

ALICE-TIMING

# XML Specification for OPTIc2.NET and OPTIc3.NET Import and Export

Documentation

## Table of Contents

# XML Specification for OPTIc2Net/OPTIc3Net Export and Import

### Content

Content .....		2
<b>1</b>	<b>Preface .....</b>	<b>3</b>
<b>2</b>	<b>Heat Import .....</b>	<b>4</b>
2.1	Example .....	4
2.2	Description .....	4
<b>3</b>	<b>Meet Import.....</b>	<b>6</b>
3.1	Example .....	6
3.2	Description .....	6
<b>4</b>	<b>Heat Startlist Export.....</b>	<b>8</b>
4.1	Example .....	8
4.2	Description .....	8
<b>5</b>	<b>Heat Result Export .....</b>	<b>9</b>
5.1	Example .....	9
5.2	Description .....	9
<b>6</b>	<b>Reaction Time Import .....</b>	<b>11</b>
6.1	Example .....	11
6.2	Description .....	11
<b>7</b>	<b>Technical discipline result exchange .....</b>	<b>12</b>
7.1	Example .....	12
7.2	Description .....	12

Revisions		
April 11, 2018	Changes to Ids	Tobias Däuber
February 1, 2019	Added information about sockets and added HeatStartlist	Tobias Däuber
October 16, 2019	Added Technical discipline result exchange	Wolfgang Alge

## 1 Preface

Import and Export can be handled in either of the following ways:

- File Sharing (on a network drive or local folder)
  - User can select path to import from and export to
- TCP-Communication
  - OptiCxNet Software can establish various TCP-Ports at the same time
  - Standard line end is ASCII 13, therefore XML fragments are per line and do not include a line break (different than file sharing)

## 2 Heat Import

- Recommended encoding is UTF8, but any encoding is accepted
- Content of the file can be either an XML document (including header) or a fragment only
- File needs to be named with a .heatxml extension
- Attributes shall only be included when containing meaningful values (e.g. if bib is zero or lane is not applicable then no attribute should be written)
- Ids need to be unique throughout the whole meet

### 2.1 Example

```
<Heat      Id="RandomHeatNr1"      Name="Random      heat "      Nr="5"      ScheduledStarttime="12:35">
  <Competitor      Bib="7"      Lane="1"      Lastname="Däuber "      Firstname="Jochim"      Nation="GER"      />
  <Competitor      Bib="7"      Lastname="Kaufmann"      Firstname="Bianca"      />
  <Competitor      Bib="9"      Lastname="Schreiber"      Firstname="Tamara"      />
  <Competitor      Bib="9"      Lastname="Schneider"      Firstname="Katharina"      />
  <Competitor      Bib="9"      Lastname="Busch"      Firstname="Reiner"      />
  <Competitor      Bib="5"      Lastname="Klotzbäcker"      Firstname="Dirk"      />
</Heat>
```

### 2.2 Description

Element	Attribute	Datatype	Description
Heat	Name	String	Name of the heat in this file
	ScheduledStarttime	Time	Time of the scheduled starttime, hours need to be given (optional)
	Id	String	Used for identification of this heat
	Nr	Integer	Number of the heat (other than index)
	Distance	Integer	The distance for this heat in meters (optional) (in relays e
	WindMeasurement	Enum	The wind measurement to be used (optional, if not specified software tries to resolve wind measurement on its own) "None", "5Seconds", "10Seconds", "13Seconds", "10SecondsWith10SecondsDelay"
	UserDistance	String	The distance as a string (optional)
	DistanceType	Enum	Type of distance to allow calculation of wind mode (optional). "Regular", "Hurdles", "Relay", "Steeplechase"
Competitor	Bib	Integer	Bib
	Lane	Integer	Lane
	Starttime	Time	Time of day of the starttime
	Lastname	String	Lastname
	Firstname	String	Firstname
	Nation	String	Nation

	Club	String	Club
	Code	String	Federation Code
	Gender	String	Gender (M, F, any other)
	Horse	String	Horse
	HorseDriver	String	Driver of the horse
	HorseOwner	String	Owner of the horse
	City	String	City
	Team	String	Team
	Class	String	Class
	Reserved1	String	Reserved
	Reserved2	String	Reserved
	Reserved3	String	Reserved
	Reserved4	String	Reserved
	Reserved5	String	Reserved

