Rules of the World Computer Shogi Championship

Computer Shogi Association

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Preamble. The World Computer Shogi Championship is a

championship in which representatives of outstanding

technology compete against each other under set rules,

team members of entered programs meeting at the same venue

and demonstrating their technical achievements in the field of

computer shogi.

Each entered program should include ingenuity of a quality high

enough to warrant entry in a global competition, having been expressly

developed for that purpose by the team members. Any hardware/software

technique is admissible if it meets the criteria outlined in the rules below.

Members of the teams should be willing to disclose the techniques used in

a positive manner, thus contributing to the technological improvement of

computer shogi.

Those who agree with these points and observe the rules are eligible to enter

the championship.

Section 1 General provisions

Article 1 (Definitions)

1. The CSA: The Computer Shogi Association

2. The championship: The World Computer Shogi Championship

3. A game: Each game of the championship

4. Preliminary contest/the final: All games on a particular day

5. The championship server: The LAN server for the championship

that is under the CSA server protocol

ver. 1.2.1, provided by the CSA

6. Entered programs: Programs that enter the championship

7. Move-generating part: The move-generating component of the program/

the move-generating hardware, including

opening data, learning routines, and data for

supervised learning

8. Program developer: Developer(s) of the thinking part of the

entered program or relevant data

(parameters of the evaluation function of

game position, etc./opening data)

9. The entrant: The team member(s) of the entered program or the team

10. The entrant representative: The person representing the team

11. Primary developer: One or more members of the developing team who

played the primary role developing the entered program. The entrant

representative may judge who played the primary role.

12. The operator: The operator of the entered program on each day

of the championship

13. The call: A unique decision made according to the rules

14. The adjudication: A decision concerning any matter in question

by a referee or the chair of the operating committee

Article 2 (Purpose of the championship)

1. The championship is held to determine the most superior programs among

those entered.

2. The championship is an opportunity for technology exchange and

the demonstration of skill by the members of the teams.

Article 3 (Championship operation)

1. The championship is organized by the CSA.

2. The operating committee that is the principal organ of the operation

consists of tournament administrators delegated by the CSA.

3. The CSA administrative board selects the tournament administrators

at a board meeting held within four months of the end of the previous

championship. The tournament administrators select the committee

chair by mutual vote and then prepare and operate the championship.

4. The CSA administrative board may select additional tournament

administrators.

5. The term of office of the tournament administrators lasts until the

following tournament is concluded. Reappointment is possible.

6. Correspondence concerning appeals and the remaining duties of the

previous championship are taken over from the previous operating

committee.

7. The operating committee acts to ensure that the championship fulfills its

purpose and is operated smoothly.

8. The chair of the operating committee is responsible for the overall

operation of the championship.

Article 4 (Adjudication)

1. The chief referee and other referees are assigned by the chair of the

operating committee.

2. The referees are responsible for ensuring that the rules are strictly

observed by the entrants.

3. The referees call and may adjudicate win/lose/draw positions under

the rules.

4. The chief referee is the person ultimately responsible for adjudication by

the referees.

5. Entrants may appeal the adjudication of the chief referee to

the chair of the operating committee. The appeal must be lodged

within one month of the end of the championship.

6. Adjudication by the chair of the operating committee is the

final decision.

Section 2 Eligibility

Article 5 (Eligibility for participation)

Those who agree with the points of the preamble and observe the rules

are eligible to participate, but the operating committee

retains the discretion to decide whether any given team may enter the

championship.

Article 6 (Entered program)

1. The entered program must run on a machine that is an artifact

and automatically generates a move under the rules of shogi.

2. The entered program may use any number of computers and any

peripherals.

3. Each machine must be prepared by the entrant.

If the championship is held online, each machine must be

connected to the championship server over the

Internet by the entrant.

4. The primary developer of the program may not be a primary developer

of any other entered program.

5. The entered program is a program that the primary developer made

expressly using some technical ingenuity.

6. The entered program must have all the functions that are written

in the rules.

