USEBIO Specification Version 1.3

Contents

1.   Introduction

USEBIO XML is an acronym representing the ***Universal Standard for Exchange of Bridge Data Over XML***. It describes a data format which is used for the recording of results of bridge events by a scoring system. This can then be transmitted to other systems for the display of results and other purposes.

This document is a complete specification of USEBIO 1.3 and is designed to be understandable by someone unfamiliar with the USEBIO standard.

USEBIO 1.0

USEBIO Version 1.0 has been in use by the EBU and participating clubs since April 2010, for "Pay to Play" (P2P) and National Grading System (NGS) purposes. It has also been used in other countries.

USEBIO 1.1

USEBIO 1.1 (June 2014) added some additional features and clarified ambiguities in the earlier version. One of the drivers for these was to facilitate the grading by NGS of each pair within Teams events.

USEBIO 1.2

USEBIO 1.2 (June 2016) introduced some new features. A guiding principle has been that any file which was a valid USEBIO 1.1 file shall be a valid USEBIO 1.2 file, simply by changing the version number. There is no USEBIO requirement for any scoring system to implement any of the new features: they are all optional.

The new features are in three areas

- Those to do with event types and scoring methods

- Extra fields to describe the status and results of participating pairs or teams

- Extensions to clarify USEBIO 1.1

Readers familiar with USEBIO 1.1 and wishing to know only the details of those features introduced in USEBIO 1.2 should read section 5.

USEBIO 1.3

USEBIO 1.3 (Jan 2018) introduces several new fields to facilitate its use by the ACBL. Most new element are explained as they occur, but three new features are described in more detail in sections 2.2.7, 2.9, and 3.3.4. Also note the change of format of dates to the ISO standard YYYY-MM-DD.

Effort has been made to define most of these in a generic fashion for use by any organisation, but some elements are specific to a single organisation and are prefixed with that organisation's initials. These are described in section. Section 6.1 defines ACBL specific elements and section 6.2 defines EBU specific elements (which were previously part of the main specification). Further parts of section 6 may be added for other organisations, but only where alternative generic elements cannot be defined.

USEBIO early features

USEBIO 1.0 also specified XML formats for other potential bridge uses. These were: bridge club membership data, hand records, ladder events and knock out events, movements, auctions and play of hands. Although the recording of hand records in USEBIO has been used by some systems, these

formats have not caught on, possibly because of the existence of more widely used existing formats.

The later USEBIO versions are not concerned with these uses. Anyone wishing to use USEBIO for these purposes should refer to the version 1.0 specification.

2. Overall structure of a USEBIO file

An XML file consists of a series of elements, which may be nested inside one another, each element being bounded by an opening and closing tag. The outermost element of a USEBIO file is the USEBIO tag.

This tag has an attribute, Version, as shown below.

The usual structure of a USEBIO file is:

```
<USEBIO Version="1.3">
   <CLUB>
          club elements
   </CLUB>
     <EVENT EVENT_TYPE="aaaaaa">
          event simple elements
          <PARTICIPANTS>
                participant elements
          </PARTICIPANTS>
                board and match elements
     </EVENT>
</USEBIO>
```

Events with multiple sections and/or sessions may have a more complex structure. This is described in section 4

Note that the USEBIO convention is that all element tag names are in capitals, and only valid tag names should be used. This permits USEBIO files to be checked by an XSD validator.

Comments may be included in an XML file by using the format<

!-- this is a comment -->

However, note that XML parsers may ignore the data within the comment.

Representing text in XML

Text within a text field should avoid using the characters & < > " and ' . They should be replaced by the XML entity references & < > " and ' respectively.

If using characters outside the ASCII set, the encoding used (e.g. UTF-8, Windows-1252, ISO 8859-1, etc.) must be agreed between writers and readers of the file. For compatibility with early versions, this USEBIO specification does not mandate any specific encoding, but the use of UTF-8 is strongly recommended.

2.1 CLUB element

This provides details of the club that organised this event.

The following child elements are defined within the CLUB element:

Element name	Element description	Required?	Allowed values
CLUB_NAME	The name of the club	Yes	Text
CLUB_ID_NUMBER	The ID number for the club	Yes	Text or number

2.2 EVENT element

The event element is the main element in a USEBIO file. It contains all the result information for this event. It normally consists of various elements describing the event as a whole, a PARTICIPANTS element, followed by BOARD and possibly MATCH elements.

2.2.1 EVENT attributes

Event attributes are written within the opening EVENT tag. For example:

`<EVENT EVENT_TYPE="SWISS_TEAMS">`

They are defined in the table below.

Attribute name	Attribute description	Required?	Allowed values
EVENT_TYPE **Revised in USEBIO 1.2**	The main type of the event with details being given in the other elements.	Yes	INDIVIDUAL PAIRS SWISS_PAIRS TEAMS SWISS_TEAMS and other values for compatibility with USEBIO 1.1 (see note 1)
RATEABLE	Whether this event should be used for rating/grading.	Deprecated	The decision on which events are to be graded is not a responsibility of the scoring system, nor of an event organiser. (*This field is currently ignored by the EBU's NGS*.)

Note 1:

For compatibility with USEBIO 1.1 the following values are also permitted, but are deprecated.

- MP_PAIRS

- BUTLER_PAIRS

- CROSS_IMP

- AGGREGATE

- SWISS_PAIRS_CROSS_IMPS

- SWISS_PAIRS_BUTLER_IMPS

- TEAMS_OF_FOUR

Apart from the last, these values are all currently associated with Pairs or Swiss Pairs events, and are better described by use of the fields described below, namely BOARD_SCORING_METHOD, MATCH_SCORING_METHOD, and TEAM_SIZE.

Note 2:

Although the RATEABLE attribute is deprecated at the event level, the PLAYER attribute of RATEABLE is still available, to allow a player to declare his/her wish to be excluded from grading for this event. (The rules for when this is acceptable are outside the scope of this specification.)

2.2.2 EVENT simple child elements

Element name	Element description	Required?	Allowed values, comments
PROGRAM_NAME	The name of the software program that produced this XML file	Yes	Text
PROGRAM_VERSION	The version of the software program that produced this XML file	Yes	Text or number
AUTH_ORG **New in USEBIO 1.3**	The body that authorises or sanctions the event.	No	Text, e.g. "EBU" or "ACBL"
EVENT_ID **Changed in USEBIO 1.3**	A numeric identifier for the session. For example this which might be used for a session when it is supplied as part of a Simultaneous Pairs event. Was EVENT_IDENTIFIER in USEBIO 1.2; for backwards compatibility either name may be used.	No	Text
EVENT_DESCRIPTION	Text describing the event	No, but preferred	Text
EVENT_LOCAL_ID **New in USEBIO 1.3**	a code used to identify an event within a tournament or within a club	No	Text or number
DATE **Changed in USEBIO 1.3**	The event date	Yes	In ISO format YYYY-MM-DD
TOURNAMENT_ID **New in USEBIO 1.3**	An identifier used to identify the tournament/congress/ championship of which the event is a part by the organising body	No	Text or number
TOURNAMENT_DESCRIPTION **New in USEBIO 1.3**	Text describing the tournament	No	Text
START_TIME **New in USEBIO 1.3**	The time at which the event started	No	In ISO format HH:MM 24hour clock
END_TIME **New in USEBIO 1.3**	The time at which the event ended	No	In ISO format HH:MM 24hour clock
WINNER_TYPE	Single or dual-winner	No	1 or 2 , assumed 1 if omitted

TEAM_SIZE **New in USEBIO 1.2**	This refers to the number of players in a team playing each board rather than to a Teams of Four event where the four players may be selected from a larger pool within a team.	This element need only be used for events with a team size larger than four.	Typically be 8 or 12, though other values are possible
BOARD_SCORING_METHOD **New in USEBIO 1.2**	How the result of each board is determined.	See section 2.2.3	See section 2.2.3
MATCH_SCORING_METHOD (For compatibility with USEBIO 1.1 this may be abbreviated to SCORING_METHOD but the full name is preferred.) **Revised in USEBIO 1.2**	The method for scoring a match of several boards between two sides.	See section 2.2.4	See section 2.2.4
RESULTS_TYPE **New in USEBIO 1.3**	Describes what type of results are being reported, in cases where individual session results may be reported and also overall, final event results. See section 2.2.7.	No	See section 2.2.7. If the RESULTS_TYPE element is omitted SINGLE_SESSION_EVENT will be assumed
BOARDS_PLAYED	The number of boards played by each pair, or the maximum number of boards played by a pair if this varies between pairs.	Yes	Number
SCORING_METHOD	Whether the results of teams matches are victory points or IMPs	Yes, for Team events	VPS or IMPS
TEAM_PAIRING_AVAILABLE	To say that the pairs making up a team are identified, and that pair-wise IMPS have been calculated. See section 2.2.5	Yes, for Team events	Y or N, assumed N if omitted.
PAIRWISE_SCORING_METHOD	The method used for a Teams event which includes pair-wise scoring	No	CROSS_IMPS or BUTLER_IMPS CROSS_IMPS is preferred and will be assumed if this is omitted.
PAIRS	The total number of pairs	No	This can be derived from the count of participants.
EW_PAIRS	The number of EW pairs	No, but helpful if provided.	When a session has dual winners, some pairs will have played NS only and some EW. This can be derived from the <DIRECTION> tag for each pair.

