Standard Data Interchange Format

VERSION 2 DOCUMENT
(official)

June 18, 1997

United States Swimming Interchange Format
VERSION 2 DOCUMENT

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           Revisions List
           1.  - Page 2, Revise definition of mandatory fields.

           2.  - Remove all vendor-defined fields. The resulting space
                 will be for future use.

           3.  - Remove all "checksum" fields. The resulting space will be
                 for future use.

           4.  - Add field to A0 record (156/2) "submitted by LSC" for Top 16
                 tabulation.

           5.  - Page 19, D0 Record, "EVENT SEX Code 011" (67/1)
                 make mandatory.

           6.  - Top 16 Pyramid(only) - allow multiple meets.

           7.  - Page 3, Revise phone number formatting restrictions.

           8.  - Page 3, Revise Time field format # 3.

           9.  - Remove H0 record.

           10. - Page 3, Revise Name field format.

           11. - Remove "Transaction" field from all records.
                 The resulting space will be for future use.

           12. - Page 10, B1 change "meet city" & "meet state" to M2.

           13. - Page 13, C1 remove mandatory on "Region Code".

           14. - Change each occurance of "USS or other ID" to "USS#" and
                 make M2.

           15. - Remove any occurance of "unique Event ID#". The resulting
                 space will be for future use.

           16. - Convert "admin info" fields in D1 to future use.

           17. - Convert "middle initial" in D1 to future use.

           18. - Remove "ANSWER Code 023" in all records, make future use.

           19. - Change to M1: "meet name","meet start" in B1. "TEAM code"
                           "full team name" in C1.

           20. - Change to M2: "date of swim" in D0&E0, "swimmer birth date"
                           in D1 & F0, "ORG Code" in all records.

           21. - Convert "flight status" in D0 to future use.

             22. - Prelims & finals place and points are to be M1 for championship
       meets.
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Introduction

United States Swimming has matured as an organization and
expanded services to individuals and clubs. To support this
expansion, USS has developed a computer plan. One component is a
standard interchange format for technical data. Swimming data
must be transmitted among the clubs, Local Swimming Committees
(LSCs), and the USS headquarters office. Exchanging meet results
is one example, where data from a host club is distributed to
swimmers and clubs using diskettes or modems. Some LSCs are
compiling swimmer statistics and would retype the data from
printed sheets if electronic transmission were not available.
A standard format promotes easy exchange of data and the
development of new computer programs and services. The goal is
to preserve the valuable efforts of our volunteers.

To develop this standard, United States Swimming established an
ad-hoc committee to review existing needs and prepare a draft
design.   A representative from US Masters Swimming and a coach
familiar with high school and college swimming requirements
contributed significantly to the final design. The design is
intended to allow all aquatic sports organizations to use the
same standard. New records can be added, and new codes or
fields can be added to existing records.

The format incorporates a modular design. Each file would
combine the records into an order that corresponds to the
type of data to be transmitted. Meet entry records would have a
specific order. Time standards would have another order. When
specific record types are not needed, those records can be
omitted.   Certain fields were declared to be "mandatory" for
adequate identification of the data and to preserve unique
identifiers.

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Format Design

The basic design of the USS Interchange Format is a fixed record
length for all records. Data is grouped together by type of
information, and records are linked to each other by common
fields or by record order. The records comprise a single type
of information, e.g., one record for meet host data. The file
structure has an implied order of less frequent data preceding
more frequent data, i.e., one meet, multiple teams, multiple
athletes per team, etc.

Each record is one-hundred sixty-two (162) bytes in length,
with the last two bytes a carriage return and line feed.
Byte 161 is an ASCII 13 and byte 162 is an ASCII 10. Each
record has a two byte record identifier.

Coding conventions

The first byte of the first record MUST be the first byte of
the file, and MUST begin an A0 record.

Fields which are not used should be blank filled.

"No blanks" means that there may not be ANY blanks ANYWHERE
in the field; "non-blank" means that there MAY be blanks in
the field, but there MUST be AT LEAST ONE non-blank character
as well.

There are two levels of mandatory fields. M1 - must be
included for the record to be usefull. M2 - an exceptions
report must be generated for records containing blank M2 fields.
M2 fields are necessary for the records to be processed by
USS. M1 fields require a non-blank entry.

All undefined space is named "future use" and MUST be blank
until defined explicitly.

The first two bytes of a record are always CONST, and are
case sensitive.

All ALPHA fields are left justified and can contain any
letters, numbers and printable symbols. Users may elect to have
alphabetic data in upper and lower case or upper case only.

All INT data are stored as ASCII digits and should be right
justified and blank filled.

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DEC numeric values are also ASCII digits and are right
justified and blank filled. An optional decimal may be used if
fractional values occur.

PHONE fields can be formatted in any manner that maintains
the integrity of the number.

All DATE fields have the format MMDDYYYY where MM is the month,
DD is the day, and YYYY is the year. If a date is supplied,
it must not have ANY blanks -- zero-fill each portion of the date.

CODE fields must match EXACTLY when "table checked", and ARE
case sensitive. The user should request new codes if required.
The term "table checked" refers to the tables in the back of the
SDIF document, not a file supplied by U.S. Swimming.

USPS designates U.S. Postal Service state abbreviations and
should be capitalized.

POSTAL CODES may be left or right justified, but should include
leading zeroes where defined (for example: a Vermont ZIP code
of 05452).

All TIME fields MUST match one of the following formats:
1) All blanks.
2) Have the format mm:ss.ss where mm is the minutes value and
   ss.ss is the seconds value to hundredths. The third byte must
   be a colon or a blank, and the sixth byte must be a period.
   If a blank appears anywhere in this format, everything to the
   left must also be blank.
3) TIME Code 020, left-justified and blank-filled.

