

## Framework changes between version 1 and version 2

The following table summarizes the changes in v2. Following this table, the changes in v2 are shown in 'redline' format.

### TABLE OF V2 CHANGES

Section	Summary of change
1.B.	Added advice to ringing software developers not to hard-code the Framework's definitions and requirements. Related to the removal of statements in 4.D.1 – 4.D.5 that classification of jump changes may be changed in a future version of the Framework
1.C.	Added high-level statement on the purpose of the Reporting section and the norms approach
3.A.1.	'Concepts' felt to be better than 'terms'
3.B.1.	Make explicit in the top line that bells in a row are numbered consecutively
3.B.1.	Bells are 'usually' numbered in descending order of pitch. Nothing breaks in the Framework if this isn't the case
3.K.1.	Band is now a defined term, so added cross reference to the definition
4.A.1.	Move reference to classification diagram to the top line
4.A.1.	New version of classification chart (previous one used different shapes without explaining why)
4.A.5.	Definition of Path updated to handle repeating paths, and to define when paths are considered to be the same. Path diagram added
4.A.6.	Tidy up example and further explanation for Little Path
4.A.16.	Cross section -- expand the further explanation to give additional context
4.A.17.	Move the definition of Rotation from 5.A.4 to 4.A.17 so that this term is defined before it is used. Expand the definition so that it covers both verb and noun usage of rotation
4.A.18.	Move the definition of Cycle of Working Bells from Appendix D.A.1 to 4.A.18 and make this a generic definition of cycle (i.e. not just working bells). This allows us to explain in 4.C.1 that certain method classes are based on the cycles present
4.C.1.	Added this explanatory section, which also includes the minor cycles chart

4.D.1, 4.D.2, 4.D.3, 4.D.4, 4.D.5.	Removed the further explanations saying that the classification of jump changes may be changed in a future version of the Framework. This is now covered by the statement added to 1.B saying the Framework is a living document
4.E.2.	Added 'if any'. This covers the scenario (previously missing) where a hunter has jump changes and so the method classes in 4.D don't apply. Also added a clause with what to do if the foregoing applies.
5.A.4.	Rotation deleted – moved to 4.A.17 so that it is defined before it is used later in section 4.
5.A.4.	Defined band – part of handling automated ringing and minimum number of humans needed to name a method
5.C.5.	Added a cross reference to the definition of rotation
5.C.8.	Added that extension naming restrictions only apply to methods with the same class descriptor (this was an omission in v1)
5.E.1.	Combined 5.E.2 into 5.E.1. Set the minimum requirement for naming a method as a QP performance (extent no longer recognized). Other tidying up and additional explanation
5.E.2.	Deleted (merged with 5.E.1.)
5.F.1.	Clarified the stages to which the Grandsire and Union titling exceptions apply (there is an unrelated Union Bob Doubles). Little Union removed from exception – this method is now established as Christ Church Little Bob
6.A.1. b)	Various corrections and improvements to wording
6.A.2.	Standardized on 'round brackets' and 'square brackets' in the Framework. Round brackets are used in this section and in 6.A.1. b). Round and square brackets are used in jump change notation (Appendix A.B)
6.A.3.	Defined Performance Norm
6.A.4.	Defined Ringing Style
6.A.5.	Defined Distributed Ringing
6.A.6.	Defined Simulator Ringing
6.A.7	Defined Online Ringing
6.A.8.	Defined Automated Ringing

6.B.1.	Updates for ringing style, automated ringing, name of simulator used, locations of distributed ringers
6.B.2.	Added the note of the tenor (this was missing in v1)
6.B.4.	Simulated sound disclosure deleted. Simulated sound is now the norm for simulator / online ringing
6.C.1.	Improved wording on performance norms.
6.C.2. b)	Truth vs Accepted truth explained in further explanation
6.C.2. c)	Explained 'without interval' in the further explanation
6.C.2. h) and i)	Tower bell and handbell norms deleted as these are now covered by the requirement to include ringing style in the performance report - 6.B.1. a)
6.C.2. h)	Norm is simulated sound if the name of a ringing simulator or online platform is included in the performance report per 6.B.1. d)
6.C.2. l)	Improved wording (especially 'change' instead of 'row')
6.C.2. n)	Added norm and further explanation that the performance was not part of a failed longer attempt (to handle the Adelaide situation)
6.C.2. o)	Improved wording and added examples
7.A.2.	Record lengths now need to follow all norms. In v1, only 6.C.2 a) – i) needed to be followed. Viewed as a simplification step
9.E.2.	Rewording of the section on the CC analysis of performances to cover ringing styles, and online and automated performances
A.A.5.	Added a further explanation that internal places are never omitted in place notation, even when they could be inferred
A.A.7.	This section now only refers to comma notation of a sequence of place notations. Previously the &n+m form was also included. Comma notation now appears to be well established as the standard notation
A.A.8.	Deleted - this section previously introduced place notation for jump changes. Appendix A.B now covers this topic fully
A.B.	New section covering place notation for jump changes
C.A.1.	Added a constraint for the use of Grandsire leadhead codes -- that the two hunt bells have the same path
C.F.	New section covering the alternative +/- leadhead code system

D.A.1.	Deleted – definition of cycle of working bells. This is now covered in the new definition of Cycle in 4.A.18
F.	New page showing table and explanation of groups of false courseheads
xref	<a href="https://tjbarnes23.github.io/method_ringing_framework/xref.html">https://tjbarnes23.github.io/method_ringing_framework/xref.html</a> This page is not available from the Framework menus, but can be accessed by typing in the URL. Cross references page updated for changes made in v2

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## V2 CHANGES IN 'REDLINE' FORMAT

### 1.B.

A hardcopy version of the framework is available [here](#), and a hardcopy version of the appendices is available [here](#) (both in pdf format).

