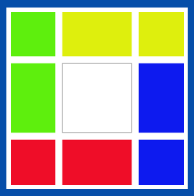
Getting Started



Pän::The Board
Version 1.0.48
Go game view, edit and play
Sweet Dreamer

Revision Table

No.	Date	Description
0	9-NOV-2025	Original issue

Tools and materials for document work

- This document is created by LibreOffice Writer
  https://documentation.libreoffice.org/en/english-documentation/
- Cover page design is from https://templatelab.com/cover-page-templates/.
- Water color flower is from https://www.vecteezy.com/free-png/watercolor-flowers/.

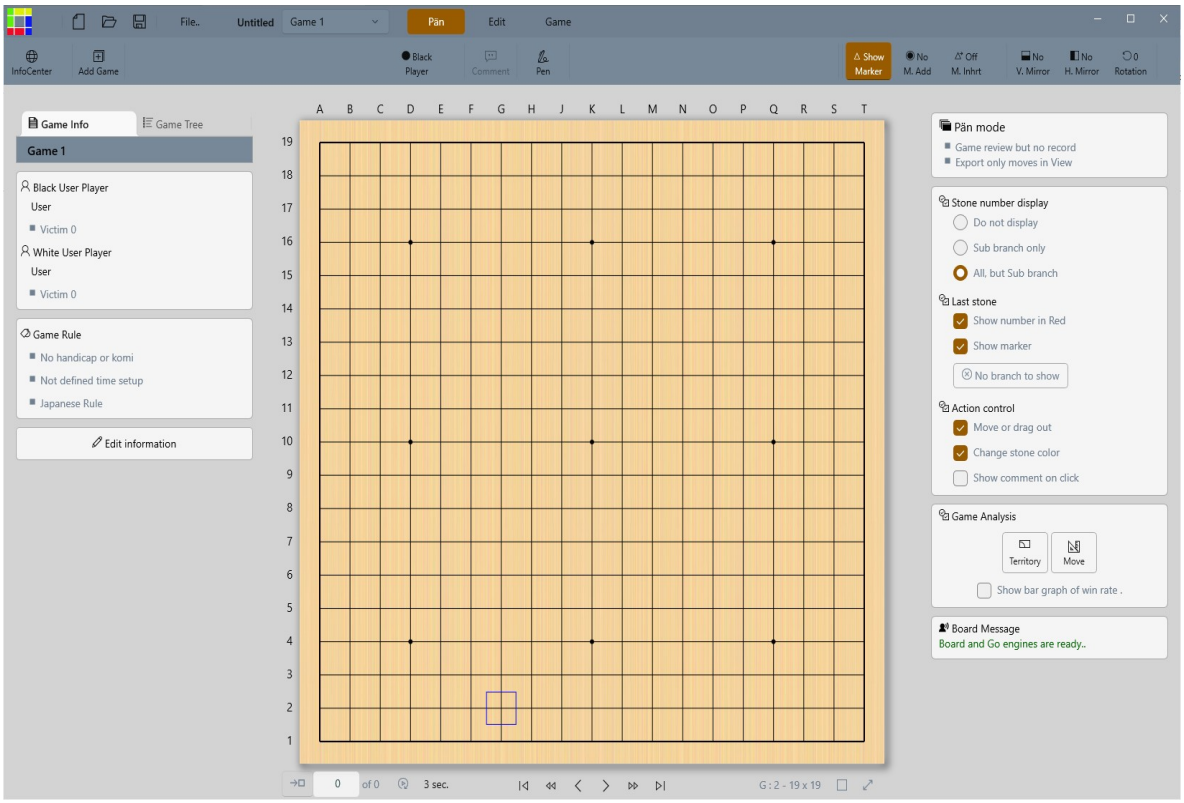
Important Notice
The app, Pän::The Board, does **not** run properly on **Windows 10 S** systems.

Table of Contents

1. Basic operation

1.1. Filename, Game title and Mode on title bar

1. Open the app.



2. Look at the title bar at the top.

Untitled	File name currently open. The working file is untitled for now.
Game 1	Game title currently working on.

3. Click ‘File..’ and save the file as ‘Getting Started’ in a folder you wish.

See the change of title bar as shown above.

1.2. Mode and action control

4. 3 modes are available and brief comparison table is below:

Table 1. Mode performance comparison

Action	Pän Mode	Edit/Game Mode
Stone move	Displayed, but not recorded	Displayed, and recorded
Branch/Game tree	Not created	Created
File saving	Current view is not saved	Current view and game is saved.
File export	Current view is only recorded.	Current game is recorded.

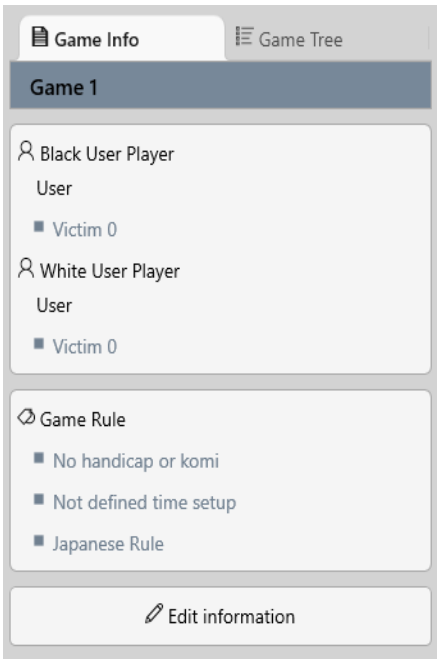
a. Pän mode is provided for free evaluation of stone move and game review. The stone moves created in Pän mode are not recorded, so the original information is maintained as it is.
b. When user changes the mode to ‘Edit’ so the stone moves left over from Pän mode can be recorded. The board internally decides how to keep the information with mode change, and gives a notice to user when required.

1.3. Game and Mode property panel

5. Game and mode property panel

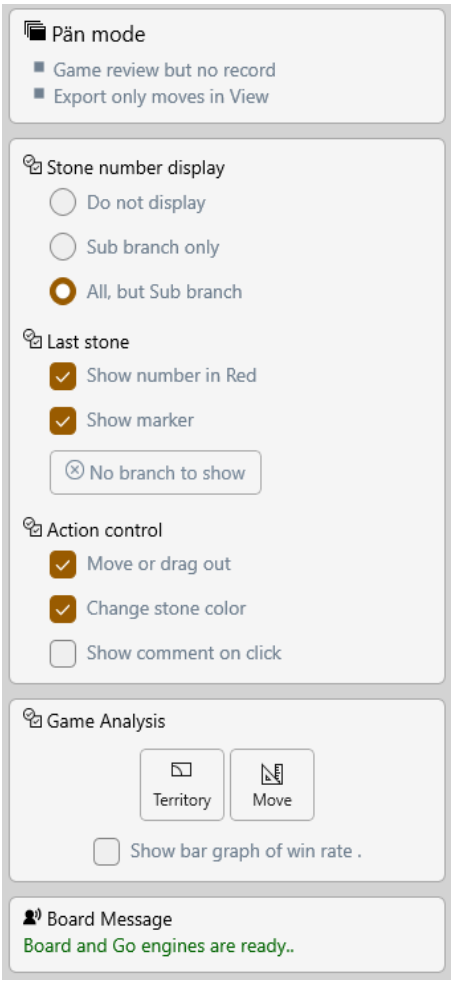
Left and right had side has a panel for some information and display control as below:

Game property on LH



Game related information

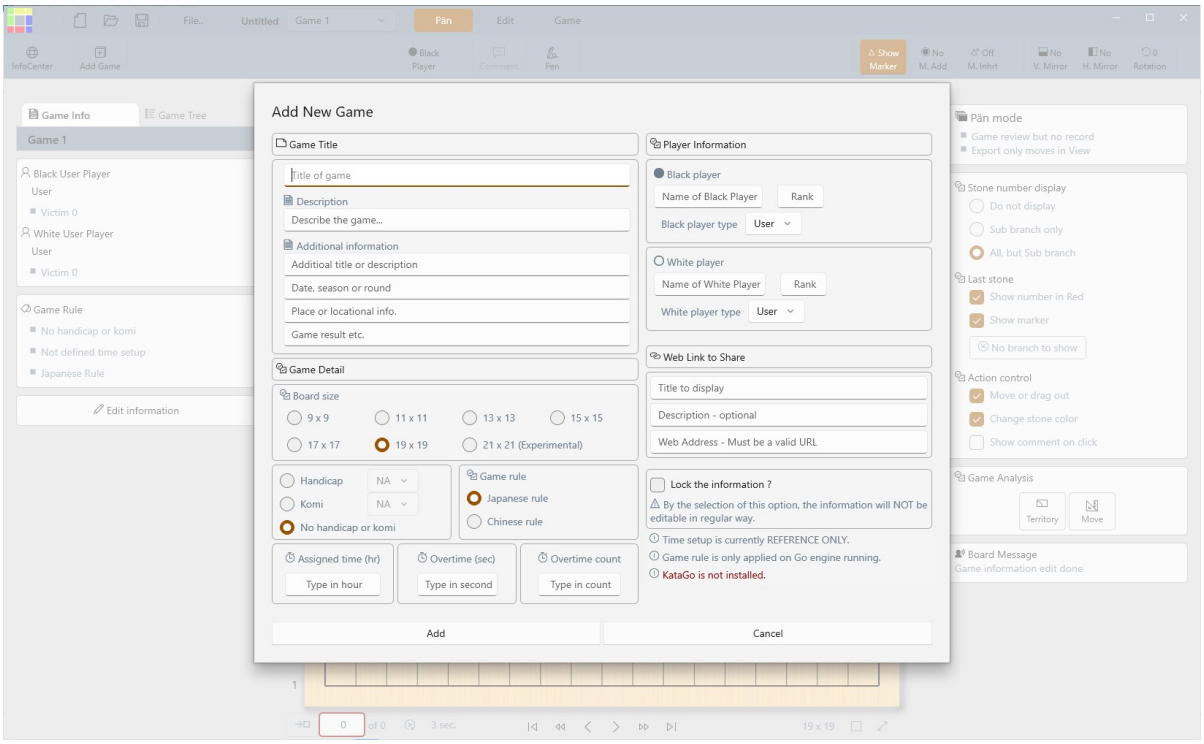
Mode property on RH



Available function control in the selected mode and Message output from the board

1.4. Add new game

6. Click ‘Add Game’ from the menu bar. It opens a dialog input panel as shown.



Note:

a. ‘Add Game’ menu is to create a totally new game and the dialog shows all items to setup a game.
b. At this stage, same dialog panel can be opened from ‘Edit Information’ button from the game property panel on left hand side because the board does not have any recorded information. However, when the board has some recorded information, the dialog panel by ‘Edit Information’ will control the display of items for purpose.

