8.	The top eight placed riders in each class are listed in finishing order. The exception is for Sprocket (Participation) Classes where all riders are listed.
Time Trial	Lists the Time Trial results in ascending order. Note that this option is only enabled when the event has at least one class with a Time Trial qualification.
Newspaper	Provides a plain text file top 8 per class report in a format specified by the press for inclusion in newspaper sports results. Two name formats are available, J. Smith or John Smith to provide the preferred regional format.

Excel Report File Group

The controls in this group allow generation of specific purpose Excel format result reports however many users will find these result reports useful for other than the primary purpose.

1. UCI Results (DataRide)

    This report generates one Excel report file per Category in the prescribed format to upload results for Championship Categories to the UCI DataRide system via the Commissaire' s DataRide login. To use this report, the operator must have entered via the Toolbox:

The event UCI Competition Code
The UCI Event Code(s) for each of the four Championship Categories.

In addition, the UCI ID must be entered via Add Entries or Review Entries for all riders in the Championship Categories.

2. Now superseded UCI Results formatted to Info Strada requirements so that this report can be submitted to UCI without the need for any manual editing.
3. British Cycling Ranking report designed to allow results to be imported into the BC Rider Ranking system.

Both of these reports have the option for the operator to select to split combined classes into separate class results per the 2014 UCI requirement or to show reports based purely on the "as raced" result ignoring any class combining.

Lap Time Group

Where transponder lap time scoring is used for an event, additional lap time based reports are available.
Fastest 50 Laps. Gives the fastest 50 laps recorded for the event
Fastest 50 Riders. Generates a report of the fastest lap from each of the 50 fastest riders from the event.
Fastest Lap per Rider per Class. Generates a report giving the fastest lap for all riders grouped by class.
All Laps for All Classes. Generates a HTML format report with all laps for all riders grouped by class.

Operating Tips

How do I include a late entry after motos have been drawn?

The option taken depends on a number of factors.
Does the addition of the new rider cause a change in the number of gates, i.e. take the class total from 16 to 17?

In this case there is no option but to re-draw the motos for the class in question. BEM does identify this scenario and will prompt the operator to redraw the class.

If the new rider can be accommodated in the existing draw, then manually adding the rider to the existing draw may be the best choice if moto sheets have already been printed and/or distributed. The alternative is re-drawing the motos for the class and re-printing all relevant sheets.
To slot the rider in without re-drawing the class then:

- Go to "Add Entries" and enter the new rider.
- Print the moto draws for the Class in BEM format (don't forget to select "include last moto …" for classes without finals.
- Do a manual draw by writing the new rider details for each moto on the printed sheet. Be careful to ensure that there is only a difference of one with the number of riders in each gate. Try to give a broad range of lanes but this may not always be possible.
- Go to "Edit Entries", bring up the new rider and enter the Gate and Lane numbers from the manual draws, remembering to press Enter when all data is entered.

Moto Sheet Updates
Depending on the format of moto sheet used and the number of copies, choose the most appropriate option from the following.
➢ If there are not too many copies and not too many changes, recall all the sheets, recruit some helpers and manually edit the sheets.
➢ Reprint all sheets.
➢ If sheets were printed by class, reprint just the affected classes.
➢ If sheets were printed in race order, (assuming BEM version 1.16 or later), use the "Print Event Number(s)" option, select the appropriate event numbers to reprint only the impacted sheets.
➢ Don't forget to update the scoring sheets also.

How do I set up and use multiple registration stations.

Version 2K.02 introduced a limited facility to enable multiple workstations to be used for registration. Use of this is facility is envisaged for pre-entry events, ideally using barcodes on licences and networked PCs with scanners for registration stations. PC configuration is with one PC being the master registration station and as many other networked PCs as you like are slave stations.

Each of the slave registration stations run their own copies of the event file and would normally be used as the front line registration stations recording registrations and payments. Where additions, deletions, class changes, number changes etc are required, the rider would be referred to the master station which is the only place these changes can be made. From the master station you can then update the "not paid to paid", "not registered to registered" and with operator confirmation accept race plate changes made on the slave stations using the "Registration Updates" facility from the Add Entries screen.

Creating Moto-Draw Stickers

This section details the steps required to create rider qualifying moto-draw stickers using Avery L7162 labels. If another size label is to be used, different data to be included on the label or layout changes required then you need to created a new MS Word "Main" document.

CREATE THE DATA SOURCE FILE.
1. Open the event file with BEM.
2. From the Main Menu select **Export Data.**
3. Select the required option for **Moto Field Format** and **Sort by**. For **Include Field Names** ensure **Yes** is selected.
4. Click on **One Class** or **All Entries** as required, select the path and save the export data file eg Regional Championship.csv.
5. Close the event file and exit from BEM.
6. The following steps in the creation of the data source file are not required if you are using Office 2000 or later. Earlier versions will not work with .CSV files so you need to convert it into a .XLS file.
7. From Excel, open the export file file eg Regional Championship.csv. Note you may need to change the Files of Type to All Files to do this.
8. Save the file as an xls file, eg Regional Championship.xls and use this file as the data source.

CREATING THE LABEL DOCUMENT.
9. With MS Word, open the main merge file **Label_L7162_Main.doc.**
10. Select Tools, Mail Merge or click on the Mail Merge Helper icon.
11. Click on the Data Source, Get Data button and select Open Data Source.
12. Change the Files of Type to All Files (*.*) then select and open the file created in step 4, eg Regional Championship.xls
13. Click on the Merge button and merge to a new document.
14. Save this document if required.
15. Load the label paper in the printer and print page 1 as a sanity check.
16. Print remaining pages.

Error and Warning Messages

This section gives details on the sanity checks performed on the event file data. The checking is performed when the Event File is first opened, after adding new entries, after editing entries and after performing global class changes. The checks are for duplicate entries, duplicate plates in each class, race order sanity and riders not in the class moto draws.

Race Order Errors

If the number of classes with riders does not match the number of classes in the moto or final order then a warning message is added to the Event Details dialogue box. Note that the warning is not issued if the moto or final order has not been entered.

In the example below the error is obvious in that the number of classes in the race / finals order does not match the number of classes with entries. If the warning is given and the number of classes matches then the fault will be a class in the race / final order with no entries and a class with entries left out.
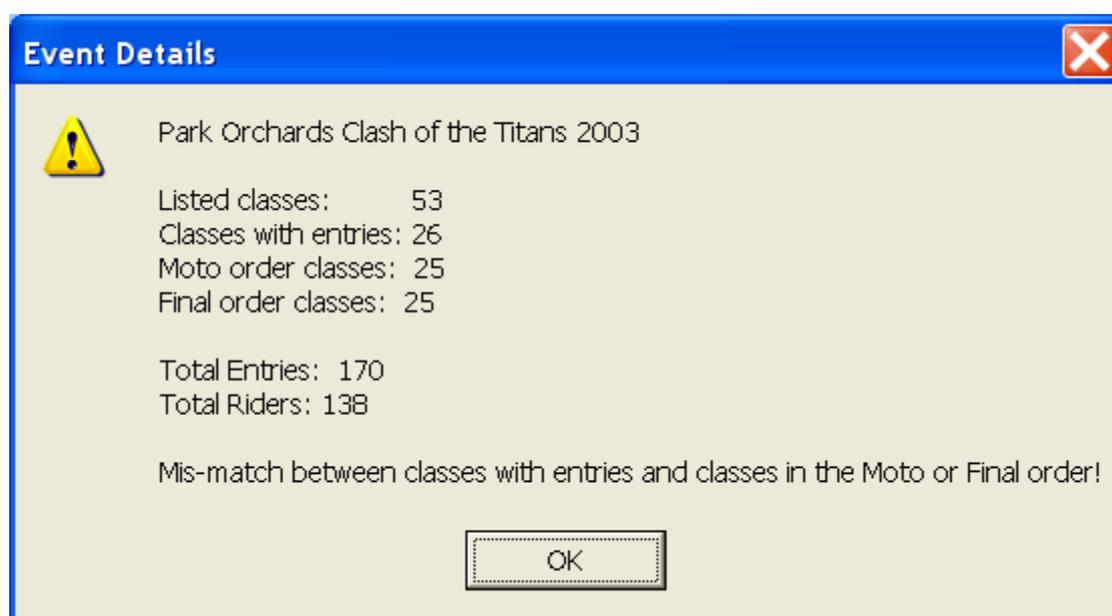
If the moto or final order is set and a class with entries is not included, the warning message below is given.
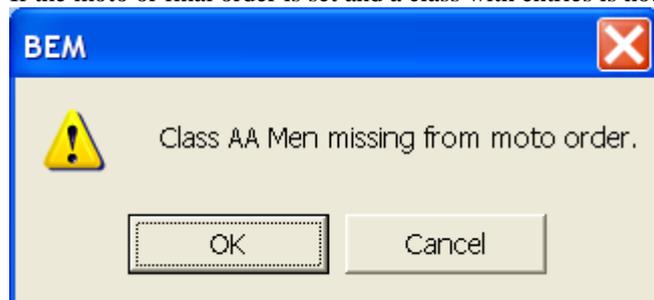
An error is also reported if the sequence of the race or finals order is faulty. The most common problem causing this error is for a manually entered order missing a number in the sequence. Eg 1, 2, 4, 5 etc. See example below.
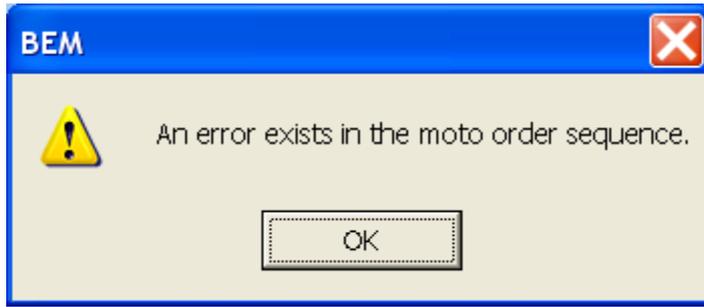
Duplicate Entries and Plates

In addition to warning's given from the Add Entry screen, each class is checked for duplicate entries and riders with duplicate plates on initial selection of the event file, on exit from the Edit Entries function and on exit from the Class Change function.

