Universal Athlete Assessment
Data Collection, Management and Reporting System

Request for Quotation

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Submit in PDF to david@ringettealberta.com

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Who We Are

Ringette Alberta is the non-profit governing body for ringette in the province of Alberta. The organization was formed in 1976 and today is a leader in ringette in Canada.

We operate under the guidance of an elected board of volunteer directors and a small complement of paid staff. We have nearly 40 member clubs servicing 6,000 athletes.

Project Overview

Ringette Alberta and our members are working together to determine the validity of using standardized tests of ringette skill to establish competitive equity among teams and improve placement of athletes in ringette programs. Individual athletes perform a series of on-ice skills which are measured in elapsed time. After the test results are gathered by a pre-determined, statistically valid quantity of athletes to identify a valid scale, timed results are converted to a score out of 10.

The data from these individual tests are used to produce a total average score for each individual athlete. Individual athlete averages are used to calculate a team average. Teams with an average score within a range of other teams are grouped together for competition at the start of the season.

For the 2015-16 season, testing will be done between September 1 and October 31. The data collection, management and reporting system must be fully developed, thoroughly tested and deployed prior to September 1st 2015.

The system must allow for bulk data upload and download as well as pre-determined and custom reporting.

Project Details

Data Collection

Users

Ringette Alberta's member associations span from Medicine Hat and Lethbridge in Southern Alberta to Fort McMurray in Northern Alberta. They are varied in size from large urban associations with numerous teams to small single-team associations in rural areas.

All associations are volunteer-run organizations therefore a very time efficient data entry process is required.

Associations have a broad spectrum of web / data entry / data management expertise therefore the data entry interface and process must accommodate inexperienced users with limited technical background.

Size of Database

- Approximately 3000 test subjects
- Four individual tests for a total of 11 possible records per individual or 33,000 test results per test period.
  - Agility Weave x 2 trials
  - Start and Stop x 3 trials
  - Speed test – forward x 2 trials
  - Speed test – backward x 2 trials
  - Butterfly right (to be confirmed) x 1 trial
  - Butterfly left x 1 trial
- For each of the above, retain raw / absolute elapsed time plus calculated score out of 10 (see below)
- Additional information
  - Test date (each athlete will be completing the full complement of tests multiple times per year and in subsequent years)
  - ID # (auto generated by the system)
  - First Name
  - Last Name
  - Date of Birth
  - Local Ringette Association membership
  - Local Ringette Association conducting the testing (default to above but editable)
  - Team code (data will be added after team formation)
  - Division (data will be added after team formation)
  - Level (data will be added after team formation)
  - Calculations (see below)

Data Entry Process

There are three possible data entry methods:

Real-time individual entry

Real time data entry will be done on the ice surface immediately after an individual completes a skill trial. There is no guarantee of Wi-Fi access so this method will require the implementation of kiosk mode, if possible, for use with tablets.

Post-testing individual entry[1]

Associations may choose to record individual scores on paper at the time of testing and then assign a volunteer to enter all the data after testing is complete. This requires a simple and fast interface that is intuitive.

Post-event bulk upload[1]

Some associations may require the option of recording all their data in their own spreadsheet and uploading this data to the database after testing is complete. Strict data standards must be enforced. For those choosing this option, a spreadsheet template must be available to them in advance.

Because [1]these methods require the use of paper forms to record individual test scores, these must be developed and included for download. These forms will need to be in two formats:

1. Per individual
2. Per station (one station for each skill)

These are different in layout but contain the data fields on the form correspond to the database fields.

Calculations

Step 1 – convert time result to score out of ten

- [2]Ringette Alberta to review statistically valid raw data
- Ringette Alberta to set minimum and maximum times, e.g., equal to or slower than x = 1, equal to or faster than X = 10
- [3]Ringette Alberta input values. Developer create interface to do so.
- System completes calculation and produces score out of 10 for individuals

Step 2 – individual total average score generated

Step 3 – individuals [3]assigned to teams

Step 4 – team scores calculated

[2]This step does not have to wait until all testing is complete. Ideally, once a statistically valid quantity of tests results are recorded, this step can be implemented so that, as subsequent raw scores are entered, the "out of 10" results will be automatically calculated and included in the database. That said, there needs to be a mechanism to allow Ringette Alberta to change this calculation at any time, i.e., ***not hard coded***.

[3]This process to be discussed with developer. For the first calculation (fall 2015), to save development time, the developer can input the values provided by Ringette Alberta however the developer should be prepared develop a mechanism for Ringette Alberta to enter these values without developer involvement.

Reporting

At this time, it is difficult to identify all the possible reports that may be required so the system must allow for CSV download of all data.

In addition, the developer should be prepared to include approximately 8-12 different reports that can be produced by the system without the need for CSV download. Development of the reporting function can be completed post September 1 but no later than September 30, 2015. These reports will be defined by Ringette Alberta and provided to the developer.

Roles and Permissions

We anticipate three role types with varied permissions:

- Trial Recorder
  - Login
  - Edit individual records during test event
- Local Administrator
  - Login
  - Open and Close test events
  - Add and Delete Trial Recorders

    - Edit individual records during test event
    - View and edit all local ringette association data
    - Produce reports applicable to local ringette association
- Provincial Administrator
    - Login
    - Open and Close test events
    - Add and Delete Trial Recorders
    - Add and Delete Local Administrators
    - View and edit all data
    - Produce all reports

Data Standards

The system must use and enforce common data standards. Data standards should be communicated to the user. For simplicity and time efficiency, for the fall of 2015, communication can be nothing more than a PDF document.

Highlights of Functionality

- Very time efficient data-entry process
- A simple user interface for on-line and kiosk data entry
- Flexible: different options for data entry
- Efficient and simple record search, data modification, data reporting / extraction
- Real time calculations based on data entry
- Easily scalable
- Secure

Quotation Requirements

Please be aware that, despite the detail of this project brief this is a system that will support a testing methodology that is still be piloted. What this means is that we are not prepared to invest a substantial amount of money in a database and interface for testing that may not be used long-term. As such, the product and your quotation should be straightforward; nothing fancy, just get the job done. There is no expectation that the developer create an overly robust interface and data management system not submit an overly detailed proposal. Just include:

- Summary of your suitability to complete this project
- Basic outline of the project phases, i.e., how you will tackle the project
- Confirmation that you will meet the timelines specified
- Outline of required and / or recommended technical resources, e.g., what database do you recommend and why, hosting / storage that Ringette Alberta should provide, etc.
- Your quote
- Your contact information

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