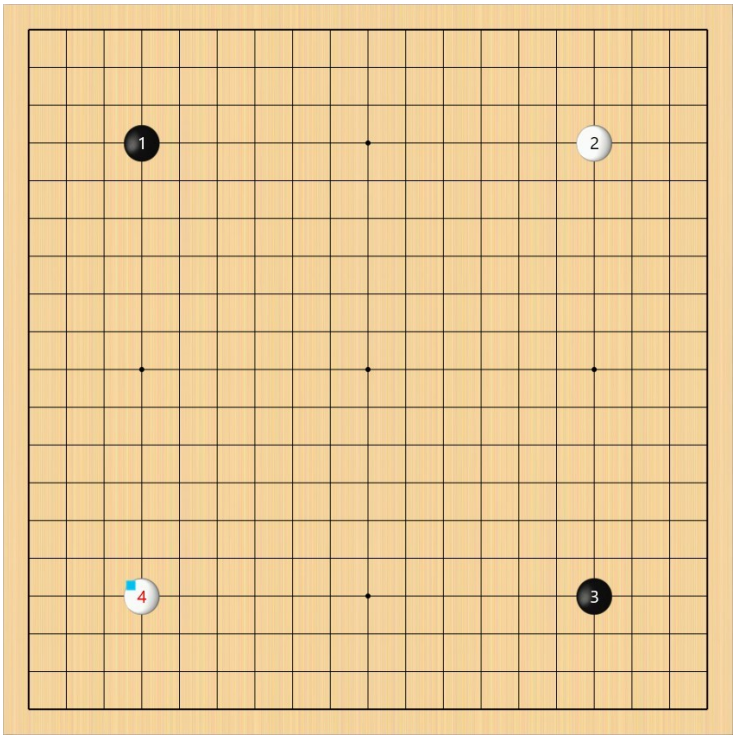
7. Make sure, for this exercise, the board size is selected 19x19.

   And, you can put or select whatever in the dialog as you wish. The board will manage all the inputs and interacts when required.

8. Click ‘Add’. The board shows a notification that the added game is listed in ‘Game 1’ when required.

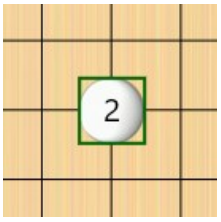
1.5. Stone, selection and edit

9. Put stones as shown.



Basic functions for stone selection, edit. marker, drag and color change

1) Selection of a stone.



Click a stone. When a stone is selected, a thick-dark green square is overlapped as shown, and the property of the stone can be modified such as color change, marker add or dragged on another location.

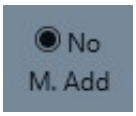
2) When a stone is selected, its property can be modified as below.

a. 

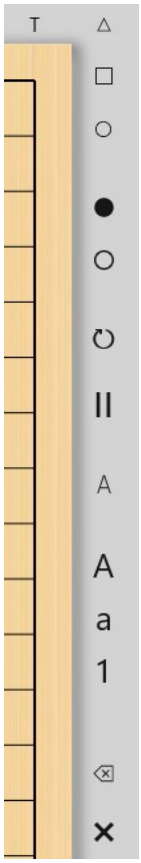
Add comment on the stone. Also, open comment display when exists. If a stone is not selected, the comment is added to the last stone in the view.

b. 

It shows the currently selected stone color. When click this button, stone color changes between black and white.

c. 

Marker addition on the menu bar
Click and highlight the marker add symbol on the status bar.



It opens marker list at the top right of the board as shown.
Marker can be added anywhere on the board, and also removed one by one or all by function selection.
When a stone is selected, the selected function is applied on the stone.

There are 2 types of marker.

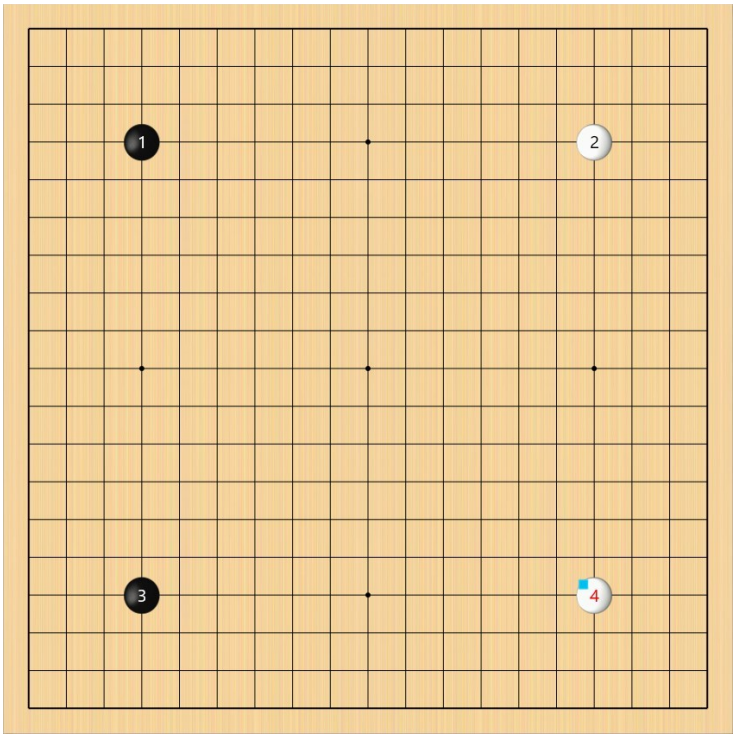
One is symbol marker like triangular, square and circular marker on the top of the list shown. They can be set and unset as user chooses the marker type.

The other is alphabet and number marker at the bottom of the list. They are able to be set by type-in or by choosing the incremental style. When required, they can be reset to initial setup.

d. Drag and move out

Click the selected stone, hold and move to another node.
This moves the selected stone and can be removed when the cursor moves out of the board.

10. Arrange the stone layout as shown by drag function.



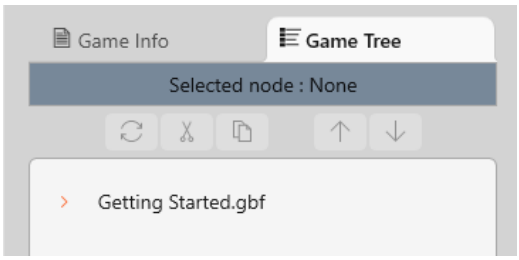
- Rule violation when changed stone color or location.

  The board always investigates the state change whenever something happens on the board, and decides if the change is acceptable and satisfies the game rule. If not, the action is cancelled and the board messages out with warning.

  For example, the change of color or location should not make collision with an existing stone on the board. Even the existing stone is not displayed at current view, it is considered ‘break the game definition’ by collision. In same way, suicide is not allowed, and Ko/ super Ko condition is examined.

1.6. Game tree and the function

11. Click the tab, Game Tree, on left hand side of the app.



See the file name and the chevron from the viewer. This is called game tree, and user can only see the game title without the stone information on the board.
This is the characteristic of Pän mode that does not record of added stone moves.
Pän mode is recommended when a review is required, but user does not want to record the information yet.

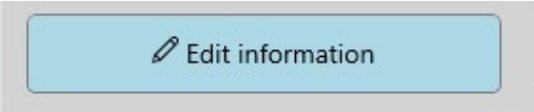
12. Change the mode to ‘Edit’.

13. Click the chevron and open the game tree.

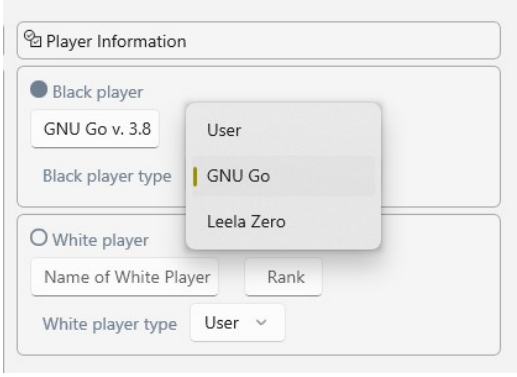
As shown, ‘Edit’ mode records all information of every stone moves. This could make the game tree more complicated, so recommended to record necessary information.

1.7. Preparation of Game play

14. Click ‘Edit information’ from ‘Game Info’ tab as shown.



15. Select GNU Go as Black and White player as shown. Put some if you wish. And, click update.

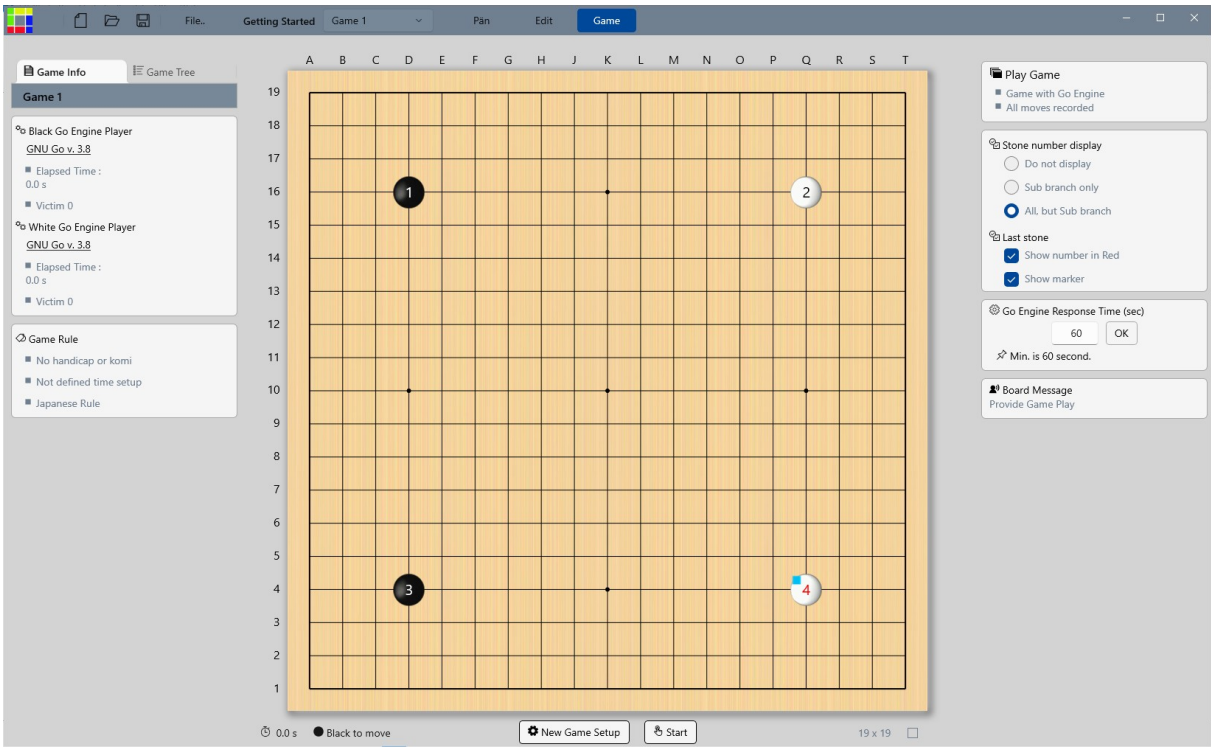


Note:
KataGo is not on the available player list for now because KataGo is not running. See KataGo section for the interface and running command.

16. See the changes on the game information panel on LH side.

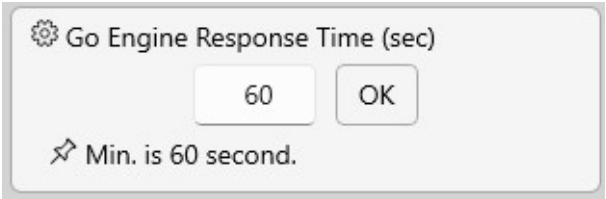
Make sure the black and white player is GNU Go v. 3.8 with underline.
Underlined title or item has hyperlink that connects to external reference. Click and find more information.
*Internet connection is required.

17. Change the mode to ‘Game’.



The layout of the app is changed as shown above.