NS_PAIRS	The number of NS pairs	No	
SESSION_COUNT	The number of sessions in the event.	No	Usually omitted if only one session. This element is optional even if the multi-session format described in section 4.2 is used. The value need not correspond to the number of <SESSION> elements, so it may be used to state the number of real sessions that took place, or for any other method of counting sessions.
SECTION_COUNT	The number of sections playing in this event	No	Usually omitted if only one section. This element is optional even if the multi-section format described in section 4.1 is used.
MPS_AWARDED_FLAG	Whether Master Points were awarded for this event.	No	Y or N, assumed to be N if omitted Applicable to EBU affiliated events, and other organisations with similar schemes.
EVENT_RATING **Revised in USEBIO 1.3**	The scale used to compute Master Points. Was MASTER_POINT_SCALE in USEBIO 1.2; for backwards compatibility either name may be used.	Yes, if awarded	"Club" or other values defined by the awarding organisation. (Club scale will be assumed if this is omitted.)
MASTER_POINT_TYPE	The colour of master points awarded	Yes, if the colour is not specified for each pair/team in the Participants element	BLACK GREEN RED BLUE SILVER GOLD PLATINUM COLORLESS
CONTACT	Details of a contact person for queries about the scoring. (Note that this is an element with sub elements.)	No	Textual sub elements are: FULL_NAME (required) TELEPHONE (optional) FAX (optional) EMAIL (optional)
HAND_RECORD_ID **New in USEBIO 1.3**	A unique identifier for the hand record set used for this event. For multi-session events, this element should be a child of SESSION.	No	Number or text
LABELS **New in USEBIO 1.2**	Lists what label names are valid for this event.	No	See section 2.2.6

ARROW_SWITCH **New in USEBIO 1.2**	In events where some boards are arrow switched, this defines the intended direction of rotation.	No	CLOCKWISE (default, assumed if element is omitted) ANTICLOCKWISE (See section 5.4.3)
Other tags	Various tags are permitted, to preserve compatibility with USEBIO 1.0, but their usage is undefined and may vary from system to system.	No	Possible elements include: PLAYERS (the number of) VENUE TOWN COUNTY COUNTRY BOARDS_PER_ROUND

2.2.3   BOARD_SCORING_METHOD element

Some methods are only applicable to events for pairs and some only to teams. The valid values are:

- MATCH_POINTS (pairs only, and the default value for pairs and Swiss pairs events)

- BUTLER_IMPS (pairs only) This refers to any method where scores are compared with a datum score.

- CROSS_IMPS (pairs only)

- AGGREGATE (pairs or teams)

- IMPS (teams only and the default value for teams and Swiss teams events.)

- PAB (Point-a-board, normal results are 0, 1, and 2, though other values occur as a result of adjustments.)

- BAM (Board-a-match, as PAB except the normal results are 0, 0.5 and 1.)

- HYBRID (Some events e.g. the English Pachabo Cup use a weighted mixture of the above scoring methods.)

- OTHER (Just in case the above list isn't complete.)

If the method is the default value for the event type, this field may be omitted. Similarly if the EVENT_TYPE is one that defines the scoring method then this field may be omitted.

2.2.4   MATCH_SCORING_METHOD element

Note that for compatibility with USEBIO 1.1 this element may also be called SCORING_METHOD.

Pairs   For Swiss Pairs, the value may be:

- VPS (match point percentage or IMPs converted to a number of Victory Points) (Victory Points can be on a whole number or fractional scale)

- IMPS (based on the cross IMP or Butler IMP board scores)

- PERCENTAGE (match point percentage)

VPS is the assumed default for Swiss pairs if the board scoring method is match points. This is for compatibility with USEBIO 1.1.

IMPS is the default for Swiss pairs if the board scoring method is cross or Butler IMPs.

This element may be omitted if the default value applies.

Note that if PERCENTAGE is used then the field PERCENTAGE should be included in the overall results for each pair rather than TOTAL_SCORE.

Teams   For all types of teams events, the value may be:

- VPS (IMPS converted to a number of Victory Points)

- IMPS (Total IMPS for the match)

- Aggregate (Total aggregate score for the match)

- PAB (Total PAB score for the match)

- BAM (Total BAM score for the match)

- HYBRID (A mixture of the above methods)

- OTHER (just in case the list above is incomplete)

No default is assumed and this field must be included for all teams events. Note that in the case of Teams of Eight, or other large teams the IMPs score can be computed in a variety of means. For example for Teams of Eight:

IMPS = Total Imps as 2 Teams of 4

XIMPS = Total the XIMPs as Teams of 4 (default)

AGG = Add 4 Scores - Convert to IMPs

MOD AGG =Add 4 Scores - Convert to Modified IMPs

This scoring detail is undefined in USEBIO 1.2 but may be added in later versions of USEBIO.

Note that in the overall results of the event for each team, the value TOTAL_SCORE will be in the relevant units for the type of scoring.

2.2.5   TEAM_PAIRING_AVAILABLE element

This should be set to Y only if the line-up (which pairs sat where) has been confirmed as accurate for the event. This may be because:

a) the line-up for each round is based on the round by round input from BridgeMates or a similar electronic device at each table, or

b) the line-up correctly assumes that the first named pair of each team sat NS throughout (and the second pair EW), or

c) the line-up has been entered/confirmed by the TD for each round.

A scoring system may only support some of these options.

If none of these is the case then TEAM_PAIRING_AVAILABLE should be set to N. In this case it is not necessary to identify pairs within the TEAM element as described in section 2.4.2.

When set to Y this element implies also that pair-wise IMPS have been calculated for each pair. Although it would have been more logical to have had a separate field to confirm this, no change to the meaning of this field is made in USEBIO 1.2.

2.2.6   LABELS element

Each team/pair may be assigned one or more labels in the XML file. Each assignment will consist of a label name and a label value as in the following example.

    <LABEL>

        <NAME>FLIGHT</NAME>

        <VALUE>B</VALUE>

    </LABEL>

Such items will be child elements of the relevant TEAM or PAIR.

To aid programs reading the files, the event element will contain a list of all the valid label names (but not values) for this event, using the following layout.

    <LABELS>

        <NAME>FLIGHT</NAME>

        <NAME>CATEGORY</NAME>

</LABELS>

2.2.7   RESULTS_TYPE element

Describes what type of results are being reported, in cases where individual session results may be reported and also overall, final event results.

Examples of this include ACBL side games, and events with multiple sessions or rounds where the results of individual sessions/round are reported separately. These partial results may be included in the same USEBIO file or different files. In a USEBIO file containing multiple sessions, one RESULTS_TYPE element may be used for each session, and one for the overall result. If the event is reported in multiple USEBIO files, it is assumed that the event identification element(s) could be used to link the files together.

Possible values include:
SESSION_IN_SERIES (the results are for one session of a multiple session event, rather than the whole event)
SINGLE_SESSION_EVENT (the results are for the whole event, as it consisted of a single session. If the RESULTS_TYPE element is omitted this value will be assumed)
OVERALL_RESULTS the results are for the overall event, rather than for any of its individual sessions
FINAL the results are for the overall result of an ACBL side game
CONSOLATION the results are for the consolation result of an ACBL side game.

2.3   PARTICIPANTS element

The PARTICIPANTS element contains details about players who took part in the event.

2.3.1   PARTICIPANTS attribute

It can have a single attribute named EVENT_TYPE. This is an optional attribute and if included it must have the same value as the corresponding attribute of the EVENT element.

