NEW JUDGING SYSTEM FOR

ARTISTIC ROLLER SKATING COMPETITIONS

THE SYSTEM

By

Nicola Genchi

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1 OWNERSHIP

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2 OVERVIEW

Many coaches, judges and fans continue to hope for a change in the current scoring system for Artistic Roller Skating Championships. The level of this discipline has increased a lot so that the actual system does not allow an adequate management of the scores. Inspired by the work done by the ISU (International Skating Union, figure skating on ice) this document proposes and illustrates a system to apply for Artistic Roller Skating Championships.

3 GLOSSARY

QUALITY OF THE ELEMENT – QOE	The value that is assigned by each judge to every single technical element. This value will increase or decrease the Technical Value of the Program.
TECHNICAL VALUE – TVE	Technical Value of each element
TECHNICAL VALUE OF THE PROGRAM- TVP	This is the sum of values of the technical elements of the program when correctly executed (please refer to Excel sheet)
DOWNGRADED <<<	A jump will be considered as "Downgraded" by using the symbol "<<<" if the number of rotations required is missing more than ½ of rotation. E.g. triple toe loop in which is missing more than ½ of rotation will have a base value of 1.4 (double toe loop) instead of 4.1.
HALF ROTATED <<	A jump will be considered "Half rotated" by using the symbol "<<" when the number of rotations required is missing ½ rotation.
UNDERROTATED <	A jump will be considered "Underrotated" by using the symbol "<" when the number of rotations required is missing less than ½ rotation.
FEATURE	Technical characteristic that, combined with other features, can increase the value / level of the technical element.

4 NEW SYSTEM PHILOSOPHY

The basic philosophy of the system is the same as all the sports were a judgment is involved: to get as many scores as possible. Mistakes or low quality will reduce the value of the performances.

4.1 Methods to increase the value

- To increase the score with the TVE (Technical Value of the Element) of each performed element. The more difficult the elements are, higher the TVP (Total Technical Value) will be.
- To increase the score with the QOE (Quality of the Element) executing correct and high quality elements. This value will be added to the TVP.
- To increase the score with the value of each component of the Artistic Impression.

4.2   Causes that decrease the value

- TVP will decrease with technical elements not performed correctly.
- TVP will decrease with negative QOE given by judges, if the quality of the element is not good (e.g. landing on toe-stop, step out etc.). These will be subtracted from TVP.
- TVP will decrease with penalties like falls, costumes violation, timings faults, etc.

4.3   Penalizations

Unlike the old system, the philosophy of the new system leads to a reduction of the number of penalties. In fact, the following three statements are true:

- If a skater/couple will execute more elements than allowed, the elements will not be evaluated but they will not be penalized, except for the NOT PERMITTED elements.
- If a skater/couple will execute less elements, the total will be low, there will be no penalization unless the element not performed is MANDATORY.

5   THE SYSTEM – requirements

Rollart system will be the new system for Artistic Roller Skating competitions. This part of the document will be developed in specifying the technical requirements to fulfill what has been analyzed in the previous chapters.

5.1   Constraints

Following some constraints:

- Rollart will work for Cadet, Youth, Junior and Senior class competitions.
- Rollart will work for free skating, inline, pairs skating, dance skating, and precision.
- Once released and approved by the international technical committee, the system may be used by all the National federations participating to the Worlds Championships.
- In all the competitions, all the skaters/couples must present the technical form for their competitive programs. In this form, they will list the technical elements, their level where applied and their order of presentation during the choreography.

5.2   Definitions

Some definitions:

- **QOE:** Quality Of the Element.
- **TC**: score for Technical Content.
- **TVP**: Total Value of the Program +/- QOE.
- **TVE**: Technical Value of the Element.
- **AI**: Artistic Impression – Components: skating skills, transitions, performance, choreography.
- **PE**: penalization.

