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Quazer 4.7 new feature operation guide Version 1.0

Preface

This Document describes how to operate the new features in Quazer version 4.7 and is intended for everyday users.

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Import a Turnstile job:

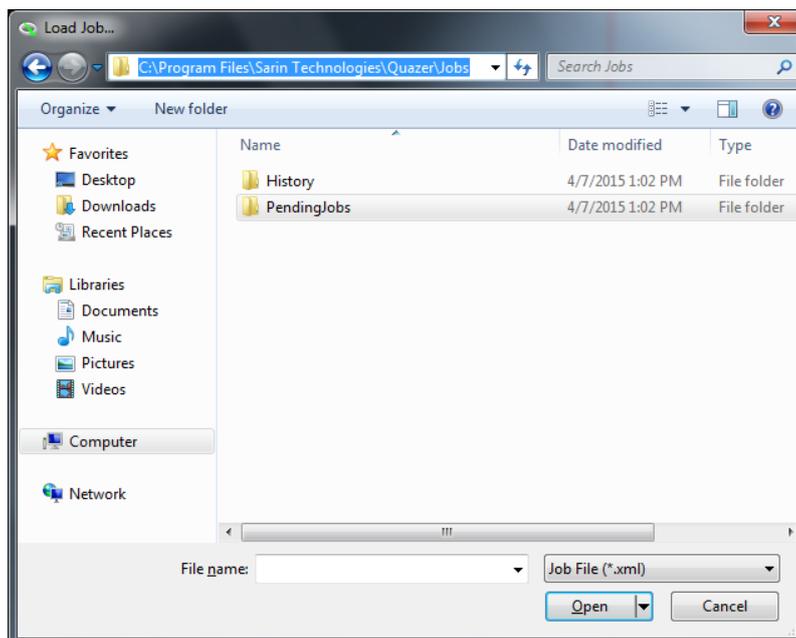
This feature enables you to import job files that were generated on the turnstile cassette from the sawing pending/history folders. This feature is usable whenever stone planning stage should be repeated due to human errors, system shutdown or when you simply wish to re-plan a stone that was previously planned/processed in the Quazer machine.

How to use the feature?

1. Select turnstile cassette
2. Double click on the relevant dop
(The dop that hosted the stone you wish to continue planning)
3. Click on **Parameters** caption under the job tab.



4. Click on the **Import**  button (Pop up window will appear on screen)



5. Load the relevant job from:

C:\Program Files\Sarin Technologies\Quazer\Jobs\History\SawingJobs

Or

C:\Program Files\Sarin Technologies\Quazer\Jobs\PendingJobs\SawingJobs

You can easily locate the job file by simply looking at the file name which contains the following data:

Job type_Date_Time_cassette type_cassette ID_Dop ID.xml (as seen below)

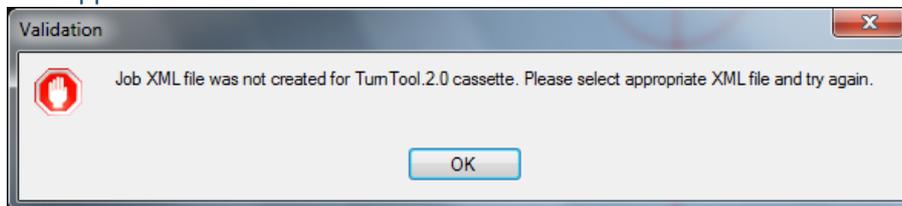
MultipleSidesSawing_31-3-2015_14-26-50-140_TurnTool.2.0_cas63136_Dop7

NOTES:

- You must select the same Dop that the stone was previously planned on. If you choose a different job from the one planned on the target Dop, the following error message will appear on screen:



- In case you will try to load a non-turnstile job XML file, the following error message will appear on screen:



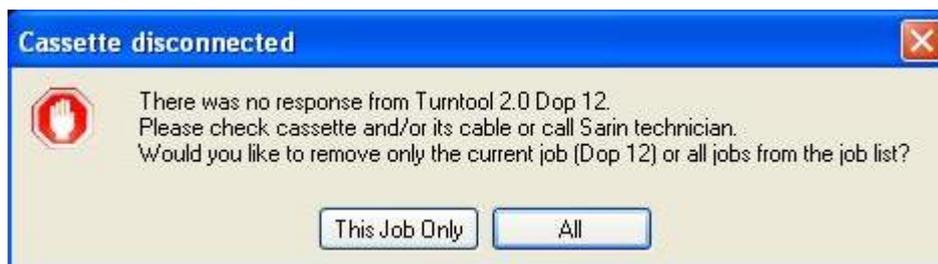
6. At this stage the machine axes will move to the first side log top position of the initially planned stone and stone planning tab will appear with the stone initial parameters.
7. Keep the original parameters and click save job, or continue the stone planning.