Note that the inclusion of this attribute is superfluous as an attribute of the PARTICIPANTS element and of other elements such as TEAM, PAIR and BOARD, and is only included for compatibility with earlier versions of USEBIO. Its use in these places is deprecated.

2.3.2   PARTICIPANTS child elements

This depends on the type of event. For Pairs events, the PARTICIPANTS element will simply contain a list of PAIR elements, for teams events it will simply contain a list of TEAM elements and for individual events it will simply contain a list of PLAYER elements. The contents of the elements TEAM, PAIR and PLAYER will also depend on the event type.

2.4   TEAM element

2.4.1   TEAM attributes

Attribute name	Attribute description	Required?	Allowed values
EVENT_TYPE	As in the EVENT element	No, Deprecated	If included its value must be the same as in the EVENT element.
TEAM_ID	The unique identifier for the team, used to reference the team in the rest of the file.	Yes	Text or number
TEAM_NAME **New in USEBIO 1.2**	Sometimes teams are known by a name.	Optional	This does not replace the required TEAM_ID.

2.4.2   TEAM child elements

The child elements of TEAM are of two kinds. The first kind of child elements are the overall score and results for that team; these are described in section 2.7 below. The second kind of child elements of a team are either a list of PLAYER elements, one for each player in the team or a list of PAIR elements, one for each pair that played together as part of the team. This depends on whether Team pairing is available.

If the scoring system has been told, or can deduce which pairs of players were sitting which way on each of the boards in the event, in other words if the line-up is known for every round, it can output information relating to each pair. In this case the TEAM_PAIRING_AVAILABLE child element of the EVENT element should be set to Y and each team's element should consist of the pairs in that team.

Each pair shall be identified with a unique pair-id and the two players in the pair will be described within that pair element. For multiple Teams of Four and Swiss Teams, there will normally be two pairs in a team, but occasionally teams consist of five players, and one or more of the team play with different partners in different rounds. Even if there are only four player they may switch partners for some rounds. To allow for this, any number of pairs may be identified within a team provided that each pair has a unique id. This will also allow further types of Teams events with known line-ups to be reported without changing this part of USEBIO.

Of course circumstances with pairs changing within a team may not be able to be reported to the scoring system in which case TEAM_PAIRING_AVAILAB

LE will have be set to N, and the TEAM element will contain a list of PLAYER elements with no PAIR elements.

An example of a complete team element when team pairing is available is given below. The team had five players, one of whom only played 8 boards.

```xml
<TEAM TEAM_ID="1" TEAM_NAME="Fischer">
    <ADJUSTMENT>0</ADJUSTMENT>
    <HANDICAP>0</HANDICAP>
    <CARRY_FORWARD>0</CARRY_FORWARD>
    <TOTAL_SCORE>87</TOTAL_SCORE>
    <PLACE>4=</PLACE>
    <WINS_OR_DRAWS>4</WINS_OR_DRAWS>
    <MASTER_POINTS_AWARDED>12</MASTER_POINTS_AWARDED>
    <PAIR>
        <PAIR_NUMBER>1A</PAIR_NUMBER>
        <DIRECTION>NS</DIRECTION>
        <BOARDS_PLAYED>32</BOARDS_PLAYED>
        <PAIR_IMPS>28.5</PAIR_IMPS>
        <PLAYER RATEABLE="N">
            <PLAYER_NAME>John Doe</PLAYER_NAME>
            <NATIONAL_ID_NUMBER>107975</NATIONAL_ID_NUMBER>
        </PLAYER>
        <PLAYER>
            <PLAYER_NAME>Bill Smith</PLAYER_NAME>
            <NATIONAL_ID_NUMBER></NATIONAL_ID_NUMBER>
        </PLAYER>
    </PAIR>
    <PAIR>
        <PAIR_NUMBER>1B</PAIR_NUMBER>
        <DIRECTION>EW</DIRECTION>
        <BOARDS_PLAYED>24</BOARDS_PLAYED>
        <PAIR_IMPS>8.5</PAIR_IMPS>
        <PLAYER>
            <PLAYER_NAME>Peter Piper</PLAYER_NAME>
            <NATIONAL_ID_NUMBER>654321</NATIONAL_ID_NUMBER>
        </PLAYER>
        <PLAYER>
            <PLAYER_NAME>Bobby Fisher</PLAYER_NAME>
            <NATIONAL_ID_NUMBER>607975</NATIONAL_ID_NUMBER>
        </PLAYER>
    </PAIR>
    <PAIR>
        <PAIR_NUMBER>1C</PAIR_NUMBER>
        <DIRECTION>EW</DIRECTION>
        <BOARDS_PLAYED>8</BOARDS_PLAYED>
        <PAIR_IMPS>8.5</PAIR_IMPS>
        <PLAYER>
            <PLAYER_NAME>Peter Piper</PLAYER_NAME>
            <NATIONAL_ID_NUMBER>654321</NATIONAL_ID_NUMBER>
        </PLAYER>
        <PLAYER>
            <PLAYER_NAME>Mary Smith</PLAYER_NAME>
            <NATIONAL_ID_NUMBER>607988</NATIONAL_ID_NUMBER>
        </PLAYER>
    </PAIR>
</TEAM>
```

In this example the pair ids are the team id plus a unique suffix. This is for illustration only. Any system for assign pair ids is acceptable provided that the

id is unique across the whole event and that the same pair keeps the same id in all parts of a single USEBIO file.

Note also that any player who plays in more than one pair within the team will have their information replicated in the file.

Although this specification describes how to document the exact pairings when teams either have more than four players or when players swap partners, it is not expected that all scoring systems will be able to do this, and may always assume that there were four players in a team and that they sat in the same orientation throughout a session. However, note 1 of section 2.2.2 still applies to the TEAM_PAIRING_AVAILABLE element.

2.5   PAIR element

2.5.1   PAIR attributes

Attribute name	Attribute description	Required?	Allowed values
EVENT_TYPE	As in the EVENT element	No, Deprecated	If included its value must be the same as in the EVENT element.

2.5.2   PAIR child elements

Element name	Element description	Required?	Allowed values, comments
PAIR_NUMBER	The unique pair number or other id used to reference this pair in the rest of the results file.	Yes	Text or number. In a file with multiple SESSION elements the same pair must have the same id throughout. If the same sequence has been used for NS and EW pair numbers (e.g. 1-12 NS and 1-12 EW) then NS or EW should be appended to the pair id to make a unique reference. Relying on the direction element is not OK.
DIRECTION	The direction played by this pair during the event.	Only if the pair sat in one direction throughout the event	NS or EW. Must be included in two winner events.
BOARDS_PLAYED	The number of boards played by this pair.	Yes	Number. This includes any boards not played but given an assigned score, but excludes any sit-out boards.
PAIR_IMPS	The pair-wise cross-IMPs or Butler-IMPs scored by this pair	Only for Teams events where team pairing available	Number. The child element PAIRWISE_SCORING_METHOD of the EVENT element defines how these values are calculated.
SEATING **New in USEBIO 1.3**	Seating of this pair at the beginning of the event or session.	No	Text. A table number and direction. E.g., 1NS

CARRY_FORWARD_SE ATING **New in USEBIO 1.3**	Seating of this pair, at the start of the next stage of the event.	No	Text. A table number and direction. E.g., 1NS
Elements for the overall score and results for this pair	Described in the section "Overall score and results elements" below.	Yes, for Pairs events	In Teams events this data is a direct child of the TEAM element, and not within the PAIR element
PLAYER	One for each of the players in the pair.	Yes	A compound element, as described below.

2.6 PLAYER element

2.6.1 PLAYER attributes

Attribute name	Attribute description	Required?	Allowed values
RATEABLE	Whether the results of this player in this event are to be used in a grading (rating) system.	No	Y or N If omitted, Y is assumed.

2.6.2 PLAYER child elements

Element name	Element description	Required?	Allowed values, comments
PLAYER_NAME	The full name of the player.	Yes	Text
NATIONAL_ID_NUMBER	The player's national ID number e.g. EBU no, ABF no, ACBL no, SBU no etc.	No	Number or text
CLUB_ID_NUMBER	The player's membership number at the club whose event it is.	No	Number or text.
Elements for the overall score and results for this player.	Described in the section "Overall score and results elements" below.	Only for Individual events	
MASTER_POINT_TOTAL **New in USEBIO 1.3**	Current Masterpoint holding total for the player.	No	Number

2.7 Overall score and results elements

Depending on the type of event these elements are the direct children of the TEAM, PAIR or PLAYER elements.