<div align="center">

TC = TVP + QOE

Competition Score = TC + AI - PE

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5.3   Placements

The placement will be decided by the highest score. If there are ties depending on the part of the competition, there will be a score more important than the other. E.g. free short program will win the skater with the highest technical score; free long program will win the skater with artistic impression highest score.

5.4 Judging panels

Competitions panels are:
- Competition manager (ex calculator).
- Technical panel.
- Judges panel.

Technical Panel

The technical panel will consist of one technical specialist, one specialist assistant, one technical controller and one data operator with the following duties:
- **Technical specialist:**
  - Defines and calls the technical elements performed.
  - Identifies the levels of the technical elements performed by skaters depending on the features presented.
- **Specialist assistant:**
  - Can give an opinion on the elements and the levels called by the specialist.
  - Decides if there is a discussion between the technical specialist and the technical controller.
- **Technical controller**:
  - Verifies the calls and the data entered in the system are correct.
  - Can give an opinion on the elements called by the specialist.
- **Data operator:**
  - Enter the elements called by the specialist.

Judges Panel

- **Referee:**
  - Judge as if he/she was a judge.
  - Identifies the penalizations.
- Judges evaluate and give the QOE to every element called by the technical panel.
- Judges evaluate and give the value to each component of the artistic impression.

QOE – artistic impression

The system can work with N judges. We can set a maximum of 9. It's not important if the number of judges is odd or not.
- For panels with more than three (3) judges the system will eliminate the highest and the lowest QOE and the sum of the QOE will be divided by the number by the number of judges left, the same for each component of the artistic impression.
- For panels with three (3) or less judges the system will divide the sum of QOE by the number of the judges and the same for each component of the artistic impression.

The results will be rounded to two decimals.

Score – artistic impression

The result of the artistic impression will be multiplied for a factor that can vary depending on the discipline:
Junior and Senior:
- Ladies free skating: 1,3 short program   1.8 long program
- Men free skating: 1,5 short program   2.0 long program
- Pairs: 1,5 short program   2.0 long program
- Dance: 1,2 style dance   1.8 free dance

Cadet and Youth:

- Ladies free skating: 1.3 short program   1.8 long program
- Men free skating: 1.5 short program   2.0 long program
- Pairs: 1.5 short program   2.0 long program
- Dance: 1.3 style dance   1.8 free dance

5.5 Rollart System – overview

The system will consist of three main parts:

Competition manager – functionalities

- Entering competition information.
- Entering the list of skaters for that competition.
- Entering the number of judges for that competition.
- Managing the order of skating of the skaters in the competition.
- Creating and printing a list of competitions entered.
- Calculating placements.
- Creating and printing the placements for each competition.
- Creating and printing the details for each competition of each skater: competition score, TC, QOE, AI, elements called and levels.
- Managing to send the information to a video system to publish the event information on the screen or a video output: name of the skater/s, ranking, TC – AI – PE and the Total.