A warning message is given for each instance detected. For duplicate plates, clicking the OK button continues the check. The Cancel button suppresses further duplicate plate warnings for the current check. It is not possible to suppress duplicate entry warnings.

Moto Draw Errors

A Moto Draw Error is given if the number of riders in the moto draws does not match the number of riders in the class or the number of Gates for the moto is not as expected. Typical cause of these errors is a late entry added or riders removed from the class after the moto draws have been done or incorrect manual editing and opening an event built under different race rules to that supported by the current program.
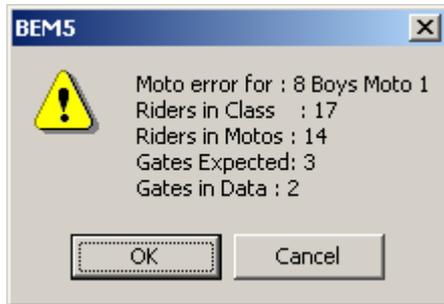
Where the incorrect number of Gates are detected, the operator is prompted to re-draw the motos for the class.
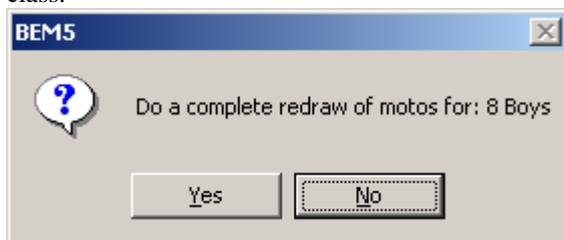
Checking is also performed for duplicate lane allocation. Typical cause of this error is faults introduced with manual editing of the moto draws.
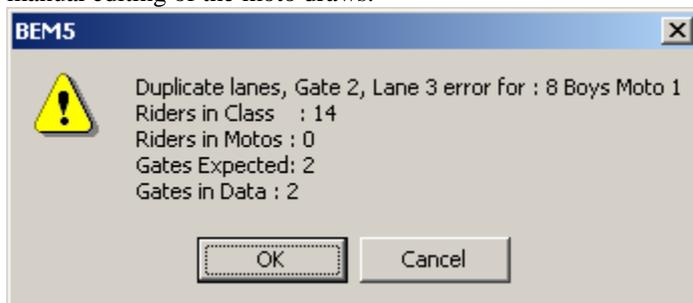
Add Rider to a class with no entries.

This information message is designed to prevent an operator under pressure with late entries (happens everywhere), adding a rider to a class with no entries, eg a class that may have been merged at the close of registration. If the operator clicks on Yes then the rider is added. If No is selected, they are returned to the previous screen (Add Entries or Merge Classes) to select an alternate class.
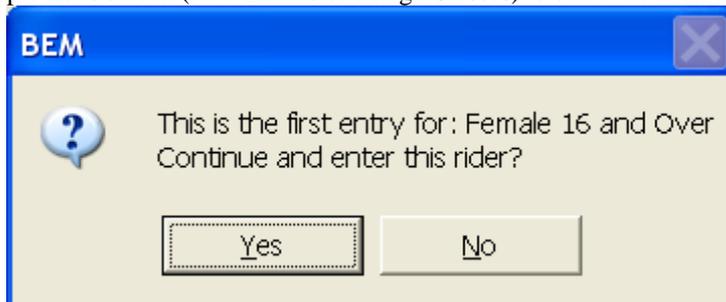
Transponder Allocation

Imported transponder passing records are checked to ensure that all detected transponder numbers are allocated to riders. This check is performed when the event file is first opened (in case of manual editing) and at the time the records are imported.

BEM

Transponder number KC50876 has a passing record but is not allocated to any rider.

[OK] [Cancel]

--- END OF MAIN DOCUMENT ---

Appendix 1 - Update History

1.   Version 2.22 (November 1998)
Version 2.22 was used for the 1998 Victorian State Championships and not released for general use.

2.   Version 2.22 to 2.30 (January 1999)
Drivers: Rule changes in 7th November 1998 BMXA Riders Handbook and error correction. Note: applicable rules are shown in Italics.

2.1   Changes to provide conformance with the 7 November 1998 BMXA Riders Handbook. Score_Code of BMXA revised and new Score_Code of BMXAOLD provided.
2.1.1   *SECTION 17, G 4.* Score_Code of "BMXA" revised to provides points of 1, 2, 3 ... 8 for first to eighth place.
2.1.2   *SECTION 26, point 3.* DISQ (disqualification) result for BMXA Score_Code changed from 10 points to disqualification from the event.
2.1.3   *SECTION 17, E1.* Seeding of riders to quarter and semi finals changed from UCI zigzag pattern to 1st to 1, 2nd to 2 etc.
2.1.4   *SECTION 17, E6.* Change from random computer generated to rider selected lane draws for quarter and semi finals.

2.2   Corrected error in run-off data build where two run-offs are required for the one class eg. one for expert and one for consolation final.
2.3   Update BEMPREM.231 for UCI class working. (Required update overlooked when points through quarters & semis added to BMXA classes.
2.4   Removed misleading message 'Runoffs not required for class" when attempting to check for run-offs and moto results are incomplete.
2.5   For results of DNS, DNF or DISQ, moto results to show the result. Points still shown for 1st to 8th.
2.6   Re hash of finals menu.

3.   Version 2.30 to 2.31
3.1   Added Print_Paper_Size to EVENTSHEET.
3.2   Background (BLANKSHEET) window size set to maximum.
3.3   SELECT RACE button in results dialogue enabled for Excel version 8 or higher.

4.   Version 2.31 to 2.32
4.1   Fault correction when performing a global class change that could result in modification of the wrong class if the text of the class being modified was a sub-set of another class.
4.2   Modified strategy for BMXA rotations.

5.   Version 2.32 to 2.33 (April 1999)
5.1   Enabled the entry paid / not paid selection to the Add Entry dialogue box and provision of the non-payers report.
5.2   Provision of a new field Reference Number to the database to record a file reference/number for the entry form. The reference number is included in the riders A-Z and riders by class reports.
5.3   Riders by class report now has the option to sort riders alphabetically or by race number.
5.4   New fields added to the database in anticipation of future enhancements.
5.5   Update of BEMPREM.231 file to provide rule data in preparation for a future enhancement to manage "shoot out" events.

6.   Version 2.33 to 2.34
6.1   Correction to fault where team points could only be calculated once after opening event workbook.
6.2   Update Finals Menu Dialogue layout and provided new option to print race results in class, race or finals order and option to start each class on a new page.
6.3   Added "Keep Rider" button to Accept Entries Dialogue to save entering rider name a second time where entering more than one class.

| 6.4 | Format change to run-off required message and added option to print / preview class results. |
| 6.5 | Split report files in two for portrait and landscape format to avoid excessive delays in page formatting with some combinations of operating system and printer drivers. |

7. Version 2.34 to 2.35 (August 1999)

7.1 Additional moto and result sheet option from finals dialogue to print / preview one moto or final for one class.

7.2 On exit from the program, option to open a new event file (without exiting from BEM) added.

7.3 Additional error checking / detection added.

7.4 Added check for duplicate entries and duplicate plates in each class on opening an event file, exit from adding entries, edit entries and global class change.

7.5 Added check and re-format of race numbers (plate) field on opening the event file and on exit from edit entry mode. This ensures correct sorting on plate for mixed numeric and numeric - alpha numbers.

8. Version 2.35 to 2.40 (April 2000)

8.1 Addition of new rule set and reports to manage Shoot-Out events.

8.2 Score entry screen has total points field added. For single gate classes, riders are sorted in final placing order after entry of results for the last moto.

8.3 Rotation and race order sheets have the riders club (or team) added.

8.4 "Arev" style (list format) rotation sheet added as an option to BEM style report.

8.5 Add rider entry has a "pick from list" function added where rider lists are available from a club, state, or country database.

8.6 Re-write of some Hybrid rule functions.

8.7 New run-off report with additional information (plain text).

9. Version 2.40 to 2.50 (June 2000)

9.1 Provided an "Add All" button to the Add Entries dialogue to add all riders in the Rider List File to the event. You have the option to skip over riders already entered or be prompted when a duplicate is found.

9.2 All new entries are checked for duplication with existing event entries before being added to the event.

9.3 A CANCEL button is provided to the "duplicate plates found" warning which will inhibit further duplicate plate warnings (for the current check only).

9.4 An integrity check is performed on the rotation data designed to detect a new rider added to a class after the rotations have been done.

9.5 Duplicate entry check parameters changed from name, class & plate to licence number, name & class.

9.6 A new Series Points report added to allow an event to be scored using "normal" 1, 2, 3... points system. The new report calculates series points for selected number of motos based on 10, 8, 6, 5.... points system.

9.7 An alert message is added if not all classes with riders entered are included in the moto or finals order. Note: the alert is not given if no classes are included in moto or finals order.

9.8 Shoot Out changed from Perth 1999 to Darwin 2000 rule set and added detail to moto sheets for the number of riders transferring to which final for qualification rounds one and two.

9.9 Check box added to Enter Results dialogue to allow auto step on to the next race when results are verified.

9.10 Improved internal database handling for deleted records.

9.11 Additional sanity checking for riders missing from rotations (eg late entries).

10. Version 2.50 to 2.51 (June 2000)

10.1 Corrected an error where the warning message "A miss-match exists between classes with entries and classes in the Moto or Final Order" can be given when no race or finals order has been entered on the Event Sheet.

11. Version 2.51 to 2.52 (September 2000)

11.1 For Consolation Finals, the user can now specify the minimum number of riders in a class before a Consolation Final is run. Previously this was set in program to one full gate plus two riders.

11.2   Reports can now be directed to the clipboard (page at a time) so they can be pasted into another application (eg Word or Publisher) for production of a printed program or Web page etc.

11.3   Sponsors names can now be printed on the Moto Sheets on a per class basis.

11.4   Added the feature to have regular automatic back up of the Event file.

11.5   New companion program BEM_RRD is provided for use on a networked PC to print reports and provide a continuous rolling display of results.

11.6   Update to some reports to add report type and page number to the footer.

11.7   Race numbers are now re-formatted to upper case.

11.8   In the Results Entry dialogue, the operator now has the option to have riders in the moto listed by Plate (previous default), Moto Points or Name.