If a time field is used, then the COURSE/STATUS code field
immediately following (if present) must be entered also. When
meets are timed finals only, the swim time should be entered in
the Finals Time field.

A NAME type must be in the following format: last name followed
by a comma and a space, followed by first name and an optional
space and middle initial. Example: O'Neil, John Q

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Meet Pyramid

     A0-File description rec      first record in file, contains
                                  data on the file itself and
                                  identifies the vendor software.

     B1-Meet rec                  one per file, contains data  on
                                  type of meet, location, dates
                                  of competition.

     B2-Meet host rec             one or more per meet, contains
                                  meet host contact information

       C1-Team ID rec             one per team, contains data on
                                  team name, code, address.

       C2-Team entry rec          one per team, contains coach
                                  info plus stats on other
                                  records to follow for that team.

         D0-Ind. event rec        one per splash, contains data
                                  on athlete, event, stroke and
                                  distance, times, places
                                  and lanes.

          G0-Split rec            one or more per "D0", contains
                                  data on athlete name, ID, event
                                  ID, split time and interval.

         E0-Relay event rec       one per relay entry, contains
                                  data on relay event, team,
                                  times, places and lanes.

         F0-Relay name rec        four or more per "E0", contains
                                  data on the athlete name, ID,
                                  time, split, and session.

          G0-Split rec            one or more per "E0"

     Z0-File terminator rec       one per file, contains
                                  statistics and text information.
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At each indented level, the file may have multiple entries to
transmit the data in a logical sequence. The order of the
records may vary depending on the user's needs. Some records
have limited data within the record, such as one submitted for
meet entry. The same record would have more data added as the
swimmer completes the event. New records would be added such as
split records. Relay name records could be edited for a revised
order of swimmers.

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Record Times Pyramid

To transmit Top 16 or other record times, the user may submit an
A0 record, one or more D0 records, and a Z0 record.  The D0
records may be followed by G0 split records if needed. For Top 16
only, multiple meets are allowed.

        A0-File description rec    first record in file, contains
                                   data on the file itself and
                                   identifies the vendor software.

        D0-Individual Event Rec  one per time achieved, contains
                                   swimmer ID, team, prelims/finals
                                   times.

          G0-Split rec             one or more per "D0", contains
                                   data on athlete name, ID, event
                                   ID, split time and interval.

        Z0-File terminator rec     one per file, contains
                                   statistics and text information.


Time Standards Pyramid

To transmit time standards, the user may submit an A0 record, one
or more J0, J1, or J2 records, and a Z0 record.

        A0-File description rec    first record in file, contains
                                   data on the file itself and
                                   identifies the vendor software.

        J0-Meet Qual rec           one per event, contains times
                                   for all pool types.

        J1-NAG Qual rec            one per event and pool type,
                                   contains times for all levels
                                   AAAA through B.

        J2-Motivation Qual rec    one per event and level, contains
                                   times for SCY and LCM.

        Z0-File terminator rec     one per file, contains statistics
                                   and text information.
```

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LSC Registration Pyramid

To transmit membership registration data to the LSC, the user may
submit an A0 record, one C1 record, one D1 and one D2 record per
swimmer, and a Z0 record.

        A0-File description rec            first record in file,
                                   contains data on the file
                                   itself and identifies the
                                   vendor software.

        C1-TeamID rec                      one per file, contains
                                   data on team name, code,
                                   address.

          D1-Individ. Admin. rec       one per swimmer, contains
                                   swimmer info

          D2-Individ. Contact rec      one per swimmer, contains
                                   remaining swimmer info

        Z0-File terminator rec             one per file, contains
                                   statistics and text
                                   information.
```

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A0 -- File Description Record

     Purpose:  Identify the file and the type of data to be
           transmitted.  Contact person and phone number
           included to assist with use of information on the
           file.

This record is mandatory for each transfer of data within this
file structure.  Each file begins with this record and each file
has only one record of this type.

start/
length   Mand   Type   Description
------------------------------------------------------------------
1/2      M1*    CONST  "A0"

3/1      M2*    CODE   ORG Code 001, table checked

4/8                    future use

12/2     M1*    CODE   FILE Code 003, table checked

14/30                  future use

44/20     *     ALPHA  software name

64/10     *     ALPHA  software version

74/20    M1*    ALPHA  contact name (person supplying or
                        sending data)

94/12    M1*    PHONE  contact phone (area code and phone
                        number of contact name in 74/20)

106/8    M1*    DATE   file creation or update

114/42                 future use

156/2           ALPHA  submitted by LSC - for Top 16
```

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start/
length    Mand    Type    Description
-------------------------------------------------------------------
158/3                     future use


* required field for submission of registration data to LSC
```

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B1 -- Meet Record

    Purpose: Identify the meet name, address, and dates.

This record is used to identify the meet name and address. The
meet name is required, plus the city, state, meet t ype, start
and end dates. Additional fields provide for the street address,
postal code and country code. Each file may only have one
record of this type.

```
start/
length   Mand    Type    Description
-----------------------------------------------------------
1/2      M1      CONST   "B1"

3/1      M2      CODE    ORG Code 001, table checked

4/8                      future use

12/30    M1      ALPHA   meet name

42/22            ALPHA   meet address line one

64/22            ALPHA   meet address line two

86/20    M2      ALPHA   meet city

106/2    M2      USPS    meet state

108/10           ALPHA   Postal Code, meet zip or foreign code

118/3            CODE    COUNTRY Code 004, table checked

121/1    M2      CODE    MEET Code 005, table checked

122/8    M1      DATE    meet start

130/8    M2      DATE    meet end

138/4            INT     altitude of pool in feet above sea level

142/8                    future use
```