Article 7 (Others' modules)

1. An entrant may use others' modules/data when the other person(s)

has/have made and explicitly or implicitly permitted the use of their

modules/data at the championship, whether the modules have been

published or not.

2. The entrant may use others' learning routines, others'

data for supervised learning, and data for supervised learning

generated by others' modules.

Article 8 (Required features)

An entered program must have the following features:

1. Be able to start/continue the game for any position, turn or time spent.

2. Be able to quit at any point.

3. Display the current board position, pieces in hand, and the turn.

It is acceptable to display this information in text.

4. Measure the time spent on each individual move and display the

total time spent under Article 24.

5. Record the moves and the time spent on each move,

showing the recorded moves and the time spent on each move when

quitting the game.

6. Be able to play through a LAN server under CSA server protocol 1.2.1.

7. Be able to enter an opponent's move manually (without LAN).

Article 9 (Suggested features)

An entered program should have the following features, but it is not ineligible

without them:

1. Be able to find perpetual moves.

2. Display the sending/receiving character string through LAN,

if needed.

Section 3 Application

Article 10 (Application to enter the championship)

1. The entrant must complete an application to enter the championship

within the period declared by the operating committee.

2. When applying, the entrant must disclose the full names of all the

primary developers and the full name of the entrant representative

through the web page indicated by the operating committee

for the application to enter the championship.

The operating committee will disclose all the full names of the

developers, together with the full name of the entrant representative.

3. The entrant must be approved by all of the primary developers to

enter the championship.

4. The entrant must pay the registration fee announced by the operating

committee before the deadline for payment.

Payment in cash will be accepted at the tournament itself if the

entrant lives outside Japan.

The operating committee will not refund any fees other than those of

championship cancellation.

5. The entrant must disclose the information of the program that the

operating committee specifies by the specified date. Specified

information will include the processors and memory.

6. The entrant must submit documents to the operating committee by the

date specified, showing that the entered program satisfies Clause 5

of Article 6.

7. If the entrant used others' modules and/or data for supervised learning

generated by others' modules and thinks the modules or the data directly

exerted a big influence on the moves, the entrant must describe in an

easy-to-understand manner what the entrant used and how.

Article 11 (Restriction of multiple machines, power, and/or noise)

1. If the entrant enters a program that has one of the following properties, the entrant must make a request and receive permission from the operating committee before the specified date.

1. The entered program uses multiple machines at the venue.

2. The total power of the machine exceeds 1,000 watts.

3. The total noise level exceeds 70dBs.

2. If the operating committee considers that it is difficult for that program

to be used at the venue, it will relocate the machine(s) and may

insist on remote participation (see Article 12, Clause 1).

Article 12 (Remote participation)

1. An entrant may place a machine (that does not have to communicate

with the CSA LAN server) outside the venue (such a machine

being called a “remote machine” and this style of participation being

referred to as “remote participation”), if any of the following is

satisfied:

1. The entrant requests and receives permission from the operating

committee before the specified date.

2. The operating committee makes a request following Article 11, Clause 2.

2. With remote participation, the entrant must prepare an extra

communication machine and bring the communication machine

to the venue on the entrant's own responsibility (such a machine being

referred to as a “machine in venue”).

1. The machine in venue is able to communicate between the CSA LAN server

and the remote machine.

2. The machine in venue must have all the features described in Article 8.

3. Sending to/receiving from the remote machine is automatically performed by

the machine in venue; it must not be done manually. However, connection

and reconnection of communication to the remote machine may be

done manually.

4. The entrant must be in possession of the thinking report of the remote

machine (or, at least, the moves with the time spent of the remote

machine).

5. The entrants take responsibility for communication risks between

the remote machine and the machine in venue.

6. The entrant does not have to prepare a machine in venue if the

championship is held online.

Article 13 (Front machine)

An entrant may put in place a machine that covers all or part of the

interface part (such a machine being called a “front machine”), and

communicates the move manually between the machine that covers the

generating part (such a machine being called a “move-generating machine”)

and the front machine, if one of the following conditions is satisfied:

1. The entrant makes a request before the specified date to the operating

committee and the operating committee gives permission because the move-

generating machine has one or more special features.

