

1 Introduction

When your archers use *ArtemisCoach*, you as a coach of such a group want to be able to monitor all aspects of their performance. Once your archers have shared their database, you can use Android app *ArtemisCoach* to load in the database of each and every archer and perform in-depth analysis. This usage is explained in the *Artemis* User Manual. However, if you have large groups of archers and want to perform group analysis or you are simply more used to working with Excel, the Database Converter is a simple tool that can help.

The Database Converter is able to load the databases of all your archers at the same time, and collect performance metrics and convert these to an Excel readable file; a CSV file.

2 Installation

The Database Converter tool is written in a language called Tcl/Tk. For your computer to understand this language, you need to have it installed. Tcl/Tk is available for Linux, Windows and Mac. Follow this link to install Tcl/Tk for your computer;

<https://www.activestate.com/activetcl>

Downloading the Free community version is sufficient.

Once you have downloaded and installed Tcl/Tk, you can download the Artemis Database Converter software. This software is released under the MIT License, and by downloading it, you agree to this license. In short, the MIT license allows you to distribute, modify and use this software both commercially and privately under the conditions that this license and its copyright stays intact, with a limitation of liability and without warranty.

After downloading unzip the Database Converter to an empty folder of your choice.

Start using the Database Converter by double clicking the file called `Main.tcl`

On Linux, start the Database Converter with

```
user@host> wish Main.tcl
```

2.1 Troubleshooting

The Database Converter saves its default settings to a file called `options.tcl` and saves its temporary files to a folder called `tmp/`. If something goes wrong, try to remove the file `options.tcl` and the `tmp/` folder and then restart the Database Converter.

3 Converting databases

The Database Converter user interface consists of a title bar including a main menu, a left frame named 'Input', a right frame named 'Output' and the bottom frame named 'Log'.

There are 4 steps required to convert your set of databases before you can execute the last step (step 5); loading the data into Excel.

Step 1; Scanning a folder

Step 2; Reading all databases

Step 3; Selecting output data and range

Step 4; Generating output

Step 5; Loading data into Excel

3.1 Step 1; Scanning a folder

On the top left of the screen, select a new folder. Once selected, the folder is automatically scanned. If the correct folder is already selected (saved from the last time), the folder can be scanned by pressing the (1) `Click to scan database path - button`.

Scanning a folder with database files might take a few minutes in which the converter software will look frozen.

During scanning, the databases are also upgraded to the latest version of the database.

3.2 Step 2; Selecting and reading databases

In the list-view, every entry represents a database file. If the archer has set an avatar/image in the Archer settings, the image is shown on the left of each entry. The entry further consists of (top to bottom);

- A checkbox with the actual name of the file. The checkbox indicates whether the database will be read in the next step or skipped.
- A text entry that you can use to identify the archer. This text is copied to the Excel column with the archers' names.
- Two lines of text; first name and last name (as read from the database)

Once you have (de)selected the entries, press the (2) `Click to read databases` – button to read all selected databases.

3.3 Step 3; Selecting output data and range

In the right frame you select what data to output.

Once all databases are read the oldest and newest date of all databases is shown in the date-range fields. You can select your own date-range, by checking the checkboxes and filling in a custom date-range.

Below is a maximum wind speed filter. If non-empty and not zero, then all data will be read from all databases. If a valid wind speed is given (1..12), all performance data (score and skill) will be filtered on wind speed. All non-performance data (volume and questions) is never filtered.

The frame with title “Data to extract...” defines what data is extracted from all databases. By selecting the checkbox in front, you select whether the particular row of data is extracted or skipped.