18. Find the setting value of ‘Go Engine Response Time(sec)’ as below:

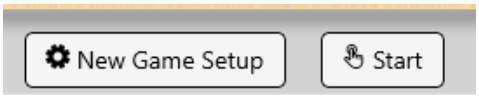


a. This is the setting value to decide how long the app waits of Go engine response. When a Go engine is running but no response, the board stops the Go engine and gives a message to user. This situation mostly happens when low performance machine is running with Leela Zero or KataGo, and user can increase the value to wait longer.

b. This is also a part of ‘Go Engine Setup’.

1.8. Game start and end

19. Click ‘Start’ button at the bottom, that starts a game with existing stone layout

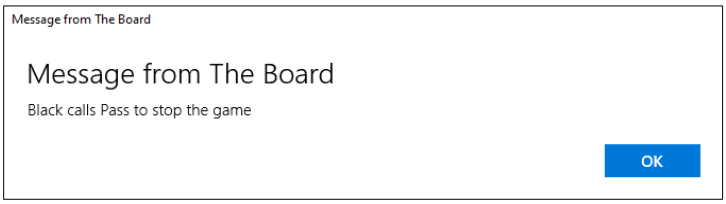


Note:

a. Remember that the board has 4 stones. When starts the game, the app implements the existing stone layout. You might assign the handicap, but it is ignored when the game uses existing stone layout.
b. When ‘New Game Setup’ is clicked, the board is initialized. Existing stones are cleared out, and handicap stones are placed if assigned.

20. Enjoy the game play between GNU Go until a message box shows up.

21. When game is over, the board displays one of these 2 types of end game message.



“(Player) calls Pass to stop the game”

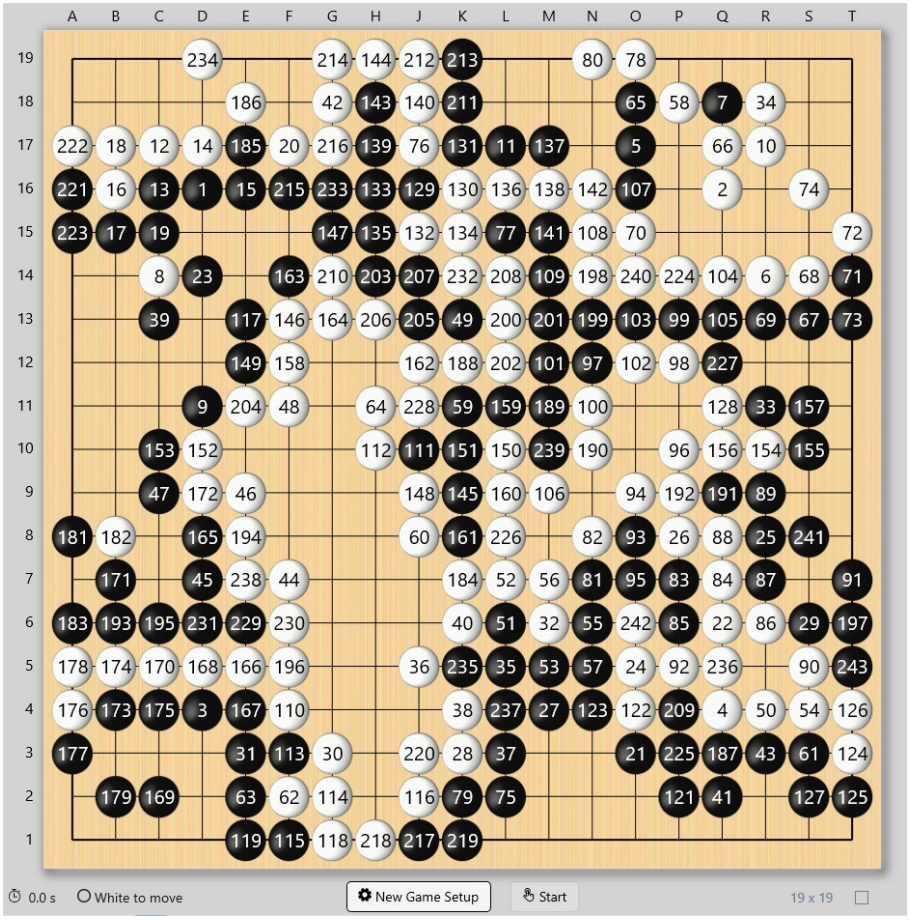
a. Game is over when both players call pass.
b. Above message box says white and black call pass to stops the game.

“(Player) calls Resign to stop the game”

a. Game is over when a player calls resign.
b. Above message box says black calls resign and stops the game.

22. Click ‘OK’ in any case.

23. Below is an example when game is over. The layout is different every case by case.

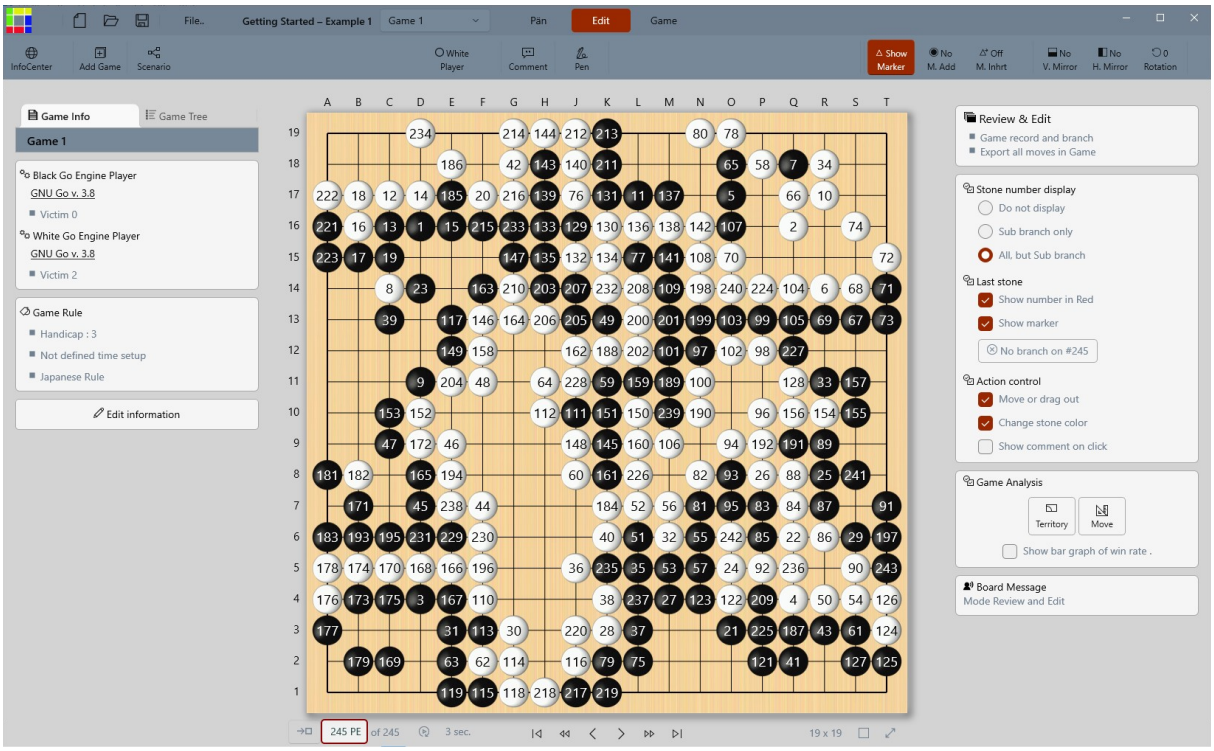


The above game file is supplied. You can download ‘Getting Started – Example 1.gbf’ under ‘User’s Manual’ page from ‘InfoCenter’.

At this point, you can play another game with current setting values by clicking the button ‘New Game Setup’ at the bottom.

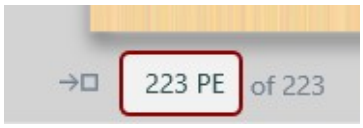
1.9. Pass End and Resign End of Game

24. Change the mode back to ‘Edit’.

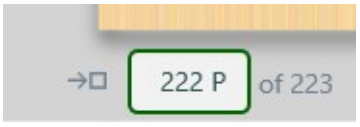


25. Look at the left-bottom of the board. Understand the currently displayed last stone in the view.

a. When a game is over by calling ‘Pass’



The number means that currently displayed last stone is 223th move of 223. The letter ‘PE’ stands for ‘**P**ass **E**ndgame’.
The text box is outlined by red color that means a stone cannot be added any more on the view.



As mentioned, the game above was over by calling ‘Pass’ from both players. So, the 222th move is also a ‘**P**ass’ move as shown.
The text box is outlined by green color that is a warning but yet able to add a stone on the view.

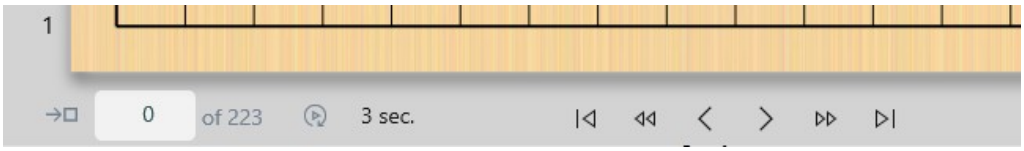
b. When a game is over by calling ‘Resign’

This is another example when a game is over by calling ‘Resign’ at 169th move. In same way, ‘RE’ stands for ‘**R**esign **E**ndgame’ and a stone cannot be added.

26. A message box is displayed when trying to add a stone on the ended game view by ‘PE’ or ‘RE’.

1.10. Traverse between moves

27. Move back to the beginning.



Traverse between stones can be done as below:

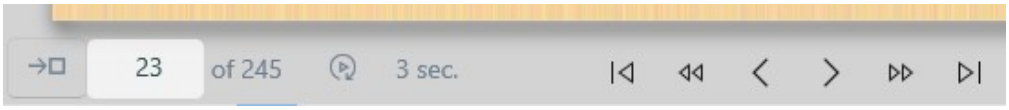
a. Type in the number or select a stone, and press enter key or click ‘Jump to’ button  .
b. Or, You can click and select a stone that displays the stone number in the text box above. Then, move the cursor into the text box and enter.
c. Click  . The icon changes to  , and click a stone to move.
d. Use the traverse button. 
e. Use arrow key on the keyboard.