2. The entrant reports the lack of a function under Article 8 on each day of

the championship, and the operating committee permits him/her to enter

for justifiable reasons.

Article 14 (Successor to a program)

1. The operating committee will decide which is

the predecessor of the entered program, or the program will be

treated as a newcomer.

A program is usually treated as the successor to

the last entered program where the intersection of the primary

developers of the program and the primary developers of the

predecessor is not empty.

Only one program can be taken as the successor.

2. To assist in the decision alluded to in Clause 1 of this Article,

the entrant must inform the operating committee by the last day of

March of the championship year whether the entered program is

declared to be the successor to a program that previously entered

the championship or is a newcomer.

Article 15 (Program eligibility)

1. If the entered program does not satisfy eligibility as defined in Section 2

or the entrant fails to make the application defined in Section 3, the

operating committee will forbid the program to enter the championship

unless it accepts that the reason is justifiable.

2. The operating committee may request the source codes of the entered

program to adjudge Clause 1 of this Article.

Article 16 (Approval and confirmation procedures)

The entrant must show the operating committee the facts in Clauses 2 and 5

of Article 10 if there are any that have changed before the announcement of

the result on each day of the championship.

Section 4 (Tournament procedure)

Article 17 (Seeding order)

1. The seeding order of the entered programs is decided as follows:

1. The result of the final of the previous championship

2. The result of the second preliminary contest of the previous

championship (finalists being exempted)

3. The result of the first preliminary contest of the previous

championship (qualifiers of the second preliminary contests being

exempted)

4. The result of the second previous championship

5. The result of the third previous championship, and so on

6. Newcomers (order being determined by drawing)

2. The drawing for Item 6 of Clause 1 of this Article will be conducted

straight after the deadline for registration of the first preliminary

contest expires, i.e., straight after the final decision on the entrants

for the first day is made.

Article 18 (Treatment of the seeds)

1. There are the first and second preliminary contests and then a final round

in this tournament.

2. Under the previous article, the top eighteen (18) entered programs

are seeded for the second preliminary contest. The other entered

programs enter the first preliminary contest.

3. The second preliminary contest seeded programs are decided at the

end of March of the championship year, after being accepted for

the championship by the operating committee and not being treated as

“unentered programs” (these cases occurring when applicants withdraw

and/or the operating committee refuses entry for some reason); such

programs are called “planning-to-enter programs.”

Article 19 (Procedure for the preliminary contests and the final)

1. In the first preliminary contest, all entrants other than the second

preliminary contest seeded programs enter.

There are eight rounds. The top ten programs qualify for

the second preliminary contest.

2. In the second preliminary contest, twenty-eight (28) programs that

consist of second preliminary contest seeded programs and the

qualifying programs of the first preliminary contest enter.

There are nine rounds. The top eight programs qualify for the final.

3. In the final, eight programs that consist of the qualifying

programs from the second preliminary contest enter.

There are seven rounds.

4. In the first and second preliminary contests, the operating committee

will ask whether the qualifier wishes to enter the next day. If the

entrant quits or it is impossible to make sure that the entrant will

enter the next day, the qualifying position will go to the next program.

5. In the first and second preliminary contests, the total number of

games may be less than the numbers above, according to circumstance.

6. After the end of March of the championship year and before the

announcement of the results of the first preliminary contest by the

operating committee, if there are any unentered second preliminary

contest seeded programs, the operating committee will not admit

any program to the second preliminary contest as a seeded program

and permit the number of qualified programs to increase.

7. The procedures of Clauses 1, 2, and 3 of this Article apply if the number

of programs planning to enter is between 29 and 59 (on the last day of

March of the championship year). If the number of programs planning

to enter is less than 29, there will be no first preliminary contest.

If the number is greater than 59, the operating committee will increase

the number of programs that are seeded for the second preliminary

contest and of the qualified programs, one for each five teams.

