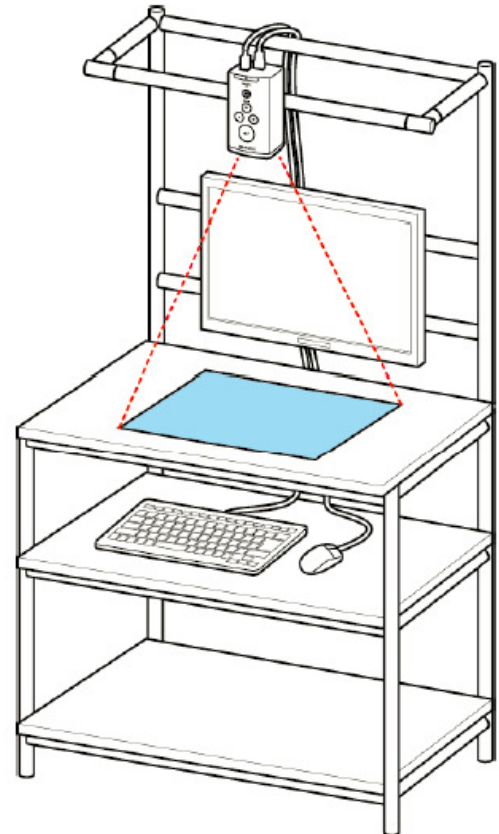




SC-10A Quick Work Flow Creation Guide



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1. Content and General Settings

This Quick Guide explains how to setup a workflow for the SC-10A, where a sequence of work steps with corresponding work instructions are set up.

The selected work mode for this guide is “Matching”, which means that the SC-10A compares the results of the completed work step with the master image in terms of shape, pattern, color and/or texture.

The selected method is “relative search”, which means that a base point on the object/product to be inspected is set as an anchor or reference, which the SC-10A then uses to verify the correctness of the work result.

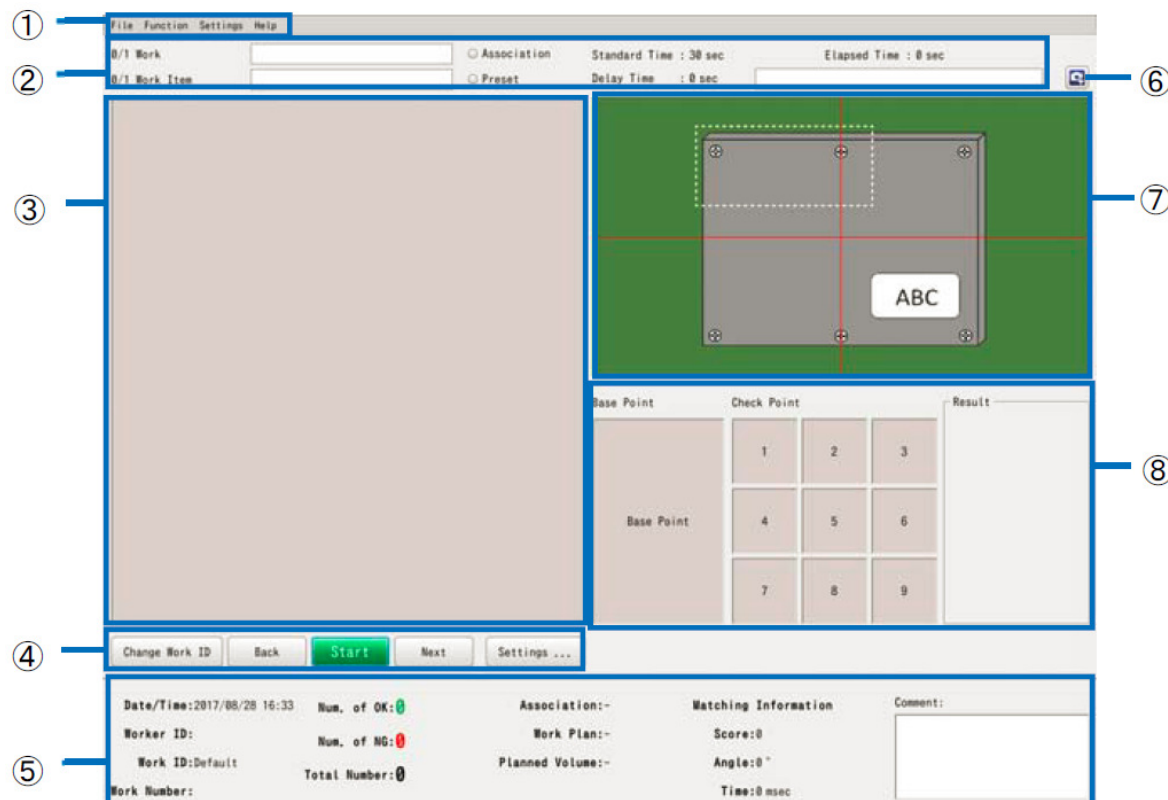
2. SC-10A Specific Wording

Work ID – means the task to be inspected. For example, the product, the part, etc.