11.9   Added an option button in the Results Entry dialogue that (when checked) pre enters a DNS result for riders with a DNS result in the previous moto to the one being scored.

11.10   Clean up of drop downs that were left on screen outside the dialogue box boundaries in Office97 version of Excel.

12.   Version 2.52 to 2.53 (November 2000)

12.1   Added the number of riders in the event to the opening banner. The multi class entry calculation is based on Licence Number so if any licence number fields are blank then the Rider Count is shown as "?".

12.2   Correction to compliance with General Competition Rule E6. (Count back was only on the last moto, not on all motos).

12.3   Correction to selection of riders from Run Off to first final where more that eight riders were in the Run Off and the number of riders was an odd number and the number of positions to be filled was an odd number.

12.4   The path to the last used event (BEM) file is saved and used when next opening an event file.

12.5   Moto and Final order(s) can now be entered and edited within the program.

12.6   Added a new facility to perform Moto and Final Race Order analysis. This gives a matrix showing the number of races between classes with the same rider(s) entered. Note that this feature uses Licence Number to determine multi-class entries so if any licence number fields are blank then the matrix is not available.

12.7   An update to BEM_RRD released with BEM version 2.53 has new features added for screen based Call Up and to write Moto & Final Results in a HTML format file.

13.   Version 2.53 to 2.54 (February 2001)

13.1   Added a new report to print a list of riders entered for an event whose licences are expired at the event date. (Expiry dates from the Rider List File).

13.2   The Club Short Name is no longer stored on the rider sheet so editing the "Group" field (Club Long Name) for an individual rider is all that is required to change / correct the Club details.

13.3   Updated the Shoot Out Manual Score Report to include the riders Group (Club) name.

13.4   Added a print / preview of finals order and revised grouping of Main Menu buttons.

13.5   Added an error message when generating the race order matrix if there are classes with riders entered but not included in the race order.

13.6   Provided an optional "Awards Over the Line" result sheet for the final round that has the pre final points for riders in single gate classes.

13.7   Corrected compliance for BMXA rule E.3 (Total Points – No Finals). Run-off check is now performed for multi gate classes after the final moto.

14.   Version 2.54 to 2.55 (April 2001)
14.1   Added a new result report to print the top 8 riders in each class. Note that for Participation Classes all riders are listed.
14.2   Added additional information (previously only available on screen or in the Run-off Report) to Moto Sheets for Run-off detailing the number of riders to transfer to which final, eg 2 to Final, 1 to Consolation.
14.3   Updated UCI Class-Code for compliance with the January 2001 UCI BMX rulebook Transfer System.
14.4   Updated the SHOOTOUT rules from the Darwin 2000 to Adelaide 2001 requirement.
14.5   Added transfer details to Shootout moto sheets (where manual draws are not used) in a similar way to Shootout Qualification rounds. Eg. Transfer 2 to QuarterFinal.
14.6   A new option when printing the Shootout Manual score sheet to allow the computer random selections for the first final for the class to be used (as an alternative to manual draws).

15.   Version 2.55 to 3.00 (Aug 2001)
15.1   Most (but not all) rider list, result and list (Arev) style rotation reports can be saved in an HTML format file for Web posting.
15.2   Any HTML report can be made auto scrolling with auto refresh to provide on track rider information.
15.3   The Rider List File details can now be updated and new riders added from the Add Entry Dialog.
15.4   Licence expiry date edit box added to Add Entry Dialog.
15.5   The Form Ref. Field auto-increments if a numeric value is used.
15.6   An auto refresh, auto scrolling HTML results file (Moto Results or Finals Results) can be generated at around 10 minute intervals during results entry. This is designed to provide an on track near real time results display via a web browser on a networked PC.
15.7   Moto Points and Moto Results Reports are now sorted differently for classes with UCI rules to group riders on a moto basis (reflecting the non-rotation nature of the UCI rules).

16.   Version 3.00 to 3.10 (Dec 2001)
16.1   Addition of the "Orange Blossom" rule set.
16.2   Addition of the British Cycle Federation (BCF) rule set.
16.3   For Invitation Finals:
          The user can now specify the minimum numbers in the class before Invitation Final(s) are applicable.
          New finals code of DIVIDE provides a option to the "fill and spill" method that allows the invitation finals pool to be divided evenly between gates.
16.4   Rider List File and Add Entry Dialog updated to include additional fields for Sex (M/F), Licence Type (O,C or S) and Rider Ranking.
16.5   New Result Recording Report as an option to the traditional report designed for Championship Events.
16.6   New moto sheet report for UCI and BCF events.
16.7   Correction of an error that could allow finals to be drawn without first checking for run offs.
16.8   Provided separate date fields for licence checking and rider age calculation to provide additional flexibility to support BMXA age at first or last round of series rules.
16.9   Database update for interwork with the series points calculator.
16.10   Licence check added for valid type of licence (in addition to expiry date) and corrected duplicate rider details where the rider with the expired licence has entered more than one class.
16.11   New function provided to export rider details and moto draws to a CSV format file for subsequent production of rider moto draw stickers.
16.12   Added race numbering for all finals to moto sheets.
16.13   Added an optional format to class count and race order reports showing the race numbering for all motos and finals.
16.14   Revised run-off report print routine to avoid missing report problems with some operating system - printer combinations and with printers not supporting plain ASCII text.
16.15   Result reports no longer list classes with no entries.

17.   Version 3.10 to 3.11 (May 2002)

17.1   Addition of new Score_Code "NZ" for New Zealand requirements of 8 for 1st, 7 for 2nd etc.

17.2   Change to the BCF finals code BCF to use `C_Min_Riders_Cons_Final` and the new BCF finals code of FORMULA to use `C_Min_Riders_Invitation_Final` to determine when B finals are run. I.e. set to 11 for a minimum of three riders in the B final.

17.3   Added user selectable option when doing global class changes to change the series class also.

17.4   Riders by Class report now has the option to print a single class (previously only all classes).

17.5   The ability to select the Rider_List_File from the Add_Entries Dialog so you no longer have to enter the full path and file string in the event file (usually took me at least two attempts to get it right).

17.6   The ability to use a .BEM file as the rider list file (you need to select "Event Files" in the Files of Type dropdown in the Open dialog). This option is provided to make it easy to import riders from one BEM file to another BEM file. Envisaged use is where two (or more) PCs are used for registration, for series entry and where a two-day event is run as two individual events.

17.7   New check box in Add Entries Dialog that (when checked), sets the Team_No to the riders Club_No, avoiding manual entry where the SERIES program is use to do Club v Club points.

17.8   Addition of INV-SF17 and EXPTCONS-SF17 Class_Codes (first use by the BCF) that are the same as INV and EXPTCONS except that semis only require 17 riders and quarters 33 riders.

17.9   Correction to prevent an error condition should all entries and the blank end record be deleted via the Edit Entries dialog.

18.   Version 3.11 to 3.12 (May 2002)

18.1   New error message when a class with riders entered is not included in the moto or finals race order.

18.2   Correction to BCF 9 rider class mandatory run-off where no B final is run.

19.   Version 3.12 to 3.13 (November 2002)

19.1   Update compliance to 2003 BMXA rule changes for quarter and semi final rider ranking and seeding.

19.2   Added new rule set for BCF 2003 moto rotation rules.

19.3   Added new scoring option for four lane Mountain Bike 4-Cross style competitions. Refer to details on new Score_Code MTB4.

19.4   Added new report "Multi Class" to list riders entered in more than one class.

19.5   Added the option to print multiple copies in collated format.

19.6   Revised HTML report format to reduce the output file size.

19.7   Revised moto points report to improve clarity for progressive results.

19.8   Setting of option "Set Team_No to Club_No" is saved between sessions.

19.9   Revised lane allocation algorithm to reduce same lane allocations and cater for four lane gates.

19.10   Removed the upper limit checking on minimum riders for consolation final.

19.11   Additional internal sanity checking is performed on the rider's database to avoid problems where an operator performing manual editing may have inadvertently changed the expected settings.

19.12   Changed result analysis to prevent riders with DNS results from all qualifying motos being drawn in run-offs.

19.13   Corrects error with class_code ONEGATE where semi and quarter finals were being drawn when not required.

19.14   Corrects a problem if the operator makes an incomplete race selection from the Result Entry screen.

19.15   Correction where some page footers print size changes to 101 point instead of 10 point.

20. **Version 3.13 to 3.14 (January 2003)**

20.1 New Class_Code UCIE (UCI Extended) for 2003 Australian National Championships. Provides a 4th moto for classes with less than 9 riders. In all other respects it is identical to the Class_Code of UCI.

20.2 Easier operator entry for UCI ranking classes as the field can be left blank or enter "None" for non ranked riders. Previously required a dummy ranking number for non ranked riders.

20.3 New report for UCI Ranking Classes that lists riders in ranking classes sorted by rank.

20.4 Enhanced Class Details Report to show the number of gates at each stage if the race order has not been entered.

20.5 Updated Rider List File format to include a Reference field. Initial requirement for importing entries from events generated by other applications.

20.6 Removal of the "on the fly" licence expiry checking for the "Add All" riders from another event or list file. (It is more time efficient to run the licence check subsequent to adding the entries).

20.7 Additional error checking of moto draws added to detect problems with manual edits. I.e. check for too many riders in the one gate, more than one rider given the same lane or a lane number greater than the specified number of lanes.

20.8 Revised MSword "Main" label document **Label_L7162_Main.doc** for printing moto draw stickers.

21. **Version 3.14 to 3.15 (April 2003)**

21.1 New Score_Code PART (participation) added to UCIE Class_Code to allow for non scoring classes to use UCI moto draws.

21.2 Added option to print moto draws in race order with portrait layout.

21.3 Added new Gate Check report.

21.4 Added new Pencilling format results recording report.

21.5 Added a data field for short form Class Name for use in reports use where long class names do not fit the available space.

21.6 Added State and Country data fields for use with rider handout moto sheets (RRD) and with export data for label printing.

21.7 Added data fields Team2 and Team3 to rider database enabling a rider to be included in up to three teams (eg Club, State and Corporate) for auto scoring of team results with the SERIES program.

21.8 Full Results report (all motos, run-offs and finals) now available in HTML format.

21.9 Removed the restriction on Class and Club names where previously (since inception) one name could not be a sub set of another name.