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start/
length    Mand    Type    Description
-----------------------------------------------------------------
150/1             CODE    COURSE Code 013, table checked, default
                          course set up in exporting software

151/10                    future use
```

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B2 -- Meet Host Record

     Purpose:  Identify the meet host or hosts, and host address.

This record is used to identify the meet host or hosts and the
host address.  The meet host name is required.  Additional
fields provide for the street address, city, state, postal code,
country code and phone number.

start/
length   Mand    Type    Description
------------------------------------------------------------------
1/2      M1      CONST   "B2"

3/1      M2      CODE    ORG Code 001, table checked

4/8                      future use

12/30    M2      ALPHA   meet host name

42/22            ALPHA   meet address line one

64/22            ALPHA   meet address line two

86/20            ALPHA   meet city

106/2            USPS    meet state

108/10           ALPHA   Postal Code, meet zip or foreign code

118/3            CODE    COUNTRY Code 004, table checked

121/12           PHONE   meet host phone

133/28                   future use
```

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C1 -- Team Id Record

      Purpose: Identify the team name, code and address. Region
           code defines USS region for team.

This record is used to identify the team name, team code, plus
region. When used, more than one team record can be transmitted
for a single meet. The team name, USS team code and team
abbreviation are required. The USS region code is also required.
Additional fields provide for the street address, city, state,
postal code, and country code.

```
start/
length   Mand   Type   Description
----------------------------------------------------------------
1/2      M1     CONST  "C1"

3/1      M2     CODE   ORG Code 001, table checked

4/8                    future use

12/6     M1     CODE   TEAM Code 006

18/30    M1     ALPHA  full team name

48/16           ALPHA  abbreviated team name

64/22           ALPHA  team address line one

86/22           ALPHA  team address line two

108/20          ALPHA  team city

128/2           USPS   team state

130/10          ALPHA  Postal Code, team zip or foreign code

140/3           CODE   COUNTRY Code 004, table checked

143/1           CODE   REGION Code 007, table checked

144/6                  future use
```

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  start/
  length    Mand    Type   Description
  -----------------------------------------------------------------
  150/1             ALPHA  optional 5th char of team code

  151/10                   future use
```

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C2 -- Team Entry Record

     Purpose:  Identify the team coach and the number of entries
          for the team.

This record is used to identify the team coach .  When used, one
team entry record would be submitted with the C1 team ID record.
The USS team code and team coach field are required.  Additional
fields provide for the number of individual swimmers, number of
splash records, number of relay entries, number of relay name
entries and number of split records.

start/
length   Mand   Type   Description
-----------------------------------------------------------------
1/2      M1     CONST  "C2"

3/1      M2     CODE   ORG Code 001, table checked

4/8                    future use

12/6     M2     CODE   TEAM Code 006

18/30    M2     ALPHA  coach name

48/12           PHONE  coach phone

60/6            INT    number of entries (from this team) in the
                        individual events, corresponds to number of
                        D0 records

66/6            INT    number of different athletes on team

72/5            INT    number of entries (from this team) in the
                        relay events, corresponds to number of E0
                        records

77/6            INT    number of relay swimmer entries (from this
                        team), corresponds to number of F0 records

83/6            INT    number of split records (from this team)
                        in relay and individual events, corresponds
                        to number of G0 records
```

```
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start/
length    Mand    Type    Description
-----------------------------------------------------------------
89/16             ALPHA   short team name for display purpos es

105/45                    future use

150/1             ALPHA   optional 5th char of team code

151/10                    future use
```

D0 -- Individual Event Record

    Purpose: Identify the athlete by name, registration number,
         birth date and gender. Identify the stroke,
         distance, event number and time of the swims.

This record is used to identify the athlete and the individual
event. When used, one individual event record would be
submitted for each swimmer entered in an individual event. The
athlete name, USS registration number, birth date and gender
code are required. Fields for the stroke, distance, event
number, age range, and date of swim are also required.
Additional fields provide for the citizenship, age or class,
seed time, prelim time, swim off time, finals time and pool
lanes used in competition.

NOTE: Individual event records must be preceded by at least one
C1 team ID record and one C2 team entry record. If these two
records are missing, the individual is assumed to be attached
to the previous "team" that has proper coding. Athlete
registration data is not available to meet management programs
and proper coding is essential.

```
start/
length    Mand    Type    Description
------------------------------------------------------------------
1/2       M1      CONST   "D0"

3/1       M2      CODE    ORG Code 001, table checked

4/8                       future use

12/28     M1      NAME    swimmer name

40/12     M2      ALPHA   USS#

52/1              CODE    ATTACH Code 016, table checked

53/3              CODE    CITIZEN Code 009, table checked

56/8      M2      DATE    swimmer birth date

64/2              ALPHA   swimmer age or class (such as Jr or Sr)
```

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start/
length    Mand    Type    Description
-------------------------------------------------------------
66/1      M1      CODE    SEX Code 010, table checked

67/1      M1      CODE    EVENT SEX Code 011, table checked

68/4      M1      INT     event distance

72/1      M1      CODE    STROKE Code 012, table checked

73/4                      future use

77/4      M1      CODE    EVENT AGE Code 025, table checked

81/8      M2      DATE    date of swim

89/8              TIME    seed time

97/1      *       CODE    COURSE Code 013, table checked

98/8              TIME    prelim time

106/1     *       CODE    COURSE Code 013, table checked

107/8             TIME    swim-off time

115/1     *       CODE    COURSE Code 013, table checked

116/8             TIME    finals time

124/1     *       CODE    COURSE Code 013, table checked

125/2             INT     prelim heat number

127/2             INT     prelim lane number

129/2             INT     finals heat number

131/2             INT     finals lane number

133/3     **      INT     prelim place ranking
```

```
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start/
length    Mand    Type    Description
------------------------------------------------------------
136/3      **     INT     finals place ranking

139/4      **     DEC     points scored from finals

143/2             CODE    EVENT TIME CLASS Code 014, table checked

145/1             ALPHA   flight status of swimmer (subdivision
                           of Time Standard)

146/15                    future use


*  This field is mandatory IF the immediately preceeding time
   field is NOT blank

** This field is mandatory (M1) if a championship meet
   (MEET Code 005 - 6,7)

Note -  An additional record type will be used for open water
        swimming.  Multiple swim offs require multiple records.