8. If the number in the first or the second preliminary contest is

odd (the number is fixed when the entrants come to the venue or

communicate with the operating committee before the assembly time),

the operating committee will let a hypothetical program (such a

program being called an “imaginary program”) enter the contest.

The imaginary program will not qualify. If it achieves a qualifying

position, that position will go to a regular program.

9. The imaginary program is exempted from Articles 6 and 10.

10. All the games of the imaginary program are loss by default.

Article 20 (Treatment of late/refused programs)

1. If an applicant declines to enter the championship, the applicant

must contact the operating committee before the following deadlines:

Second preliminary contest seed applicants should contact the

operating committee before the announcement of the first preliminary

contest.

Others should contact the operating committee before the assembly

time of the first preliminary contest.

2. If there is a possibility that an entrant may arrive later than the

assembly time, he/she must inform the operating committee of this

before the assembly time.

3. In the first and second preliminary contests, if an entrant does

not register or contact the operating committee before the assembly

time to decline to enter or say that he/she will be late, then the

entrant will be considered as having given up the program and may

not enter the games on that day or afterwards.

4. In the final, even if an entrant does not register or contact the

operating committee before the assembly time to decline to enter

or report that he/she will be late, the entrant may enter the games

after registration if ready to play.

5. In the case of any entrant who has given up, who contacts the operating

committee too late to decline to enter, or who fails to contact the

operating committee about being late, the operating committee will

give such an entrant a warning and/or restrict that entrant from

entering subsequent championships. However, such penalty will not

apply if the operating committee judges that circumstances were beyond

the entrant's control (e.g., traffic accident or sudden illness).

6. An entrant may give up the games if the entrant declares a wish to do

so to the operating committee and the operating committee accepts the

declaration. In this case, the results of the game and the succeeding

games of the team are loss by default.

7. Despite Clause 10 of Article 19 and Clause 6 of this Article, the results

of the games between two teams that have given up and the games between

teams that have given up and the imaginary program are draws.

Article 21 (Swiss pairing method)

1. The perfect Swiss pairing method is defined as follows:

1. In each round, there is one win point for a win, a half-win point for

a draw, and zero win points for a loss, these to be combined with the

win points of the preceding rounds. Entrants who have the same win

points are paired where possible. If it is the first round, all

entrants have zero win points to start with.

2. If pairing fails on the rule above (if, for instance, the number

of entrants with the same points is odd), then entrants who have

nearly equal win points will be paired.

3. The same opponents are not paired twice.

2. The modified Swiss (accelerated Swiss) pairing method is like the

perfect Swiss pairing method. In each round, the win points of the

preceding rounds except for the previous round are totaled.

3. In the preliminary contest, the pairing is decided according to

the following:

1. By the perfect Swiss pairing method for the first round.

2. By the perfect Swiss pairing method, supposing the higher seeded

teams win, for the second round.

3. By the modified Swiss pairing method for the third round.

4. By the perfect Swiss pairing method for the fourth round and

thereafter.

4. The pairings and the first player for each game are decided by a

pairing system provided by the operating committee. If the pairing

system does not decide the pairing, the operating committee will decide.

5. The round-robin method is applied to the final. All orders of

games and first players of all games are decided by the operating

committee before the first round begins.

Article 22 (Championship results)

The championship results are determined by the following rules, in the order

given, where a draw is treated as a half win and a half loss (or a half-win

point):

1. Number of win points

2. Sum of all opponents' win points

3. Sum of all defeated opponents' win points

4. Sum of all defeated opponents' win points, except the top and the

bottom

5. Results of head-to-head competition; number of wins minus number of

losses, taking into account only those games involving the player

whose results are the same after 1 to 4 above

6. Second preliminary contest seeded programs are higher than the qualifying

programs of the first preliminary contest.

7. Results of the second preliminary contest for the final/results of the

first preliminary contest for the second preliminary contest.

8. Order of seeding (for seeded teams) or position in a preliminary

contest (for the others)

Section 5 (Game process)

Article 23 (Process)

1. All games are played without handicap.

2. Each starting time is announced by the operating committee at least ten

minutes before the start of play.