21.10 Auto scrolling HTML reports now have a short pause on loading before scrolling commences.

21.11 For UCI classes, the HTML moto points and moto results report now show riders not transferring in red.

21.12 New format HTML report for quarter, semi and final draws and results.

21.13 Revised format for UCI moto draws to show the event number for all pre final motos.

21.14 Revised Top 8 report for 9 rider UCI class to print the 7 finalists only.

21.15 Correction to prevent a program error if no classes are listed.

21.16 Correction where multiple copy request of a single moto from the main menu would only print one copy.

22.   Version 3.15 to 3.16 (August 2003)

22.1   New Finals_Code ALLPOINTS for Northern Rivers unofficial "points through quarter, semi and final" rules.

22.2   New Finals_Code NZPOINTS for New Zealand National Championship Rules.

22.3   New "Read Back" function added to results entry screen to make it easier to confirm results from pencilling sheets.

22.4   New "Event Range Selection" for printing / viewing moto sheets and result recording sheets.

22.5   Count back for UCI Classes now includes all pre final motos, not just the last moto as required in UCI rules for tie break.

22.6   Improved format for several reports, eg column headings added to scoring reports, underline used to delimit moto groups in UCI moto result reports.

22.7   Duplicate race number check is now performed earlier in the add entry process so the operator can amend details before the entry is confirmed.

22.8   Option added to use Club, State or Country code on moto sheets (was previously Club only).

22.9   Option added to use Snake pattern (BMXA) or fly back (NZ) distribution of riders to quarter and semi finals.

22.10   Option screen is now presented on program entry.

22.11   Transponder field added to the Rider List File and Add Entry dialog to facilitate interworking with the AMB Lap-time system.

22.12   Correction to rule interpretation when more than one rider has a DNF result.

22.13   Correction to results display reports that could result in riders in semi or quarter finals but not in a main final being out of sequence.

23.   Version 3.16 to 3.17 (December 2003)

23.1   Addition of "Entry Review" method to edit a rider's Class, Plate, Club, Paid Status, Reference and Licence Number using the Add Entry dialog. This is a rather more user friendly alternative to edit these fields than the existing Edit Entries dialog (which is retained).

23.2   Addition of UCI Appendix 4B transfer system.

23.3   Addition of European BMX Championship Series transfer system.

23.4   Provision to record lap times and optionally base results on these times.

23.5   Revised lane allocation system (based on BCF method) for non UCI classes.

23.6   New user selectable moto sheet formats from the standard 9 moto per page landscape and 8 moto per page portrait down to a paper wasting 1 moto per page.

23.7   New four lane moto and score sheets for Mountain Bike 4 Cross.

23.8   New user selectable option for name formats, i.e. John Smith, John SMITH or JOHN SMITH.

23.9   The Reference number in the Add Entries dialog is now saved and restored between add entry sessions.

23.10   Updated Club List table in the Event Sheet to add State Numbers (used for Region Number in UK) that can set to Team2_No when adding a rider to the event. A Country Number is added also but serves no function at this time.

23.11   Added information to Gate Check report to better identify finals where rider selection of lanes is required (Eg BMXA, UCI Appendix 4B Final) and where lanes are decided by Drawing Lots (Eg UCI Appendix 4B, quarter & semi finals).

23.12   Corrections for (obscure) problems with moto and result reports.

24. **Version 3.17 to 3.18 (March 2004)**
24.1 Addition of "Three Heat Finals" with new Finals_Code "3HEAT" and "BCF-3HEAT".
24.2 Added "Expanded Mode" Race Order for the Final Stage so the order can be set on an individual race basis (previously only by class). Allows for three heat final but can be also used to group all A and B finals together.
24.3 Addition of Canadian Cycling Association (CCA) BMX rules with new Finals_Code "CCA" and "CCA-PRO".
24.4 Revised result reports to be adaptive to the class requirements and cater for 3Heat Finals.
24.5 Added additional operator warning message if a points through run-off has not been checked (e.g Semi to Quarter Final) when drawing the next stage.
24.6 Replace the manual method of setting the event back-up path to enable selection with normal Windows save file as path selection. This update does not allow the operator to proceed until a valid back up path has been selected.
24.7 Added operator prompt if race order changes are made but not saved when exiting from the race order dialogue.
24.8 Added option for the operator to surpress "Class with 0 riders" when drawing motos.
24.9 Added new reports to print the race order for selected motos or the complete event on a per-race basis.
24.10 Added a new export data option to export entries in a format compatible with the AMB Transponder Timing system.
24.11 Imroved scrolling HTML report format for post qualifying moto stages.
24.12 Updated complience with NZ Rules for their points through rules to give single points for Quarter-Finals and double points for Semi and Main Finals and give Olympic lane draws for all finals.
24.13 Updated code for compatibility with non English langauge versions of Excel.
24.14 Removed Series Points reports as this function was superceeded by the Series Program.
24.15 Corrected a problem where the program did not cope with lap times being entered for Participation Classes.

25. **Version 3.18 to 97.00 (July 2004)**
25.1 Added a new report to list duplicate race plates.
25.2 Addition of Swedish BMX Race Rules (Class Code SWE).
25.3 Added Rider's Sponsor field for inclusion on new Commentary Format Moto Sheets and in HTML Result Reports.
25.4 When riders are moved to another class to make up minimum numbers, selected reports can now show the rider's initial class. To accommodate this change, the meaning and name of the BEM5 database field Series_Class_No has changed to Class_No_Entered in BEM97.
25.5 Revised the 4 moto per page result recording report to better accommodate long race numbers.
25.6 Changed DNS points for Canadian rules to number of riders + 1.
25.7 Updated a number of files (but not all) to Excel97 format.
25.8 Added the rider's Sponsor and final place / position in class to the CSV export for use with mail-merge certificate printing.
25.9 Added an Association Selection on program entry. This selection determines the transfer system, semi final thresholds etc for other than pure UCI rules.
25.10 Export data selections are now saved between sessions.
25.11 Team numbers and Rider's Sponsor details can now be imported from rider list files and edited on the Review Entries screen.
25.12 Added a variation on the Rider's by Class report to list transponder numbers.
25.13 Added moto sheet format option selections to the finals dialogue.

26. **Version 97.00 to 97.10 (November 2004)**
This was the development version for transponder and multi-langauge and released only to a small number of selected users.

27. **Version 97.00 to 97.01 (December 2004)**
27.1 This was a maintenance update to consolidate a number of non-critical corrections.

28. Version 97.10 to 97.11 (February 2005)
28.1 Added UCI 4-Cross Mountain Bike Rules.
28.2 New Score Board reports which are a combined moto and result sheet.
28.3 New spontaneous printed result reports available after each race and / or each class.
28.4 Number of run off notification reports now set from the result entry screen so you no longer get the "Do you want to print a report" prompt. It just does it if the number of reports is set to other than 0. The report has been updated to include the lane draws for the run off.
28.5 Provision for multi language versions.
28.6 Provided the option to show moto points on the Commentary reports.
28.7 Provision for importing AMB transponder records and setting results directly from these records.
28.8 Change from 3 to 4 for the maximum number of teams any one rider per class can enter.
28.9 Updated the BEM97 file to Excel version 97 to gain the additional functionality required for transponder interwork, hence the vast increase in file size from the previous Excel 5 based file (thanks Microsoft).

29. Version 97.11 to 97.12 (July 2005)
29.1 Added new Registration Report.
29.2 Added facility to print an Event Sponsor to both individual events (moto and results) and to Series and Team reports.
29.3 Added page per class option to the finals menu for moto sheet printing.
29.4 Added an operator selectable option for the name text alignment in the moto sheet boxes. This has historically been centred but some commentators prefer the names to be left aligned.
29.5 Added a new operator information message designed to avoid inadvertently adding riders to a class with no entries, eg a late entry after classes have been merged. The new message is generated from both Add Entries and Merge Classes screens.
29.6 Morphed the previously unused Barcode field into UCI-Code and added this to HTML result reports. Note UCI-Code is the country code plus birth date in yyyymmdd format. Eg AUS19891127.
29.7 Revised Chaotic Random Rotation algorithm to improve rider scrambling for large classes.
29.8 Removed the temporary restriction in version 97.11 so transfer systems for both Shootout and ABA 2-moto are now supported.
29.9 Revised Result Entry Dialog to allow results to be entered by clicking on the rider's name as well as the race number.
29.10 Update to the results format for classes with more that one final to show the final (B, C etc) in addition to the placing.
29.11 Update to the Orange Blossom rules so a class with less than four riders now has an extra moto in the final round.
29.12 Improved error handling and screen clean up where the race order setting is attempted with no entries in the event file.
29.13 Moved the location for saving of Transponder settings from global to individual event files.
29.14 Improved operator-warning messages when anomalies are detected with imported transponder passing records.
29.15 Added the number of transponder passing records for each rider to the Class Transponder report.
29.16 The Series program can now be set to do the multi round sanity checking every time a series file is opened with the saved HTML report previewed on screen.
29.17 Correction for BMXNZ double points rules in semi and main finals where single points only were awarded for DNS and DNF.
29.18 Correction to the runoff sanity checking where points are carried through from quarter to semi final.
29.19 A more meaningful error message is now given where Set Place by Time is selected and no lap times are entered.

30.   Version 97.12 to 97.13a (December 2005)

30.1   Update for Australian rule changes to apply from 1st January 2006 for number of riders in the class before semi, quarter and eighth finals apply.

30.2   Added a new Rider Registration screen to manage rider registration within the program. The registration screen layout is to allow for a rider facing monitor so riders can confirm class(s) entered and number(s). Also included is the paid status and licence expiry date.

30.3   Added support for barcode scanning of licence numbers in the Add Entries, Review Entries and Registration screens.

30.4   Added sound confirmation for the operator when an entry is added or updated and when a Run Off is required.

30.5   Added new Class Codes to allow for seeding of riders into the standard UCI Appendix 3 Transfer System as an inferior alternative (but easy to explain) to the often misunderstood but superior UCI Appendix 4 seeding / transfer system.