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D1 -- Individual Administrative Record

     Purpose:  Identify the athlete by name, registration number,
          birth date and gender.  Identify other
          administrative information.

This record is used to identify the athlete and his/her
administrative information. When used, one individual
administrative record would be submitted for each swimmer in
the file.  The athlete name, USS registration number, birth
date and gender code are required.

start/
length    Mand    Type    Description
-----------------------------------------------------------------
1/2       M1*     CONST   "D1"

3/1       M2*     CODE    ORG Code 001, table checked

4/8                       future use

12/6       *      CODE    TEAM Code 006

18/1              ALPHA   optional 5th char of team code

19/28     M1*     NAME    swimmer name

47/1                      future use

48/12     M2*     ALPHA   USS#

60/1              CODE    ATTACH Code 016, table checked

61/3       *      CODE    CITIZEN Code 009, table checked

64/8      M2*     DATE    swimmer birth date

72/2              ALPHA   swimmer age or class (such as Jr or Sr)

74/1      M1*     CODE    SEX Code 010, table checked

75/30             ALPHA   first admin info field
```

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   start/
   length   Mand   Type   Description
   -------------------------------------------------------------
   105/20     *     ALPHA  fourth admin info field, used in submission
                            of registration data for old member number
                            if inits or birthdate change

   125/12     *     PHONE  first phone number for swimmer

   137/12           PHONE  second phone number for swimmer

   149/8      *     DATE   date swimmer registered with USS

   157/1      *     CODE   MEMBER Code 021, table checked

   158/3                   future use


   * required field for submission of registration data to LSC
```

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D2 -- Individual Contact Record

     Purpose:  Identify the athlete by name.  Identify mailing
          and contact information.

This record is used to identify the athlete and his/her contact
information. When used, one individual contact record would be
submitted for each swimmer in the file.  The athlete name is
required.

start/
length   Mand    Type    Description
-----------------------------------------------------------------
1/2      M1*     CONST   "D2"

3/1      M2*     CODE    ORG Code 001, table checked

4/8                      future use

12/6      *      CODE    TEAM Code 006

18/1             ALPHA   optional 5th char of team code

19/28    M1*     NAME    swimmer name

47/30            ALPHA   alternate mailing name

77/30     *      ALPHA   mailing address (street)

107/20    *      ALPHA   mailing city

127/2     *      USPS    mailing state

129/12           ALPHA   mailing country

141/10    *      ALPHA   Postal Code, zip or foreign code

151/3            CODE    COUNTRY Code 004, table checked

154/1            CODE    REGION Code 007, table checked

155/1     *      CODE    ANSWER Code 023, Is swimmer also a member
                          of another FINA federation?
```

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start/
length    Mand    Type    Description
--------------------------------------------------------------
156/1       *     CODE    SEASON Code 022, table checked, show which
                          season swimmer is registered for

157/4                     future use


* required field for submission of registration data to LSC
```

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E0 -- Relay Event Record

     Purpose: Identify the relay team by name, USS team code,
        and gender. Identify the stroke, distance, event
        number, date and time of the swims.

This record is used to identify the team and the relay event.
When used, one relay event record would be submitted for each
relay squad entered in a relay event. The relay team name, USS
team code, and gender code are required. Fields for the stroke,
distance, event number, age range, and date of swim, are also
required. Additional fields provide for the age or class, seed
time, prelim time, swim off time, finals time, and pool lanes
used in competition.

```
start/
length    Mand    Type    Description
----------------------------------------------------------------
1/2       M1      CONST   "E0"

3/1       M2      CODE    ORG Code 001, table checked

4/8                       future use

12/1      M1      ALPHA   relay team name:  one alpha char to
                          concatenate with the abbreviated team
                          name (48/16) in record C1 -- creates such
                          names as "Dolphins A"

13/6      M1      CODE    TEAM Code 006

19/2              INT     number of F0 relay name records to follow

21/1      M1      CODE    EVENT SEX Code 011, table checked

22/4      M1      INT     distance of relay

26/1      M1      CODE    STROKE Code 012, table checked

27/4                      future use

31/4      M1      CODE    EVENT AGE Code 025, table checked
```

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start/
length   Mand   Type   Description
------------------------------------------------------------------
35/3             INT    total age of all athletes in this event

38/8     M2      DATE   date of swim

46/8             TIME   seed time

54/1      *      CODE   COURSE Code 013, table checked

55/8             TIME   prelim time

63/1      *      CODE   COURSE Code 013, table checked

64/8             TIME   swim-off time

72/1      *      CODE   COURSE Code 013, table checked

73/8             TIME   finals time

81/1      *      CODE   COURSE Code 013, table checked

82/2             INT    prelim heat number

84/2             INT    prelim lane numbe r

86/2             INT    finals heat number

88/2             INT    finals lane number

90/3      **     INT    prelim place ranking

93/3      **     INT    finals place ranking

96/4      **     DEC    points scored from finals

100/2            CODE   EVENT TIME CLASS Code 014, table checked

103/59                  future use

*  This field is mandatory IF the immediately preceeding time
   field is NOT blank

** This field is mandatory (M1) if a championship meet
   (MEET Code 005 - 6,7)

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F0 -- Relay Name Record

        Purpose: Identify the athletes on a relay team by name, USS
                registration number, birth date and gender.
                Identify the stroke, distance, event number, date,
                session and time of the swims.