3. All games are conducted through the championship server.

4. The message announcing the start of each game is given by the championship

server. If the championship server is not available, then a

referee will give a sign to start the game, but if both players

agree, they may start earlier than the referee's signal.

5. If it is impossible to start the game at the planned starting time,

the difference between the planned starting time and the

actual starting time will be subtracted from the playing time of the

side for which starting on time was not possible. If it is impossible

for both sides to start the game, the time difference will be subtracted

from both sides.

6. If the championship server is not available, then play will be

conducted manually.

7. After each game has started, no person may act in a way that affects the

generation of any move.

8. The following procedure must be carried out by the primary developer

or the entrant representative of the program. (If the entrant makes

a request to the operating committee before the planned starting time

of the game and the operating committee permits another person to

act (such a person being called an “agent”), the agent may carry out

the procedure.)

1. Start the entered program and establish communication with the

CSA LAN server at the last moment.

2. Enter an opponent's move when proceeding manually.

3. Quit the program when a referee requests.

4. Establish/re-establish communication between the machine in venue

and the remote machine when remote participation is in operation,

as in Article 12.

5. Carry out communications manually between the front machine and the

move-generating machine, as in Article 13.

9. If a game is aborted as a result of some accident after the start,

a referee may order the game to be played or replayed manually at that

point, or, in certain cases, a number of moves before that point.

Article 24 (Time spent)

1. The time spent is counted in seconds, rounding fractions down if desired.

2. The total time spent is the sum of time spent.

3. Each program is initially allowed fifteen (15) minutes, plus five (5)

seconds for each of its turns. If one side runs out of time

before it wins or declares a win, then it loses the game, even if

it mates on the move made when the total time spent is greater than

or equal to the time limit (15 minutes plus 5n seconds, when it is

the program's nth turn).

4. The operating committee may reduce the time limit depending on

championship procedures.

5. When playing through the championship server, the server counts

the time spent for each move and manages the total time spent.

The time spent for a move is measured between the sending of the

opponent's last move (or the server's initial order to start the game)

and receiving the reply. The delay time is included in the time spent.

6. When playing manually, the time spent is counted according to the

time spent as counted by the program.

7. When playing manually and by remote participation, time spent is

counted on the machine in venue. The time spent includes the

communication time and the reconnection time (for communication breaks).

8. When playing manually and using a front machine, time spent is counted

on the front machine. The time spent includes the communication time

between the front machine and the move-generating machine.

Article 25 (Declaration of a win)

1. The program may declare a win (such a declaration being called

“declaration of a win”) if the position satisfies all of the

following conditions. If the position does not satisfy one

or more conditions, then the declaring side loses:

1. It is the declaring side's turn.

2. The King of the declaring side is in the third rank or beyond.

3. The declaring side has 28 (the first player) or 27 (the second

player) piece points or more. Piece points are counted only

for pieces of the declaring side that are in hand or in the third

rank or beyond. Piece points are counted as follows: King: 0;

Rook, Bishop, Promoted Rook, or Promoted Bishop: 5; Other: 1.

4. The declaring side has 10 or more pieces other than the King

in the third rank or beyond.

5. There is no check on the King of the declaring side.

6. The declaring side has at least one second left.

2. The declaration of a win must be done by the program in the

following manner:

1. The program must display the declaration on the monitor.

2. The program must send an "@KACHI" command, too, when

playing through the championship server.

Article 26 (Outcome of the game)

1. The outcome of a game is determined by the following rules, in the

order given:

1. An adjudication or a decision by a referee.

2. A decision by the championship server.

2. After deciding the outcome, a referee displays the outcome at the

specified place. The outcome is fixed when the operating committee

announces the pairing or (for the last game) the operating committee

announces the results of each day. After such time, results cannot be

changed, even if errors are subsequently found.

Article 27 (Outcome of a game by decision of the referees)

1. The referees may decide which program loses when the following

conditions occur (except when both sides satisfy the conditions):

1. There are no legal moves left.

2. Total time spent has reached the time limit that is defined in

Clause 3 of Article 24.