30.6   Modified the Riders by Club report so only Clubs with entries are included in the report.

30.7   Extended the CSV export to include all moto draws, results and lap times.

30.8   Corrected intermittent wrong class name in first rider in class alert message.

30.9   Class Code of Hybrid is no longer supported.

30.10   For Series scoring, added user selectable criteria for series award qualification from either enter or enter and compete in the mandatory rounds.

30.11   Modify HTML Series Sanity Report format so when the report is opened in Excel, to stop Excel re-formatting cells that it (incorrectly) thinks should be in date format.

31.   Version 97.13a to 97.13b (14 January 2006)

31.1   Correction to Australian 2006 rule changes as a typographical error in the rule for classes of 33 and 34 riders was reflected in the program.

32.   Version 97.13b to 97.13c (24 January 2006)

32.1   Addition of 2006 UCI rule changes for DNS points / exclusion and the appendix 4A change to remove the re-seeding at each stage of the event.

33.   Version 97.13c to 97.13d (27 January 2006)

33.1   Add 2006 rule change for Canada to remove the existing DNS points = last place + 1 and change to the "two strikes and you're out" UCI rule changes for DNS points / transfer exclusion.

34.   Version 97.13 to 97.14 (June 2006)

34.1   Addition of a new facility to run a Time Trial for seeding riders into UCI moto draws (Class Codes UCI-TT and UCIE-TT). First use for 2006 Australian Champbikx Series.

34.2   Addition of a new rule set for Four Gate Eliminator race format. First use at the 2006 Australian Nationals.

34.3   Addition of a new Race Order report designed for handout to riders.

34.4   Alignment with UCI Credit result for first DNS in qualifying motos (replaces interim solution in version 97.13c).

34.5   Add new operator selectable options to:
         > include the rider's UCI Code in HTML reports.
         > automatically do the Runoff Check when results are entered for the last qualifying moto.
         > automatically sort riders in the results entry screen in finishing order for read back checking.
         > spontaneous output of event in CSV format in addition to the existing HTML format.

34.6   Addition of a new option to the export menu to export an operator selectable range of event numbers.

34.7   The Multi Class Report listing riders entered in more than one class has been enhanced to give a both a class and rider perspective.

34.8   Added A6 paper format reports for pencilling sheets and race result summary.

34.9   Added printer selection to the options dialog to allow a separate printers to be used for A6 format reports.

34.10   Duplicated result recording report options from the Main Menu on the Finals Menu.

34.11   A more meaningful error message is now given when results by time is selected and there is a missing lap time when attempting to Accept results.

34.12   Re-format HTML report column widths and use the Colgroup function to reduce the HTML file size.

35.   Version 97.14 to 97.14d (October 2006)
The 97.14d update is to provide conformance for a BMX Australia rule change to be introduced from 2007 adopting the UCI BMX DNS "Credit for 1st DNS, out for 2nd DNS" rule together with some maintenance and performance updates.

35.1   Changed the application of the "UCI" Score Code to exercise the DNS Credit rule for all event types. In previous BEM versions the UCI Score Code invoked the DNS Credit rule only for events run under UCI and CCA rules (Finals Codes TRANSFER, RANKING, CCA and CCAPRO).

35.2   Added a new Score Code "DNS=OUT" which makes a rider ineligible to transfer with any DNS. Use of this new "DNS=OUT" Score Code is required to maintain the functionality previously given with a Score Code of "UCI" used with events other than UCI and CCA rules.

35.3   Added a new Score Code "DNS=POINTS" which has identical function to the current "BMXA" Score Code that gives points = to the number of starting lanes for a DNS result. Provided to allow a migration period as the "BMXA" score code will be withdrawn in a future release.

35.4   Changed the internal file handling strategy to work around a slow down in performance for moto draws, final draws and moto sheet printing caused by some virus checking programs; Norton Internet Security in particular.

35.5   Prevent and error condition should an operator inadvertently add a spaces in the Class, Score or Finals Code fields.

36.   Version 97.14 to 97.15 (December 2006)
Version 97.15 was used for development of the UCI Supercross style event rules used for BMX Australia's National Probikx Series and had limited release only. Changes in 97.15 are listed here as they are carried over to version 2K.00

36.1   Provides for one or two Time Trials (previously only one) for UCI classes where seeding is determined by Time Trial.

36.2   Added new Class Codes UCI-TT-LANE and UCIE-TT-LANE to provide for the UCI SuperCross style Time Trial Seeding and rider lane selection used for the Australian 2007 Champbikx and Probikx Series.

36.3   Assign default lap times for DNS, DNF and DISQ where the "set place by time" option is selected.

36.4   Provide a new Time Trial result report.

36.5   Include Time Trial lap times in the Full Results report.

36.6   Added an operator option for UCI starting lane allocation for moto 1 to be from 8 down to 1 or use the existing random allocation.

36.7   Extended the UCI appendix 3 transfer matrix to provide 32nd finals for classes with 257 to 384 riders.

36.8   Added operator selectable options to use Fixed, Tab Delimited or Tab Delimited + Bib format files for importing Passing Results from the AMB transponder Data Collector timing system. Previously only the Fixed position was available.

36.9   Changed the lap time precision from 1/100 to 1/1000 of a second to take advantage of the updated AMB ChipX system.

36.10   Extended the "Add first rider to class" warning so that it is given after any class merges have been done. Previously the warning was given only after moto draws had been done.

36.11   When exiting from the Results Entry screen, to make it easy to return to the same point, the event number is saved so the next time Result Entry is selected by event number, the selection is preset to the last race scored.

36.12   Added a comment field to the Moto and Final Order handout report.

36.13   Added the ability to switch between Add Entries and Review Entries without having to return to the Main Menu.

36.14   Added a new facility to allow an entry to be deleted from the Review Entry dialog.

36.15   Added an option in Review Entries to switch directly to the Registration Screen on rider transfer.

36.16   Added an auto return to the Registration Screen when an edit is initiated (eg race number change) from the Registration Screen.

36.17   When a licence number is entered in the Add Entries, Review Entries or Registration screens, it is no longer necessary to enter a "+" to initiate a search for the licence number, just hit "Enter".

36.18   Changing the Paid / Not Paid status can now be done from the Registration screen.

36.19 The "UCI" Score Code will now exercise the UCI BMX DNS Credit rule for all class types. In previous BEM versions the "UCI" Score Code invoked the DNS Credit rule only for classes run under UCI and CCA rules (Finals Codes TRANSFER, RANKING, CCA and CCAPRO) and the "any DNS and your out" rule for other class types.

36.20 Added a new Score Code "DNS=OUT" which makes a rider ineligible to transfer with any DNS.
       Use of this new "DNS=OUT" Score Code is required to maintain the functionality previously given with a Score Code of "UCI" used with events other than UCI and CCA rules.

36.21 Added a new Score Code "DNS=LANES" which has identical function to the current "BMXA" Score Code that gives points = to the number of starting lanes for a DNS result. Provided to allow a migration period before the anticipated change to the "BMXA" score code in 2008.

36.22 Changed the internal file handling strategy to work around a slow down in performance for moto draws, final draws and moto sheet printing caused by some virus checking programs; Norton Internet Security 2006 in particular.

36.23 Prevent and error condition should an operator inadvertently add a spaces in the Class, Score or Finals Code fields.

36.24 Printed report "Collate" setting is now saved with the operator preferences.

36.25 Updated the CSV export to ensure fields are enclosed in double quotes where the field contains the delimiter (eg comma) character.

36.26 Corrected a problem (included in a 97.14 maintenance update) where an event was set up with 2 pre final motos.

36.27 Corrected a problem where lap times were cleared from the screen if the "Read Back" button was clicked.

36.28 Corrected a problem with Class Code of ALLMOTO which could lead to Semi-Finals being assigned in error to the class.

37.   **Version 97.15 to 2K.00 (February 2007)**.
       Note the change in version numbering from 97.xx to 2K.xx to reflect the recommended minimum Microsoft Office version of 2000 to run the program.

37.1   Added a Stopwatch pop up window to calculate and enter the average time from two hand held timing results for use with manually timed Time Trials.

37.2   Added a Split Merge function to restore classes previously merged.

37.3   Many reports (but not all) now buffer multiple pages before preview and /or printing so multiple pages can be scrolled back and forth on screen. A side effect of this change is that with slower PCs in particular, end to end print times are significantly reduced.
       One advantage of the previous print one page at a time method was that by using Excel's "fit to one page tall and one page wide" setting, the print always fits the page no matter what the paper size or printer used. As not all printers are created equal, a Print Scaling adjustment is provided in the Options page to allow fine tuning where the default setting causes pages to over-flow.

37.4   Details in the "Comment" field are now displayed on the registration screen.

37.5   Added new Finals Codes DM-LANE and DM3-LANE for use with moto rotation race rules. These new codes are association independent and therefore can be used as required. Function is to re-seed riders for each qualifier stages and give rider lane selection for qualifier and finals based on the results of the previous stage, with count back used as a tie breaker. First use for British Cycling 2007 Rules.

37.6   Closed a "black hole" created back in December 2003 where a duplicate entry could inadvertently be made in Review Entries leading to the program crashing if the original and not the rogue duplicate was deleted.

37.7   Added additional data integrity checking to avoid a program crash should the Time Link data be corrupt.

37.8   Added additional sanity checking when updating the database from the registration screen as there is anecdotal evidence that intermittently; registration status changes are being lost.

37.9   Added a facility for the operator to set up to ten race ranges for printing where there is a requirement to print the races in other than the normal moto or final order. First envisaged use is to blend moto 3 for UCI classes with 8 or less riders (no final) into the final round.

37.10 Added a Time Trial specific format run order rider list for commentary and call up use as the normal moto sheets were not appropriate with only one rider per race.

37.11 Added options to the Export function allowing the operator to select comma or tab field delimiters and double or single quote text qualifiers.

37.12 Added an error trap to allow the operator to select another printer when printing to A6 format paper if the selected printer is off line or not available.

38 Version 2K.00 to 2K.02 (December 2007)
Note that as version 2K.01 had only limited release, this section includes changes in both 2K.01 and 2K.02.

38.1 Changed UCI seeding to conform with the 2008 UCI BMX Rule Book.

38.2 Added new functionality to be able to run events under UCI SuperCross rules. I.e. introduced new Class Code of UCI-SX

38.3 Added an operator option to auto draw the next stage for a class when results are entered for the last heat of the previous stage for the class.