Remove this job only (in case of no response from cassette):

In case of engine dop failure you can now remove only the job which is allocated to the problematic dop. This is an improvement introduced in this release that replaces the need to remove all jobs (which was mandatory in past releases). Now verification/execution of the other jobs in the job list can continue without the need to re-plan all stones from the scratch.

How to use this feature?

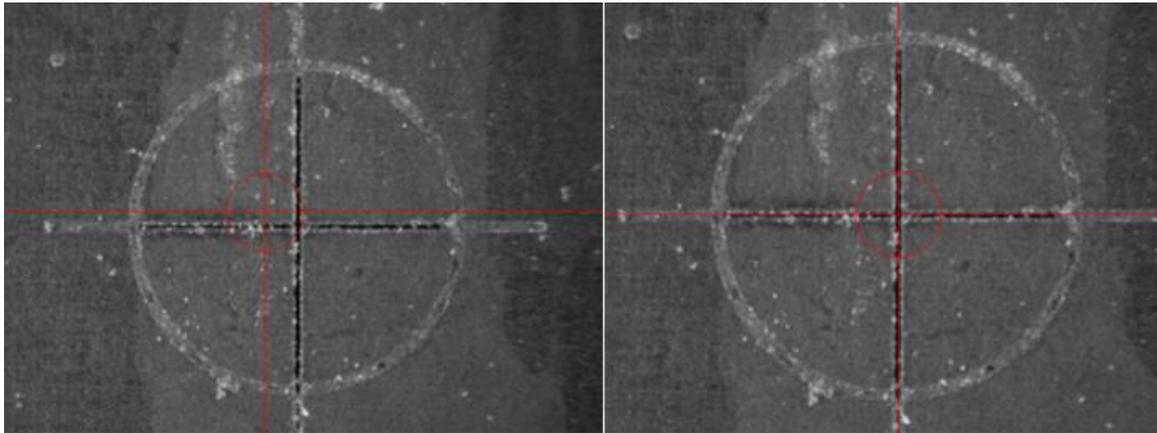
1. In case there is no response from the dop engine during the verification and/or execution stages, the following message will appear on screen:



2. Press **This Job Only** to remove the job attached to the faulty or **All** to remove all jobs from the job list and continue to the next job in the list.

Auto log cross:

The new auto log cross feature quickly identifies if there is a shift between the red cross and cross marking on the turnstile cassette during the Strategist import pack process. It automatically adjusts the table position to achieve perfect correlation between the two. By doing so it eliminates the human factor and improves the sawing process (especially in pie shaping jobs).

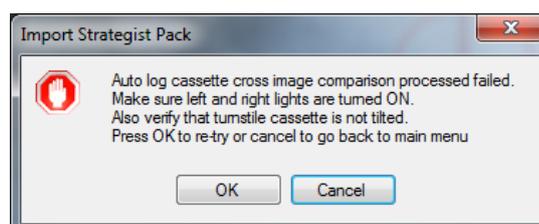


How to use this feature?

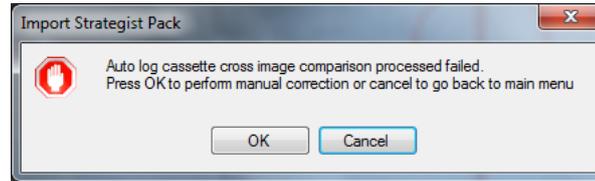
1. Import a strategist pack
2. At this stage system will go to the estimated location of the log cassette cross. It will try to operate the detection algorithm and check if there is a shift between the red cross and the cross on the cassette and perform the required movement
3. **Verify the correlation is OK** and press on the  button to approve. (If there is no correlation reset cassette and call Sarine support)
4. From this point there is no change in the work flow. You can continue regularly.