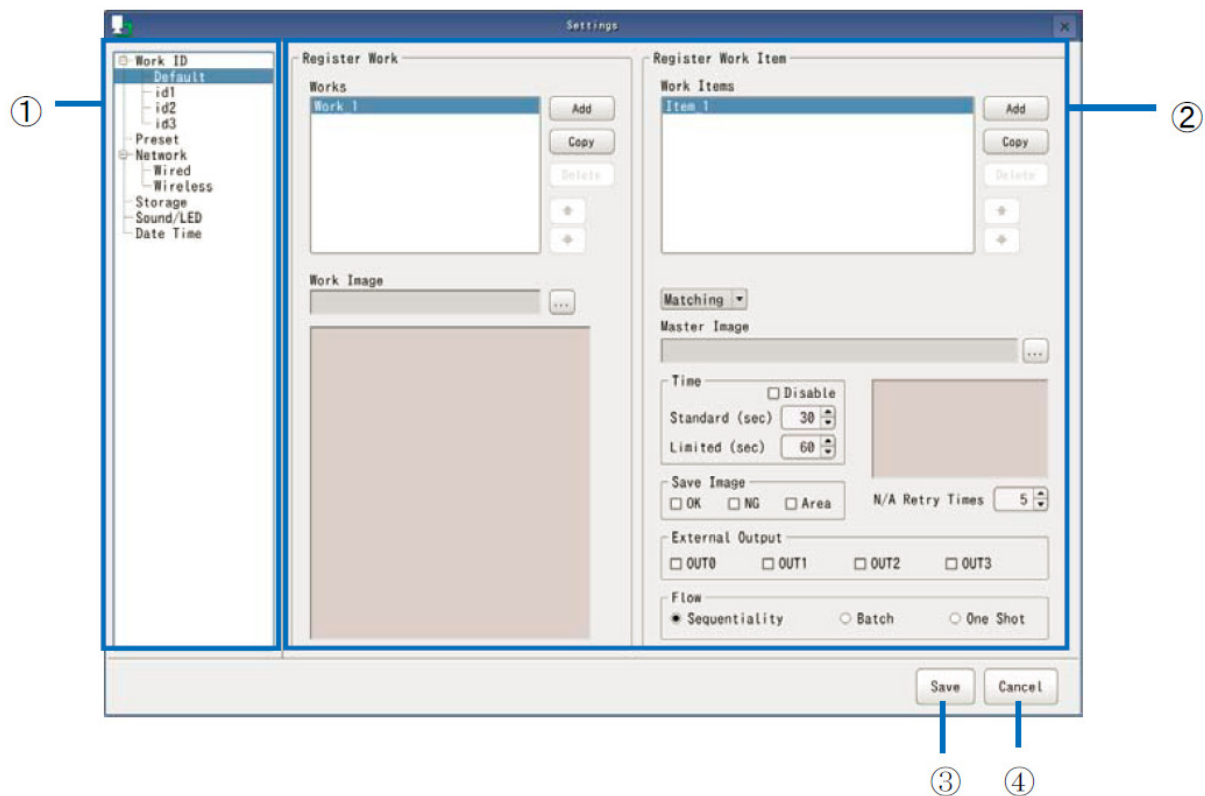
Works – means the single work steps that need to be done and inspected. For example, step 1, fix screw on the upper left side, step 2, fix screw on the upper right side, etc.

3. The two Main Setting Screens in Administrators Mode

a. Main Screen:



b. Operational Setting Screen:



4. How to create a Workflow for the task (=Work ID)

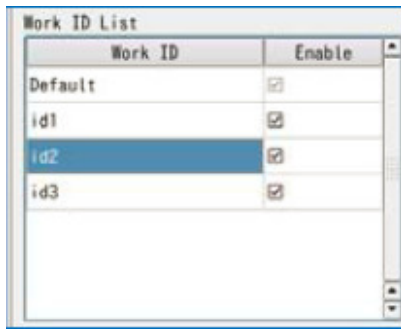
- a. Prepare images for use as master images and if needed as work instruction images.*

Take an image by clicking on the camera symbol on the main screen (Main Screen, no. 6). A picture is taken automatically. Re-name the picture according to its purpose, for example, “work1-master” or “workinstruction1”, if the work instruction is not downloaded via USB. This way you can assign the images easily to the corresponding work steps.

- b. Prepare a new Work ID for the intended inspection task.*

Click on “Function” on the top menu bar (Main Screen, no. 1) -> then select “Operational Settings”. Click on the title “Work ID” in the Operational Setting Screen, no. 1.

In the upcoming Work ID list click on “Add”. Rename the added Work ID for example to “remote control” if for example the task is to inspect the manufacturing of a remote control. Click “OK”.



The new Work ID “remote control” will now be listed under “Work ID” on the left hand side of the window (Operational Setting Screen, no. 1). Click on it there, and the “Register Work” options will be displayed (Operational Setting Screen, no. 2).

c. Prepare the single work steps, i.e. “Works”.