The framework is a living document. Its aim is to capture the current essence of method ringing practice, and as that practice evolves, so too will the framework.

Developers of software that embeds any aspect of the framework (such as method classification or method extension) may wish to consider how their software would handle subsequent changes to the framework.

### 1.C.

Section 6 gives best practices for reporting method ringing performances (notably reporting in The Ringing World and on BellBoard), with the objective of avoiding ambiguity and making explicit anything of significance that would not reasonably be assumed.

### 3.A.1 Stage

A property of several method ringing termsconcepts that indicates the number of bells participating.

Further explanation: Stage applies to the following method ringing termsconcepts: Rows, Changes, Blocks, Methods and Compositions.

The application of Stage to each of these termsconcepts will be covered below in the 'Further explanation' sections of the definitions of these termsconcepts. In addition, click [here](#) for an overview of all aspects of Stage.

### 3.B.1 Row

A sequence of numbered bells in which no bell appears more than once.

The bells are numbered consecutively, starting from number one.

Further explanation:

Bells are ~~uniquely~~usually numbered in descending order of pitch. Both cardinal numbers (e.g. 1, 2, 3 ...) and ordinal numbers (e.g. 1st, 2nd, 3rd ...) are used. When using cardinals, number 1 is used for the bell with the highest pitch, number 2 for the next highest pitch and so on. When using ordinals, bell number 2 becomes 'the 2nd', bell number 3 becomes 'the 3rd', and so on. However, bell number 1 is usually referred to as 'the treble' rather than 'the 1st', and the bell with the lowest pitch is usually referred to as 'the tenor' rather than the corresponding ordinal.

### 3.K.1 Performance

The successful ringing of a Touch where the Band strives to maintain a high standard of ringing, and errors in ringing or calling are corrected quickly.

Further explanation: Band is defined in Section 5.A.4.

### 4.A.1. Method Class

A group of Methods that contain the same, defined features. Click here for a diagram that shows the Method Classes and the relationships between them. These classes are defined in Sections 4.C to 4.E below, except that Static Method and Dynamic Method are defined in Section 3.E.

Further explanation: ~~Click here for a diagram that shows how Methods are classified. The terms used in the diagram are all defined below.~~

Note that ~~there is currently no further classification of~~ Dynamic Methods are not currently sub-classified to lower levels.

### 4.A.5. Path

The ~~sequence~~movements of a bell between its successive Places ~~that a given bell occupies as it progresses through in~~ the Rows of a Block ~~in question.~~

Where a Path ends in the same Place as it started, it is considered to be a loop, and these two Places coincide and are only counted once.

Two such Paths are considered equal if the first Path can be started from a Place that gives the second Path.

Example:

~~Further explanation: The Block in question when referring to a Path is often a Plain Lead or a Plain Course of a Method.~~

A Path is ~~often highlighted~~commonly depicted by drawing a line through the bell in question.

The treble's Path is ~~shown this way using~~depicted with a red line in the example in Section 4.A.2 above.

Since this Path starts and ends in the same Place (1st's), it is considered to be a loop, and the Path therefore comprises 8 Places.

Further explanation: Consider the following two Paths, which are both loops:

The numbers in the diagram above represent the Places through which the Paths pass.

These two Paths are considered to be the same because starting Path 1 from its second Place gives Path 2.

#### 4.A.6. Little Path

A Path which does not involve occupying all the Places of the Stage of a Block ~~in question~~.

~~Further explanation: The Block in question when referring to a Little Path is often a Plain Lead or a Plain Course of a Method.~~

Example: See the example of a Little Path in Section 4.D.6 below.

Further explanation: A Little Path is most commonly used in reference to a Hunt Bell. For example, the Hunt Bell Path in Little Bob Minor is a Little Path. However, a Little Path can also be used with Working Bells. For example, 2nd's Place Bell in Bristol Surprise Major can be said to be a Little Path, and all the Working Bells in Magenta Little Place Maximus have Little Paths over the full Plain Course (and its Hunt Bells also all have Little Paths).

Note that a Stationary Bell has a Little Path.

#### 4.A.16. Cross Section

A Change at which the Hunt Bell in question crosses from one pair of Dodging Places to the next.

Further explanation: Cross Sections are used in the classification of Treble Dodging Methods -- see Sections 4.D.2.1, 4.D.2.2 and 4.D.2.3 below.

In a Method with more than one Hunt Bell, the Cross Sections may be defined by only a subset of the Hunt Bells -- see Section 4.E.4 below.

Example: In a ~~Path where the~~ Method with one Hunt Bell that moves between 1st's Place and 6th's Place, since the Dodging Places are 1-2, 3-4 and 5-6, the Cross Sections are the Changes that cause the Hunt Bell ~~in question~~ to:

- (1) move from 2nd's Place to 3rd's Place;
- (2) move from 4th's Place to 5th's Place;
- (3) move from 5th's Place to 4th's Place; and
- (4) move from 3rd's Place to 2nd's Place.