Technical panel – functionalities

- Each discipline will have its own interface.
- For each discipline the system will show the technical elements and the levels that can be chosen.
- The system will allow selecting the penalizations.
- Each element/level chosen must be shown in the interface.
- After the judges, will send their QOE and artistic impression the total must be shown on the Technical Panel Interface.
- Watch to start the timing of the program.
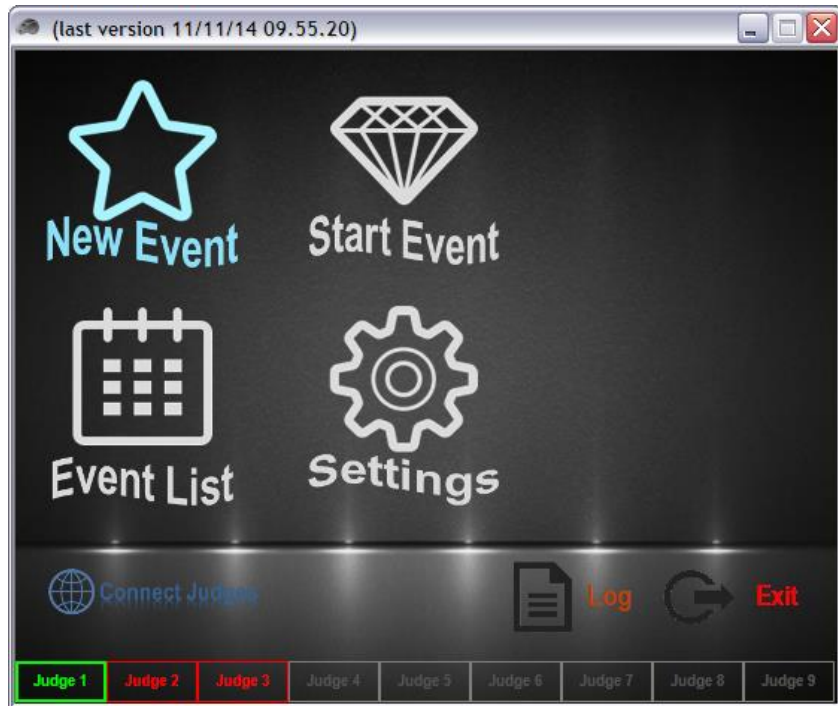- Button to send the total scores to Competition Manager for the placements calculation.

Judges panel – functionalities

- Show the elements called by the technical panel.
- For each element/level the system will allow to give the QOE: +3 +2 +1 0 -1 -2 -3.
- For each component, the system will allow the judge to define the value with a score that goes from 0.25 to 10 with 0.25 increments (0.25, 0.50, 0.75, 1.00 etc.).
- The system will allow the judge to confirm the scores awarded reassuming in a single view before to send it to the technical panel.
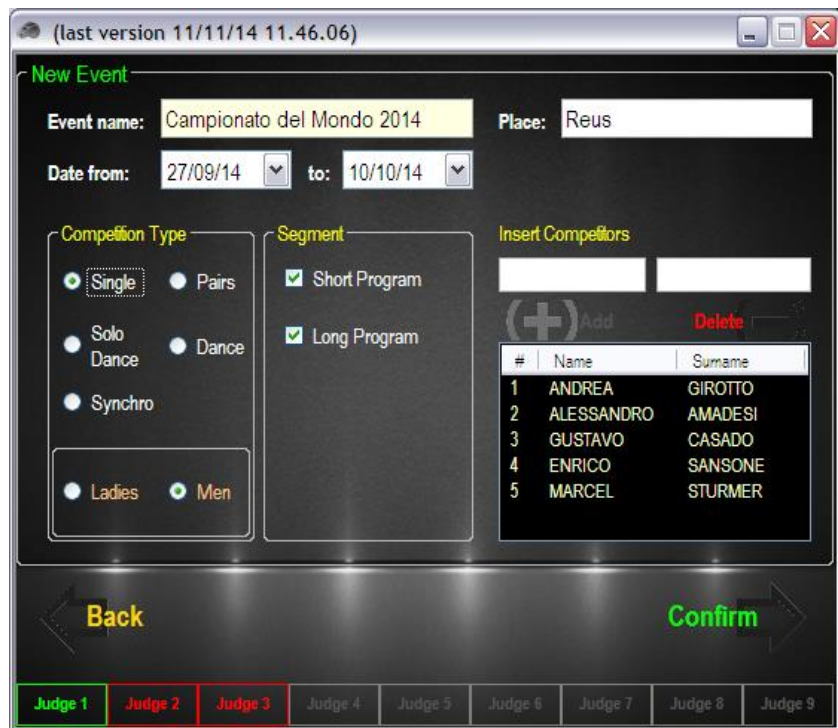
User interface

For free skating, has been developed a functioning prototype based on the rules described in this document. Following the produced interface.