28. Click AutoReplay.  You can change the speed by the selection of the interval. 

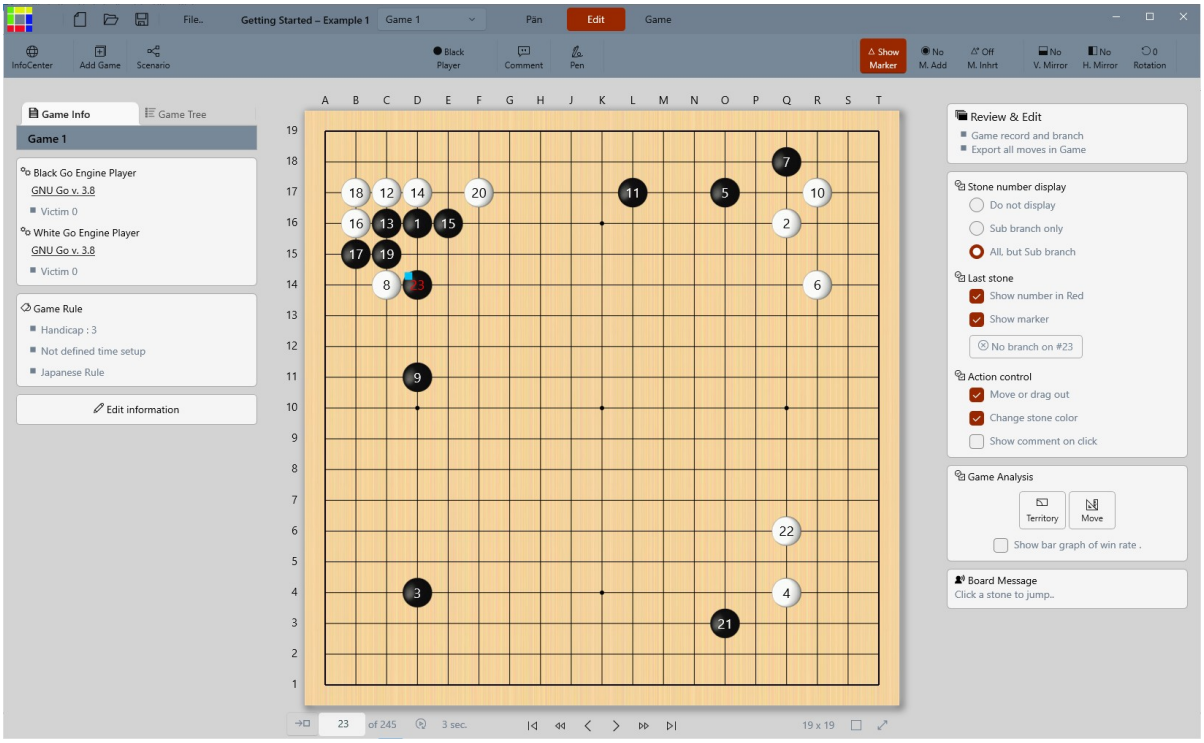
Any time you can stop the replay when you want.

1.11. Move analysis from Leela Zero

29. Move to #23.



The board shows the stones up to #23 as below. The last stone is displayed by red number and cyan color marker at top-left. Remember the pass or resign move does not show the last stone marker because it does not exist on the board.

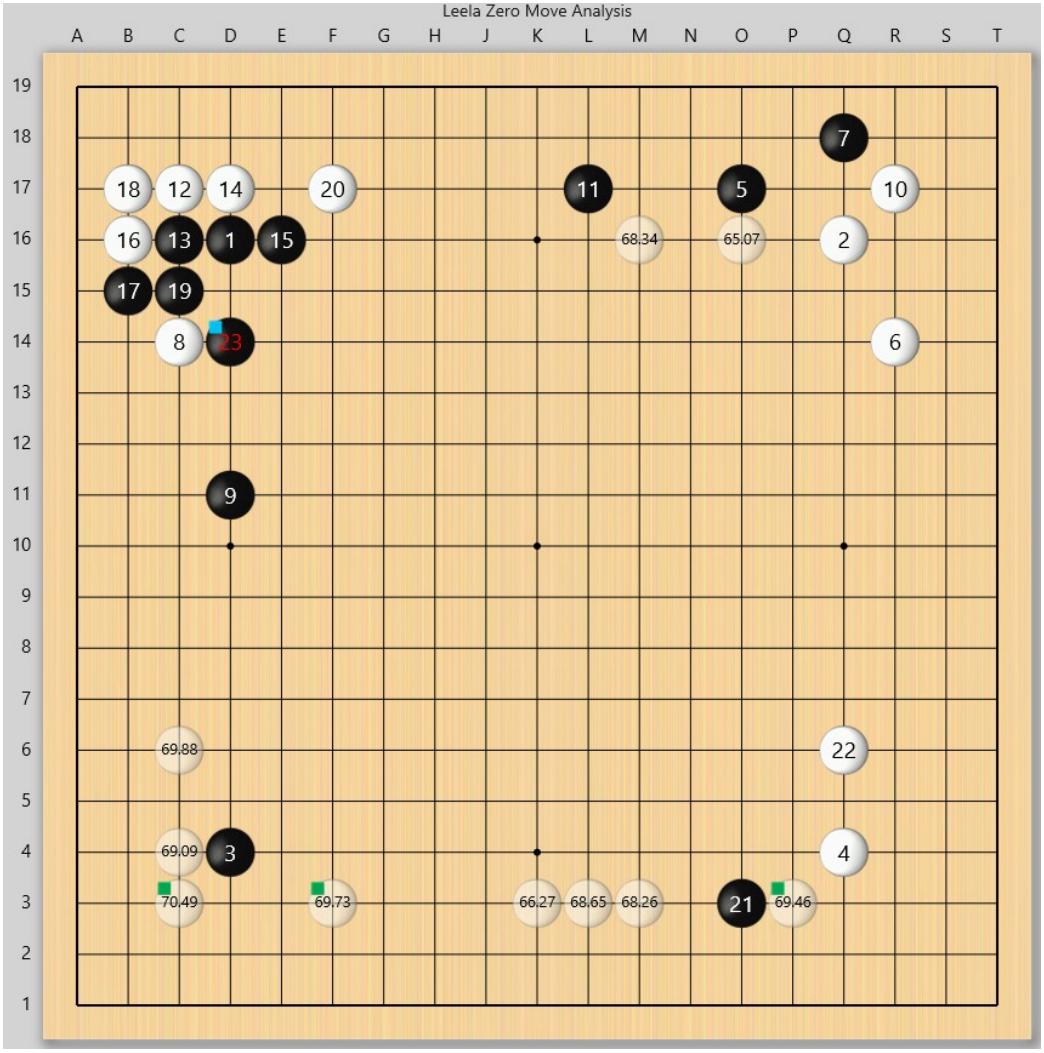


White is assumed next move and let's find how Leela Zero considers a move when black 23 is placed.

30. 

Click 'Move' button under 'Game Analysis' on RH. And, wait until Leela Zero finishes the analysis.

31. The board shows some half-transparent white stones with numbers as below.



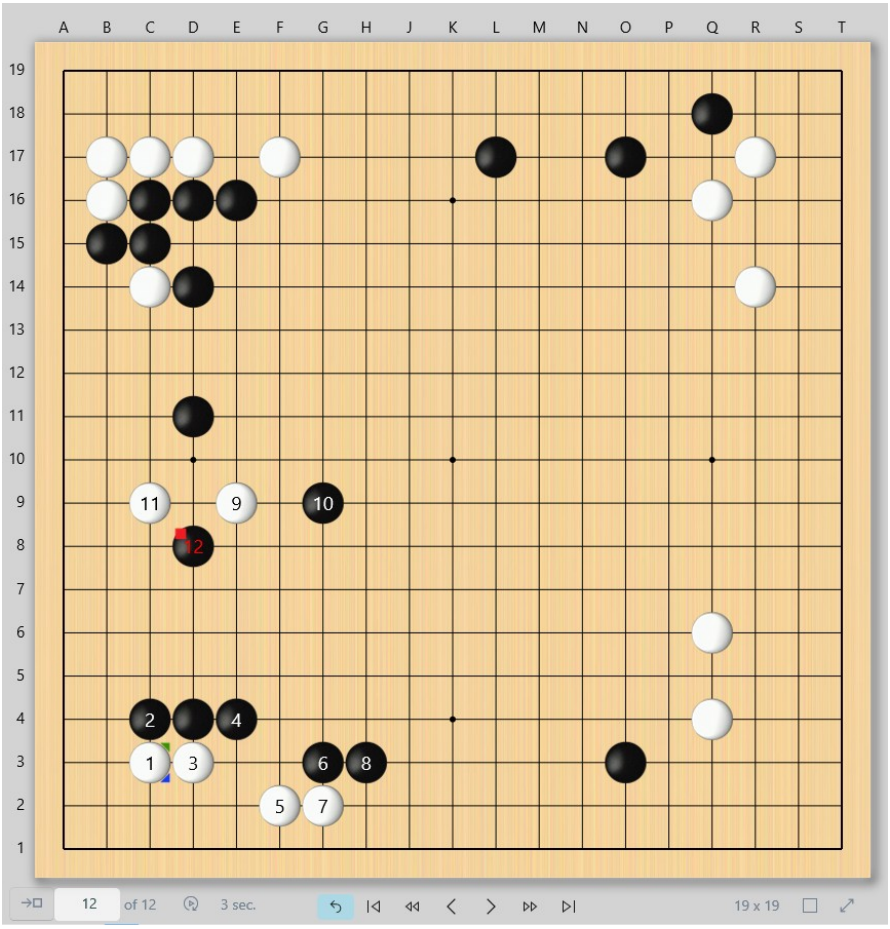
Note:

a. The analysis result may not be same as shown.
b. Green marker denotes top 3 moves from the analysis.
c. These are the considered response against black 23.

32. Move cursor on the displayed result and see how Leela Zero considers moves.

At this stage, Leela Zero is only the Go engine for the move analysis. However, when KataGo is running with the board, KataGo takes the analysis with a little different way. See the KataGo section.

33. Click a suggested move at R6 or any other. It adds some move sequence on the existing stone layout.



Note:

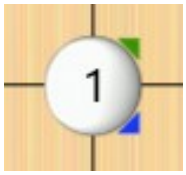
a. This could be also different from your result.
b. See the last stone marker is red. This means the added stones are listed on a sub branch, not the main branch.
c. Only the numbered, that is newly added, stones are selectable. This is to protect the definition of man branch.
d. Analysis result of the move sequence is added with comment on the first stone and can be displayed when selected.

34. See the stone traverse button at the bottom. Blue-colored button is added and used to go back to main branch.

1.12. Main and Sub branch of Game tree

35. Comment marker and branch marker on a stone

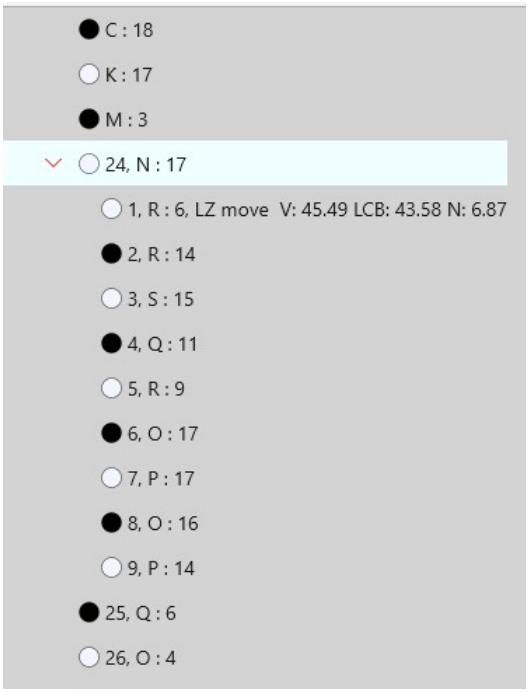
The added first stone has the markers as shown below.



Comment marker
Green-Right-Top
The stone has comment and able to display when clicked.

Branch marker
Blue-Right-Bottom
The stone has branch and able to find it when it becomes the last stone in the view.