#### 4.A.17. Rotation

A sequence of Changes can be rotated by considering it as a loop, and starting it at a different point. This process is called Rotation. By using this process on the Changes of a Static Method, other Static Methods can be produced that are Rotations of the original Static Method.

Example: The Method Plain Bob Minimus has the Changes x14x14x14x12. The Static Method with the Changes x14x12x14x14 is a Rotation of Plain Bob Minimus.

#### 4.A.18. Cycle

A Cycle is a set of one or more bells that follow the same Path and return to their starting Places after the same number of Plain Leads. This number of Plain Leads is the same as the number of bells in the Cycle.

Where a Cycle is made up of two or more bells, the bells successively occupy each other's Places at the Leadheads of a Method's Plain Course, and these bells are Working Bells.

Where a Cycle is made up of one bell, this bell is a Hunt Bell.

Further explanation: See the examples in Sections 4.D. The Method Differential Differential Bob Minor has the Leadheads:

132645, 123564, 132456, 123645, 132564 and 123456.

It can be seen that bells 2, 1, 4, D.2.2 and 4.D.2.3 below occupy each other's Places at the Leadheads, and bells 4, 5 and 6 do the same. The treble is a Hunt Bell. This Method therefore has three Cycles: one with one bell, one with two bells, and one with three bells.

#### 4.C.1.

The first three Classes below are based on the Cycles present in a Method. Click here for a table that shows all the possible combinations of Cycles at the Minor Stage, and gives examples of corresponding Methods where available.

#### 4.D.1.

Further explanation

~~The exclusion of Methods with Jump Changes from the Plain Class may be changed in a subsequent version of the framework once further consideration has been given to how such Methods should fit into the classification system.~~

#### 4.D.2.

Further explanation

~~The exclusion of Methods with Jump Changes from the Treble Dodging Class may be changed in a subsequent version of the framework once further consideration has been given to how such Methods should fit into the classification system.~~

#### 4.D.3.

Further explanation

~~The exclusion of Methods with Jump Changes from the Treble Place Class may be changed in a subsequent version of the framework once further consideration has been given to how such Methods should fit into the classification system.~~

#### 4.D.4.

Further explanation

~~The exclusion of Methods with Jump Changes from the Alliance Class may be changed in a subsequent version of the framework once further consideration has been given to how such Methods should fit into the classification system.~~

#### 4.D.5.

Further explanation

~~The exclusion of Methods with Jump Changes from the Hybrid Class may be changed in a subsequent version of the framework once further consideration has been given to how such Methods should fit into the classification system.~~

#### 4.E.2.

~~If the Path(s) of the Hunt Bell(s) of the first Method Class found in Section 4.E.1 above all, if any, all meet the definition of a Little Method per Section 4.D.6 above, then the Hunter is classified as a Little Method.~~

~~If no Method Class was found in Section 4.E.1 above, then if the Paths of all the Hunt Bells meet the definition of a Little Method per Section 4.D.6 above, then the Hunter is classified as a Little Method.~~

#### ~~5.A.4. Rotation~~

~~A Static Method whose Changes are the same as another Static Method, except that the Changes, when considered as a cycle, start at a different point in the cycle.~~

~~Example: The Method Plain Bob Minimus has the Changes x14x14x14x12. The Static Method with the Changes x14x12x14x14 is a Rotation of Plain Bob Minimus.~~

~~Further explanation: More fully, this term would be 'Method Rotation' to distinguish it from other uses of rotation in method ringing, such as a rotated Block or a rotated Composition.~~

#### 5.A.4. Band



One or more human ringers ringing some or all of the bells (or simulated bells) in a Performance.

5.C.5.

Further explanation: Rotation is defined in Section 4.A.17. When using a Static Method's sequence of Changes to produce Rows, the Changes may be used starting and finishing at any point in the sequence. For this reason, a Rotation of an existing Static Method is not usually separately named, because the same Changes can be produced by starting and finishing the existing Static Method at a different point in its sequence of Changes.

5.C.7.

Further explanation:

(i) Both Methods have the same place notation above the Hunt Bell (or two or more Coursing Hunt Bells -- see Appendix D.A.32);

5.C.8.

A Method should only be given the same Name as another Method in the Methods Library that has the same Class Descriptor but a different Stage if the requirements for Method Extension are met.

5.E.1.

An unnamed Method or Variation may be named by the Band that first rings it in a Performance that is reported by the Ringing World, providing:

a) The Performance ~~is either~~was at least a Quarter Peal ~~or contains an Extent of the Method~~in Length;

b) The Performance ~~is~~was a ~~True~~-Round Block that started and ended in Rounds;

c) The Performance was a True Touch, or a ~~Round Block~~Touch with Accepted Truth;

d) In the case of a Variation, the Performance contained an Extent of the Variation;

e) The Name does not conflict with any of the requirements of this Section 5 (Method Naming) or Section 8 (Method Extension); and

~~d~~f) The Composition used is included in the Performance Report.

Further explanation: 'Reported by the Ringing World' includes in print and/or on BellBoard.

For item c), note that Accepted Truth encompasses True. See Section 3.J for definitions of these terms.

When naming a Variation, the Stage of the Extent is the same as the Stage of the Variation. The Rows of the Extent may appear anywhere in the Performance - the Extent of the Variation does not have to be rung as a contiguous Block.