This record is used to identify the athletes on a relay team and
the relay order. When used, one relay name record is submitted
for each relay athlete entered in a re lay event. Alternates may
be listed on additional records as an optional method of using
this record. The relay team name, USS team code, and gender
code are required. The Event ID # field (12/4) is required to
properly identify the relay te am to an event and to further link
the splits for a relay athlete. Fields for the stroke, distance,
event number, age or class, and date of swim, are also required.
Additional fields provide for the seed time, prelim time, swim
off time, finals time, and pool lanes used in competition.

NOTE: Relay name records must be preceded by at least one E0
relay event record. If this record is missing, the athlete on a
relay team cannot be attached to the proper relay squad.

```
start/
length   Mand   Type   Description
------------------------------------------------------------------
1/2      M1     CONST  "F0"

3/1      M2     CODE   ORG Code 001, table checked

4/12                   future use

16/6     M1     CODE   TEAM Code 006

22/1     M1#    ALPHA  relay team name:  one alpha char to
                        concatenate with the team abbreviation in
                        record C1 -- creates such names as
                        "Dolphins A"

23/28    M1     NAME   swimmer name
```

```
start/
length    Mand    Type    Description
------------------------------------------------------------------
51/12     M2      ALPHA   USS#

63/3              CODE    CITIZEN Code 009, table checked

66/8      M2      DATE    swimmer's birth date

74/2              ALPHA   swimmer age or class (such as Jr or Sr)

76/1      M1      CODE    SEX Code 010, table checked

77/1      M1      CODE    ORDER Code 024, prelim leg, table checked

78/1      M1      CODE    ORDER Code 024, swim-off leg, table checked

79/1      M1      CODE    ORDER Code 024, finals leg, table checked

80/8              TIME    leg time

88/1       *      CODE    COURSE Code 013, table checked

89/4              DEC     automatic take-off time in seconds and
                           hundredths (s.ss)

93/68                     future use
```

\# If the record is being sent for meet registration and team has
  not been finalized, this is NOT mandatory

* This field is mandatory IF the immediately preceeding time
  field is NOT blank

!!! SDIF VERSION 2 DOCUMENT !!!

G0 -- Splits Record

    Purpose: Identify the athletes in an event by name and USS
        registration number. Identify the split dist ance,
        number of splits and the split times of the swims.

This record is used to identify the athletes in an event and the
split times. When used, one splits record would be submitted for
each event that an athlete entered in a meet. The ath lete name,
USS registration code, and split distance are required.
A split type code is required to identify the split
as an interval or cumulative time. Ten time fields are provided
to record the splits, and multiple records may be used t o
complete all splits for a long-distance event.

NOTE: Splits records must be preceded by at least one D0
individual event record or one F0 relay name record. If this
record is missing, there is no way to connect the splits with
the swim.

```
start/
length   Mand   Type   Description
-----------------------------------------------------------------
1/2      M1     CONST  "G0"

3/1      M2     CODE   ORG Code 001, table checked

4/12                   future use

16/28           NAME   swimmer name.  If name is not available,
                        enter "NO SWIMMER NAME" or some other
                        meaningful string

44/12           ALPHA  USS#

56/1     M1     INT    sequence number to order multiple splits
                        records for one athlete and one event

57/2     M1     INT    total number of splits for this event,
```

!!! SDIF VERSION 2 DOCUMENT !!!

```
start/
length    Mand    Type    Description
----------------------------------------------------------------
59/4      M1      INT     split distance

63/1      M1      CODE    SPLIT Code 015, table checked

64/8              TIME    split time

72/8              TIME    split time

80/8              TIME    split time

88/8              TIME    split time

96/8              TIME    split time

104/8             TIME    split time

112/8             TIME    split time

120/8             TIME    split time

128/8             TIME    split time

136/8             TIME    split time

144/1             CODE    PRELIMS/FINALS Code 019, table checked

145/16                    future use
```

!!! SDIF VERSION 2 DOCUMENT !!!

J0 -- Meet Qualifying Times Record

    Purpose: Identify the qualifying times for each event of a
         meet.

This record is used to identify qualifying times for each event.
When used, one meet qualifying times record would be submitted
for each event in the meet. The first six fields are mandatory.
At least one time and the age range are also required. Fields
for the zone, meet and LSC codes are also provided.

```
start/
length   Mand    Type    Description
-----------------------------------------------------------------
1/2      M1      CONST   "J0"

3/8      M1      DATE    date on which times become effective

11/1     M1      CODE    MEET Code 005, table checked

12/5                     future use

17/1     M1      CODE    EVENT SEX Code 011, table checked

18/4     M1      INT     distance of event

22/1     M1      CODE    STROKE Code 012, table checked

23/8             TIME    for short course yards

31/8             TIME    for short course meters

39/8             TIME    for long course meters

47/4     M1      CODE    EVENT AGE Code 025, table checked

51/1             CODE    ZONE Code 017, table checked

52/2             CODE    REGION Code 007, table checked

54/2             CODE    LSC Code 002, table checked

56/105                   future use
```

```
!!! SDIF VERSION 2 DOCUMENT !!!

J1 -- National Age Group Times Record

     Purpose:  Identify the qualifying times for national age
          group records.

This record is used to identify qualifying times for national
age group records.  When used, one NAG qualifying times record
would be submitted for each event, age group and course
combination.  The first seven fields are mandatory.  At least
one time is also required.

start/
length   Mand    Type    Description
-----------------------------------------------------------------
1/2      M1      CONST   "J1"

3/8      M1      DATE    date on which times become effective

11/1     M1      CODE    EVENT SEX Code 011, table checked

12/4     M1      INT     distance of event

16/1     M1      CODE    STROKE Code 012, table checked

17/4     M1      CODE    EVENT AGE Code 025, table checked

21/1     M1      CODE    COURSE Code 013, table checked

22/8             TIME    BB time

30/8             TIME    B time

38/8             TIME    A time

46/8             TIME    AA time

54/8             TIME    AAA time

62/8             TIME    AAAA time

70/91            future use
```

!!! SDIF VERSION 2 DOCUMENT !!!