36. Understanding of main and sub branch

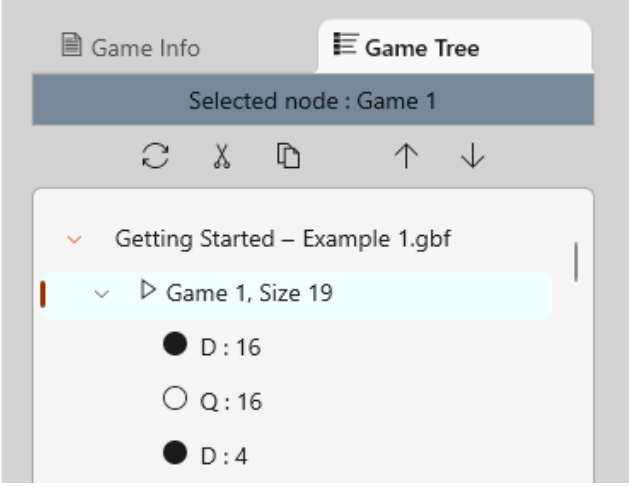


Open Game Tree and find stone #24. Click the chevron to open a newly added branch. The game tree has an additional stone list in order from R6 which are created from Leela Zero.

Here, the stones #24, 25 and so on are on the main branch and the stones created from Leela Zero are supplementary information as a sub branch under #24 on main branch.

1.13. Menu function on Game Tree

37. Game Tree provides some functions on its menu bar as shown.



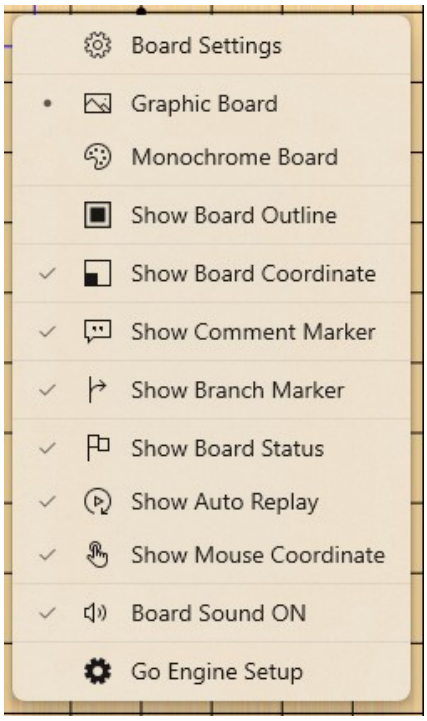
a. The menu bar is activated when file name or game title is selected and the file and game information is displayed below as text form.
b. The menu bar is deactivated under ‘Game’ mode.
c. When a stone is selected from the tree view, ‘Sync’ and ‘Branch Trim’ is only available.

The function of each menu is below:

	Sync	Displays selected game tree on the board.
	Branch Trim	Cut and remove the game tree from selected item.
	Copy	Copy a selected game tree and attach at the end of the game tree.
	Move up/down	Move up/down the order of the selected game tree.

1.14. Board display control

38. Move the cursor on the board and click right button. It displays a screen menu as below.



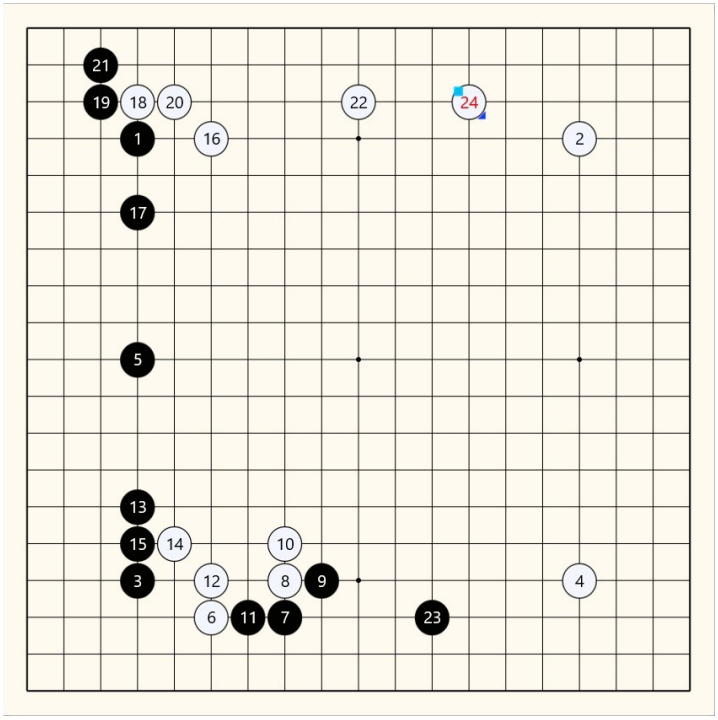
Menu list shows the current setting values and user can change the board display by check/uncheck the items from the menu list.

39. Select ‘Monochrome Board’ to change the board display.

Basically the monochrome color is set to ‘smoke white’ as default, but user can change the color and its transparency.

40. When decided, click OK.

41. The monochrome board is below:



2. Scenario

"Scenario" is a special game tree structure that has protected part as 'Definition' and user added part as 'Resolution'.

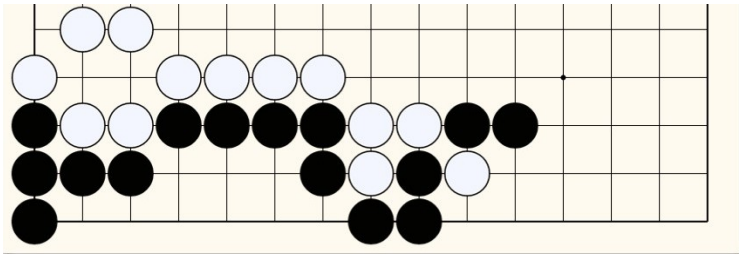
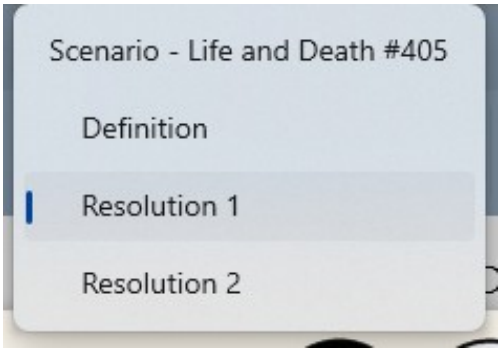


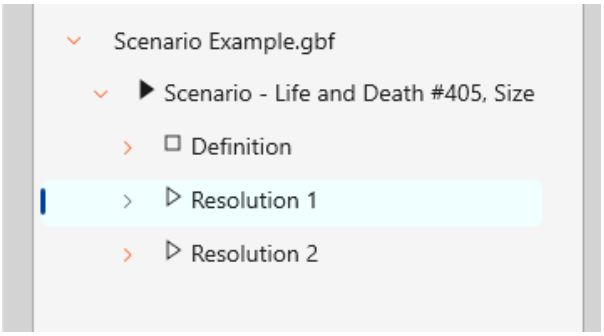
Figure shows an example of 'Life and Death' puzzle. White moves first, as initial condition, and is requested to capture the black stones.

User may try some moves over the given stone layout and determines effective move sequence to achieve the request. When doing so, the given stone layout above has to keep its original form, and user only needs to add or remove stones on the board for evaluation. The user added move sequence could be more than one and they all have to be recorded and reviewed.

Here, the original form that cannot be modified is ‘Definition’, and the user added moves are ‘Resolution’ that can be modified.



Scenario list in Combo box



Scenario list in Game Tree

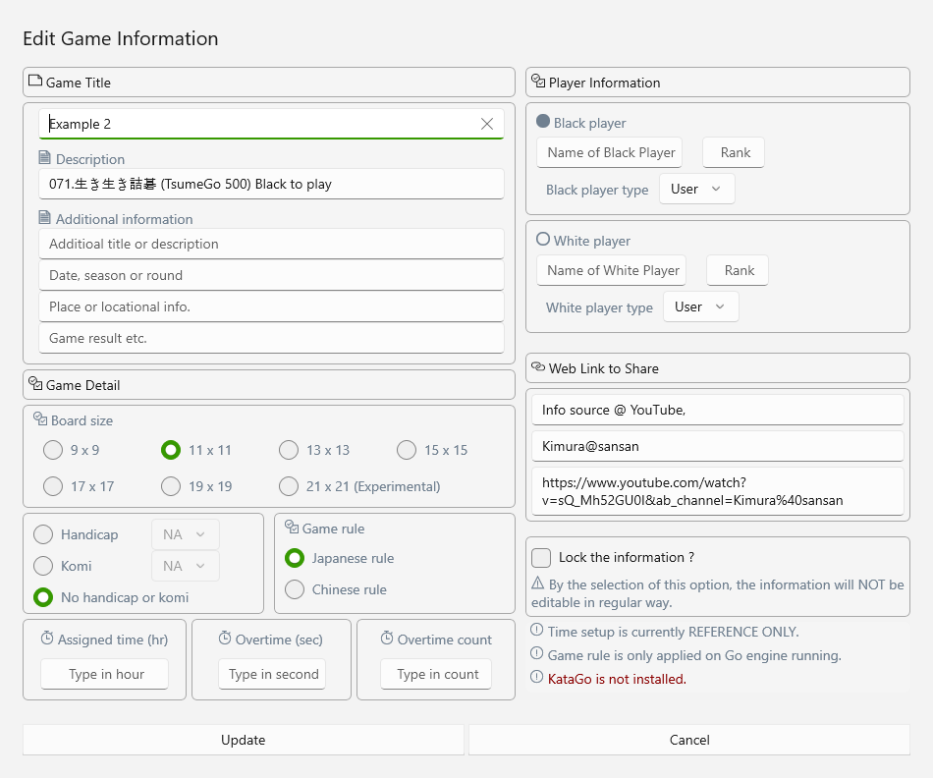
Combo box on the board and tree view in Game Tree also specifies with the name of ‘Definition’ and ‘Resolution’ as shown above. The example shows 2 different resolutions for a definition, and user may try more for another resolution. User can select any game tree item, but ‘Resolution’ is only editable.

Example of Scenario Building

1. Information source on YouTube
   https://www.youtube.com/watch?v=sQ_Mh52GU0I&ab_channel=Kimura%40sansan

2. Set mode to ‘Edit’ to record all moves.

3. Click Add Game. The board opens a dialog for game setup.

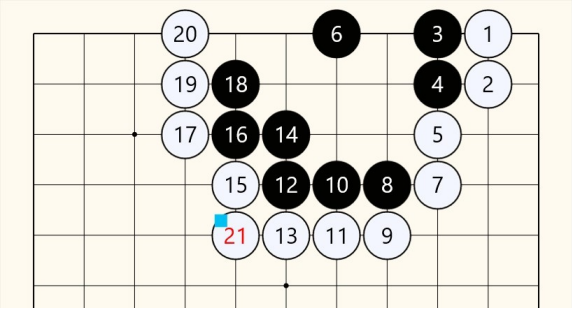


Put the title and its description, YouTube link is for reference as a record. User can set the rest items as needed but it will not affect on the game setup in this example.

Note:
Board size is set to 11x11 to accept 10x10 board that the author uses.

4. Click ‘Add’ or ‘Update’ at the bottom, that creates a game with the title user specified.

5. Put the stones as shown below. This is the original stone layout of the source.



To make this layout, user might need to drag stones or change color by selection as explained in previous section.