The Composition should be added to the published Performance on BellBoard but does not need to be published in The Ringing World journal.

Compositions may be described in any form that makes it clear what was rung. E.g. ~~PPPB \* 3 for an Extent of Doubles, '2 extents each called~~ WHW \* ~~33'~~ for ~~an Extent a 1440~~ of Treble Dodging Minor, or by reference to Composition Library or other online or printed collection.

When naming a Method, it is expected that the Performance contained enough Changes to define the Method uniquely - at least one Plain Lead. However, there may be circumstances where a Band can justify naming a new Method when not all its Changes have been rung, therefore the Framework does not specify a minimum.

Note that any Ringing Style (see Section 6.A.4) can be used in a Performance to name a new Method.

~~Technical comment: When naming a new Method by ringing an Extent, the Stage of the Extent rung is no lower than the Stage of the Method.~~

~~2.~~

~~An unnamed Variation may be named by the band that first rings it in a Performance that is reported by the any Ringing World, providing:~~

- ~~a) The Performance contains an Extent of the Variation;~~
- ~~b) The Performance is a True Round Block, or a Round Block with Accepted Truth;~~
- ~~c) The Name does not conflict with any of the requirements of this Style (see Section 5 (Method Naming) or Section 8 (Method Extension)); and~~
- ~~d) The Composition 6.A.4) can be used is included in the report.~~

~~Further explanation: 'Reported by the Ringing World' includes in print and/or on BellBoard.~~

~~The Composition should be added to the published Performance on BellBoard but does not need to be published in The Ringing World journal.~~

~~Compositions may be described in any form that makes it clear what was rung.~~

~~Technical comment: When naming a new Variation, the Stage of the Extent rung is no lower than the Stage of the Variation.~~

5.F.1.

By convention, the Class Descriptor is omitted from the Method Titles of the following Methods that are classified as either Bob, Little Bob or Place Methods:

- a) Grandsire, Double Grandsire, Reverse Grandsire, and Little Grandsire, at all Stages;
- b) Union, Double Union, and Reverse Union, Little Union; at Stages of Minor and higher.

#### 6.A.1. b)

The number of Changes in the Performance;

'Variable Cover' if the Performance ~~included~~was of a Variable Cover Composition (see Section 3.H.2);

'Spliced' if the Performance ~~included~~was of a Spliced Composition (see Section 3.G.2);

Optionally, 'Mixed' if the Performance included more than one Method / Variation, but ~~is~~was not ~~'Spliced'~~of a Spliced Composition;

The components of the Class Descriptor if Descriptors of the Methods rung that are common to all Methods in the Performance ~~all have, if any, stated in~~ the same ~~Class Descriptor~~order as given in 5.B.1;

Optionally, 'Plain' can be included if the Methods / Variations rung in the Performance do not all have the same Class Descriptor, but are all members of the Plain Class of Methods. 'Plain' is included in the same position as Bob and Place in 5.B.1;

Optionally, 'Treble Dodging' can be included if the Methods rung in the Performance do not all have the same Class Descriptor, but are all members of the Treble Dodging Class of Methods. 'Treble Dodging' is included in the same position as Treble Bob, Surprise and Delight in 5.B.1;

The Stage Name(s) of the Methods / Variations rung in the Performance, listed in order of lowest Stage to highest Stage, with a comma inserted between Stage Names, except for the last pair of Stage Names which instead have 'and' inserted between them;

Optionally, and in round brackets, the number of Methods / Variations rung in the Performance (if not included here, this information goes at the beginning of the Performance Detail -- see Section 6.A.2).

#### 6.A.2.

Examples: (6<sup>th</sup> example)

Performance Title: 5000 Spliced Royal (8m)

Performance Detail: 800 each Dr No Diff S, Kananga S, Zorin S; 640 Largo A; 600 Jaws LA; 560 each Drax LA, Elektra A; 240 Nick Nack Diff; 139 com; atw

In this example the Methods rung do not have the same Class Descriptor, and they are not all either Plain or Treble Dodging Methods. Therefore no Class Descriptor is used in the Performance Title, and the Method Names and Class Descriptors are included in the Performance Detail. In this example, abbreviations for Class Descriptors have been used (Diff S for Differential Surprise, LA for Little Alliance, etc), and the number of methods rung has been included in round brackets at the end of the Performance Title, rather than at the beginning of the Performance Detail.

#### 6.A.3. Performance Norm

An aspect of a Performance that would reasonably be assumed unless stated otherwise.

#### 6.A.4. Ringing Style

One of the following styles in which method ringing can be performed:

a) Towerbell style: Full-circle ringing with rope and wheel, using handstroke and backstroke actions;

b) Handbell style: Alternating upstrokes and downstrokes – usually upstrokes for handstrokes and downstrokes for backstrokes;

c) Keyboard style: Bells sound via presses on a keyboard, such as with Online Ringing (see Section 6.A.7) or a carillon);

d) Other style: To be specified in Performance Reports, such as ringing on the frame or tapping bells;

e) Mixed style: More than one of the above styles were used in a Performance.

#### 6.A.5. Distributed Ringing

Ringling in which the ringers were not all present in the same location.

#### 6.A.6. Simulator Ringing

Ringling that involves the use of, or takes place via, a computer-based ringing simulator.