Name	Data
ISA Questions	This will extract all answers to all ISA questions. Every possible answer to each question on a single row (every answer chosen indicated by a ‘X’ in the correct row). Alternative only one question per row and the answer is indicated by a number (1..5)
Training-scan	This will extract the training-scan (Kuiper) data on a single row. The number will indicate the number of ‘yes’
Daily volume	Row with daily volume
Weekly volume	Row with weekly volume (only a single number at the end of every week)
Archers Skill Level	The computed archers skill level per day (not individual entries, but averaged over the day)
Average 18m	The computed average 18m score (not individual entries, but average 18m score over the day)
Average 18m (Training)	Idem. as above, but for training only
Average 18m (Competition)	Idem. as above, but for competition only
30m, 50m, 60m, 70m, 90m	Idem. as above but for 30m, 50m, 60m, 70m and 90m. Only for ‘official’ matches. E.g. entries at distances that were shot at the official target face for that particular distance.

3.4 Step 4; Generating output

Provide a file name (usually out.csv) and click the (3) Click to write output file– button to write the comma-separated file.

3.5 Step 5; Loading data into Excel

Once the data is saved to a CSV format, start Excel and load the data. Excel should automatically recognize the separator (either a ‘;’ or a ‘,’) and divide the file into columns. If not, try to generate the CSV file with the alternative field separator, see section 4 ‘Field separator’ menu item.

4 Options

The main menu gives access to some options;

Menu item	Purpose
Settings	
Week volume runs until	To set up to which day inclusive (Friday, Saturday or Sunday) the week-volume is computed
Output	For now choose Excel. The options Access is still experimental
Decimal separator	Choose your decimal separator (i.e. a dot or comma)
Field separator	The CSV file is written with either a ';' or a ',' as the field separator. It depends on your Excel language setting which field separator to use.
Logging	Set logging to 'info' or 'debug'. The latter is pure for debugging purposes only and can generate large amounts of logging
Language	Switch the database converter between English and Dutch. You need to restart the converter
Quit	Quit the converter
Help	
Help	Webpage with link to this document is opened
Contact	Webpage with contact information is opened
Copyright	Webpage with GPL 3 license is opened

5 About the Author



Artemis is actively developed by Marcel van Apeldoorn, an archer since 1991, also a former international archer and currently national compound coach of the Archery team of the Netherlands. He represented the Netherlands at World Championships, European Championships and other international events as (recurve) competitor and (recurve and compound) coach for more than 25 times. In his professional life he has a Master of Science degree in Aerospace Engineering, and holds a position as Senior Research and Development Engineer in the domains of Air-Traffic-Control systems, Software Analysis and Design, Software development, Human factors and Training at the NLR – Netherlands Aerospace Centre in Amsterdam.

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"The idea for an archery scoring app dates as far back as 1997, when the first Palm Pilot III was introduced. Being a student, international archer and computer geek I had the time and know-how to create an App for the Palm operating system, to run on my Palm Pilot III. Later in 2003 I continued development on my Palm Tungsten T2. In-between I also bought a Compaq iPAQ 3630, also a PDA, but with the Windows CE operating system. I tried to convert my Palm-App to Windows CE, but this obviously failed because Microsoft was unable to create a serious Operating System ☹"

When Android was introduced, I got hold of an HTC Magic (a.k.a. Google phone) and started developing software for it. Completely fell in love with the Android OS. One of my first Apps that reached the Google Market (as it was called back then) in January 2011 is Arrows, which you can still download! In 2011, I started the development of Artemis and the first upload in Google Play dates October 2011!

Currently, Artemis has been installed more than 19.500 times and is actively used by top-archers and top-coaches in countries all over the world."

*Marcel van Apeldoorn
December, 2017*

6 Software License

The software license for the Artemis Database Converter (and only the Artemis Database converter) is a MIT license;

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7 Table of Contents

1	Introduction	2
2	Installation	3
2.1	Troubleshooting	3
3	Converting databases	4
3.1	Step 1; Scanning a folder.....	4
3.2	Step 2; Selecting and reading databases	4
3.3	Step 3; Selecting output data and range.....	5
3.4	Step 4; Generating output.....	6
3.5	Step 5; Loading data into Excel	6
4	Options.....	7
5	About the Author	8
6	Software License	9
7	Table of Contents.....	10