COMPETITION MANAGER INTERFACE

a. Menu

b. Competitions Details

c. **List of Competitions entered**

TECHNICAL PANEL INTERFACE

JUDGES PANEL INTERFACE

Rollart System - Judge Panel

| Judge 1 | Tech Panel | Competitor: 1 |

#	Element	Penalty	QOE
1.	2 Loop		-3
	No Jump		0
	2 Loop		-2
2.	2 Axel		+1
3.	Heel Spin		+1
4.	3 Flip		0
5.	Step Seq		+2
6.	CombSpin		+2

"<": Under rotated
"<<": Downgraded

| -3 | -2 | -1 | 0 | +1 | +2 | +3 |

Components

| Skating Skills | Transitions | Performance | Choreography |

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

| 00 | 25 | 50 | 75 |

0.00

- Fluidità e scorrevolezza. Ritmo, forza, pulizia nelle spinte, facilità di nel cambio della potenza e delle accelerazioni;\r\n
- Pulizia e sicurezza di fili profondi, passi e rotazioni. Il pattinatore deve dimostrare la pulizia e il controllo nelle curve, nella profondità dei fili e nei passi;\r\n
- Utilizzo di tutte le direzioni. Avanti e indietro, senso orario e anti-orario incldendo rotazioni in entrambe le direzioni.

Deductions

| ILLEGAL ELEMENT | 0,0 | | TIME VIOLATION | 0,0 |
| FALLS | 0,0 | | MUSIC VIOLATION | 0,0 | | COSTUME FAILURE | 0,0 |

| Log | 00:00 | | | Exit |

d. Scores Panel

Verify QOE

| 1/1 - Andrea Girotto (ITA) | 29,27 Base technical | 29,77 Final technical | 0,00 Deductions | 29,25 Artistic Impr | 59,02 Total | 1 Position | 59,02 Final | NEXT |

	Element	Value	Type	Note	Time	Final Value	J1
1	2Lo	2,54	CombJump 1			1,64	-3
	NJ	0,00	CombJump 2			0	0
	2Lo	2,54	CombJump 3			1,94	-2
2	2A	5,50	Jump			6	+1
3	He3	2,30	Spin			2,6	+1
4	3F	8,69	Jump		10%	8,69	0
5	Step2	2,30	Steps			2,9	+2
6	He3	2,30	CombSpin 1			2,9	+2
	S1	0,80	CombSpin 2			0,8	0
	He3	2,30	CombSpin 3			2,3	0

	COMPONENTS	Final Value	J1
1	Skating Skills	7	7
2	Transitions	6,75	6,75
3	Performance	7,5	7,5
4	Choreography	8	8

e. Summary View

5.6 Technical elements values and QOE values

For each technical element or level identified by the technical panel and for each QOE scored by the judges there are correspondent values.

Extract from the excel file:

JUMPS	CODE	3	2	1	BASE	BASE <	BASE <<	-1,0	-2,0	-3,0	Combo	Combo <	Combo <<
No jump	NJ				**0,0**								
Toeloop	1T	0,6	0,4	0,2	**0,8**	0,56	0,24	-0,1	-0,2	-0,3	**0,82**	0,57	0,24
Salchow	1S	0,6	0,4	0,2	**0,7**	0,49	0,21	-0,1	-0,2	-0,3	**0,71**	0,50	0,21
Flip	1F	0,6	0,4	0,2	**1,0**	0,70	0,30	-0,1	-0,2	-0,3	**1,04**	0,73	0,31
Lutz	1Lz	0,6	0,4	0,2	**1,1**	0,77	0,33	-0,1	-0,2	-0,3	**1,14**	0,80	0,34
Loop	1Lo	0,6	0,4	0,2	**1,1**	0,77	0,33	-0,1	-0,2	-0,3	**1,14**	0,80	0,34
Axel	1A	0,6	0,4	0,2	**1,6**	1,12	0,48	-0,2	-0,4	-0,6	**1,70**	1,19	0,49
Double Salchow	2S	0,6	0,4	0,2	**1,8**	1,26	0,72	-0,2	-0,4	-0,6	**1,91**	1,34	0,73
Double Toeloop	2T	0,6	0,4	0,2	**2,0**	1,40	0,80	-0,2	-0,4	-0,6	**2,12**	1,48	0,82
Double Flip	2F	0,9	0,6	0,3	**2,4**	1,68	0,96	-0,3	-0,6	-0,9	**2,62**	1,83	0,98