38.4 Added a feature to auto print a single class / stage when it is auto drawn.

38.5 Added the rider's reference number to the registration screen.

38.6 Added a new warning message when neither lap times or previous results are available when printing moto sheets where starting lane choices are based on a rider's previous run.

38.7 Removed java script from HTML reports unless scrolling reports explicitly selected to avoid problems with e-mail and browser security settings.

38.8 In Add Entries when set team to club is selected, the team numbers are now cleared if the rider's club can not be matched with a club in the list.

38.9 Removed Finals Code LAPTIME which was for the now obsolete UCI Appendix 4B.

38.10 Improved layout for HTML format results.

38.11 Improved format of printed Time Trial results report.

38.12 Re-scale some list style reports as they would not fit on letter size paper.

38.13 Added the rider's class to the HTML Expired Licence report.

38.14 Added plan text Newspaper format results report.

38.15 Added rider and entry count to the Add Entry screen.

38.16 Added auto read, move and rename of passing record file when using transponder lap timing.

38.17 Corrected an problem with transponder timing when a rider who had a DNS in a previous moto had their valid lap time in the subsequent moto over written when auto DNS fill was selected.

38.18 Added a new facility to use multiple registration PCs by update paid and registration status in the master event file from slave copies.

38.19 Add a "BU_" prefix to back up copies of the event file and write the back up file more frequently to work with the RRD event status display.

38.20 Corrected a problem with the auto CSV export where the correct delimiter was not used unless a manual export had been done previously.

38.21 Corrected a problem where licence numbers may not be identified correctly where some licence numbers are text and others numeric.

38.22 Corrected a problem where a single page only was printed for buffered reports when the collate option was not selected.

38.23 Corrected a problem where finals would intermittently not be drawn for a time trial class when time trial results were missing or incomplete.

40. Version 2K.02 to 2K.03 (October 2008)

40.1 Update to UCI BMX 2008 Rules to draw a final for one moto categories (drop last placed rider after the motos).

40.2 Added new Class Codes EXPT-F, INV-F and EXPTCONS-F to allow for a "drop last placed rider after the motos" final for single gate classes with scrambled motos. Note that the function of the existing EXPT, INV and EXPTCONS Class Codes is unchanged.

40.3 Added a new facility to have merchandise facilities:
- ordering merchandise with the race entries
- export merchandise data to allow stickers to be printed
- new reports of total orders per item, orders per rider and riders who have ordered each item.

40.4 Added an operator selectable option to auto register riders when their licence is scanned.

40.5 Added a Delete button to the Registration Screen to allow easy deletion of multi class entries when a rider is withdrawn from the event.

40.6 Added Transponder and Bib numbers to the Registration screen.

40.7   Added new facility from the Add Entries screen to view existing plate numbers in a class and to auto select highest number + 1 for the rider being entered.

40.8   Added a new export data format for use when printing rider entry details.

40.9   Improved file contention handling for multi-operator environments.

40.10   Add missing 1/32 Final heading from the Class Details report.

40.11   Allow for DNS Credit result and check for a 3 Heat Final.

40.12   Correct a problem that can cause a program interrupt when using the auto generation of the scrolling HTML results file.

40.13   Provide a select list of Transponder numbers & their corresponding label number (Bib) to assist when assigning transponders to riders.

40.14   Added the Times-7 Sports Score TAG file to the available list of transponder passing record file types.

40.15   Proved a new facility for both way data exchange with the FinishLynx camera software.
Export to Lynx Schedule format (SCH files).
Export to Lynx Event format (EVT files).
Import and set result in BEM from races scored in FinishLynx software from Lynx Information File format (LIF).

40.16   Added an operator prompt to check camera results when lap times are closer than 0.006 seconds.

40.17   Added a new operator warning if a transponder bib number is entered and the transponder (equipment) number is left blank.

40.18   Improved error reporting when the passing record file can not be imported from the timing software.

40.19   Update multi language routines in preparation for Latvian and Russian translations.

41. Version 2K.03 to 2K.04 (August 2009)

41.1   Update to UCI BMX 2009 0109 Rules to for Relegated (REL) result.

41.2   Added an operator prompt re deleting corresponding merchandise order(s) when all race entries for a rider are deleted.

41.3   Added new and separate sound confirmation for update list and merchandise confirm.

41.4   Added new rule set (Class_Code BSX) to run an event with the Bmxultra.com BSX two lane competition rules.

41.5   Added feature to pre-select the next unallocated transponder from the chip list when allocating transponders to riders.

41.6   Changed the enabling of the "Get Laptimes" button from all riders in a race having a transponder allocated to at least one rider in a race having a transponder allocated.

41.7   Provide a direct link to the suspect passing record from a transponder lap time error message.

41.8   Added preset Full and Concession entry fees for each listed class. Note that these can be over-written by the operator when / if required.
Note: Requires the event be built on template 33 or later.

41.9   Increased the number of entries from 5 to 6 that can be displayed for a single rider on the registration screen.

41.10   Added a new export type "Print by Class" to give a delimited plain text class list suitable for importing into a printed event program and number plate ordering.

41.11   Changed the Build Next Stage call to operate on results entry for any race in the moto before the final and for all elimination races.

42. Version 2K.04 to 2K3.00 (October 2009)

    43.1   New and improved facilities for managing events with transponder lap timing include:

- Provision for bottom of Start Hill and Finish line detection loops.
- Auto setting of DNS and DNF results where Hill and Finish detection loops are used.
- Importation of a scanned list of transponders for rider allocation.
- Generation of a list of "not returned transponder" riders post event from a scanned list of returned transponders.
- Lap time data is now independent from changes to race order and when an event file is split into racing blocks.
- Revised the Moto Results Report to be landscape format where lap times are to be included for more than four motos to avoid report overflow off the page.
- Revised HTML report format to include split (start reaction) time when Hill detection loop is used.
- Passing records marked as "Ignore" can now be deleted.
- Provision of a "Single Import" button to do a one off import of passings from a selected file.
- Provision of an "Import Now" button to import passings from the default race import files(s) independent from setting race results.
- Provision of an Auto Import option to allow separation of auto passing import from the Lap Time button function.
- Provision of an operator settable gap time where a photo finish check is prompted if the gap between any two riders is equal or less than the setting.
- Updated photo finish request report showing places to be checked, time of day for the first placed rider in the race to assist the video operators to locate the race in question plus sing off areas for the Video Operator and Scoring Operator should a change be required.
- Revise the import passings routines to reduce the processing time.
- Check for and generate an error message if the operator selects the same import file for Passing File 1 and Passing File 2.
- Include the Start Gate as a competitor in the Orbits – DataCollector export from BEM to enhance the live passing record display in the My-Laps Orbits and DataCollector programs.
- File(s) selected for passing record importation are now shown on the Results Entry and Transponder Settings screens.
- Added a mode in BEM to compliment the "Save on Delete" option for live file export in the AMB DataCollector program.
- Added an operator selectable option to delete the passing file after importing the records into BEM.
- Provided an operator selectable option to set results from transponder records when there is no start gate records available. Envisaged use for where there is a fault in the start gate interface or the type of start gate controller is unable to be interfaced to the system.
- Added specific requirements for importing passing records from the Tag Heuer transponder system.
- Set the time and decimal separators in imported passing records according to the PC's International Settings to avoid downstream processing errors.
- Include additional details in error reports for suspect / out of sequence passing records and the ability to go directly to the suspect record in the Review Passing record screen from the error message.

    43.2   Added a new facility providing an operator comment field for each race so that short notes such as "DNF called for 37 by Commissaire" can be included.

    43.3   Update the "Add All" routine when importing riders from another event file or an entry list file so that it now runs significantly faster than in earlier versions.

    43.4   Shifted the auto Export and HTML Scrolling Results from the BEM to RRD program.

    43.5   Provide for auto display of Office 2007 .xlsx files when selecting a Rider List File.

    43.6   Add trap to lock out functions and generate an error message where the Moto Order is set but the Final Order is not set.

43. Version 2K3.00 to 2K3.00a (November 2009)

    43.1   Rule changes for Canadian Cycling 2010 requirements.

    43.2   New Rule Set for 4-Cross (Finals Code 4X) which has a scrambled motos qualifying stage feeding into a UCI style 4-Cross elimination stages.

43.3   Added a new function to auto-allocate hired transponders to riders from a scanned in transponder list. This function reduces the time for transponder allocation by a factor of around 500 in comparison to manual processing.

43.4   Added sanity checking on a new data field **Class Type** introduced in version 2K3.00 and activated in this update.
Class Type is used to describe Classes from a transponder allocation perspective and can have a value from 1 to 4. While the definition of each value is arbitrary, the following convention is recommended:
1 = 20" Classes where transponders are possible.
2 = Cruiser Classes where transponders are possible.
3 = MTB Classes where transponders are possible.
4 = Classes to be excluded from auto transponder allocation. E.g. Australian Sprocket Classes (participation only, no scoring).

43.5   Preparatory changes to allow for a Dutch language translation.

43.6   Update to the Results Entry screen to disable transponder function buttons when FinishLynx results file is selected.

43.7   Removal of a work around patch to overcome a date setting error error in MyLaps DataCollector3 program.
Note that where MyLaps transponders are used, the corresponding DataCollector3 update must be used in conjunction with this BEM release.

44. Version 2K3.00 to 2K3.01 (May 2010)

44.1.   Import of transponder passing records routine has been revised for faster operation (not applicable for Times7 format records).

44.2.   New lap time reports for 50 Fastest Laps, 50 Fastest Riders, Fastest lap per Class and All Laps for all Riders by Class.

44.3.   Separate back-up paths can now be specified for the Event File and the Passing Record files.

44.4.   Provided a new operator information message if a passing file does not exist when "Import Now" button is clicked.

44.5.   Provided additional auto transponder allocation options to allow:
     44.5.1.   The same transponder to be allocated for all bike types for a rider.
     44.5.2.   Separate transponders to be allocated to different bike types for a rider.
     44.5.3.   Extend the existing transponder allocations, e.g. from 20" to Cruiser without allocating any new transponders.