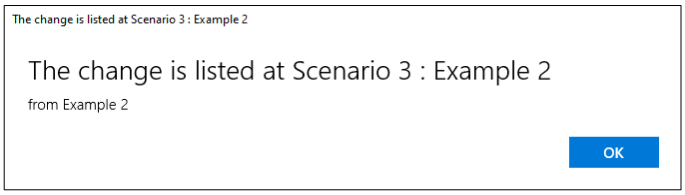
6. Click ‘Scenario’ button on status bar.

When scenario is created, all the stone layout in current view is defined as ‘Definition’ and the rest, if exists, becomes ‘Resolution’.

7. When a stone layout is transformed to scenario, it shows 2 message boxes as below:

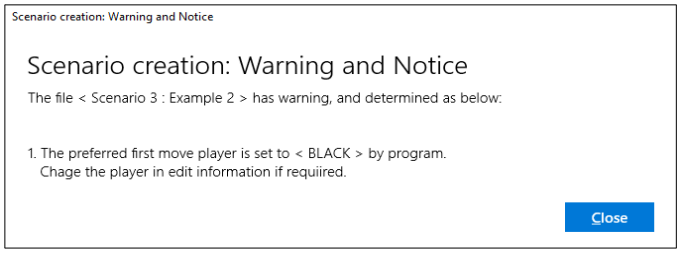
Note: The detail info may vary but the procedure is same.

a. Created game tree message



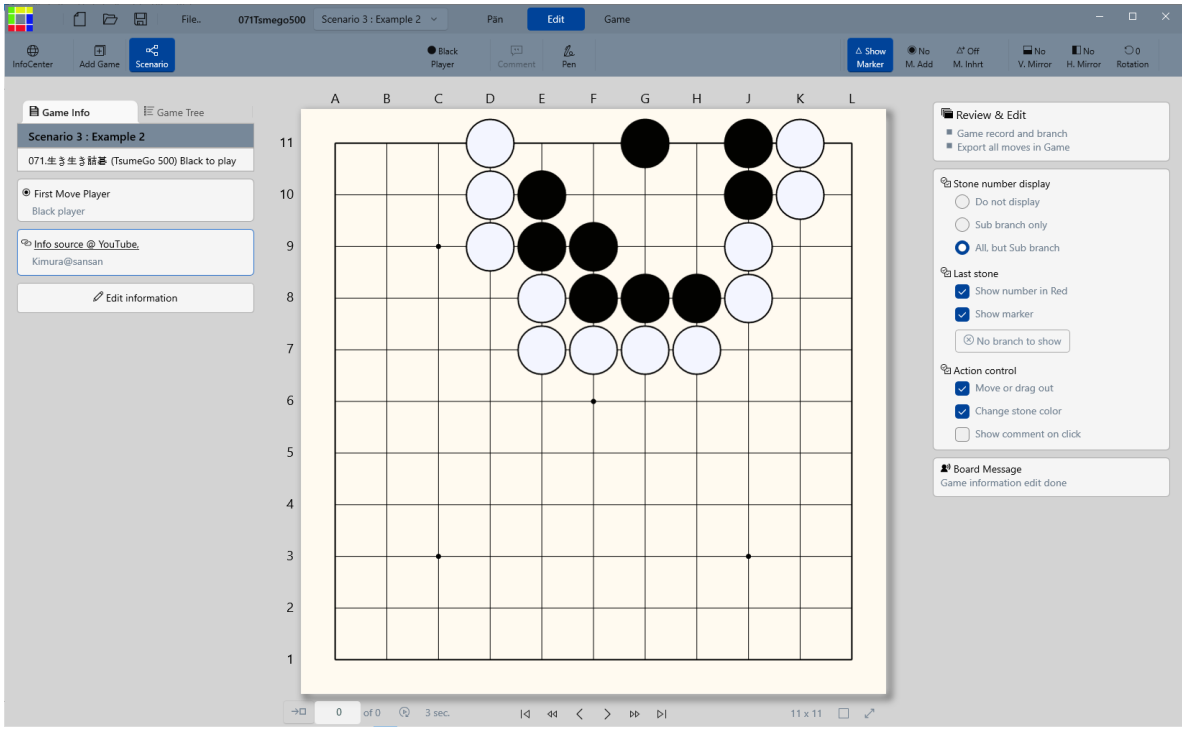
This is the revised game title that means 3rd game in the game tree created as Scenario from ‘Example 2’.

b. First move player

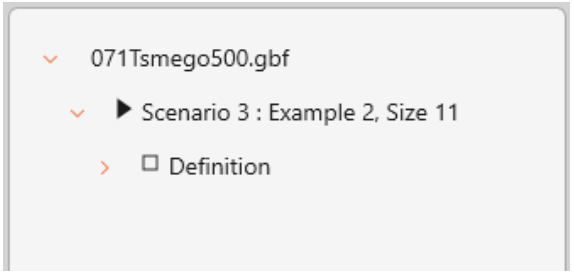


This messages the first move player is set to ‘Black’ stone. The first move player is determined internally when created, and user can change it later if necessary.

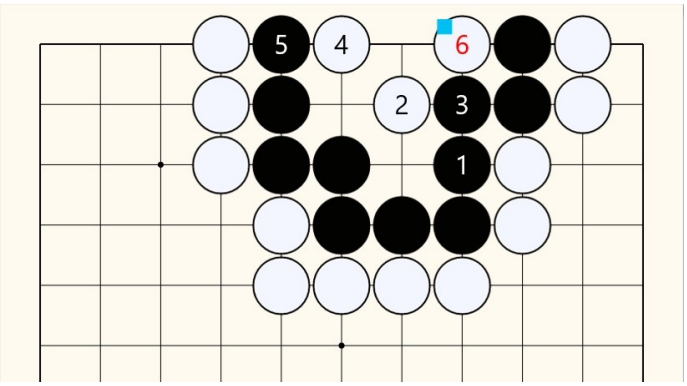
8. See the changes when scenario is created.
   a. The stones do not display the number. This is because the stones are defined as ‘Definition’ and can not be modified.
   b. Game property panel at LH side is updated for Scenario mode.



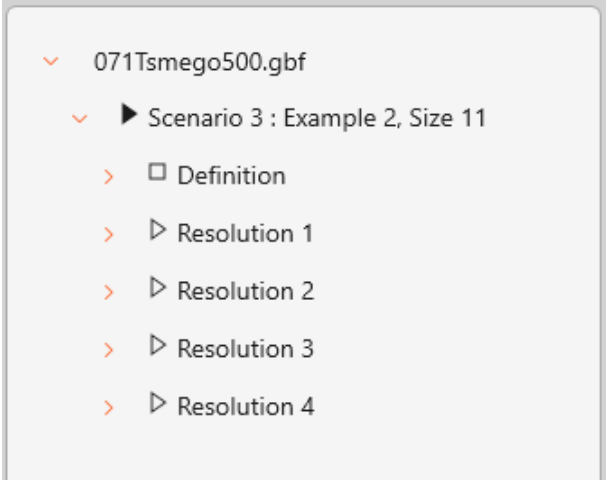
9. Open Game Tree and see the game tree. This is the scenario game tree just created that has only ‘Definition’ for now.



10. Add stones as in the information source in scenario mode. They are ‘Resolution’ added after the ‘Definition’.



Above stone layout is one of the sequence that the source has. Below is the game tree that was created from the source with 4 resolutions as shown.
Here, ‘Resolution’ does not mean ‘Good’ or ‘Right’ move, but ‘Answer’ provided for the given situation of ‘Definition’.



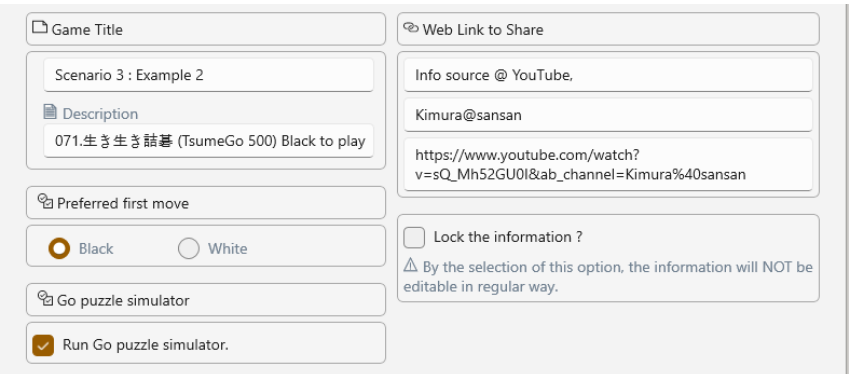
User can add another stone moves and/or comment if required.

11. All done. User may select game tree from the combo box or Game Tree.

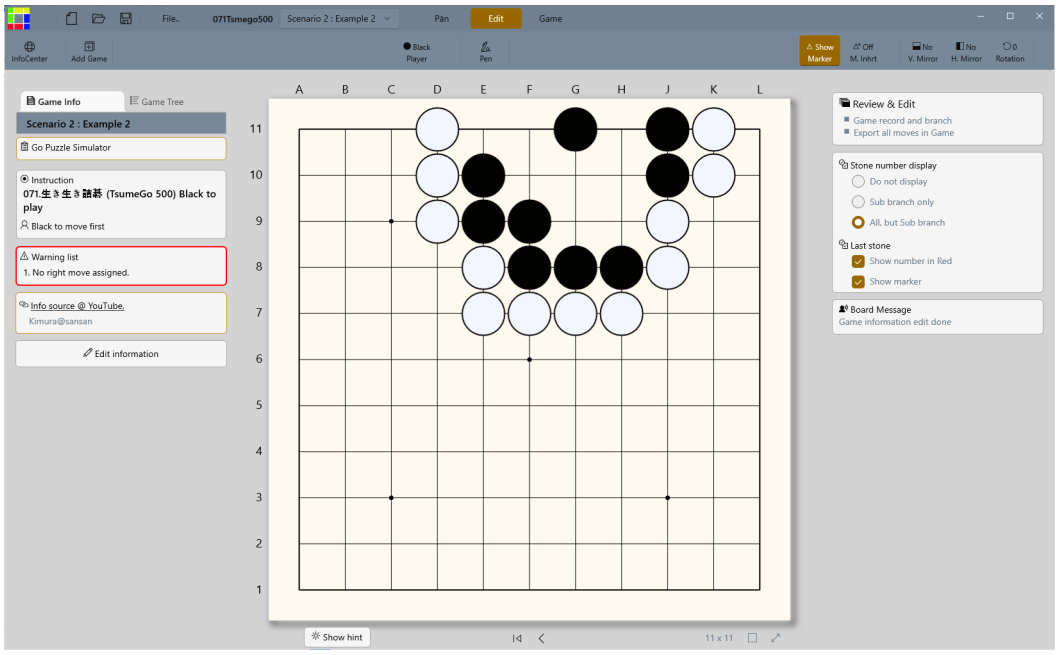
3. Go puzzle simulator

Go puzzle is a simplified game play that indicates or leads a right move sequence on a given stone layout. Mostly ‘Life and Death’ is well known puzzle as ‘Tsumego’, but any situation expressed as ‘Scenario’ can be considered and transformed to Go puzzle.

1. Stay with the game tree ‘Scenario 3: Example 2’ of previous section, and click ‘Edit information’. The edit dialog opens as shown below.