Element name	Element description	Required?	Allowed values, comments
PLACE	The final position for this pair/team in the event.	Yes	If there are ties, the "=" sign must be used. For example, 3= would be used for the two pairs/teams tied at 3rd.

TOTAL_SCORE	The total score for this pair or team (after applying any handicap or adjustment, but excluding any carry forward). This will be in units according to the scoring system of the event.	Yes, unless PERCENT AGE scoring is used.	When reporting cross-IMP scores, the score for a pair for each board must be the <u>average</u> of the IMP scores against every other time the board was played, <u>not</u> the sum of these scores. The TOTAL_SCORE for a pair will be the sum of the cross-IMP scores for each board. Similar rules apply to Butler-IMPS.
ADJUSTMENT	Indicates a penalty for an infraction of some kind at an event level.	No	Number
HANDICAP	The handicap applied to the score for this pair.	No	Number
CARRY_FORWARD	In a multi-session event this contains the score for the pair/team carried forward from a previous session. In USEBIO 1.2 this must not be included in the corresponding TOTAL_SCORE.	No	Number
PERCENTAGE	The total percentage for this pair/team (after applying handicap & adjustment).	Yes, only for MP scoring	Number, between 0 and 100.
MASTER_POINTS_ AWARDED	This indicates the number of Master Points awarded to this pair or team.	No	When this is used directly below PAIR or TEAM element, the MASTER_POINT_TYPE child element of the EVENT element must be specified. This is described in more detail below - in the "Master points awarded" section.
MASTER_POINTS	This is used when multiple types of Master Points have been awarded in the event.	No	This is a complex element that is made up of two child elements - MASTER_POINTS_AWARDED and MASTER_POINT_TYPE. This is explained in more detail below - in the "Master points awarded" section.
WINS_OR_DRAWS	This is used in match based events to indicate the total number of matches won or drawn by this pair/team.	No	Number
PRIZE	The amount of prize awarded	No	Any text value
QUALIFY	In a qualifying stage of some event some teams/pairs will have qualified for different next stages, or none.	No	Any text value is allowed, but this field is often abbreviated to indicate for what stage the team/pair have qualified, e.g. SF2.
LABEL	One for each label applying to the team/pair	No	See section 2.2.6 for details of usage of these elements.
SECTION_PLACE **New in USEBIO 1.3**	For multi-section games, the final position for this pair/team in the event within their section.	No	Number. If there are ties, the "=" sign must be used.

2.8 Master points awarded

When master points have been awarded in an event, you can represent this in two ways in the USEBIO XML. The first would be to use the MASTER_POINTS_AWARDED element directly within a PAIR or TEAM, as shown in the example below. This sample shows how you must use the MASTER_POINT_TYPE element (within EVENT) if you use this option.

```
<USEBIO Version="1.2">
    <CLUB> ... </CLUB>
    <EVENT EVENT_TYPE="MP_PAIRS">
        <MASTER_POINT_TYPE>BLACK</MASTER_POINT_TYPE>
        ...
        <PARTICIPANTS EVENT_TYPE="MP_PAIRS">
            <PAIR>
                <MASTER_POINTS_AWARDED>100</MASTER_POINTS_AWARDED>
                ...
            </PAIR>
        </PARTICIPANTS>
    </EVENT>
</USEBIO>
```

The previous option is fine as long as there was just a single type of master point awarded during the event. This is not always the case, as for some events there will be multiple types of master point awarded e.g. black and green. In this scenario, the MASTER_POINTS element must be used within a PAIR or TEAM element instead. An example of this is shown below. Note that this time, the XML does not contain the MASTER_POINT_TYPE element within EVENT.

```
<USEBIO Version="1.2">
    <CLUB> ... </CLUB>
    <EVENT EVENT_TYPE="MP_PAIRS">
        ...
        <PARTICIPANTS EVENT_TYPE="MP_PAIRS">
            <PAIR>
                <MASTER_POINTS>
                    <MASTER_POINTS_AWARDED>200</MASTER_POINTS_AWARDED>
                    <MASTER_POINT_TYPE>BLACK</MASTER_POINT_TYPE>
                </MASTER_POINTS>
                <MASTER_POINTS>
                    <MASTER_POINTS_AWARDED>100</MASTER_POINTS_AWARDED>
                    <MASTER_POINT_TYPE>GREEN</MASTER_POINT_TYPE>
                </MASTER_POINTS>
                ...
            </PAIR>
        </PARTICIPANTS>
    </EVENT>
</USEBIO>
```

2.9 Stratification

If a game is stratified, the STRATIFICATION element is required.

The following child elements are defined within the STRATIFICATION element:

Element name	Element description	Required?	Allowed values, comments
STRATIFICATION_TYPE	The method used for calculating stratification.	Yes	AVERAGE, HIGHEST, or NOT_STRATIFIED
STRATS	A list of strats, each including its label and limits	Yes	

The following is an example of STRATIFICATION based on Masterpoints.

STRATIFICATION_TYPE element

Determines which method is used for calculating stratification. If AVERAGE, teams are placed into strats based on the average Masterpoints of all players on the team. If HIGHEST, teams are placed into strats based on the number of Masterpoints of the player with the highest Masterpoint total on the team.

STRATS element

Contains STRAT elements which list each strat, its label, and its upper Masterpoint limit (UPPER_LIMIT). In cases where the top strat allows for players with an infinitely high Masterpoint limit, the value of UPPER_LIMIT should be 0.

Element name	Element description	Required?	Allowed values, comments
STRAT_NUMBER	A number used to identify this strat. Should be unique for each strat.	No, unless STRAT_LABEL is not present	number
STRAT_LABEL	Any label used to identify this strat. Should be unique for each strat.	No, unless STRAT_NUMBER is not present	
UPPER_LIMIT	The upper limit for point total for players in this strat. Also see section 2.9.2.	Yes	Number or text
NUMBER_OF_PAIRS	The total number of pairs in this strat.	No	Number

The following XML illustrates a game with three strats, with the bottom strat allowing teams with no players with over 100 Masterpoints, and teams with no players with over 300 Masterpoints in the middle strat, and allowing all teams with players who have over 300 Masterpoints in the top strat:

```
<STRATIFICATION>
      <STRATIFICATION_TYPE>HIGHEST</STRATIFICATION_TYPE>
      <STRATS>
          <STRAT>
                <STRAT_NUMBER>1</STRAT_NUMBER>
                <STRAT_LABEL>A</STRAT_LABEL>
                <UPPER_LIMIT>0</UPPER_LIMIT>
                <NUMBER_OF_PAIRS DIRECTION="NS">12</NUMBER_OF_PAIRS>
                <NUMBER_OF_PAIRS DIRECTION="EW">12</NUMBER_OF_PAIRS>
          </STRAT>
          <STRAT>
                <STRAT_NUMBER>2</STRAT_NUMBER>
                <STRAT_LABEL>B</STRAT_LABEL>
                <UPPER_LIMIT>300</UPPER_LIMIT>
                <NUMBER_OF_PAIRS DIRECTION="NS">10</NUMBER_OF_PAIRS>
                <NUMBER_OF_PAIRS DIRECTION="EW">9</NUMBER_OF_PAIRS>
```

```
                </STRAT>
                <STRAT>
                        <STRAT_NUMBER>3</STRAT_NUMBER>
                        <STRAT_LABEL>C</STRAT_LABEL>
                        <UPPER_LIMIT>100</UPPER_LIMIT>
                        <NUMBER_OF_PAIRS DIRECTION="NS">13</NUMBER_OF_PAIRS>
                        <NUMBER_OF_PAIRS DIRECTION="EW">13</NUMBER_OF_PAIRS>

                </STRAT>
        </STRATS>
</STRATIFICATION>
```

2.9.1   PAIR/TEAM Stratification elements

These optional elements can be used to track stratification information on the pair or team level.