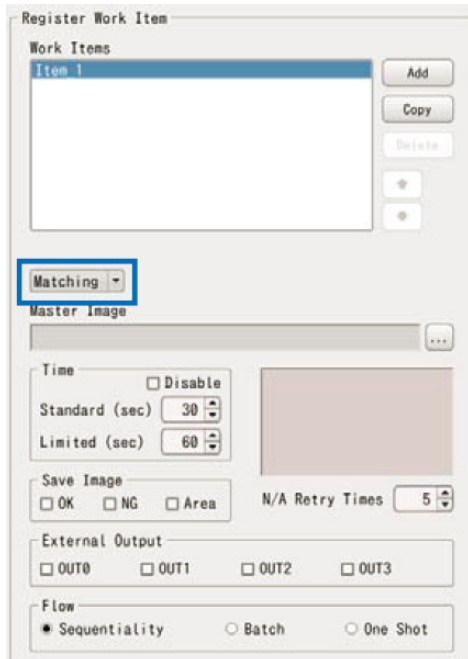
If for example the work sequence to be followed is to first select the correct cover for the remote control battery compartment, then to input the left battery, then the right battery and then to close the cover, this would make 4 “Works” i.e. work steps. Click on “Add” under Works, add 4 works, and rename as appropriate (Operational Setting Screen, no. 2).

d. Fill the contents of the work steps.

Select work 1 by clicking on it in the Operational Setting Screen, no. 2. Select the corresponding Work Instruction for this work sequence by clicking on the “...” next to “Work Image”. You can now select the corresponding work instruction either downloaded via USB stick or taken as a picture directly with the SC-10A. “Save” the image.

e. Select work mode “Matching” from the drop-down menu.

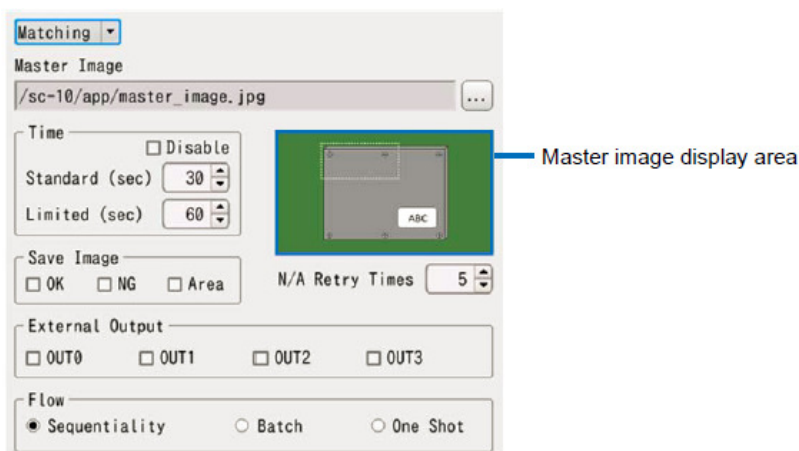
Operational Setting Screen, no. 2:



f. Set Master Image for the work step.

In the same Operational Setting Screen window, proceed to the title Master Image. Click on the box titled “...” under “Master Image”. Select the corresponding master image, which you had prepared under point 4a in the upcoming window.

Once selected the master image will be displayed in the little rectangle space below, the so-called “Master image display area” (see below screenshot).



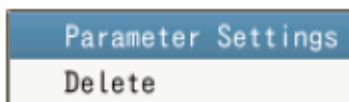
Double-click the selected master image in the “Master image display area” for each work. Set the ROI/Base Point/Check Points (1 to 9 checkpoints per image can be set) positions with your mouse.

ROI: The ROI area needs to be specified, so that the camera can search for the base point within this area. If there is no target ROI area set, the system will have to search for the base point within the entire view area. A white dotted line displays the selected area on screen.

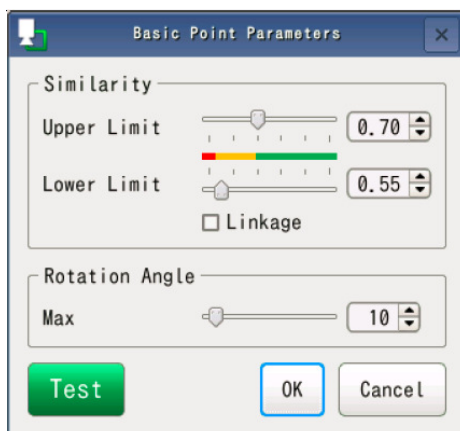
Base Point: When a base point is set in the master image, the SC-10A will take it as a reference point from which to look for the checkpoints. A square green frame displays the selected area on screen.

Check Point: A yellow dotted line displays the chosen checkpoint positions on screen.

Next, set the matching parameters for each of the chosen ROI/Base Point/Check Points in the master image, by right clicking each selected ROI/Base Point/Check Point area with your mouse (see below screenshot).



In the “Parameter Settings”, you can set parameters like “Rotation Angle”, which defines, how much rotation tolerance you want to allow for the master image. The similarity parameters can also be set here.



g. “save” and close the window.

In the Main Screen, click on “Change Work ID” in the lower menu part. There select the prepared “remote control” workflow. When you now click on start, the SC-10A will run through the single work steps and check the pre-set conditions by comparing the master image checkpoints with the actual work step results taken by the SC-10A.