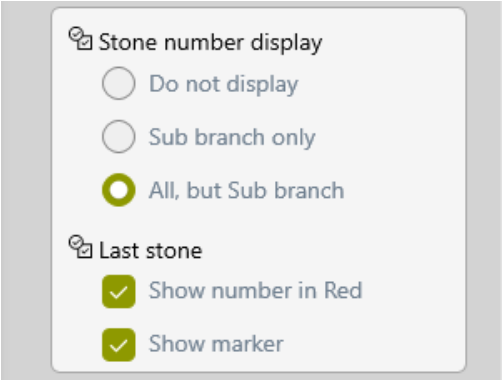


2. Check ‘Run Go puzzle simulator’ at the left bottom and click ‘Update’.



Board layout has changed as shown above for Go puzzle specific mode.

3. Mode property panel on RH side also changes the display.



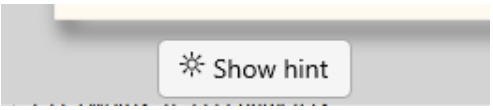
Unnecessary items are hidden as shown. Only the stone number and marker display is available.

4. On LH side, it displays the instruction and the warning list.

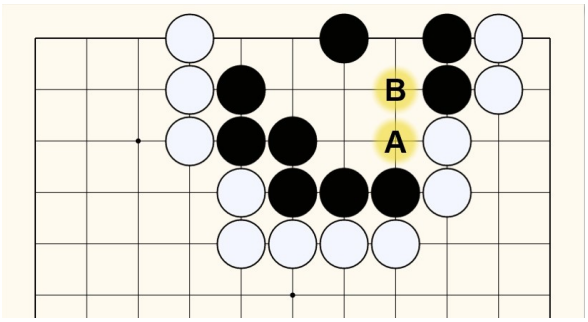
'Instruction' is a request what user has to do. It is transferred from the description of the game and, if necessary, user has to update/clarify this.

'Warning list' shows the current status of the scenario to be Go puzzle. The created scenario has stone moves but it does not currently clarify which move is right.

5. Click 'Show hint' at the left-bottom of the board.

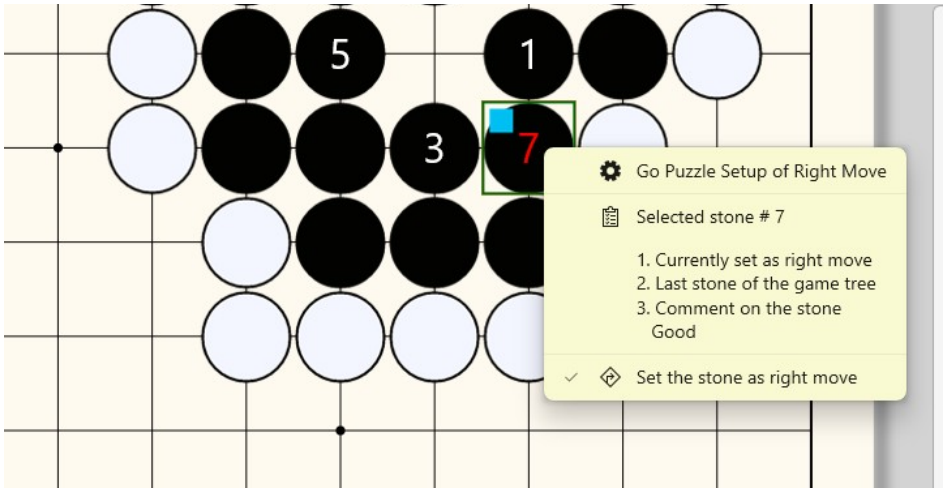


6. The board displays some alphabet marker with yellowish background as shown below.



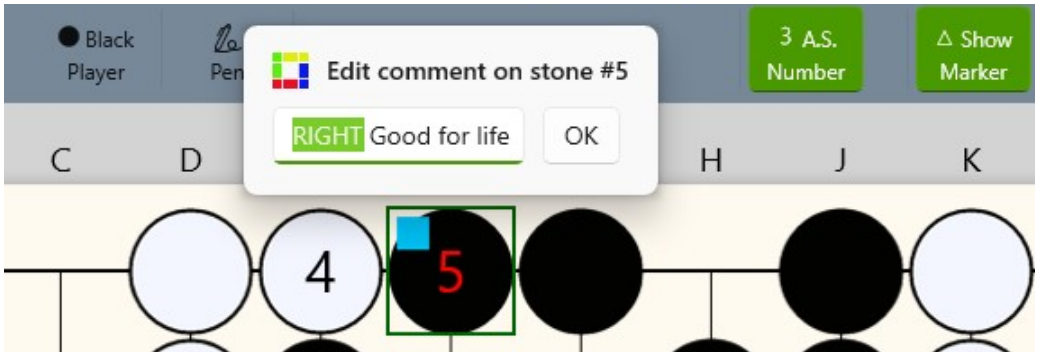
As mentioned, the scenario does not have assigned right move, so all the available moves are considered bad and/or unclear move with yellowish background.

7. Assign right move.
   a. Click ‘Edit information’ and uncheck ‘Run Go puzzle simulator’.
   b. Open the stone move list of right answer from ‘Resolution’.
   c. Select ‘Last’ stone of the list, and click right button.



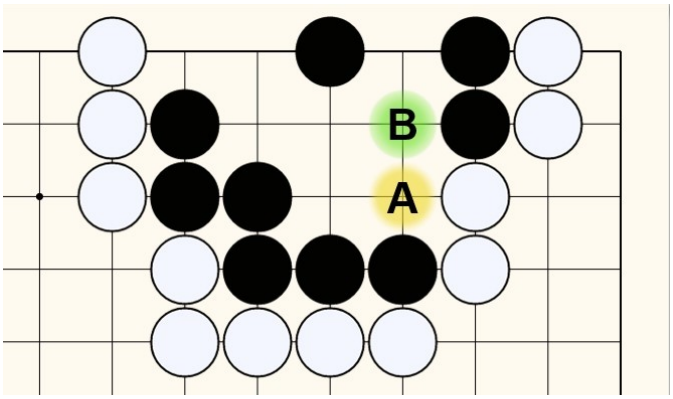
It displays flyout with current status as shown above. Check the item at the bottom, ‘Set the stone as right move’.

- Another method to assign right move, goproblems.com style



Select the last stone and add comment with the word ‘RIGHT’ as prefix shown above.
   a. This is goproblems.com style, and the board will convert it to right move in Go puzzle.
   b. When exports the game tree to SGF format, it will also add ‘RIGHT’ prefix as a comment when the right move is assigned as the board style.

8. Go back to Go puzzle simulator, and click ‘Show hint’ again.



It displays same alphabet maker, but one has green background. The green background is a good move and the yellow is bad move as mentioned.

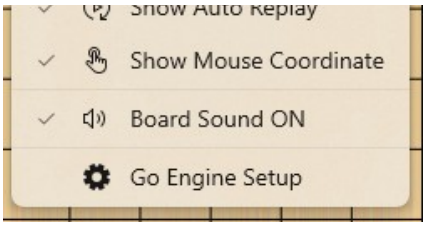
9. All done. User may ‘Lock’ the information for publishing.

10. Consideration of better Go puzzle
    a. More moves of game tree makes more interactive for users. In the figure above, it has only 2 starting moves, but may add another move at the center or left top corner.
    b. More detailed comment will help user for more information. Explains why good or bad, so user can learn more of stone move in the given situation.

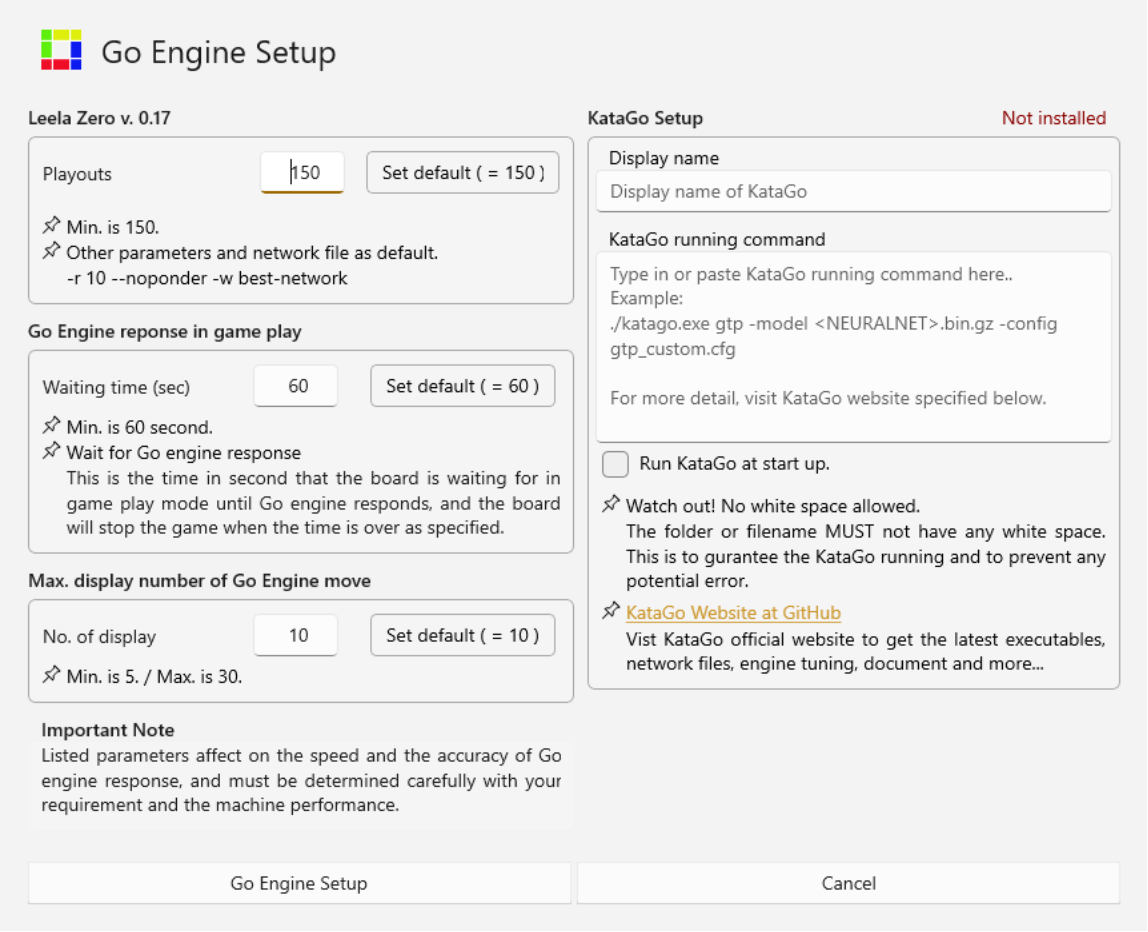
4. Go Engine Setup and KataGo Interface

Pän::The Board has internally installed Go Engines of GNU Go and Leela Zero. And, the app also provides the interface to ‘KataGo’.