Element name	Element description	Required?	Allowed values, comments
STRAT_NUMBER	The STRAT_NUMBER of the strat assigned to this PAIR, based on the players' point totals and the strat's upper limit. If present, should match the STRAT_NUMBER in a STRAT tag in the same file.	No	number
STRAT_PLACE	Any label used to identify this strat. Should be unique for each strat.	No	number
OVERRIDE_STRAT	The number of the strat the PAIR or TEAM played in, if it does not follow the limits defined in the STRATIFICATION tags. If this element is present, it overrides any other values found in the STRATIFICATION tags for that PAIR or TEAM.	No	Number or letters

2.9.2   MASTERPOINT-RESTRICTED GAMES

If entry into an event is limited to players with a certain range of masterpoints, this should be expressed using STRATIFICATION. For example, a club game with an upper Masterpoint limit of 300 would use the following tag structure:

```
<STRATIFICATION>
        <STRATIFICATION_TYPE>HIGHEST</STRATIFICATION_TYPE>
        <STRATS>
                <STRAT>
                        <STRAT_NUMBER>1</STRAT_NUMBER>
                        <STRAT_LABEL>A</STRAT_LABEL>
                        <UPPER_LIMIT>300</UPPER_LIMIT>
                </STRAT>
        </STRATS>
</STRATIFICATION>
```

3. Match and Board results

It is valid to produce a USEBIO file without the details of results at Board and Match level. Indeed some scoring systems often do this. However, this detail is of interest for displaying to the players and may be necessary for the correct functioning of a rating or grading system. If results are included they must follow one of the three options below.

- Simple results, output board by board. This may be used for all Pairs events including Swiss Pairs, though since it does not describe the match results between pairs, the second format is preferred for Swiss Pairs.

- Results for matches and boards suitable for Swiss Pairs events.

- Results for matches and boards for all Teams events.

In each case the elements for the results simply follow the PARTICIPANTS element as direct children elements of the EVENT element.

3.1 Simple results

The standard structure consists of a set of board definitions, one for each board in the session. Each board has a unique board number and a set of traveller lines, one for each time the board was played. Each traveller line has the information that might be on a paper traveller and the NS and EW points awarded according to the scoring method for the event.

Here is an example of a board element.

```
<BOARD EVENT_TYPE="MP_PAIRS">
        <BOARD_NUMBER>1</BOARD_NUMBER>
        <TRAVELLER_LINE>
            <NS_PAIR_NUMBER>1</NS_PAIR_NUMBER>
            <EW_PAIR_NUMBER>2</EW_PAIR_NUMBER>
            <CONTRACT>2H</CONTRACT>
            <PLAYED_BY>S</PLAYED_BY>
            <LEAD>DA</LEAD>
            <TRICKS>6</TRICKS>
            <SCORE>-100</SCORE>
            <NS_MATCH_POINTS>77</NS_MATCH_POINTS>
            <EW_MATCH_POINTS>33</EW_MATCH_POINTS>
        </TRAVELLER_LINE>
        <TRAVELLER_LINE>
            ...
        </TRAVELLER_LINE>
        ...
    </BOARD>
```

3.1.1 BOARD attributes

Attribute name	Attribute description	Required?	Allowed values
EVENT_TYPE	As in the EVENT element	No, deprecated	If included its value must be the same as in the EVENT element.

3.1.2   BOARD child elements

Element name	Element description	Required?	Allowed values / comment
BOARD_NUMBER	This is the unique identifier for the board in this session.	Yes	Number For multi session events, the board number may not be unique. See the section on multi session events.
TRAVELLER_LINE	This contain details about a specific traveller line. This will be repeated for each line on the traveller.	Yes	This is a complex element and is described in more detail below.
DATUM **New in USEBIO 1.3**	The Datum value for the board, where using a Datum in the scoring method. Since the same BOARD may appear many times in a USEBIO document, the Datum value for a Board would be recorded multiple times.	No	The Datum value for the board

3.1.3   TRAVELLER_LINE child elements

Element name	Element description	Required?	Allowed values / comment
NS_PAIR_NUMBER, EW_PAIR_NUMBER	The ID numbers of the pairs that sat in the NS and EW positions for this traveller line.	Yes	A Pair id. Each value corresponds to a unique pair in the PARTICIPANTS element.
CONTRACT PLAYED_BY LEAD TRICKS	These provide information about how the hand was played on this traveller line i.e. what the contract bid was, which player made the contract, what the lead card was and how many tricks were made.	No, but useful to systems that display results.	Text. It is usual to abbreviate values to initial letters.
SCORE	This is the score for the NS pair on this traveller line.	Yes	Usually the actual score, but maybe allocated percentages entered by the director, such as A6060 or A5500
PERCENTAGE	The match points percentage for NS	Deprecated	
NS_MATCH_POINTS, EW_MATCH_POINTS	Match points scored by the NS and EW pair on this traveller line.	Yes, if the event scoring was match points	Number (not percentage). In some scoring methods, decimals or float values are allowed.
NS_BUTLER_POINTS, EW_BUTLER_POINTS	Butler points scored by the NS and EW pair on this traveller line.	Yes, if the event scoring was Butler IMPs	Number

NS_CROSS_IMP_POINTS, EW_CROSS_IMP_POINTS	Cross IMPS scored by the NS and EW pair on this traveller line.	Yes, if the event scoring was Cross IMPs	Number When reporting cross-IMP scores, the score for a pair for each board must be the <u>average</u> of the IMP scores against every other time the board was played, <u>not</u> the sum of these scores. The TOTAL_SCORE for a pair will be the sum of the cross-IMP scores for each board.
NS_AGGREGATE_POINTS, EW_ AGGREGATE_POINTS	Aggregate points scored by the NS and EW pair on this traveller line.	Yes, if the event scoring was Aggregate points	Number
ROUND_NUMBER **New in USEBIO 1.3**	The round during which this traveller line was played.	No	Number
TABLE_NUMBER **New in USEBIO 1.3**	The table at which this traveller line was played.	No	Text, for example "12" or "Green8"

3.2   Match and board results for Swiss Pairs events

Although the above format is acceptable for all Pairs events, a format which allows the results of each match to be included is preferred for Swiss Pairs events.

Now there is a list of MATCH elements, one for each match played in the event. These may be listed in any order. It is not necessary to list all the matches in round 1 before the matches in round 2, for example.

3.2.1   Swiss Pairs MATCH child elements

Element name	Element description	Required?	Allowed values / comment
ROUND_NUMBER	The round during which this match was played.	No, but useful	Number.
START_BOARD_NUMBER	The lowest numbered board played in this match.	No	
END_BOARD_NUMBER	The highest numbered board played in this match.	No	
NS_PAIR_NUMBER, EW_PAIR_NUMBER	The ID numbers of the pairs that sat in the NS and EW positions in this match.	Yes	A Pair id. Each value corresponds to a unique pair in the PARTICIPANTS element.
NS_VICTORY_POINTS, EW_VICTORY_POINTS	The total victory points awarded to the NS and EW pairs for this match.	Either this or the item below	This is the overall result of this match, if the matches are scored with Victory Points
NS_SCORE, EW_SCORE **New in USEBIO 1.2**	The score awarded to the NS and EW pairs for this match.	Either this or the item above	This is the overall result of this match, either VPs, Total IMPs or Percentage, according to the MATCH_SCORING_METHOD specified for the event.
BOARD	This contains details of specific boards played in this	Yes	The structure and format of boards (and traveller lines) is almost identical to the format described in the "Simple

	match. This will occur once for each board played.		results" section above. Further details are provided below.

In each MATCH there is one BOARD element for each of the boards played in that match between the two pairs. In distinction to the simple results case, there will be just one TRAVELLER_LINE element per BOARD element in the MATCH, representing the time the board was played between the two pairs in the match. Of course there will be other occurrences of a BOARD element with the same BOARD_NUMBER in other matches.

The formats of the BOARD and TRAVELLER_LINE elements are as described for the simple results case, with two exceptions.

First, the NS_PAIR_NUMBER and EW_PAIR_NUMBER elements within TRAVELLER_LINE, are **not** included in the traveller lines in a Swiss Pairs event, as these are now specified for the match, not for individual traveller lines.

Second, because the traveller line in this case does not explicitly say which pair was NS/EW there is one further feature to record that the board was accidentally arrow switched and not played in the direction which would be assumed from the match level pair numbers. This is recorded simply by including an extra child element of the relevant TRAVELLER_LINE element: namely <ARROW_SWITCHED>Y</ARROW_SWITCHED> **(New in USEBIO 1.2)**.

3.3   Match and board results for Teams events

This covers both Swiss Teams events and other Teams events.

As in the format for Swiss Pairs there is a list of MATCH elements, but now one for each match between two teams. These are direct child elements of the EVENT element.

When matches are played without wireless scoring aids or paper travellers, there may be no information about the scores of the individual boards. To allow for this, it is valid to have MATCH elements in teams events that have no BOARD child elements.

The examples below assume that board level details are available and included. These details depend on whether it was known which pairs of players played against each other in the match.