NOTES:

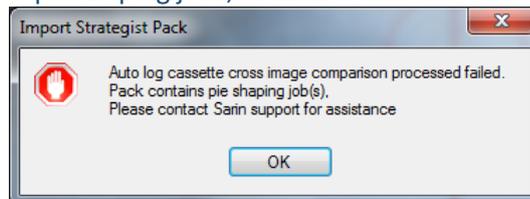
- The auto log cross algorithm performs two attempts to perform automatic correction. In case of failure the following message will appear on screen with relevant instructions. Press **OK** to re-try or **Cancel** to go back to main menu



- In case the auto log cross algorithm didn't succeed in two attempts the user will be able to perform manual correction only if the pack does not contain pie shaping jobs.



- If the pack contains pie shaping jobs, manual correction will not be allowed.



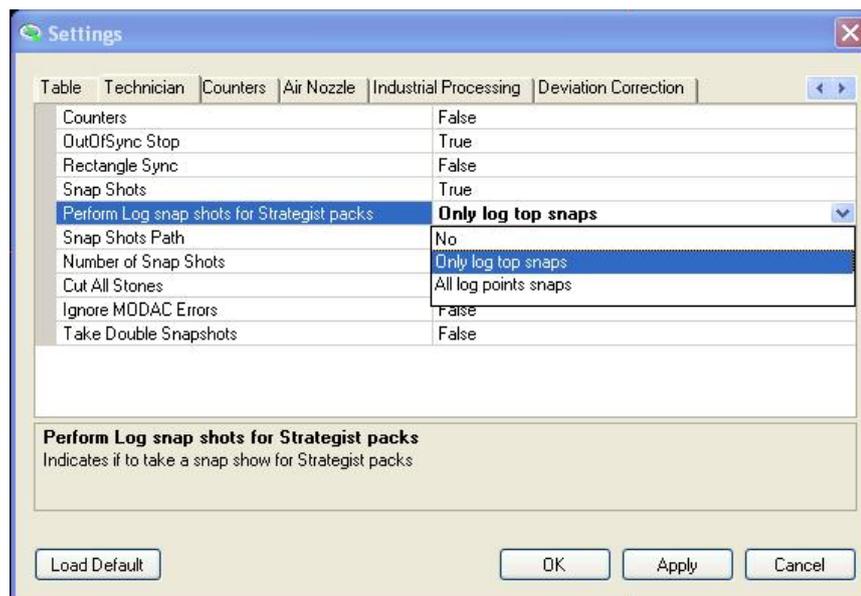
- After the "log cassette cross" action is done, there is no need to press on verification tab anymore. The process will automatically go to the verification screen.

Log top only snapshots option:

With the new version you can save only the log top snapshots of your strategist jobs instead of all log points (start, top, and end) and reduce strategist jobs snapshot logging period in 66% while still maintaining the ability to effectively monitor the stones planning and execution stages.

How to use the feature?

1. Enter the **Settings** screen.
2. Go to the **Technician** tab.
3. Select **Only log top snaps** option
4. Click **Apply** and **OK**.

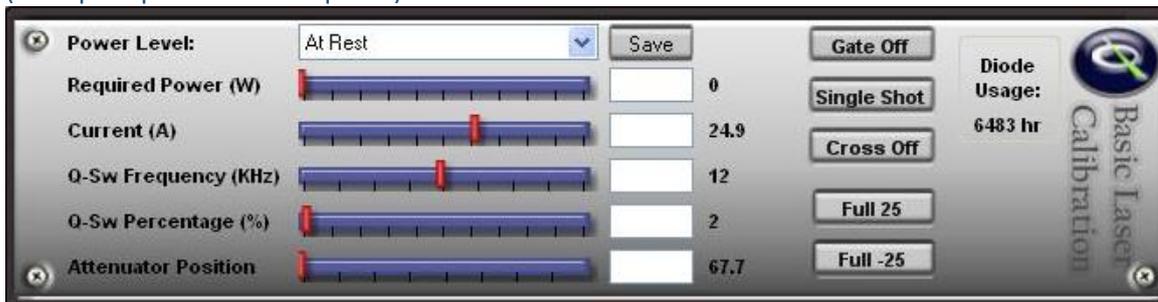


Basic Laser Calibration screen:

Basic separated laser calibration screen which is dedicated for every day operator calibration actions was added to the calibration tab. This allows an easy and restricted set of calibration actions being done daily to be performed easily and quickly, without unnecessary exposure of the operator to advanced calibration options.