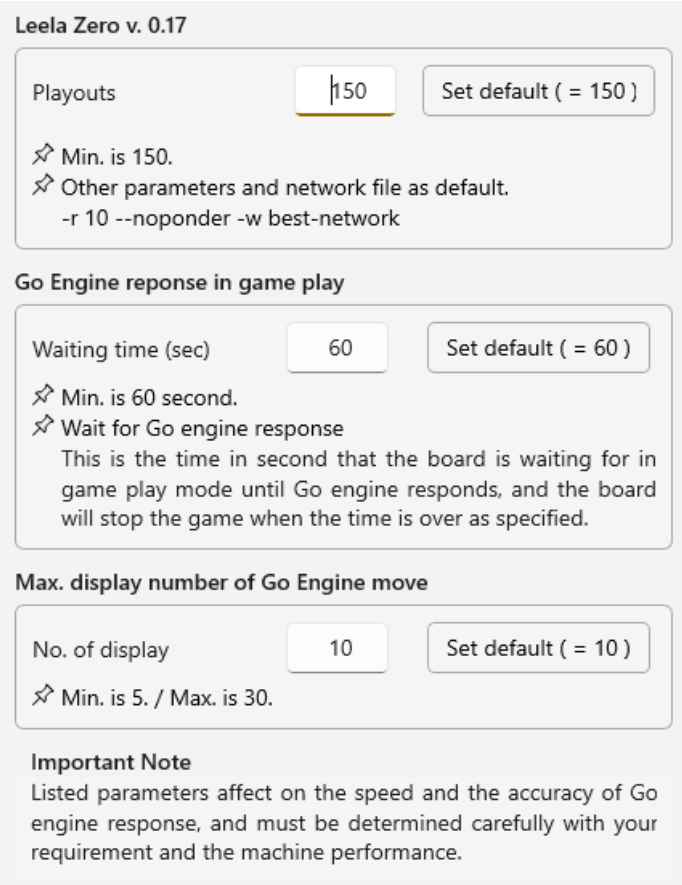
1. Open the screen menu. Find and click ‘Go Engine Setup’ at the bottom.



2. It opens ‘Go Engine Setup’ dialog as below.



3. Left column is for Leela Zero and some control parameters as below:



a. Playouts for Leela Zero
It refer to the number of simulated game-playouts a move search performs to estimate the best move. The number is higher, Leela Zero becomes stronger and also takes response time longer.
Currently set as 150 as default.

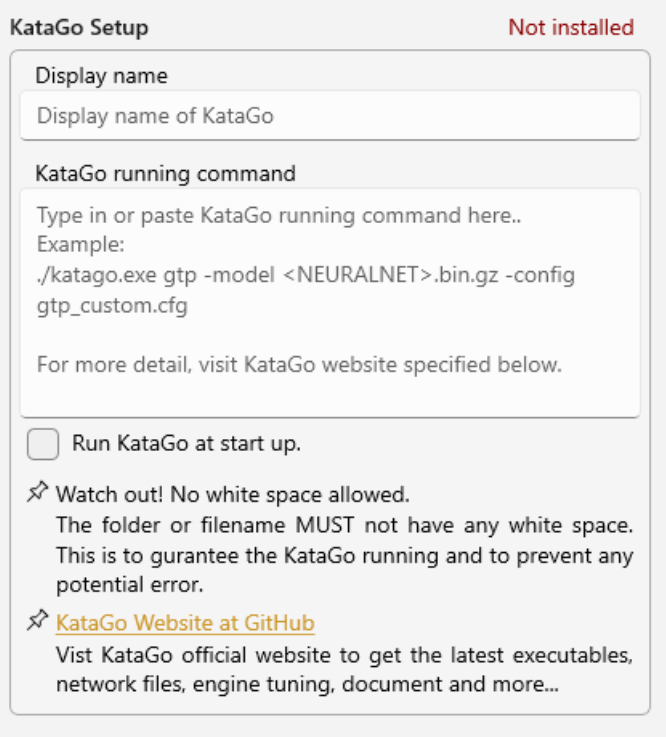
b. Waiting time of Engine response
In Game mode against Go engine, Board is waiting when requests a move as response, and stops the game when response is not received within the setting time here. Default is 60 seconds, and may need to increase by machine performance.

c. Max. display number in move analysis
When move analysis is requested, Go engine can create too many recommended moves. The setting value here limits the number displayed move list on the board, that is to simplify and ignore the unnecessary details.

4. Right column is for KataGo setup panel.

Important note:
Pän::The Board provides only the interface to KataGo. It does not have any related executable or its supplementary files, and user has to download them from a reliable information source.

The GitHub web page is below for your information.
https://github.com/lightvector/KataGo?tab=readme-ov-file#katago



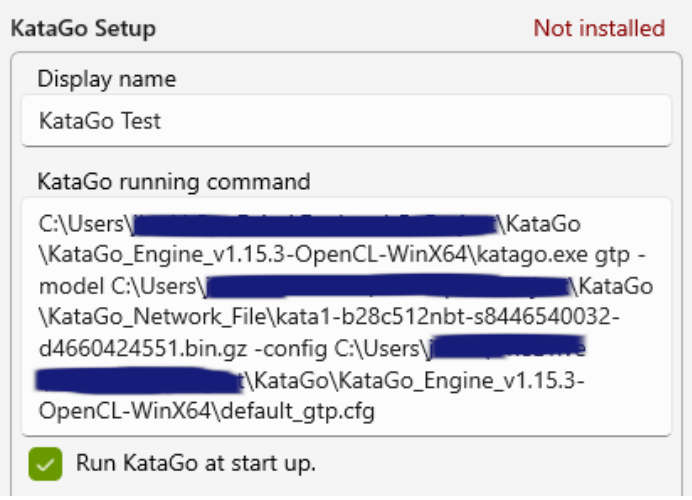
a. KataGo is not installed and the status is displayed at the top right as ‘Not installed’.

b. Display name
The default display name when KataGo is set as a player. The name can be modified when required any time. If not given, the default name is assigned as “KataGo” internally.

c. KataGo running command
The detail of running command is explained in KataGo web page as below:
https://github.com/lightvector/KataGo?tab=readme-ov-file#how-to-use

d. Check box of ‘Run KataGo at start up’
This determines run KataGo when it is checked .

5. Example of KataGo Setup



An example of KataGo setup above and running command is specified as below:

a. Referenced basic form from KataGo webpage
path/to/katago.exe gtp -model path/to/<NEURALNET>.bin.gz
path/to/katago.exe gtp -model path/to/<NEURALNET>.bin.gz -config path/to/gtp_custom.cfg

b. Applied running command is below:
This is just a simple example with default configuration.

*Path\to\KataGo…Executable***katago.exe gtp -model** *Path\to\KataGo…NEURALNET***kata1-b28c512nbt-s8446540032-d4660424551.bin.gz -config** *Path\to\KataGo…Config***default_gtp.cfg**

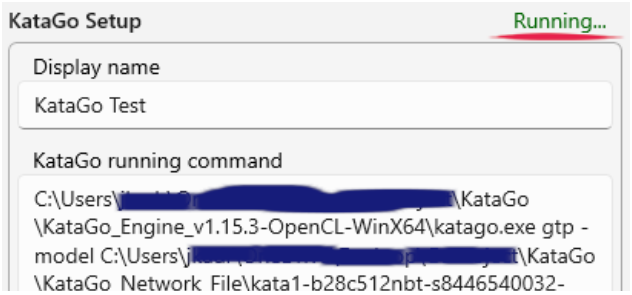
Important note:
Path to executable or supplementary file should not have a white space.

c. For better performance

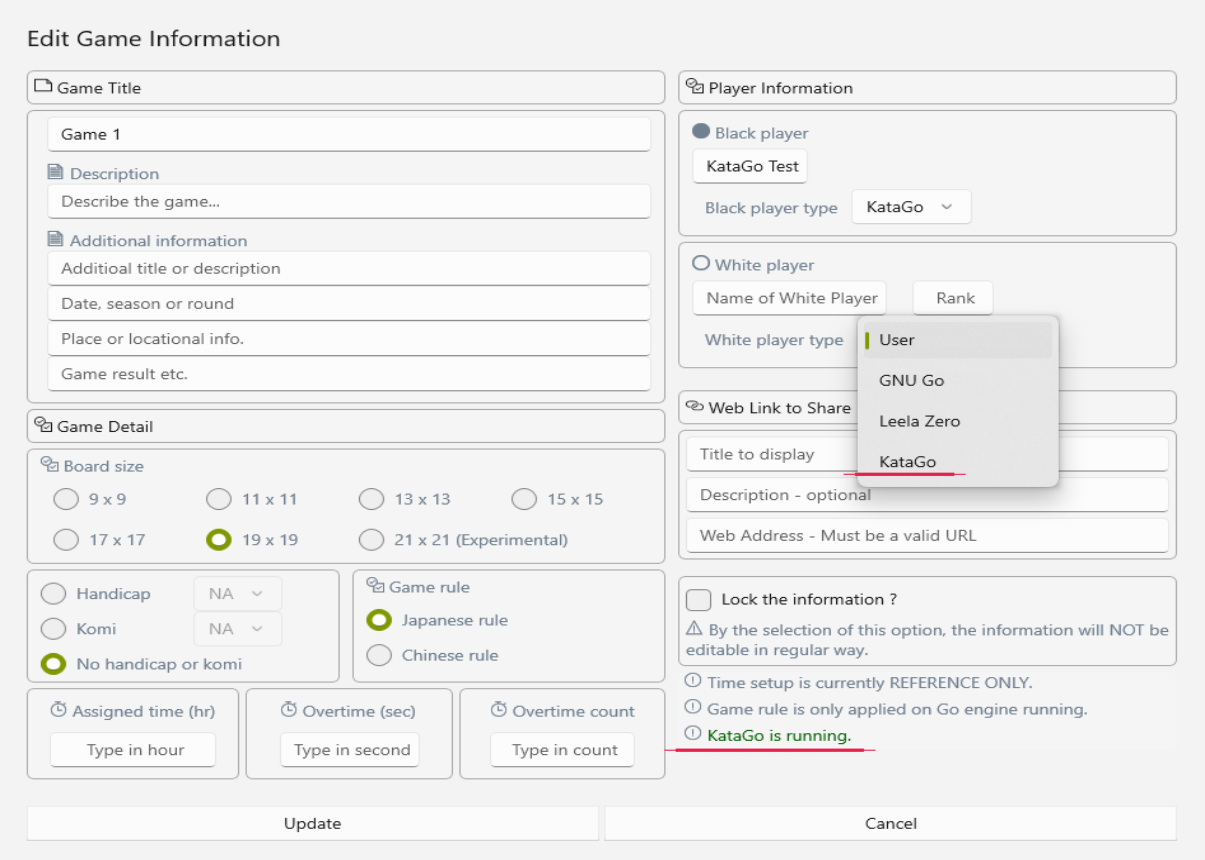
When GPU is installed, refer to
https://github.com/lightvector/KataGo?tab=readme-ov-file#opencl-vs-cuda-vs-tensorrt-vs-eigen

For KataGo tuning
https://github.com/lightvector/KataGo?tab=readme-ov-file#tuning-for-performance

6. When the parameters are properly provided, click ‘Go Engine Setup’ button. And, open the Go engine setup dialog again. When KataGo is running, user can see the message “Running...” at the top right of the dialog.



7. Edit game setup when KataGo is running



Open the game edit dialog. When KataGo is running, the dialog shows a message at the right bottom. And, user can select KataGo as a player. They are red-underlined for your information as shown above.

8. Some notes of Move/Win rate analysis when KataGo is running

a. When KataGo is running, it takes over the analysis of move and win rate.

b. The board limits the iteration of analysis.
KataGo is designed to infinitely generate the analysis result on a given board layout. The analysis is, by the board, stopped when the analysis result does not show a noticeable change. Even when the result shows a change, it stops when the iteration number reaches 5. The iteration number is denoted by revision number.

Thank you!

- End of document -