AMERICAN NATIONAL STANDARD

ANSI/ISA-107.1-2013
Industry Standard File Format for Revolution-Based Tip Timing Data

29 January 2013

ANSI/ISA-107.1-2013
Industry Standard File Format for Revolution-Based, Tip Timing Data

ISBN: 978-0-876640-10-4

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1 Scope

This standard presents the file format to be utilized for data acquired by a revolution-based tip timing data system. It provides the following:

- All header information needed to describe the contents of the data file
- The format of the header
- The definition and type of all variable names
- The format of the sensor(s) data blocks

2 Purpose

The purpose of this standard is to establish a file format for revolution-based tip timing data. This standard file format will allow tip timing users to share data and allow a common data file reading and writing capability across the tip timing community.

3 Variable definitions, abbreviated terms, and acronyms

3.1 Variable definitions

3.1.1 unsigned
unsigned 32 bit integer

3.1.2 int
signed 32 bit integer

3.1.3 char
signed 8 bit integer

3.1.4 float
single precision 32 bit conforming to the 4 byte IEEE 754-2008 standard

3.1.5 IND_IRIG_STRUCT
Data structure that includes the IRIG time code. The format is shown in Table 1.

```
typedef struct {
        unsigned        days;
        unsigned        hours;
        unsigned        minutes;
        unsigned        seconds;
        unsigned        microseconds;
} IND_IRIG_STRUCT;
```

Table 1. IND_IRIG_STRUCT definition

3.1.6 struct tm_redec
Data structure that contains the computer system time. The format is shown in Table 2.