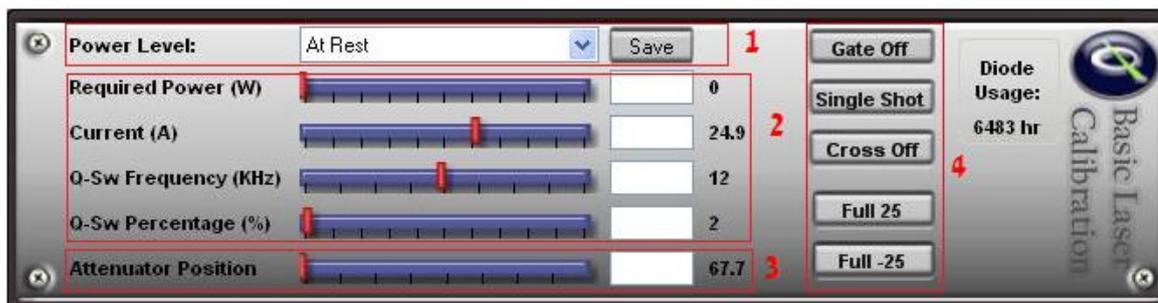
How to use the feature?

1. Enter the calibration screen by pressing the **Calibration** tab. (no special permissions required)



2. Perform the required basic calibration (Laser power check, laser and Red Cross correlation check etc.)
3. Upon finalizing the calibration click the **Save** button.

Basic laser calibration screen keys and functions:



1. Power level: Contains a scroll bar to select the required power level profile.
2. Laser parameter (disabled in operator working permission)
3. Attenuator position: Controllable scroll bar that defines the attenuator position
4. Laser operation panel:
 - a. Gate off/on – On/Off button to control the operation of the laser.
 - b. Single shot – Single shot action performs a single laser shot (in laser focus point).
 - c. Cross Off/On – Allows to adjust the Red Cross position.
 - d. Full 25 – Performs continuous lasering while moving the Z axis 25000 micro up.
 - e. Full -25 - Performs continuous lasering while moving the Z axis 25000 micro down.

NOTES:

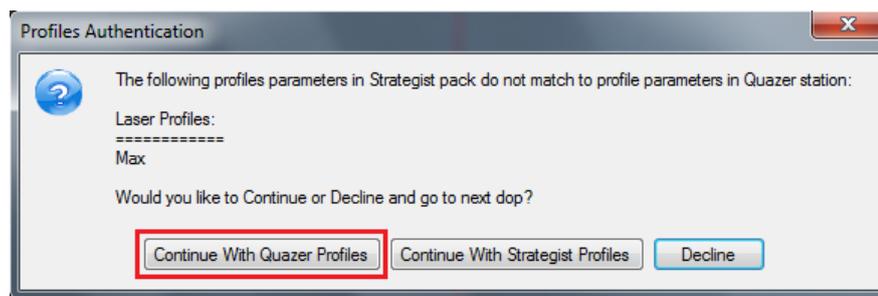
- The Attenuator position slider is the only available slider in the Basic Laser Calibration feature. If you want to modify the other slider, you will have to enter the technician permission level.
- Whenever you exit the calibration tab, system permission will revert automatically to operator permission.

Use Quazer profiles (Import a Strategist):

In case of a mismatch between the Strategist profile pack parameters and the Quazer machine profile parameters you now have an option to select the Quazer machine profile (which are usually more updated) instead of just declining the job or using only the Strategist profile pack parameters.

How to use this feature?

1. Import a strategist pack
2. Perform verification stage
3. In case there is a mismatch between the pack profiles parameters and the Quazer profile parameter the following message will appear:



4. Press **Continue With Quazer Profiles** to use the Quazer profile parameters instead of the profile parameters in the pack file.

Light intensity slider option:

Stone light Intensity bar work mode has been added to the main control panel and replaced the previous ON/OFF working mode. The slider allows the user to define the desired level of light to be applied on the stone and have better conditions to define the focus point, thus be able to examine the stone surface and marking clearly.

How to use this feature?

1. Press on the **Light** button to switch on the light
2. Move the slider to define to required light level.



New keyboard shortcuts:

New keyboard shortcuts were added to allow a faster and more convenient operation of the machine by the keyboard control platform instead of using the combination of the keyboard and mouse required in past releases.