Further explanation: The minimum involvement of a simulator is typically to electronically generate bell sounds when ringing real bells whose clappers are tied (e.g. for sound control purposes). This extends up to the simulator providing a simulation of a full ringing environment (e.g. visual and aural aspects), and possibly also simulating one or more of the ringers.

#### 6.A.7. Online Ringing

A subset of Simulator Ringing that takes place over a computer network.

Further explanation: Online Ringing often occurs with the ringers in different locations, in which case it is also Distributed Ringing. However, Online Ringing can also occur with all ringers in the same location, such as when a group of ringers, each with a laptop and headset, ring on a simulator such as 'Ringing Room' while all in the same room.

#### 6.A.8. Automated Ringing

Ringling in which the sounds of one or more bells were controlled, by whatever means, without human action.

Example: Automated Ringing occurs when a bell strikes at a time determined by a computer program.

Further explanation: Note that fully automated ringing (i.e. with no human ringers) is not considered a reportable Performance under the framework.

#### 6.B.1.

A Performance Report should include the following:

- a) The Ringling Style used;
- b) Whether any Automated Ringing was used;
- c) The Location where the Performance was rung; (not applicable for Distributed Ringing);
- ~~b~~d) In the case of Simulator Ringing / Online Ringing, the name of the ringing simulator that was used to facilitate the ringing;
- e) The date on which the Performance was rung;
- ~~e~~f) The Performance Title;
- ~~d~~g) The Performance Detail;
- ~~e~~) Whether the Performance was on tower bells (bells rung full-circle-style), or on handbells;
- ~~f~~h) The names of the ringers in the Performance and the number(s) of the bell(s) each rang; (and in the case of Automated Ringing, make clear which bells were not rung by human ringers);
- ~~g~~i) In the case of Distributed Ringing, the approximate location of each ringer;
- j) The names of any umpire(s) present.

Further explanation: In the case of Mixed Style for a), the Performance Report should include the Ringing Style used for each bell.

The Location in ~~a~~c) above should be sufficient to identify unambiguously where the performance was rung, eg: St Stephen, Ambridge, Dorsetshire; Casterbridge Town Hall, Wessex; 23 Railway Cuttings, East Cheam.

In the case of a Performance on a boat or other moving object, the general location should be provided for c), with more detail provided in the footnote. E.g. Location: River Thames aboard the Ursula Katherine; Footnote: From Blackfriars Bridge to Woolwich.

For d), if other means were used to facilitate the ringing, such as a distributed band being connected via telephone conference call, this should be stated in place of the simulator name.

If a Performance spans midnight, the date in ~~b~~e) above should be the date on which the Performance ended. In this case, bands may wish to include the start date (and perhaps the start or end time) in the footnote of the Performance Report.

In practice, the distinction in e) normally comes from separate reporting forms (For Distributed Ringing, the approximate location of each ringer in i) might be given as town / city, and county / state / country, as applicable.

E.g. on BellBoard) for handbells (2 bells per ringer) and tower bells (1 bell per ringer). However, if, for example, a handbell Performance was rung with 1 bell per ringer, this might look like a tower bell Performance on BellBoard, so e) gives the requirement to footnote that such a Performance was, in fact, rung in hand.

A Performance Report may also include additional information such as:

- a) The society for which the Performance was rung;
- b) Details of the Composition used in the Performance, or a reference to it;
- c) The name(s) of the composer(s);
- d) The time the Performance took to ring;
- e) The weight and note of the tenor ~~for tower bell (full circle style) ringing, (towerbells)~~ or the size and note of the tenor ~~for handbell ringing, (handbells)~~; and/or
- f) Dedications and other footnotes.

Further explanation: Inclusion of the Composition per b) above is encouraged in all Performance Reports. Ideally the reader of a Performance Report should have enough information to be able to reproduce the Rows that were rung.

Time per d) above is encouraged for all Lengths, and should be included for Peal Lengths.

Where applicable, tenor weight ~~or~~/ size and note per e) above is encouraged for all Lengths, and should be included for Peal Lengths. Tenor weight / size is normally not applicable for Online Ringing and/or ringing with dummy bells.

#### ~~6.B.4.~~

~~The report of a Performance that used simulated sound must state that it did.~~

#### 6.C.1.

A Performance Report should state any aspect of the Performance that ~~does~~ differed from a Performance Norm. Established Performance Norms are listed below, but the report should include any other aspect of the Performance that would not comply with the following norms, which will reasonably be assumed ~~unless otherwise stated, and could be expected to alter some ringers' view of it.~~

#### 6.C.2.

The following are considered Norms for all reported Performances:

- a) The Performance was a Round Block that started and ended in Rounds;
- b) The Performance was a True Touch, or a Touch with Accepted Truth ~~(as defined in Section 3.J)~~;
- c) The Performance was rung without interval;
- d) For Performances using Handbell Style (see Section 6.A.4), ~~On handbells~~ the bells were retained in hand throughout the Performance;
- e) The same person or persons rang each bell or bells continuously throughout the Performance;
- f) Neither ringers nor conductor(s) used any physical aids to memory during the Performance;

g) No person not ringing provided any assistance in the execution of the ringing during the Performance, e.g. making calls, detecting or correcting errors;

~~h) Tower bells (or simulations thereof) were rung full circle style (alternating 'handstrokes' and 'backstrokes');~~