### 3 Meet Import

- Recommended encoding is UTF8, but any encoding is accepted
- Content of the file can be either an XML document (including header) or a fragment only
- File needs to be named with a .meetxml extension
- Attributes shall only be included when containing meaningful values (e.g. if bib is zero or lane is not applicable then no attribute should be written)
- Structure resembles the one found in OPTIc2Net (one meet contains many sessions, each session contains many events, and each event contains many heats)
- Ids need to be unique throughout the whole meet

#### 3.1 Example

```

<Meet Name="First" meet="City="Lustenau" Nation="AUT" Organizer="Lustenau SC">
  <Session Name="First" session" Location="Lustenau Infield" Type="Run" Date="2014-02-03">
    <Event Name="First" event">
      <Heat Name="First" heat in first event" ScheduledStarttime="10:35">
        Same format as heat import
      </Heat>
      <Heat Name="Second" heat in first event" ScheduledStarttime="11:35">
        Same format as heat import
      </Heat>
    </Event>
  </Session>
  <Session Name="Second" session">
    <Event Name="First" event in second total event" second session">
      <Heat Name="First" heat in second total event" ScheduledStarttime="12:35">
        Same format as heat import
      </Heat>
    </Event>
    <Event Name="Second" event in second session">
      <Heat Name="First" heat in third total event" ScheduledStarttime="13:35">
        Same format as heat import
      </Heat>
    </Event>
  </Session>
</Meet>

```

#### 3.2 Description

Element	Attribute	Datatype	Description
Meet	Name	String	Name of the meet
	Id	String	Used for identification of this meet
	City	String	City of the meet
	Nation	String	Nation of the meet
	Organizer	String	Organizer of the meet
	Promoter	String	Promoter of the meet
	Timing	String	Timing provider of the meet
Session	Name	String	Name of the session
	Id	String	Used for identification of this session
	Nr	Integer	Number of the session (other than index)
	Location	String	Location of the session
	Type	String	Type of the session

	Date	Date	Date of the session (yyyy-MM-dd)
<b>Event</b>	Name	String	Name of the event
	Id	String	Used for identification of this event
	Nr	Integer	Number of the event (other than index)
	Distance	Integer	The distance for this event in meters (optional)
	WindMeasurement	Enum	The wind measurement to be used (optional, if not specified software tries to resolve wind measurement on its own) "None", "5Seconds", "10Seconds", "13Seconds", "10SecondsWith10SecondsDelay"
	UserDistance	String	The distance as a string (optional)
	DistanceType	Enum	Type of distance to allow calculation of wind mode (optional). "Regular", "Hurdles", "Relay", "Steeplechase"

## 4 Heat Startlist Export

- Encoding is UTF8
- Content is an XML document including header
- File name will be the name of the heat and .heatstartlistxml extension
- Attributes will only be written when the corresponding value is valid (e.g. bib or rank is other than zero, nation is not blank, ...)

### 4.1 Example

```
<HeatStartlist      HeatId="1"          Id="RandomHeatNr1"      Name="Testheat"      >
  <Startlist>
    <Competitor      Bib="2"          Lane="5"          Lastname=""          Firstname=""          Nation=""          />
    <Competitor      Bib="3"          Lane="6"          Status="DNS"        Lastname=""          Firstname=""          Nation=""          />
  </Startlist>
</HeatStartlist >
```

### 4.2 Description

Element	Attribute	Datatype	Description
HeatStartlist	Name	String	Name of the exported heat
	HeatId	Integer	Id within software (for internal use only)
	Id	String	The id that was imported for this heat
	Nr	Integer	The number of this heat
	SessionId	String	The id that was imported for this session
	SessionNr	Integer	The number of this session
	EventId	String	The id that was imported for this event
	EventNr	Integer	The number of this event
	DistanceMeters	Integer	Distance of this heat in meters if available
	ScheduledStarttime	String	Time of the scheduled starttime, hours need to be given (optional)
Competitor	Status	String	Empty if is about to start, DNS if not going to start
	Other columns same as import		



## 5 Heat Result Export

- Encoding is UTF8
- Content is an XML document including header
- File name will be the name of the heat and .heatresultxml extension
- Attributes will only be written when the corresponding value is valid (e.g. bib or rank is other than zero, nation is not blank, ...)