- The first column contains the name of the element or the level.
- The second column contains the code of the element called or the code of the level called.
- The next three columns are the values of the positive QOE decided by the judges.
- The column BASE contains the technical value of the element.
- The column BASE < contains the value of the jump if Technical Panel calls an underrotated jump.
- The column BASE << contains the value of the jump if Technical Panel calls a half-rotated jump.
- The next three columns contain the negative QOE values.
- Jumps in combination contain the value of the jump if executed in combination jumps.
- Jumps in combination < contains the value of the jump if presented in a combination jumps and underrotated.
- Jumps in combination << contains the value of the jump if presented in a combination jumps and half rotated.

Example with panels of 5 judges:
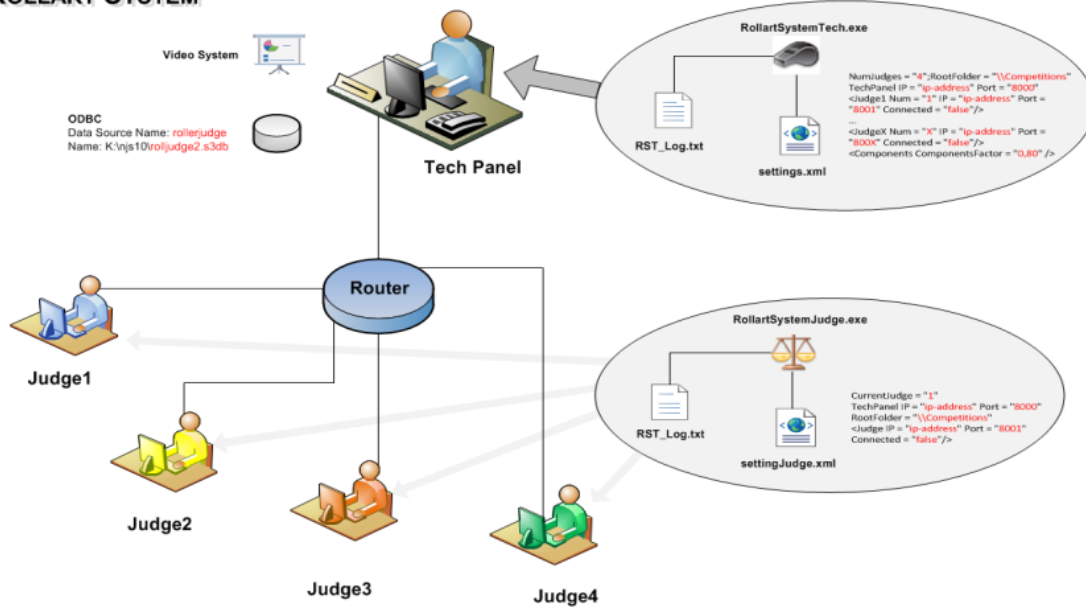
2F -> Base Value: 2,2 (called by TP).
- J1 -> 2
- J2 -> 1
- J3 -> 1
- J4 -> 3
- J5 -> 0
QOE to consider: 1,1,2.

Final Jump Value= 2,2 + ((0,3+0,3+0,6)/3) = **2,6**

5.7   System Architecture

5.8   Video System

The system will be supported by Video interface. The video interface must show on the screen:
- All the details of the competition.
- Technical score, artistic impression and the ranking of the skater that has competed.
- The results of the competition.

All this information should be shown on at least three monitors at the same time: for announcers, calculators and public.

Video system – slow motion

The technical panel will have a monitor on which can be checked each technical element, after the performance, before calling if needed.