~~i) Handbells (or simulations thereof) were rung in alternating up-strokes ('handstrokes') and down-strokes ('backstrokes');~~

~~j) If the name of a ringing simulator is included in the Performance Report per 6.B.1 d), the norm is that simulated sound was used.~~

~~If a ringing simulator is not included, the norm is that simulated sound was not used;~~

~~i) In any given Row of the Performance, all bells rang at the same stroke (i.e. all handstroke or all backstroke);~~

~~k) If Cover Bell(s) were used, these were in the highest Place(s) of the Rows;~~

~~l) Jump Changes were not used;~~

~~m) Only one Method  $\frac{1}{2}$  Variation or Call was rung in used to define any one Row Change in the Performance;~~

~~n) A Performance with only one ringer was witnessed by an umpire;~~

~~o) The Performance was not part of a failed longer attempt; and~~

~~p) The Performance was consistent with the can be described using this Framework.~~

Further Explanation: For norm b), note that Accepted Truth encompasses True. See Section 3.J for definitions of these terms.

For norm c), the ethos of ringing is one of continuous performance. In the tower there is a clear distinction - the ringing either keeps going or it stops. But with handbell and keypress performances, and especially Distributed Ringing with keypresses, extended pauses are physically possible despite the ringers not intentionally stopping and re-starting. Rather than attempt to define a cutoff time, the Framework relies on the good judgement of the band in applying this norm.

For norm g), assistance such as passing someone a bottle of water, opening a window, or turning on a light is not considered assistance in the execution of the ringing.

For norm ~~k~~, if Methods with Jump Changes were used, this will be evident from 6.B.1 ~~e~~f) or ~~d~~g) above, since these Methods include 'Jump' in their Titles. Therefore disclosure relating to Jump Changes is only required if Jump Calls (i.e. Calls involving Jump Changes) or Variations with Jump Changes were used, but Jump Methods (i.e. Methods involving Jump Changes) were not. (Note that Variations don't use Class Descriptors, so a Variation with Jump Changes won't have 'Jump' in its Title.)

Re: norm l), a 12-bell Performance could involve two Minor Methods rung on the front 6 and back 6 bells respectively. This is an example of a departure from norm l), and explanation should be provided in the footnotes.

For norm ~~m~~, one person could (e.g.) ring a Performance of Minimus four in hand. The umpire provides corroboration that the Performance took place as reported. Note that if this norm is not followed (i.e.

no umpire was present for a single person performance), this will be evident from 6.B.1 ~~fh~~) and ~~gi~~) above, so in practice no further disclosure is required.

For norm n), if, for example, an attempt to ring 7 Extents of Minor was lost in the 5th extent, the first 4 Extents are not normally considered to constitute a successful Performance. Similarly, if 7 Extents of Minor are rung but the 1st Extent is found to be false, the last 6 Extents are not normally considered to constitute a successful Performance. However, norm n) does not apply to Performances that were called round earlier than was intended at the outset of the attempt. It also does not apply to false starts, or to anything rung before or after the intended Performance.

Re: norm o), a Performance might start in the middle of a Row, or different Rows in a Performance might involve different numbers of bells ringing. These are examples of departures from norm o), and explanation should be provided in the footnotes.

## 7.A.2.

~~The Performance must also comply with~~All the norms ~~a) to i)~~listed in Section 6.C.2 apply to the Performance.

## 9.E.2.

The exact form of the analysis is determined by those preparing it, but will ~~separately categorise:~~

~~a) likely include categorisations of~~ Performances ~~of by:~~

~~a) The different Lengths defined in Section 3.I;~~

~~b) Tower bell and handbell Performances;~~

~~b) The different Ringing Styles defined in Section 6.A.4;~~

~~c) Performances that differed from one~~Whether or ~~more of not~~ the ringing was Distributed and/or Online as defined in Sections 6.A.5 and 6.A.6;

~~d) Whether or not the ringing was Automated as defined in Section 6.A.7;~~

~~e) Whether or not the ringing followed~~ the Performance Norms ~~listed as defined~~ in Section 6.C.2;

~~d) Performances that used simulated sound.~~

## Appendix A. Place Notation

### A.A. Adjacent and Identity Changes

## A.A.5.

Examples: With 6 bells, the Change 14 can be abbreviated to 4.

With 7 bells, the Change 147 can be abbreviated to 4.



With 8 bells, the Change 1458 can be abbreviated to 45.

With 12 bells, the Change 1T can be abbreviated to 1 or ~~to~~ T.

Further explanation: Note that, by convention, internal Places are never abbreviated, even when it would still be clear what the full Change is.

For example, the 7-bell Change 12347 could be abbreviated to 24, and 3rd's Place, as well as 1st's Place and 7th's Place, could all be inferred. However, by convention, this Change is only abbreviated to 234 -- internal Places are always specified.

A.A.7.

Many Methods have a sequence of Changes that takes the form A, B, ~A, C, where A is a sequence of Changes, ~A is the same sequence of Changes as A but in reverse order, and B and C are individual Changes. These methods have Palindromic Symmetry (see Section 4.B.1).

~~There are various ways in which this can be represented in abbreviated form~~ As an alternative to avoid writing out ~~notating the sequence in full place, comma notation-~~ can be used as follows to save space:

~~Further explanation: Consider~~ Where two sequences of Changes are separated by a comma, this indicates that each of these sequences is to be interpreted as a palindrome and expanded as follows: When the last Change in the sequence is reached, the Changes are then repeated in the reverse order starting with the penultimate Change, if any.