How to use this feature?

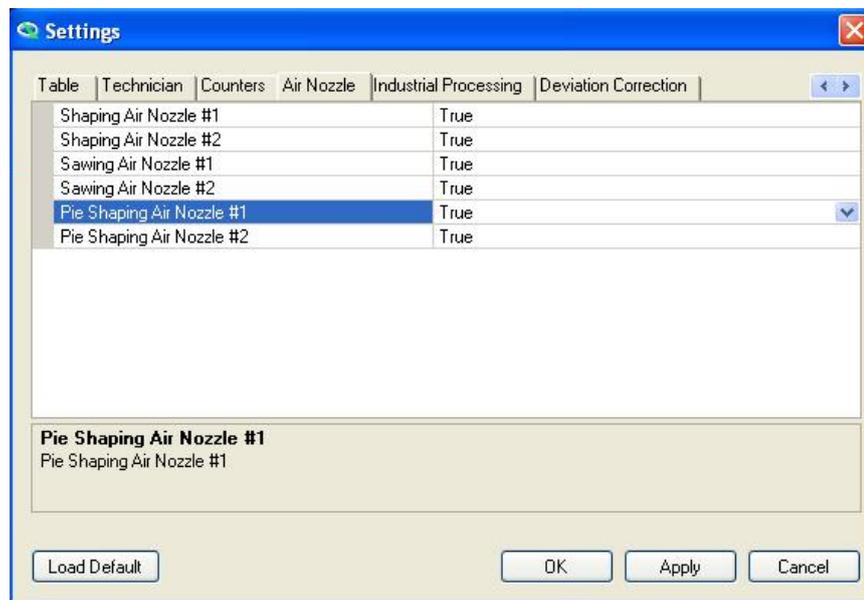
Area	Function	Keyboard shortcut
Job planning	Next (to save log point)	> / Space bar
	Undo (to undo log point)	< / Space bar
	Save side	Ctrl + S
	Save job	Ctrl + J
	import	Ctrl + I
	Power ON/OFF	Ctrl + P
	Home (Turntool)	Ctrl + H
	Prev side (Turntool)	Ctrl + P
	Next side (Turntool)	Ctrl + N
	Undo side (Turntool)	Ctrl + U
Verification	Accept	Ctrl + A
	Decline	Ctrl + D
	Skip all	Ctrl + TAB
Execution	Start/Resume	Ctrl + ENTER
	Skip side	Ctrl + Backspace
	Skip stone	Ctrl + Space bar
	Pause	Ctrl + END
Import from strategist	Log cassette cross	Ctrl + L
	Accept	Ctrl + A
	Decline and next dop	Ctrl + D
	Previous side	Ctrl + P
	Next side	Ctrl + N
	Save and next dop	Ctrl + V
	Save and skip all	Ctrl + TAB
	Cut verified	Ctrl + C
Cut all stones	Ctrl + ?	
General	Skip to job setup tab	Ctrl + 1
	Skip to verification tab	Ctrl + 2
	Skip to execution tab	Ctrl + 3
	Go to log top	Ctrl + Q
	Go to log start	Ctrl + W
	Go to log end	Ctrl + E
	Go to tip 1	Ctrl + R
	Go to tip 2	Ctrl + T

Pie shaping air nozzle control:

This feature enables the operator to control the number of nozzles operating while the pie shaping job is executed.

How to use the feature?

1. Enter the **Settings** screen.
2. Go to the **Air Nozzle** tab.
3. Select the preferred option (**True** – active , **False** – not active) on **Pie shaping Air Nozzle #1** and **Pie shaping Air Nozzle #2** options
4. Click **Apply** and **OK**.



Gate ON/OFF button:

Gate On/Off button was removed from main menu to avoid unwanted operation of the laser and was added to all of the relevant calibration screens.



In addition controlling the laser using the **Laser Editor** is still possible.



(Laser will switch off once exiting the **Laser Editor** widow)

Save and skip all (strategist re-verification):

Save & Skip All option was added to the strategist verification screen to quickly skip the re-verification process (enabled only after the main verification process was completed).

Warning!

Selecting **Save & Skip all** will skip all stones manual (re)verification stage and stone processing will be based on this skipped verification points. Please note that working with this feature can cause stone damage if not performed correctly.

How to use this feature?

1. Press the verification tab
2. Press on the **Save & Skip All** button