J2 -- USS Motivational Times Record

    Purpose: Identify the qualifying times for national age
         group records.

This record is used to identify qualifying times for USS
motivational programs. When used, one USS motivational times
record is submitted for each event. The first five fields are
mandatory. When this record is used, at least one time is
also required.

```
start/
length   Mand    Type    Description
----------------------------------------------------------- ------
1/2      M1      CONST   "J2"

3/1      M1      CODE    EVENT SEX Code 011, table checked

4/4      M1      INT     distance of event

8/1      M1      CODE    STROKE Code 012, table checked

9/4      M1      CODE    COLOR Code 018, table checked

13/8             TIME    short course yards level 1

21/8             TIME    short course yards level 2

29/8             TIME    short course yards level 3

37/8             TIME    long course meters level 1

45/8             TIME    long course meters level 2

53/8             TIME    long course meters level 3

61/8     M1      DATE    date on which times become effective

69/92                    future use
```

```
   !!! SDIF VERSION 2 DOCUMENT !!!

   Z0 -- File Terminator Record

      Purpose:  Identify the logical end of file for a file
           transmission.  Record statistics and swim
           statistics are listed for convenience.

This record is mandatory in each file.  Each file ends with this
record and each file has only one record of this type.  The first
four fields are mandatory.  Additional fields provide for text
and record counts.

start/
length    Mand   Type   Description
------------------------------------------------ --------------
1/2       M1     CONST  "Z0"

3/1       M2     CODE   ORG Code 001, table checked

4/8                     future use

12/2      M1     CODE   FILE Code 003, table checked

14/30            ALPHA  notes (additional file info)

44/3             INT    number of B records

47/3             INT    number of different meets

50/4             INT    number of C records

54/4             INT    number of different teams

58/6             INT    number of D records

64/6             INT    number of different swimmers

70/5             INT    number of E records

75/6             INT    number of F records

81/6             INT    number of G records

87/5             INT    batch number
```

```
   !!! SDIF VERSION 2 DOCUMENT !!!

   start/
   length   Mand   Type   Description
   ------------------------------------------------------------------
   92/3            INT    number of new members

   95/3            INT    number of renew members

   98/3            INT    number of member changes

   101/3           INT    number of member deletes

   104/57                 future use
```

```
!!! SDIF VERSION 2 DOCUMENT !!!
                  Code Tables


ORG Code 001       Organization code
      1    USS                       6    NCAA Div III
      2    Masters                   7    YMCA
      3    NCAA                      8    FINA
      4    NCAA Div I                9    High School
      5    NCAA Div II


LSC Code 002       Local Swimming Committee code
      AD   Adirondack            MV    Missouri Valley
      AK   Alaska                MW    Midwestern
      AM   Allegheny Mountain    NC    North Carolina
      AR   Arkansas              ND    North Dakota
      AZ   Arizona               NE    New England
      BD   Border                NI    Niagara
      CA   Southern California   NJ    New Jersey
      CC   Central California    NM    New Mexico
      CO   Colorado              NT    North Texas
      CT   Connecticut           OH    Ohio
      FG   Florida Gold Coast    OK    Oklahoma
      FL   Florida               OR    Oregon
      GA   Georgia               OZ    Ozark
      GU   Gulf                  PC    Pacific
      HI   Hawaii                PN    Pacific Northwest
      IA   Iowa                  PV    Potomac Valley
      IE   Inland Empire         SC    South Carolina
      IL   Illinois              SD    South Dakota
      IN   Indiana               SE    Southeastern
      KY   Kentucky              SI    San Diego Imperial
      LA   Louisiana             SN    Sierra Nevada
      LE   Lake Erie             SR    Snake River
      MA   Middle Atlantic       ST    South Texas
      MD   Maryland              UT    Utah
      ME   Maine                 VA    Virginia
      MI   Michigan              WI    Wisconsin
      MN   Minnesota             WT    West Texas
      MR   Metropolitan          WV    West Virginia
      MS   Mississippi           WY    Wyoming
      MT   Montana
```

```
!!! SDIF VERSION 2 DOCUMENT !!!

FILE Code 003      File/Transmission Type code
      01    Meet Registrations
      02    Meet Results
      03    OVC
      04    National Age Group Record
      05    LSC Age Group Record
      06    LSC Motivational List
      07    National Records and Rankings
      08    Team Selection
      09    LSC Best Times
      10    USS Registration
      16    Top 16
      20    Vendor-defined code


COUNTRY Code 004    FINA Country code (effective 1993)


      AFG  Afghanistan              BRN   Bahrain
      AHO  Antilles Netherlands     BRU   Brunei
        (Dutch West Indies)         BUL   Bulgaria
      ALB  Albania                  BUR   Burkina Faso
      ALG  Algeria                  CAF   Central African
      AND  Andorra                        Republic
      ANG  Angola                   CAN   Canada
      ANT  Antigua                  CAY   Cayman Islands
      ARG  Argentina                CGO   People's Rep. of Congo
      ARM  Armenia                  CHA   Chad
      ARU  Aruba                    CHI   Chile
      ASA  American Samoa           CHN   People's Rep. of China
      AUS  Australia                CIV   Ivory Coast
      AUT  Austria                  CMR   Cameroon
      AZE  Azerbaijan               COK   Cook Islands
      BAH  Bahamas                  COL   Columbia
      BAN  Bangladesh               CRC   Costa Rica
      BAR  Barbados                 CRO   Croatia
      BEL  Belgium                  CUB   Cuba
      BEN  Benin                    CYP   Cyprus
      BER  Bermuda                  DEN   Denmark
      BHU  Bhutan                   DJI   Djibouti
      BIZ  Belize                   DOM   Dominican Republic
      BLS  Belarus                  ECU   Ecuador
      BOL  Bolivia                  EGY   Arab Republic of Egypt
      BOT  Botswana                 ESA   El Salvador
      BRA  Brazil                   ESP   Spain
```

```
!!! SDIF VERSION 2 DOCUMENT !!!

COUNTRY Code 004    Country code (continued)


     EST   Estonia                 LA O   Laos
     ETH   Ethiopia                LAT    Latvia
     FIJ   Fiji                    LBA    Libya
     FIN   Finland                 LBR    Liberia
     FRA   France                  LES    Lesotho
     GAB   Gabon                   LIB    Lebanon
     GAM   Gambia                  LIE    Liechtenstein
     GBR   Great Britain           LIT    Lithuania
     GER   Germany                 LUX    Luxembourg
     GEO   Georgia                 MAD    Madagascar
     GEQ   Equatorial Guinea       MAS    Malaysia
     GHA   Ghana                   MAR    Morocco
     GRE   Greece                  MAW    Malawi
     GRN   Grenada                 MDV    Maldives
     GUA   Guatemala               MEX    Mexico
     GUI   Guinea                  MGL    Mongolia
     GUM   Guam                    MLD    Moldova
     GUY   Guyana                  MLI    Mali
     HAI   Haiti                   MLT    Malta
     HKG   Hong Kong               MON    Monaco
     HON   Honduras                MOZ    Mozambique
     HUN   Hungary                 MRI    Mauritius
     INA   Indonesia               MTN    Mauritania
     IND   India                   MYA    Union of Myanmar
     IRL   Ireland                 NAM    Namibia
     IRI   Islamic Rep. of Iran    NCA    Nicaragua
     IRQ   Iraq                    NED    The Netherlands
     ISL   Iceland                 NEP    Nepal
     ISR   Israel                  NIG    Niger
     ISV   Virgin Islands          NGR    Nigeria
     ITA   Italy                   NOR    Norway
     IVB   British Virgin Islands  NZL    New Zealand
     JAM   Jamaica                 OMA    Oman
     JOR   Jordan                  PAK    Pakistan
     JPN   Japan                   PAN    Panama
     KEN   Kenya                   PAR    Paraguay
     KGZ   Kyrghyzstan             PER    Peru
     KOR   Korea (South)           PHI    Philippines
     KSA   Saudi Arabia            PNG    Papau-New Guinea
     KUW   Kuwait                  POL    Poland
     KZK   Kazakhstan              POR    Portugal
```