Where there is only a single Change on either side of the comma, there is no penultimate change as described above, and therefore nothing to expand. The single Change is therefore incorporated without adjustment.

A method with a sequence of Changes of the form A, B, ~A, C can therefore be notated: AB,C

Example: Canterbury Little Bob Minor, ~~which~~ has a full place notation of 34.16x14x16.34.12.

This sequence takes the form A, B, ~A, C where:

A = 34.16x so ~A = x16.34. ~~B = 14. C = 12.~~

B = 14

C = 12 ~~This might~~

Canterbury Little Bob Minor can therefore be written & notated: 34.16x14,12

Further explanation: +12. The & indicates that ~~In some Methods, the string following it, up to the + symbol, should be expanded into A, B, ~A, where B is the last change in left of the comma, and the longer sequence (i.e. 14), and A is to the sequence excluding right.~~

For example, Grandsire Doubles can be notated: 3,1.5.1.5.1

This expands to: 3.1.5.1.5.1.5.1.5.1

If the last change. The + symbol indicates that sequences of Changes on both sides of the C change (12) is added at the end, comma are greater than one Change in length, then both sides should be expanded.

Another form is 34.16x14,12. Here any sequence of place notations greater than one Change in length is assumed to expand in the same form as the & operator above. An individual change, as shown after the comma, is appended to the end of the expanded sequence in the same way as the + operator above.

Technical comment: See 8. below for an additional consideration on how ~A applies when Jump Changes are used.

For example, Carter Singles can be notated: 3.3.1,1.3.3.3

This expands to: 3.3.1.3.3.1.3.3.3.3.1

## A.A.8.

Extended place notation is required to describe Jump Changes. There is not yet a standard form of extended place notation though several forms have been proposed.

Example: The Change from Row 2143658709 to Row 2134586790 can be represented as 12(675)8.

Further explanation: A bracketed section can be included within a place notation that contains the transposition of an adjacent set of places within a Row. Places outside the brackets follow the normal place notation rules.

When a Method has the structure A, B, ~A, C as described in 7. above, there is an additional consideration when Jump Changes are involved. Adjacent Changes are self-inverse, meaning that the same Change applied twice in succession brings you back to the initial Row. However this may not apply to Jump Changes. Therefore if a Method with Jump Changes has a structure including ~A, not only are the Changes in ~A in reverse order, but any Jump Changes in A are inverted in ~A. For example, if A includes the Change 12(675)8, then in ~A that Change will be 12(756)8.

## A.B. Jump Changes

### A.B.1.

Additional notation is required to describe Jump Changes, as follows.

### A.B.2.

A pair of Places enclosed in round brackets indicates that the bell in the first of these Places jumps to the second of these Places in the next Row. The rest of the bells in the span of Places within the round brackets each move by one Place to accommodate the jump.

Examples: (14) indicates that the bell in 1st's Place jumps to 4th's Place in the next Row. The bells currently in 2nd's, 3rd's and 4th's Places each move down a Place in the next Row.

So, (14) would take Row 1234 to Row 2341.

Similarly, (41) would take Row 2143 to Row 3214.

Further explanation: The two Places enclosed in round brackets are at least two Places apart.

#### A.B.3.

A contiguous set of Places enclosed in square brackets indicates how the bells in these Places are transposed from one Row to the next.

Examples: [3412] indicates that the bells in the current Row are "read" in the order 3rd's Place, 4th's Place, 1st's Place, 2nd's Place in order to generate the next Row.

So, [3412] would take Row 2143 to Row 4321.

Similarly, [4321] would take Row 1324 to Row 4231.

Further explanation: The set of Places enclosed in square brackets comprises at least three Places, and these Places are contiguous -- i.e. they comprise a set of Places that form an adjacent set.

#### A.B.4.

Where the bracketed notations (round or square) don't account for all Places in a Change, standard place notation conventions apply. I.e. remaining pairs of bells cross, and there may be inferred external Place(s).

Examples: The Minor Change (24) specifies what happens to the bells in Places 2, 3 and 4. The remaining Places are therefore 1st's, 5th's and 6th's. Following standard place notation conventions, 1st's place is Made, and the bells in 5th's and 6th's Places cross.

So, Minor Change (24) would take Row 123456 to Row 134265.

Similarly, Caters Change [6543] would take Row 214365978 to Row 125634798.

Further explanation: If desired, the full Change may be specified in square brackets, even when external Places and/or crosses could be inferred. So, the Caters Change [6543] above could also be specified as [216543879]. However, this is considered less clear to the reader, and is discouraged in Section B.7 below.

#### A.B.5.

When needed, bracketed notation may be combined with each other and/or with standard place notation to define a Change.

Where more than one instance of bracketed and/or standard place notation are used to define a Change, there should be no overlap of Place ranges or individual Places. Furthermore, and following standard place notation convention, the various Place ranges and individual Places are ordered from lowest Place to highest Place.

Examples: (13)4(75) defines the Triples Change that takes Row 1234567 to Row 2314756. Note that there is no overlap of Places in the three sections of the notation.

(14)(53) should not be used since the range of Places in the second section (3-5) overlaps with the range of Places in the first section (1-4). This Change is more clearly described as [23514].