Here is an example of a Teams MATCH element for the case when team pairing was not available.

```
<MATCH>
    <ROUND_NUMBER>2</ROUND_NUMBER>
    <TEAM>11</TEAM>
    <OPPOSING_TEAM>2</OPPOSING_TEAM>
    <START_BOARD_NUMBER>6</START_BOARD_NUMBER >
    <END_BOARD_NUMBER>10</END_BOARD_NUMBER>
    <TEAM_SCORE>19</TEAM_SCORE>
    <OPPOSING_TEAM_SCORE>1</OPPOSING_TEAM_SCORE>
    <BOARD EVENT_TYPE="SWISS_TEAMS">
        <BOARD_NUMBER>6</BOARD_NUMBER>
        <IMPS>10</IMPS>
        <TRAVELLER_LINE>
            <DIRECTION>NS</DIRECTION>
            <CONTRACT>4H</CONTRACT>
            <PLAYED_BY>S</PLAYED_BY>
```

```
                <LEAD>H7</LEAD>
                <TRICKS>10</TRICKS>
                <SCORE>420</SCORE>
          </TRAVELLER_LINE>
          <TRAVELLER_LINE>
                <DIRECTION>EW</DIRECTION>
                <CONTRACT>4H</CONTRACT>
                <PLAYED_BY>S</PLAYED_BY>
                <LEAD>AD</LEAD>
                <TRICKS>9</TRICKS>
                <SCORE>-50</SCORE>
          </TRAVELLER_LINE>
          </BOARD>
      <BOARD> ... board data for each board in the match ...
</BOARD>
      ...
</MATCH>
```

When team pairing is available, it is possible to say which pair of each team played in each occurrence of a TRAVELLER_LINE and to compute each pair's overall cross-IMP score for that board. In this case there are additional elements included for each board as shown in bold in the example below.

```
<MATCH>
      <ROUND_NUMBER>2</ROUND_NUMBER>
      <TEAM>11</TEAM>
      <OPPOSING_TEAM>2</OPPOSING_TEAM>
      <START_BOARD_NUMBER>6</START_BOARD_NUMBER >
      <END_BOARD_NUMBER>10</END_BOARD_NUMBER>
      <TEAM_SCORE>19</TEAM_SCORE>
      <OPPOSING_TEAM_SCORE>1</OPPOSING_TEAM_SCORE>
      <BOARD EVENT_TYPE="SWISS_TEAMS">
          <BOARD_NUMBER>6</BOARD_NUMBER>
          <IMPS>10</IMPS>
          <TRAVELLER_LINE>
                <DIRECTION>NS</DIRECTION>
                <NS_PAIR_NUMBER>11A</NS_PAIR_NUMBER>
                <EW_PAIR_NUMBER>2B</EW_PAIR_NUMBER>
                <CONTRACT>4H</CONTRACT>
                <PLAYED_BY>S</PLAYED_BY>
                <LEAD>H7</LEAD>
                <TRICKS>10</TRICKS>
                <SCORE>420</SCORE>
                <NS_CROSS_IMPS_POINTS>6.33</NS_CROSS_IMPS_POINTS>
                <EW_CROSS_IMPS_POINTS>-6.33</EW_CROSS_IMPS_POINTS>
          </TRAVELLER_LINE>
          <TRAVELLER_LINE>
                <DIRECTION>EW</DIRECTION>
                <NS_PAIR_NUMBER>2A</NS_PAIR_NUMBER>
                <EW_PAIR_NUMBER>11B</EW_PAIR_NUMBER>
                <CONTRACT>4H</CONTRACT>
                <PLAYED_BY>S</PLAYED_BY>
                <LEAD>AD</LEAD>
                <TRICKS>9</TRICKS>
                <SCORE>-50</SCORE>
                <NS_CROSS_IMPS_POINTS>-3</NS_CROSS_IMPS_POINTS>
                <EW_CROSS_IMPS_POINTS>3</EW_CROSS_IMPS_POINTS>
          </TRAVELLER_LINE>
          </BOARD>
```
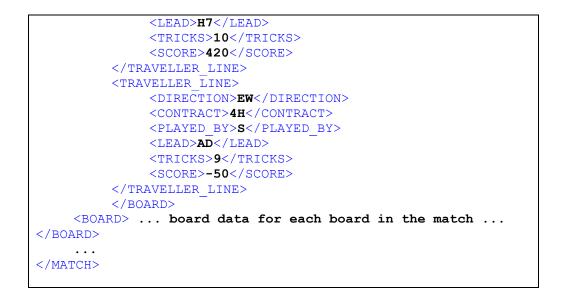
```
    <BOARD> ... board data for each board in the match ...
</BOARD>
    ...
</MATCH>
```

3.3.1   Teams MATCH child elements

Element name	Element description	Required?	Allowed values / comment
ROUND_NUMBER	The round during which this match was played, if appropriate. In Multiple Teams events, matches are usually not played within a round.	No, but useful	Number. Note that in Swiss Teams short triples, you have to allow for a team playing two matches with the same round number.
START_BOARD_NUMBER	The lowest numbered board played in this match.	No	Number
END_BOARD_NUMBER	The highest numbered board played in this match.	No	Number
TEAM	The team from whose viewpoint the match is reported	Yes	A Team id which corresponds to a unique team in the PARTICIPANTS element.
OPPOSING_TEAM	The team ID for the opposing pair in this match.	Yes	A Team id which corresponds to a unique team in the PARTICIPANTS element.
SITOUT **New in USEBIO 1.3**	A player of either team who is not playing in this match. There may be multiple SITOUT elements in a MATCH element. See section 3.3.4 for details.	No	Player number
TEAM_SCORE (or SCORE, for compatibility with USEBIO 1.1)	The score awarded to the primary team for this match.	Yes	This will be according to the MATCH_SCORING_METHOD specified for the event.
OPPOSING_TEAM_SCORE	The score awarded to the opposing team for this match.	Yes	This will be according to the MATCH_SCORING_METHOD specified for the event.
BOARD	This contains details of specific boards played in this match. This will occur once for each board played.	Yes	The structure and format of boards (and traveller lines) is similar to the format described in the "Simple results" section above. Further details are provided below.

3.3.2   Teams BOARD child elements

Element name	Element description	Required?	Allowed values / comment
BOARD_NUMBER	This is the unique identifier for the board in this session.	Yes	Number For multi session events, the board number may not be unique. See the section on multi session events.
IMPS	The IMPs score on this board from the view point of this	Yes, if board	Number.

	team, obtained by comparing the results of the two times it was played.	scoring is by IMPs	Implicitly the opposing team has the opposite score, except when non-balancing adjusted scores have been awarded. See note below. (In future Teams events with more players will be supported, but an IMPs score per board will still be computed.)
TEAM_POINTS **New in USEBIO 1.2**	The score on this board awarded to the primary team for this match.	Only if board scoring is not IMPs	Number depending on the BOARD_SCORING_METHOD.
OPPOSING_TEAM_POINTS **New in USEBIO 1.2**	The score on this board awarded to the opposing team for this match.	Only if board scoring is not IMPs	Number depending on the BOARD_SCORING_METHOD.
TRAVELLER_LINE	This contain details about a specific traveller line. This will occur twice, once for each time the board was played in this match.	Yes	For details see below. (In future Teams events with more players will be supported. This will simply require additional TRAVELLER_LINES in the match.

Note: When using IMPs scoring, if a non-balancing adjusted score has been awarded, the USEBIO file does not formally record the Opposing Team's IMPs on that board, though the overall Match score will be correctly recorded. It is suggested that OPPOSING_TEAM_POINTS could be used to record this board level value.

3.3.3 Teams TRAVELLER_LINE child elements

Element name	Element description	Required?	Allowed values / comment
DIRECTION	The direction that this team sat for this board	Yes	NS or EW In the BOARD element of a Swiss Teams of Teams of Four match there will be one TRAVELLER_LINE with DIRECTION NS and one with DIRECTION EW.
NS_PAIR_NUMBER, EW_PAIR_NUMBER	The ID numbers of the pairs that sat in the NS and EW positions for this traveller line.	Yes, only if team pairing is available.	A Pair id. Each value corresponds to a unique pair in the PARTICIPANTS element.
CONTRACT PLAYED_BY LEAD TRICKS	These provide information about how the hand was played on this traveller line i.e. what the contract bid was, which player made the contract, what the lead card was and how many tricks were made.	No, but useful to systems that display results.	Text. It is usual to abbreviate values to initial letters.
SCORE	This is the score for the NS pair on this traveller line.	Yes	Number
NS_CROSS_IMP_POINTS, EW_CROSS_IMP_POINTS Or NS_BUTLER_POINTS, EW_BUTLER_POINTS	This is the pair-wise cross IMPs (or Butler IMPs) score on this board for the pairs on this traveller line. The NS and EW values will be equal and opposite in sign.	If team pairing is available.	Number. The scoring method used here is defined in the element PAIRWISE_SCORING_METHOD

3.3.4 Teams with More than 4 Players

Some Teams-of -Four events allow more than four players in a team, though only four players from each team play in each match.