COUNTRY Code 004   Country code (continued)

PRK	Democratic People's Rep. of Korea	SWE	Sweden
		SWZ	Swaziland
PUR	Puerto Rico	SYR	Syria
QAT	Qatar	TAN	Tanzania
ROM	Romania	TCH	Czechoslovakia
RSA	South Africa	TGA	Tonga
RUS	Russia	THA	Thailand
RWA	Rwanda	TJK	Tadjikistan
SAM	Western Samoa	TOG	Togo
SEN	Senegal	TPE	Chinese Taipei
SEY	Seychelles	TRI	Trinidad & Tobago
SIN	Singapore	TUN	Tunisia
SLE	Sierra Leone	TUR	Turkey
SLO	Slovenia	UAE	United Arab Emirates
SMR	San Marino	UGA	Uganda
SOL	Solomon Islands	UKR	Ukraine
SOM	Somalia	URU	Uruguay
SRI	Sri Lanka	USA	United States of America
SUD	Sudan		
SUI	Switzerland	VAN	Vanuatu
SUR	Surinam	VEN	Venezuela
		VIE	Vietnam
		VIN	St. Vincent and the Grenadines
		YEM	Yemen
		YUG	Yugoslavia
		ZAI	Zaire
		ZAM	Zambia
		ZIM	Zimbabwe

MEET Code 005   Meet Type code

1	Invitational	8	Seniors
2	Regional	9	Dual
3	LSC Championship	0	Time Trials
4	Zone	A	International
5	Zone Championship	B	Open
6	National Championship	C	League
7	Juniors		

```
!!! SDIF VERSION 2 DOCUMENT !!!

TEAM Code 006      LSC and Team code
     Supplied from USS Headquarters files upon request.
     Concatenation of two-character LSC code and four-character
     Team code, in that order (e.g., Colorado's FAST would be
     COFAST).  The code for Unattached should always be UN, and
     not any other abbreviation.  (Florida Gold's unatt ached
     would be FG  UN.)

REGION Code 007    Region code
     1    Region 1                    8    Region 8
     2    Region 2                    9    Region 9
     3    Region 3                    A    Region 10
     4    Region 4                    B    Region 11
     5    Region 5                    C    Region 12
     6    Region 6                    D    Region 13
     7    Region 7                    E    Region 14

USS# Code 008      USS member number code
     Refer to USS membership files.  These will not be published.

CITIZEN Code 009  Citizenship code
     2AL  Dual:  USA and other country
     FGN  Foreign
     All codes in COUNTRY Code 004

SEX Code 010       Swimmer Sex code
     M    Male
     F    Female

EVENT SEX Code 011 Sex of Event code
     M    Male
     F    Female
     X    Mixed

STROKE Code 012    Event Stroke code
     1    Freestyle
     2    Backstroke
     3    Breaststroke
     4    Butterfly
     5    Individual Medley
     6    Freestyle Relay
     7    Medley Relay
```

!!! SDIF VERSION 2 DOCUMENT !!!