### 5.1 Example

```
<HeatResult HeatId="1" Id="RandomHeatNr1" Name="Testheat" Wind="2.8"
  WindUnit="MetersPerSecond">
  <Results>
    <Competitor Rank="1" Bib="1" Lane="4" Runtime="45.58" Lastname="" Firstname=""
Nation="" />
    <Competitor Rank="1" Bib="2" Lane="5" Runtime="45.68" Lastname="" Firstname="" Nation="" />
    <Competitor Rank="2" Bib="3" Lane="6" Runtime="1:01.35" Lastname="" Firstname="" Nation="" />
  </Results>
</HeatResult>
```

### 5.2 Description

Element	Attribute	Datatype	Description
HeatResult	Name	String	Name of the exported heat
	HeatId	Integer	Id within software (for internal use only)
	Id	String	The id that was imported for this heat
	Nr	Integer	The number of this heat
	SessionId	String	The id that was imported for this session
	SessionNr	Integer	The number of this session
	EventId	String	The id that was imported for this event
	EventNr	Integer	The number of this event
	Starttime	String	Starttime of the heat
	Runtime	String	Runtime of the heat
	Wind	Decimal	Value of the wind
	WindUnit	Enum	Unit of the wind (as of now only MetersPerSecond)
	DistanceMeters	Integer	Distance of this heat in meters if available
	Competitor	Rank	Integer
Runtime		Time	Runtime in the competitions' precision, leading zeros are omitted
RuntimeFull-Precision		Time	Runtime in full precision, leading zeros are omitted
State		Enum	<i>See table below</i>
Disqualification		String	Translated disqualification reason
Other columns same as import			

Possible values for State:

State	Description
DNS	Did not start
DNF	Did not finish
DSQ	Disqualified
CAN	Cancelled
SUR	Surrendered
DQR	Disqualified Red
DQB	Disqualified Blue
DQA	Disqualified Red AGH
PAF	Pass through finish
GAF	Gallop through finish
FAL	Fall
DRL	Driverless
FR1	Free 1
FR2	Free 2
FR3	Free 3
FR4	Free 4
FR5	Free 5

## 6 Reaction Time Import

- Encoding is UTF8
- Only via TCP/IP (SJ2: TCP Server Port 1111)
- Attributes will only be written when the corresponding value is valid (e.g. bib or rank is other than zero, reaction time is available, ...)

### 6.1 Example

```
<HeatReactiontimes      HeatId="1"          Id="RandomHeatNr1"      Name="Testheat"        >
  <Reactiontimes>
    <Competitor         Bib="2"          Lane="5"          Reactiontime="+0.05"   />
    <Competitor         Bib="3"          Lane="6"          Reactiontime="-0.06" />
  </Reactiontimes>
</HeatResult>
```

### 6.2 Description

Element	Attribute	Datatype	Description
HeatReactiontimes	Name	String	Name of the exported heat
	HeatId	Integer	Id within software (for internal use only)
	Id	String	The id that was imported for this heat
Competitor	Nr	Integer	The number of this heat
	Reactiontime	String	Reactiontime including + or minus sign
	Other columns same as import		

## 7 Technical discipline result exchange

- Encoding is UTF8
- Only via TCP/IP (TDM: TCP Server Port 1112)
- Attributes will only be written when the corresponding value is valid (e.g. bib is other than zero, distance is not blank, ...)

### 7.1 Example

```
<TDResult Id="29" Name="Hammer - Final B" Nr="2">
  < Competitors>
    <Competitor Bib="336" Attempt="2" Width="73.56" Wind="-0.4"/>
    <Competitor Bib="337" Attempt="1" Width="75.43" />
  </ Competitors >
</TDResult>
```

### 7.2 Description

Element	Attribute	Datatype	Description
<b>TDResult</b>	Id	String	The id that was imported for this heat
	Name	String	Name of the exported heat (optional)
	Nr	Integer	The number of this heat (optional)
<b>Competitor</b>	Bib	Integer	Bib
	Lastname	String	Lastname (optional)
	Firstname	String	Firstname (optional)
	Attempt	Integer	Number of Attempt (optional)
	Width	Decimal	Measured width (Result only)
	Wind	Decimal	Value of the wind (optional)

Subject to changes

Copyright by

**ALGE-TIMING** GmbH  
Rotkreuzstr. 39  
6890 Lustenau / Österreich  
<https://www.alge-timing.com>