The SITOUT tag, child element of Teams MATCH is used to denote that a player did not play in a particular match. This tag is not required if this information can be inferred from traveller lines or board-level detail present in the same file.

Based on the conditions of contest for an event, players on the same team who did not play all of the boards in an event may receive different Masterpoint awards than their teammates. In this case, the MASTER_POINTS or MASTER_POINTS_AWARDED tags can be repeated as child elements of that PLAYER.

3.4 Individual events

In an individual event, players play with several partners during the event, and no significance is given to these pairs. Therefore no pair ids are recorded and there are consequential changes to the reporting of results in TRAVELLER_LINE elements. The elements NS_PAIR_NUMBER and EW_PAIR_NUMBER are replaced by four elements for the four players playing that board at that time.

Individual TRAVELLER ELEMENTS are

Element name	Element description	Required?	Allowed values / comment
N_PLAYER_NUMBER, S_PLAYER_NUMBER, E_ PLAYER _NUMBER, W_PLAYER_NUMBER	The ID numbers of the players that sat in the N, S, E and W positions for this traveller line.	Yes	A Player id. Each value corresponds to a unique player in the PARTICIPANTS element.
Other elements	As in the section on "Simple results".		

4. Multi-section and multi-session events

4.1 Multi-section events

Some events are divided into sections with no mixing within a session of the pairs in different sections. The different sections will play the same set of boards, though sometimes a small number of boards will be played only in one section. Board numbers identify a unique board across all sections. Scoring is normally done "across the field", that is without regard to the section in which a pair (or team) was playing. An exception is In-Section scoring, where the match-pointing is sometimes set to "within a section". This is sometimes used in Swiss Pairs to avoid distortions in large events.

It is valid to report a multi-section event in USEBIO without reference to the sections. However, USEBIO allows the sections to be reported explicitly, by using a number SECTION elements directly within the EVENT element. Note that in this case, it is helpful to set the SECTION_COUNT child element of the EVENT element, though USEBIO does not require this.

Each SECTION has child PARTICIPANTS and BOARD (and MATCH, if relevant) elements which contain the players and results which were in that section. The example below illustrates the overall structure for an event with two sections.

```
<USEBIO Version="1.0">
    <CLUB>...</CLUB>
    <EVENT EVENT_TYPE="MP_PAIRS">
        <SECTION SECTION_ID="A">
            <PARTICIPANTS EVENT_TYPE="MP_PAIRS">
                ...
            </PARTICIPANTS>
            <BOARD EVENT_TYPE="MP_PAIRS">
                ...
            </BOARD>
            ...
        </SECTION>
        <SECTION SECTION_ID="B">
            <PARTICIPANTS EVENT_TYPE="MP_PAIRS">
                ...
            </PARTICIPANTS>
            <BOARD EVENT_TYPE="MP_PAIRS">
                ...
            </BOARD>
            ...
        </SECTION>
    </EVENT>
</USEBIO>
```

Note that ids (pair, team, or board) must be unique across the whole event. It is not acceptable for the same pair-id to differ to different pairs in different sections.

It is valid, though unusual, to report an event with one section using the multi-section format with a single SECTION element.

4.1.1   SECTION attributes

Attribute name	Attribute description	Required?	Allowed values
SECTION_ID	A unique identifier for the section.	Yes	Text

4.2   Multi-session events

USEBIO also supports multiple session events. An event which is broken into sessions only to provide the players with meal and rest breaks need not be recorded as a multi-session event, it can simply be treated as if it were a single, long session. However if different boards with the same number are being played in the later session it is necessary for USEBIO to report these as different sessions. USEBIO supports this by using multiple SESSION elements directly below the EVENT element. Note that in this case, it is helpful to set the SECTION_COUNT child element of the EVENT element, though USEBIO does not require this.

It is valid, though unusual, to report an event with one session using the multi-session format with a single SESSION element.

For simplicity, a multi-session event with a single section will be described, though sessions with multiple sections can be reported in a similar way.

4.2.1   SESSION attributes

Attribute name	Attribute description	Required?	Allowed values
SECTION_ID	A unique identifier for the section.	Yes	Text

4.2.2   SESSION simple elements

Element name	Element description	Required?	Allowed values, comments
SESSION_DATE **new in USEBIO 1.2** **changed in USEBIO 1.3**	The date on which the session was played	No	In ISO format, YYYY-MM-DD.

There is already a DATE element as a child of the EVENT element. However, some multi session events which are submitted as a single XML file, may have sessions on different days and it may be helpful to label each session with the date on which it was played.

4.2.3   SESSION complex elements

Each SESSION has child PARTICIPANTS and BOARD (and MATCH, if relevant) elements which contain the players and results which were in that session. Pairs (and Teams) must have the same unique id across all sessions, but board numbers need only be unique within a session. To uniquely identify a board in the whole event, it would be necessary to quote its board number and session id.

In addition there may be a further PARTICIPANTS element outside all the SESSIONS and a direct child of the EVENT element. The purpose of this will be described shortly. The overall structure of a Pairs event with two sessions is shown below.

```
<USEBIO Version="1.0">
    <CLUB>...</CLUB>
    <EVENT EVENT_TYPE="MP_PAIRS">
        ... EVENT simple child elements
        <PARTICIPANTS EVENT_TYPE="MP_PAIRS"> <!--optional-->
            ...
        </PARTICIPANTS>
        <SESSION SESSION_ID="SAT">
            <PARTICIPANTS EVENT_TYPE="MP_PAIRS">
                ...
            </PARTICIPANTS>
            <BOARD EVENT_TYPE="MP_PAIRS">
                ...
            </BOARD>
            ...
        </SESSION>
        <SESSION SESSION_ID="SUN">
            <PARTICIPANTS EVENT_TYPE="MP_PAIRS">
                ...
            </PARTICIPANTS>
            <BOARD EVENT_TYPE="MP_PAIRS">
                ...
            </BOARD>
            ...
        </SESSION>
    </EVENT>
</USEBIO>
```

Each of the participants elements will contain "overall score and results" elements as described in section 2.7. What scores and results are these? There are two ways of recording a pair's results, depending on whether only the overall results are recorded or whether a pair's totals within each session are also recorded. In the first case, the overall results will be repeated whenever the pair is mentioned within a PARTICIPANTS element. In the second case there should be an initial PARTICIPANTS element, which records the overall result, as well as one PARTICIPANTS element specific to each section and session, in which the totals specific to that session will be put. Either approach is an acceptable USEBIO style. However the second approach is preferable as it contains extra information and is consistent with the approach described in the following section.

Note that in the second case, USEBIO does not define the policy for if and when carry forward values should be used in the results for each session, though if they are used they must be recorded in the relevant CARRY_FORWARD elements.

Depending on the procedure for awarding Master Points, these may appear in any of the sessions or only in the top-level PARTICIPANTS element.

An alternative approach is to describe each session as if it were a separate event with its own USEBIO file.

4.3 USEBIO files representing parts of an event

Although it is usual for a USEBIO file to represent an entire event, sometimes it is useful to produce a file for a partly completed event, particularly for an

event that takes place over an extended period of time. This allows the partial results to be displayed, or the early results used to update a rating system as soon as possible. To achieve this, each part of the event which is to be reported separately (usually one, but possibly more than one, session) should be treated as an event in itself.

In addition the overall results should be output as an additional event, with a file containing the CLUB element, the EVENT element and its simple child elements and a PARTICIPANTS element with the final results, but with no BOARD or MATCH elements. Depending on the procedure for awarding Master Points, these may be awarded for the individual sessions or only in the final results file.

Note that as above USEBIO does not define the policy for if and when carry forward values should be used in the individual session files, though if they are used they must be recorded in the relevant CARRY_FORWARD elements.

In USEBIO 1.2 there is no method for linking these separate files to indicate that they all belong to the same physical event. Doubtless the event DESCRIPTION will be used to indicate this.