3. There has been one or more illegal moves.

4. The opponent legally declares a win.

5. The declaration of a win has been unsatisfactory.

6. There has been illegal communication with the championship server

(where illegality results from not following the CSA server protocol

ver.1.2.1).

7. It is impossible to input/output a move as a result of a program

stopping for any reason, such as problems with communication or

the operating system, after the start of thinking about the

fifth move. But the referee will not decide which program loses

if the program stops after an illegal character string has been

sent, displayed, and kept in the display after the program stops.

8. It is impossible to resume smoothly when a referee orders as such

at any point (position, turn, time spent).

9. A referee decides that the entrant has taken an illegal action.

2. The position of perpetual repetition is a draw, except that if one

side's moves are checks only then that side loses the game. Perpetual

repetition is decided by the championship server. If, however, the

championship server does not decide whether a position is perpetual

repetition, then the operating committee will decide whether the

position is perpetual repitition using the perpetual repetition

decision program prepared by the operating committee after being

declared to the operating committee by referees, primary developers of

the programs, entrant representatives, or agents.

3. If the number of total moves reaches 320, the referees decide neither

program should lose, and the position is not perpetual repetition, then

the result of the game is a draw. If there are no legal moves for the

first player after the 320th move, then the first player loses.

4. The referees will decide on an appropriate course of action (decide

the outcome (a win, a loss, a draw), replaying from the start, resuming

from a certain position, etc.) if a LAN cable causes trouble and/or

there is an accidental power shutoff.

5. The referees will decide the outcome (including a draw) even during

a game, in order to allow the tournament to proceed if the tournament

procedure does not go as planned.

Article 28 (Unexpected contingency)

1. If an unexpected contingency (for example, a disaster, a blackout,

a LAN-server problem) happens to occur, the referees will resume the

tournament as just before the unexpected contingency insofar as possible.

2. Depending on the nature of the unexpected contingency, the operating

committee chair may decide the course of operation on a case-by-case

basis thereafter.

Article 29 (Game record)

1. The operating committee may publish any game record at any time.

2. Entrants must bring the game record to the operating committee

immediately after the game if the game is played manually.

3. The file format for the game record (defined in the second clause)

must be the CSA standard game record file format.

4. In the file of the game record (defined in the second clause), the

entrant must record each amount of time spent.

Section 6 Program-keeping and appeals

Article 30 (Program-keeping period and appeals)

1. The entrant must keep the complete reproduction set

for the championship (such a set being called a “program for the

championship”) for one year from the last day of the

championship. This set must include all of the versions of

the executable program, data, all of the versions of the source codes

that generate the executable programs, and so on, that entered

the championship.

The entrant should keep the hardware for the championship for one

year from the last day of the championship.

2. For an entered program, any person may make an appeal to the operating

committee that the program does not satisfy one or more conditions of

entry. Such appeals must be made within six months of the last day of

the championship.

3. The operating committee will decide whether the appeal is valid or not

at the earliest possible opportunity.

4. If the operating committee decides not to accept the appeal, the operating

committee will report the result to the person who appealed.

5. If the operating committee decides to accept the appeal, the operating

committee will assemble an investigation committee to investigate the

matter and submit an investigation report to the operating committee.

The operating committee will make the final decision based on the

investigating committee's report and report the final decision to

the person who appealed and the target(s) of the appeal.

The operating committee may disclose part or all of the investigating

committee's results when the operating committee has decided on the

severity of the case.

6. In the case of Clause 5, the entrant will be required to show all or

part of the entered program for the championship, as well as the hardware.

7. If the entrant does not accept a request as outlined in Clause 6, or the

operating committee makes the judgment that the entered program does

not satisfy one or more conditions of entry to the championship following

investigation, the CSA may remove the seed and/or restrict entry in

subsequent tournaments.

Additional clauses

1. These rules are valid from November 26, 2020.

2. The rules and regulations are available in both Japanese and

English. In all questions of interpretation, the Japanese

version shall be regarded as authoritative.