44.6.   Improved the auto place allocation to skip over a 0 lap time.

44.7.   Added a new Finals Code of LANE-SEL for use in conjunction with the UCI series of Class Codes to allocate starting lanes for Motos based on UCI Appendix 2 and to give rider starting lane selection per UCI Rule 6.1.021 A (lap on previous run) for all subsequent stages.

44.8.   Added a sanity check of Time Trial Draws similar to the existing Moto Draw check for missing riders (i.e. late entry after Time Trial is drawn) or double gate and lane allocation (i.e. classes merged after Time Trial is drawn).

44.9.   Added a Print Registration Report option from the Registration Screen to either A4/Letter or A6 paper. First use is to print A6 size transponder allocation slips for riders to take from registration to the transponder fitting station.

44.10.   Expanded the number of entries for any one rider in the Registration screen to seven.

44.11.   Added protective changes to try to address the infrequent, intermittent but never re-producible situation of the wrong heat being loaded to the result entry screen after a stage draw.

44.12.   Added the rider's Group (Club and State) to the HTML format Expired Licence report to assist with tracking them down.

44.13.   Added further sanity checking and an over-write existing order prompt to the per-race final order setting to check against errors in the per-race final order. These changes are protective measures to reset the per-race final order should riders be added or deleted from the event that impact on the number of races pre-finals.

44.14.   Provide additional checking and error reporting for blank Tlink data fields.

44.15.   Added lap times to the print format Score Board reports.

44.16.   Changed the format options for Score Board reports to a single portrait or landscape option.

45. Version 2K3.01 to 3.1.7 (Dec 2010)

The updates listed here are is a consolidated list covering changes introduced in the limited distribution (but now abandoned) compiled versions 3.1.1 to 3.1.6) as most users will update directly from 2K3.01 to 3.1.7

45.1.   Provision of a new facility to auto assign race numbers on a class or event basis.

45.2.   Update the handling of result from Lynx LIF files where the Lynx generated results include lap times to import and use those times in BEM to set results.

45.3.   Add Race Comment information entered in the Results Entry screen into printed Scoreboard Reports.

45.4.   Provision of additional controls to the transponder Chip List form to allow a transponder to be marked "not for allocation" (e.g. where the battery has gone flat) and to clear the allocation of a previously allocated transponder.

45.5.   Changed strategy for checking for a valid back up path to avoid a lock up situation where a network mapped drive is used as the back up path should a network drive become unavailable.

45.6.   Extended size of screen background colour to cater for high resolution screens.

45.7.   Change when operator set options are saved as previously they were not saved if an event file was not selected.

45.8.   Added the Excel version and build number running on the PC to the opening banner as an aid to tracking faults caused by Excel installations that have not been kept up to date with the latest security and service packs installed.

45.9.   Corrected data export issue that prevented export of non race order dependant formats when the race order was non set.

45.10.   Corrected a fault that could intermittently prevent a HTML results export.

45.11.   Corrected a problem that could intermittently save HTML reports with auto scrolling even when the scrolling option was not selected.

46. Version 3.1.7 to 3.1.9

46.1. Update to new UCI Relegation rule 6.1.018 that gives last place plus 2 point penalty.

46.2. Update the Registration screen to display a comment per entry whereas previously only one comment per entrant was displayed.

46.3. Introduce a new result of "Photo", set manually by the operator or automatically when a photo finish check request is printed by the operator.
Note that the Photo result must be changed to the real result once the photo result is available to enable subsequent stages for the class to be drawn.

46.4. Added an input on the Options screen for the eZventing Upload Key where progressive results are to be sent to the eZeventing Live Results web site with the RRD program.

46.5. Added an additional format of the Newspaper text file results to give the rider's full name (NZL press standard) in addition to the first initial and last name format (AUS press standard).

46.6. Introduced an improved strategy when reading passing files to avoid file contention between BEM and the decoder communication program, typically MyLaps DataCollector.

46.7. Added additional information to the operator message to assist in fault finding should a passing record import error occur.

46.8. The event file back-up is now saved at each class change during result entry to ensure more complete class results when Live Results are sent to the web.

46.9. Corrected a fault that intermittently would give invalid total entry information in HTML Class Count reports.

46.10.   Corrected a fault that would intermittently activate scrolling in HTML reports.

46.11.   Corrected a fault that could give a blank page at the end of Riders by Club reports.

For updates to subsequent versions, please refer to the relevant Release and Installation Notes.

Appendix 2 – Rider List File

1. The rider list file is an Excel Workbook file. The worksheet containing the data must be worksheet 1. One simple way to ensure this is to only have one worksheet in the workbook. The worksheet name is not used.

2. The layout is typical of the layout generated from a SQL export query to an Excel format.

3. Field names must start in cell A1. By implication all field names are in row 1.

4. No blank cells are permitted between valid headings.

5. No blank rows are permitted between valid riders in the list.

6. The Field Headings (field names) listed in the table below are mandatory although not every field requires valid data. Any fields may be included in the header row for individual requirements (as are included in the DMO_LIST.XLS file) but are not used by the current version of BEM.

7. Field Headings – Note the revised format for the Rider List introduced with Toolbox version 3.9.11.
   Note that the headings can be arranged in any order for individual requirements.

FIELD HEADING	DESCRIPTION OF CONTENTS
Licence_num	Optional but highly recommended, as some functions in BEM are not available if licence numbers are not included. Riders allocated licence number.
UCI_ID	UCI allocated 11 digit ID number.
UCIcode	Old format UCI Code comprising a three letter Country Code then DOB in yyyymmdd format. E.g. AUS19711024 Although no longer used by UCI, this field is used by BEM to determine the rider's Country for some reports.
FederationID	Used by some associations to hold their Federation Membership number where the UCI ID is used in BEM as the Licence Number.
International Licence Code	Used by some associations to store a rider's international licence number. Ultimately will be superseded by UCI ID
Expiry_Date	If data is in a valid date format to allow for automatic checking that the licence is current for the event date.
Licence_Type	Cryptic code for licence type for checking that the licence type is valid for the particular event being entered. E.g. Australian codes are "O" for open, "C" for club permit or "S" for sprocket licence.
DOB	Optional. Date of Birth. If data is in a valid date format, the rider age for the event is calculated using the Date_for_Age_Determination on the Event Sheet.
First_name	Mandatory if Surname field is blank.
Surname	Mandatory if First_name field is blank.
Sex	Indicate M (male) or F (female)
Email	The rider's email contact
Phone	The rider's phone, typically mobile / cell
Emergency Contact Person	Contact person in case of emergency
Emergency Contact Number	Contact phone number in case of emergency
Club	Optional. If data is present a match is attempted with the list of clubs / teams / groups on the event worksheet.
State	
UCI_Country	
Class	Class for Class_Type 1. (e.g. 20 inch) If data is present it is transferred to the Class field in the input form.
Class2	Class for Class_Type 2. (e.g. Cruiser)

Class3	Class for Class_Type 3.
Class4	Class for Class_Type 4.
Plate	Plate for Class_Type 1.
	If data present it is transferred to the plate field in the input form.
Plate2	Plate for Class_Type 2.
Plate3	Plate for Class_Type 3.
Plate4	Plate for Class_Type 4.
Ranking	Rider Ranking for Class_Type 1.
Ranking2	Rider Ranking for Class_Type 2.
Ranking3	Rider Ranking for Class_Type 3.
Ranking4	Rider Ranking for Class_Type 4.
Transponder	Transponder for Class_Type 1.
	If data present it is transferred to the Transponder field in the input form.
Transponder2	Transponder for Class_Type 2.
Transponder3	Transponder for Class_Type 3.
Transponder4	Transponder for Class_Type 4.
Tlabel	Transponder Label for Class_Type 1.
Tlabel2	Transponder Label for Class_Type 2.
Tlabel3	Transponder Label for Class_Type 3.
Tlabel4	Transponder Label for Class_Type 4.
Reference	Optional. If data present it is transferred to the Reference
Team_No	Optional. If data present it is transferred to the Team 1 field in the input form.
Team2_No	Optional. If data present it is transferred to the Team 2 field in the input form.
Team3_No	Optional. If data present it is transferred to the Team 3 field in the input form.
Team4_No	Optional. If data present it is transferred to the Team 4 field in the input form.
Sponsor	Optional. If data present it is transferred to the Rider's Sponsor field in the input form.
Comment	Optional. If data is present it is transferred to the Comment field in the input form.
Medical Suspension	Yes / No
Disciplinary Suspension	Yes / No
Other Suspension	Yes / No
POA Suspension	Yes / No Used by BMX Australia for proof of age being provided (or not)

Appendix 3, German Federation Scrambled Moto Transfer System

The Association selection for Germany provides their specific transfer system requirements for scrambled motos which is achieved with the Association selection and the following event setup:

Class Code: EXPTCONS-F
 Score Code: UCI
Finals Code: DEADMAN
Minimum Riders for Consolation Final: 17

# Moto Heats	1/8 Finals	¼ Finals	½ Finals	Final
1	-	-	-	Drop 1 rider
2	-	-	-	One 8 Rider
3 - 4	-	-	Two 8 Rider	A & B Finals of 8 riders each
5 – 8	-	Four 8 Rider	Two 8 Rider	A & B Finals of 8 riders each
9 or more	Eight 8 Rider	Four 8 Rider	Two 8 Rider	A & B Finals of 8 riders each

Appendix 4, Orange Blossom Competition Rules

The following describes the modified transfer system used for the Orange Blossom rules.
To use this rule set use a Class_Code of "ORANGE" and a Finals_Code of either "AGE" or "PRO".

Pre final motos are mixed rotation with a run-off used (if required) to determine the last places in the final. The operator determines the number of pre-final motos (typically three) by the C_Motos_Before_Finals setting.

Finals_Code = AGE.
All riders compete in all qualifying motos to determine the qualifying order for the finals.
Classes with less than 4 riders have an extra moto in the final round and the results are on points over all motos.
With classes of 7 or more entries, the top 4, 6, 8 or 10 qualifiers (depending on the number of entries in the class) transfer to deadman semi finals. The winners of each semi then compete in a 2 man "1 on 1" final for 1st and 2nd placing's.