(24)[765]8 defines the Royal Change that takes Row 1234567890 to Row 1342765809. Again, there is no overlap of Place ranges or individual Places in the notation.

(24)8[765] and [765](24)8 are not correct notations because Place ranges and individual Places are not ordered from lowest Place to highest Place. This Change should be notated (24)[765]8.

#### A.B.6.

Dot notation is used to delineate separate Jump Changes in the same way as for standard place notation. Dots are only omitted before and after the cross Change.

Also, as with standard place notation, internal Places Made are always specified, even when these could be inferred.

Examples: (13)(64) defines a single Change, whereas (13).(64) defines two Changes.

(31)4[765] correctly defines a Triples Change. Convention is to include the 4 since it's an internal Place Made, even though it could be inferred.

#### A.B.7.

Where the same Change can be represented in more than one way, it is preferable for the simplest form to be used, as follows, in order to make the Change's operation most apparent to the reader:

(i) Use standard place notation for all crosses and Places Made where other bell(s) are not jumping over these bells;

(ii) Use round-bracketed notation in preference to square bracketed notation where possible; and

(iii) Separate square bracketed notation into the smallest sets of contiguous Places.

Examples: Use [432]7 rather than [432657];

Use (25) rather than [3452];

Use [432][765] rather than [432765];

Use (24)5[876] rather than [3425876].

#### A.B.8.

Adjacent and Identity Changes are self-inverse, meaning that the same Change applied twice in succession produces the starting Row. However this may not apply to Jump Changes. Therefore, when the comma notation described in Section A.7 above is used and Jump Changes are involved, not only are the Changes in ~A in reverse order, but any Jump Changes in A are inverted in ~A.

Example: Cambridge Treble Jump Minor has notation x3x(24)x2x(35)x4x5,2

Expanding the comma notation gives  $x_3x(24)x_2x(35)x_4x_5x_4x(53)x_2x(42)x_3x_2$

Note that the Jump Changes are inverted in the second half of the Lead.

#### A.B.9.

The comma notation described in Section A.7 above should not be used if the last Change in the sequences on both sides of the comma are not self-inverse Changes. Such a Method would not have Palindromic Symmetry, and use of the comma notation would therefore be misleading. In this case, the sequence of Changes should be written in full, without the use of the comma notation.

Example: The Minimus Method with notation  $x_{14}x(13)x_{14}x_{12}$  appears to have the structure A, B,  $\sim$ A, C, where A =  $x_{14}x$ , B = (13) and C = 12.

However, (13) is not a self-inverse Change, and this Method is therefore not palindromic. The Method therefore should not be described using comma notation, and the full notation should be used.

### Appendix C. Leadhead codes

#### C.A.1.

Methods with Grandsire leadheads whose hunt bells have the same path are split into different leadhead groups according to the place notation (where n is the Stage) immediately after the leadhead as follows:

#### C.F. Alternative Leadhead Code System

##### C.F.1.

As an alternative to the letter codes shown above, Methods with Plain Bob Leadheads can be coded according to the number of Plain Leads of Plain Bob that it takes to reach the same Leadhead as it does with one Plain Lead of the Method in question.

Example 1: The first Leadhead of Cambridge Surprise Major is 15738264. This same Leadhead would be reached by ringing two Plain Leads of Plain Bob Major. Cambridge Surprise Major is therefore referred to as a "+2" Method.

Example 2: The first Leadhead of London Surprise Minor is 142635. This same Leadhead would be reached by ringing four Plain Leads of Plain Bob Minor. Going forward for four Plain Leads of Plain Bob Minor reaches the same Leadhead as going backwards for one Plain Lead, so London Surprise Minor is referred to as a "-1" method.

Pluses are used up to and including the halfway point of a Plain Course of Plain Bob, and minuses are used after the halfway point of the Plain Course. So in Minor, the codes would range from -2 to +2, in Triples the codes would range from -2 to +3, in Major the codes would range from -3 to +3, and so on.

For Plain Bob Leadhead Methods where nth's Place rather than 2nd's Place is made at the Leadend Change (where n is the Stage), the letter 'n' is added to the code.

Example 3: The first Leadhead of Bristol Surprise Major is 14263857 and Bristol S Major is an 8th's Place Leadend Method. Bristol S Major is therefore referred to as a "-1n" Method.

Methods that have one Plain Lead in their Plain Course are referred to as "+0" Methods.

Note that this alternative Leadhead code system is usually only used for Plain Bob Leadhead Methods with even Stages, and not for Plain Bob Leadhead Methods with odd Stages, nor for Grandsire Leadhead Methods.

#### C.F.2.

The following tables show the mapping between the codes shown in Appendix C.B above and the alternative Leadhead codes:

[Table added to A.F.2. not shown here.]

### Appendix D. Method Extension Processes

#### ~~D.A.1: Cycle of Working Bells~~

~~A Cycle of Working Bells is a set of bells that successively occupy each other's Places at the Leadheads of a Method's Plain Course.~~

~~Further explanation: The Method Christ Church Dublin Differential Doubles has the Leadheads: 31254, 23145, 12354, 31245, 23154 and 12345. It can be seen that bells 1, 2 and 3 occupy each other's Places at the Leadheads, and bells 4 and 5 do the same. This Method therefore has two Cycles of Working Bells—one with 3 bells and one with 2.~~

### Appendix F: False Courseheads

[This whole web page is new in v2]