(For EBU affiliated events which do this, there is a policy of setting the element P2P_CHARGE_CODE for the individual sessions and for the overall results so that the overall event is correctly charged for and graded.)

In USEBIO 1.3 the RESULTS_TYPE element should be used to define what part of an event is being reported in the USEBIO file, as described in section 2.2.7

4.4   Live "in-play" results

The use of USEBIO to report on the progress of incomplete events has been suggested. The additional data that would be required are as follows:

- The time at which the results in the file were calculated

- Which Rounds/Matches/Boards are included

- Optionally, assignments for the next round.

The details of how these would be specified has not been determined, and this will be left to those who would make use of such facilities, and to a later version of USEBIO.

However the field CARRY_FORWARD_SEATING added in USEBIO 1.3 may be used to assign seating for the next round.

5.   Changes from USEBIO 1.1

The changes are in three areas

- Those to do with event types and scoring methods
- Extra fields to describe the status and results of participating pairs or teams
- Extensions to clarify USEBIO 1.1

5.1   Event Types and Scoring Methods

To allow for a wide range of events, it is proposed to use four distinct fields which will be within the EVENT element.

These are:

- EVENT_TYPE (attribute)
- TEAM_SIZE (element)
- BOARD_SCORING_METHOD (element)
- MATCH_SCORING_METHOD (element)
  (this can be abbreviated to SCORING_METHOD for compatibility with USEBIO 1.1)

Note that EVENT_TYPE is an optional attribute of several other elements within USEBIO 1.1. For compatibility with USEBIO 1.1, this is still permitted but will be deprecated.

For details of each field see the relevant part of section 2 of this specification.

5.2   Other team or pair information

Other information about a team (or for a pairs event, about a pair) may be available. Two of these are common and are new optional elements:

PRIZE: the amount of prize awarded, any text value allowed, e.g.

> <PRIZE>$100</PRIZE>

QUALIFY: In a qualifying stage of some event some teams/pairs will have qualified for different next stages, or none. Any text value is allowed, but this field is often abbreviated, e.g.

> <QUALIFY>SF2</QUALIFY>

Omitting these fields for a team/pair means that they have no prize or have not qualified for any subsequent stage.

Other types of information are varied. To allow for this variation a scheme of "labels" is proposed as described in section 2.2.6 of this specification.

5.3   Other new elements

These are SESSION_DATE (see 4.2.2), TEAM_NAME (see 2.4.1) (actually this is an attribute), NS_SCORE and EW_SCORE (see 3.2.1), ARROW_SWITCHED (see end of 3.2.1), and TEAM_POINTS and OPPOSING_TEAM_POINTS (see 3.3.2). Also see section 5.4.3 below.

5.4 Clarifications of USEBIO 1.1

5.4.1 Team score

For a teams event, within each MATCH element the result of the match is given in two elements; for example

<TEAM_SCORE>16</TEAM_SCORE>

<OPPOSING_TEAM_SCORE>4</TEAM_SCORE>

Owing to some confusion in the specification of USEBIO 1.1, a permitted alternative name for the first of these elements is <SCORE>

5.4.2 Matches with no board level data

When matches are played without wireless scoring aids or paper travellers, there may be no information about the scores of the individual boards. To allow for this, it is valid to have MATCH elements in Teams events that have no BOARD child elements.

This was intended to be allowed, but not explicitly stated in USEBIO 1.1.

5.4.3 Clarification of usage of element data

SESSION_COUNT see section 2.2.2

TOTAL_SCORE and CARRY_FORWARD see section 2.7

ROUND_NUMBER in Teams events: see section 3.3.1

5.4.4 Seating of each player

The USEBIO specification only specifies the seating of a pair. For a NS pair it does not explicitly say who sat in the North seat, or for an EW pair, who sat in the East seat. The following conventions are assumed to apply, but are not guaranteed!

The first named player of each pair is assumed to sit in the North seat, if NS, and the East seat, if EW. A further convention is needed for events where there are arrow-switched rounds. By default, it is assumed that the boards are rotated clockwise.

For those events where the opposite convention is used, that is the boards are rotated anti-clockwise, an additional element within the EVENT element is added in USEBIO 1.2, as follows:

<ARROW_SWITCH> allowed values are

CLOCKWISE and ANTICLOCKWISE

5.5 AUCTION and PLAY elements

The AUCTION and PLAY elements (see sections 5.6 and 5.7 of the USEBIO 1.0 documentation) have previously been incorrectly defined as children of the top-level USEBIO element. They are now children of the TRAVELLER_LINE element.

6.   Authority specific elements

This section describes elements which have been defined by the relevant authority, which are only relevant for USEBIO files intended for use by that authority. They are included in the overall USEBIO specification, to enable software developers to produce software which is usable by multiple authorities and to identify opportunities for replacing some of these by common elements.

6.1 ACBL

This section is a draft whilst the ACBL continues to document and propose new XML tags for this section of the USEBIO standard, as needed by them in their systems.

All element names are prefixed by ACBL_

Child elements of EVENT

Element name (omitting prefix)	Element description	Required for ACBL event?	Allowed values
CLUB_CLASS	A classification identifying whether the event was held as an Intro, Newcomer, Restricted, or Open event	Yes, if the event was played at a club	Number 1-4, according to those defined at http://www.acbl.org/about-acbl/administration/acbl-handbook/section-two-types-of-club-masterpoint-games/
SESSION_ID	The ACBL Session number indicating what day of week and time of day (morning, afternoon, or evening) on which the event was played.	Yes, if the event was played at a club	Number 1-22, with 1 being Monday morning, according to http://www.acbl.org/about-acbl/administration/acbl-handbook/v-sanctioned-club-game-requirements/
SIDE_GAME	If a game is a side game, or part of a side-game-series, this tag should be present.	No	1
START_DATE	If an event takes place over multiple days, this tag describes the date on which the event begins	Yes, if the event takes place over multiple days	In ISO format YYYY-MM-DD
END_DATE	If an event takes place over multiple days, this tag describes the date on which the event ends	Yes, if the event takes place over multiple days	In ISO format YYYY-MM-DD

Child elements of PLAYER

Element name (omitting prefix)	Element description	Required for ACBL event?	Allowed values
PLAYER_CITY	The player's home city	No	Text. Name of the city
PLAYER_STATE	The player's home state	No	Text. Name of the state or province
PLAYER_COUNTRY	The player's home country	No	Text. Name of the country

Element name (omitting prefix)	Element description	Required for EBU event?	Allowed values
PLAYER_STATE_CODE	Country and state /province identification	No	ISO 3166-2

6.2 EBU

All element names are prefixed by EBU_

Child elements of EVENT

Element name (omitting prefix)	Element description	Required for EBU event?	Allowed values
CHARGE_CODE	How this event file should be treated by EBU Pay to Play. Was P2P_CHARGE_RATE in USEBIO 1.2	Yes	Number, as defined in www.ebu.co.uk/documents/universal-membership/player-session-rates-full.pdf

7.   Future plans

There are plans for future updates to USEBIO.

These areas are:
1) General clarification of the use of event identifiers, to ensure a common approach.
2) Adding Director/Scorer as Contacts.
3) Clarification of how "Triples" (matches played between three teams) are recorded in USEBIO.
4) Recording of Fouled boards (e.g. when a board has to be re-dealt part way through a session).
5) Recording variations in scoring methods, e.g. VPScale.
6) Being explicit about which "other tags" in the last item of 2.2.2 should be or not be included in USEBIO.

Changes to the USEBIO specification are made by consensus among the organisations using USEBIO and with consultation of those companies providing software systems to them.

The current version of USEBIO is maintained by the EBU and any suggestions for changes should initially be made to the EBU or via the http://usebio.org/ website.

8.   References

1) Usage of USEBIO XML in communications with the EBU, Chris Stableford issue 1.1, 18 May 2009
   (http://www.usebio.org/documentation/usebio-1.0.pdf)

   This the USEBIO 1.0 specification.

2) USEBIO specification version 1.1 (18 June 2014)
   (http://usebio.org/documentation/usebio-1.1.pdf)

   This is the final version of the USEBIO 1.1 specification. Note that there were earlier drafts including an early version which included a formal specification of USEBIO 1.1 using "relax NG" code.

3) Pianola USEBIO XML guide

   This is a guide to USEBIO 1.0 files and how the Pianola bridge system uses them. The format has been used as a template for this document.

4) USEBIO website: (http://usebio.org)

   This gives an overall guide to USEBIO and how EBU uses the files.