Prior to each class's final, additional consolation races will be run for *all other competitors in that class*. The format again depends on the number of competitors in the class, but in all cases the dropout semi finalists will compete in a consolation final. Competitors who did not make the semi finals will also compete in Consolation Finals. Assuming three qualifying motos, *all riders have at least 4 races (5 in the case of finalists and semi finalists).*
Still not sure? - Here's an example.
12 competitors in a class race 3 qualifying motos. The top 8 qualifiers are divided into 2 semis. The winners of the 2 semis transfer to the 1 on 1 final, the remaining 6 riders compete in Consolation 1. The 4 riders who did not qualify for the semis compete in Consolation 2.

Note: Classes with 4, 5 or 6 competitors do not have semi finals, but *all competitors get 4 races.*
Table for final transfer format, Finals_Code of AGE.

Number of Competitors in Class	Qualifiers into Semis after 3 motos (see note 1)	One on One Expert Final	Consolation 1	Consolation 2 - n (see note 2)
4,5 or 6	N/A	Top 2 on points	2,3 or 4	N/A
7 or 8	Top 4 (2 per semi)	First from each semi	5 or 6 (see note 3)	N/A
9 or 10	Top 6 (3 per semi)	First from each semi	7 or 8 (see note 3)	N/A
11	Top 6 (3 per semi)	First from each semi	4 (see note 4)	5
12 to 16	Top 8 (4 per semi)	First from each semi	6 (see note 4)	4 to 8
17 or 18	Top 10 (5 per semi)	First from each semi	8 (see note 4)	7 or 8
19 or more	Top 10 (5 per semi)	First from each semi	8 (see note 4)	9 or more

Notes:
1. Semi final winners transfer to 1 on 1 final.
2. Only non-qualifiers compete in Consolation 2 - n.
3. For these class numbers, Consolation 1 is made up of semi final dropouts plus non-qualifiers
4. For these class numbers, only semi final dropouts compete in Consolation 1.

Finals_Code = PRO
The format for PRO classes is similar to the above, with all riders competing in all qualifying motos to determine the qualifying order for the finals. The main difference with Finals_Code of PRO is that two quarter finals will be run when the number of competitors in the class is 11 or more and only the top ten riders transfer to the finals.
NOTE: If less than 9 riders entered in the class then BEM reverts to Finals_Code of AGE rules.

Table for final transfer format, Finals_Code of PRO.

Number of Competitors	Qualifiers into two 1/4 finals (after 3 motos)	Qualifiers into two Semis	Qualifiers into 1 on 1 Final	Competitors in Consolation Final (to determine 3rd to 8th)
9 or 10	N/A	Top 6 after 3 motos	First from each semi	7 or 8
11 or 12	Top 8 (4 per 1/4)	First 2 from each 1/4	First from each semi	6 (dropouts from 1/4s)
13 or more	Top 10(5 per 1/4)	First 3 from each 1/4	First from each semi	8 (dropouts from 1/4s)

Appendix 5, Shoot Out Competition Rules

Moto 1
All Riders in the Class.
Random Draws

Gate n
Gate 2
Gate 1
Rider 1
Rider 2

Qualifiers from Moto 1

Riders not qualified from Moto 1.

Moto 2
Second chance to qualify.
Zig-zag Draws

Gate n
Gate 2
Gate 1
Rider 1
Rider 2

Qualifiers from Moto 2

Finals Qualifiers
4, 8 or 16 riders depending on class numbers (see table

Eighths
Two eight-rider finals.
Random Draws

Gate 2
Gate 1
Rider 1
Rider 2
.
.

First 4 from each Eighth transfer to Quarters.

Quarters
Two four-rider finals.
Random Draws

Gate 2
Gate 1
Rider 1
Rider 2
Rider 3
Rider 4

First 2 from each Quarter transfer to Semis.

Semis
Two two-rider finals.
Random Draws

Gate 2
Gate 1
Rider 1
Rider 2

Second placed rider from each semi.

First placed rider from each semi.

Consolation Final for 3rd and 4th in Class

Rider 1
Rider 2

Main Final for 1st and 2nd in Class

Rider 1
Rider 2

MOTO TO FINAL QUALIFICATION RULES					
Qualifiers Transfer To	Number of Riders in Class	MOTO 1		MOTO 2	
		Who Transfers	Number of Gates	Who Transfers	Number of Gates
Semi Finals	5 – 8	1st and 2nd	1	1st and 2nd	1
	9 – 10	1st	2	1st and 2nd	1
Quarter Finals	11 – 14	1st to 3rd	2	1st and 2nd	1
	15 – 16	1st and 2nd	2	1st and 2nd	2
	17 – 22	1st and 2nd	3	1st	2
Eighth Finals	23 – 24	1st to 4th	3	1st and 2nd	2
	25 – 28	1st to 3rd	4	1st and 2nd	2
	29 – 32	1st and 2nd	4	1st and 2nd	4
	33 – 34	1st and 2nd	5	1st and 2nd	3
	35 – 44	1st and 2nd	6	1st	4
	45 – 64	1st	8	1st	8

Appendix 6: Four Gate Eliminator Rules

The 4-Gate Eliminator rules cater for classes from 5 to 80 riders. There are two qualifying motos with up to eight riders in each in which riders can transfer to the next stage of the event. Riders qualifying from moto 1 do not compete in moto 2. Starting lane allocation in the qualifying motos is by random computer selection.

Riders are seeded based on ranking to each qualifying moto and to each subsequent stage of the event.

The next stage in the Shootout after the qualifying motos depends on the numbers in the class and can be a Final, Semi Final, Quarter Final or Eighth Final. Refer to the table for detailed information.

Each Quarter Final and Eighth Final has four riders competing with the first and second placed riders transferring to the next stage of the event and the third and fourth placed riders being eliminated.

With the exception of a class with 5 – 8 riders where a single final is held, riders placed 1st and 2nd in each semi final compete for overall places 1 to 4 in the A final and riders placed 3rd and 4th compete for overall places 5 to 8 in the B final.

Riders in each race after the qualifying motos choose their starting lane with the highest ranked rider in each group having first choice.

	4-GATE ELIMINATOR SHOOTOUT MOTO TO FINAL QUALIFICATION RULES				
Number of Riders in Class	**MOTO 1**		**MOTO 2**		
	Who Transfers	**Number of Gates**	**Who Transfers**	**Number of Gates**	**Qualifiers Transfer To**
5 – 8	1st & 2nd	1	1st & 2nd	1	A Final
9 – 10	1st & 2nd	2	1st to 4th	1	2 by Four Rider Semi Finals
11 – 14	1st to 3rd	2	1st & 2nd	1	
15 – 16	1st & 2nd	2	1st & 2nd	2	
17 – 22	1st & 2nd	3	1st	2	
23 – 24	1st to 4th	3	1st & 2nd	2	4 by Four Rider Quarter Finals
25 – 28	1st to 3rd	4	1st & 2nd	2	
29 – 32	1st & 2nd	4	1st & 2nd	4	
33 – 34	1st & 2nd	5	1st & 2nd	3	
35 – 44	1st & 2nd	6	1st	4	
45 – 64	1st & 2nd	8	1st & 2nd	8	8 by Four Rider Eighth Finals
65 - 80	1st	14	1st & 2nd	9	

Four Gate Eliminator Rules

Moto 1
All Riders in the Class.
Seeded on Ranking.

Gate n
Gate 2
Gate 1
Rider 1
Rider 2
.
.

Qualifiers
from Moto 1

Riders not
qualified from
Moto 1.

Moto 2
Second chance to qualify.
Seeded on Ranking.

Gate n
Gate 2
Gate 1
Rider 1
Rider 2
.
.

Qualifiers
from
Moto 2

Finals Qualifiers
4, 8, 16 or 32 riders depending on class numbers (see table

Eighths
Eight four-rider finals
Seeded on Ranking

Gate 8
Gate 1
Rider 1
Rider 2
Rider 3
Rider 4

First 2 from
each Eighth
transfer to
Quarters.

Quarters
Four four-rider finals.
Seeded on Ranking

Gate 4
Gate 1
Rider 1
Rider 2
Rider 3
Rider 4

First 2 from
each Quarter
transfer to
Semis.

Semis
Two four-rider finals.
Seeded on Ranking

Gate 2
Gate 1
Rider 1
Rider 2
Rider 3
Rider 4

3rd & 4th from
each semi.

1st & 2nd from
each semi.

B Final
for 5th to 8th
in Class

Rider 1
Rider 2
Rider 3
Rider 4

A Final
for 1st to 4th
in Class

Rider 1
Rider 2
Rider 3
Rider 4

4-GATE ELIMINATOR MOTO TO FINAL QUALIFICATION RULES					
Number of Riders in Class	**MOTO 1**		**MOTO 2**		
	Who Transfers	**Number of Gates**	**Who Transfers**	**Number of Gates**	**Qualifiers Transfer To**
5 – 8	1st & 2nd	1	1st & 2nd	1	A Final
9 – 10	1st & 2nd	2	1st to 4th	1	2 by Four Rider Semi Finals
11 – 14	1st to 3rd	2	1st & 2nd	1	
15 – 16	1st & 2nd	2	1st & 2nd	2	
17 – 22	1st & 2nd	3	1st	2	
23 – 24	1st to 4th	3	1st & 2nd	2	4 by Four Rider Quarter Finals
25 – 28	1st to 3rd	4	1st & 2nd	2	
29 – 32	1st & 2nd	4	1st & 2nd	4	
33 – 34	1st & 2nd	5	1st & 2nd	3	
35 – 44	1st & 2nd	6	1st	4	
45 – 64	1st & 2nd	8	1st & 2nd	8	8 by Four Rider Eighth Finals
65 - 80	1st	14	1st & 2nd	9	

Appendix 7, BSX Transfer Rules

Seeding after the Time Trial								
Class Entries	32 or more		16 to 31		8 to 15		4 to 7	3
Transfer	Top 32		Top 16		Top 8		Top 4	Top 2 (A Final)

1/16 Final

1	17
9	25
5	21
13	29
3	19
11	27
7	23
15	31
2	18
10	26
6	22
14	30
4	20
12	28
8	24
16	32

1/8 Final

1	9
5	13
3	11
7	15
2	10
6	14
4	12
8	16

1/4 Final

1	5
3	7
2	6
4	8

1/2 Final

1	3
2	4

Finals

1	2	A Final
3	4	B Final

BSX Rules Transfer Table