COURSE Code 013   Course/Status code
     Please note that there are alternatives for the three types
     of pools. The alpha characters make the file more readable.
     Either may be used.
     1 or S   Short Course Meters
     2 or Y   Short Course Yards
     3 or L   Long Course Meters
     X   Disqualified

EVENT TIME CLASS Code 014 Event Time Class code
     The following characters are concatenated to form a 2-byte
     code for the event time class. The first character
     indicates the lower limit; the second character indicates
     the upper limit. 22 indicates B meets, 23 indicates B-A
     meets, and 40 indicates AA+ meets.
     U   no lower limit (left character only)
     O   no upper limit (right character only)
     1   Novice times
     2   B standard times
     P   BB standard times
     3   A standard times
     4   AA standard times
     5   AAA standard times
     6   AAAA standard times
     J   Junior standard times
     S   Senior standard times

SPLIT Code 015   Split code
     C   Cumulative splits supplied
     I   Interval splits supplied

ATTACH Code 016   Attached code
     A   Swimmer is attached to team
     U   Swimmer is swimming unattached

ZONE Code 017   Zone code
     E   Eastern Zone
     S   Southern Zone
     C   Central Zone
     W   Western Zone

```
!!! SDIF VERSION 2 DOCUMENT !!!

COLOR Code 018     Color code
      GOLD Gold
      SILV Silver
      BRNZ Bronze
      BLUE Blue
      RED  Red (note that fourth character is a space)
      WHIT White

PRELIMS/FINALS Code 019   Prelims/Finals code
          P           Prelims
          F           Finals
          S           Swim-offs

TIME Code 020      Time explanation code
      NT   No Time
      NS   No Swim (or No Show)
      DNF  Did Not Finish
      DQ   Disqualified
      SCR  Scratch

MEMBER Code 021   Membership transaction type
      R    Renew
      N    New
      C    Change
      D    Delete

SEASON Code 022
      1    Season 1
      2    Season 2
      N    Year-round

ORDER Code 024    relay leg order
      0    Not on team for this swim
      1    First leg
      2    Second leg
      3    Third leg
      4    Fourth leg
      A    Alternate
```

EVENT AGE Code 025
     first two bytes are lower age limit (digits, or "UN"
         for no limit)
     last two bytes are upper age limit (digits, or "OV"
         for no limit)
     if the age is only one digit, fill with a zero
         (no blanks allowed)

!!! SDIF VERSION 2 DOCUMENT !!!

Coding Examples

The user of this interchange format has few limitations on the
required records and the logical order. There are only two
required records - the file description record "A0" and the
file terminator record "Z0". These two records bracket a data
transmission batch in a logical structure. Optional records have
mandatory fields to provide essential information to understand
and utilize the data supplied. Meet management applications will
dominate the types of data transmissions. The format has been
designed to accommodate other USS uses.

Meet Entry

Example - two teams in a dual meet. One team is the host and
merges host team data with visiting team data. The visiting team
provides an "A0" record, a "B1" record as a courtesy, a "B2"
record as a courtesy, a "C1" record, a "C2" record, seventy-four
"D0" records for forty-eight swimmers, five "E0" records for the
five relay entries, twenty-nine "F0" records for relay swimmers
and alternates, and a "Z0" record to close the file.

The host team merges a "C1" record, a "C2" record, sixty-three
"D0" records for fifty one swimmers, six "E0" records for six
relay entries, thirty-five "F0" records for the relay swimmers
and alternates, and a "Z0" record is shared from the visiting
team submission. The diagram of the records is given below.

```
    Visiting Team                 Host Team
    "A0"   1 record               (shares same record)
    "B1" 1 dual meet              (shares same record)
    "B2" 1 names host team        (shares  same record)

    "C1" 1 visiting team          "C1" 1 host team
    "C2" 1 visiting team          "C2" 1 host team

    "D0" 74 visiting athl-event   "D0" 63 host athl-event
    "E0" 5 relay entries          "E0" 6 relay entries

    "F0" 29 relay swimmers        "F0" 35 relay swimmers

  "Z0" 1 record                   (shares same record)
```

!!! SDIF VERSION 2 DOCUMENT !!!

Swimmers who have not completed the 120-day waiting period are
coded with UNATTACHED status on the individual record, but they
may still be associated with the team. The individual event
records may be in any order for that team. The relay event
records may be in any order but the relay name records mus t
follow each relay event entry.

For meets with multiple teams the file would have the records
for one team together as a group, then the second team and so on
until all the teams are completed. Unattached swimmers who are
not associated with a team would be grouped as an "unattached
team" with a team ID record that indicates that the athletes are
unattached.

It is the responsibility of the participating teams to provide
complete and accurate data. The minimum required fields are
noted with an "M" in the mandatory column in the Format Design
section of this manual. The host may require more information
to conduct the meet and teams should review the meet invitations
closely.

```
!!! SDIF VERSION 2 DOCUMENT !!!

Meet results from the dual meet

   "A0" 1 record for the meet with sanction number and text

    "B1" 1 record for meet host data
    "B2" 1 record for meet host data

    "C1" 1 visiting team record
    "C2" 1 visiting team record

      "D0" 64 records for visiting team
      "G0" 31 records for splits from individual swims

      "E0" 5 relay records for visiting team
      "F0" 20 relay name records for competing swimmers
      "G0" 4 split records for 4 swimmers on lead off

    "C1" 1 host team record
    "C2" 1 host team record

      "D0" 61 records for host team
      "G0" 22 records for splits from individual swims

      "E0" 4 relay records for host team
      "F0" 16 relay name records for host team

   "Z0" 1 terminator record for the meet.
```