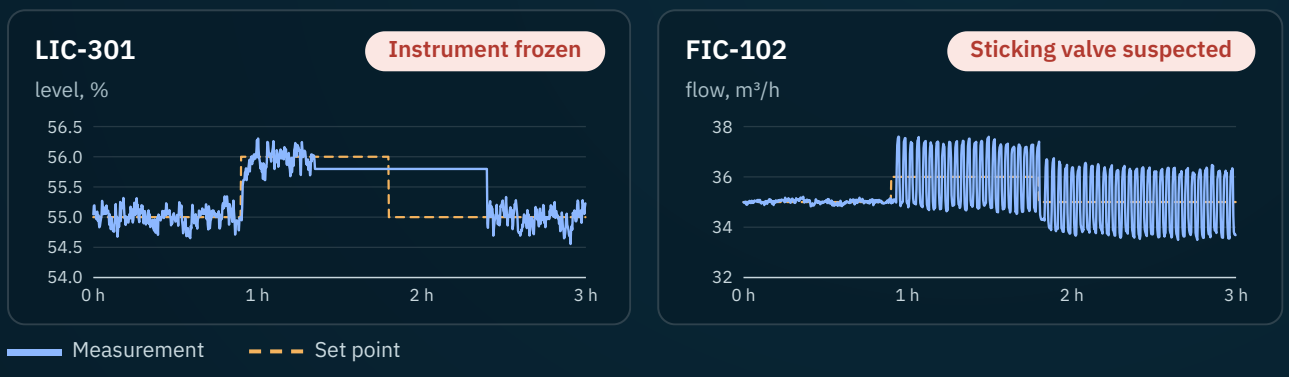
CONTROL LOOP AND VALVE HEALTH FOR PROCESS PLANTS

Know which loops and valves need you first.

One list for the unit from the trend history you already keep, ranked for review, with next checks and how sure for assessed findings, so your team's hours go to the loops that need them. Offline on your own PC: no DCS connection, no internet.

Worked example: one unit of our own test plant. Three hours of routine records



THE EXAMPLE: TWELVE LOOPS CHECKED IN 31 S ON ONE PC

Seven loops with findings, one needing a better export and four with no problem found. The order puts instrument and valve checks first.

#	LOOP	FINDING	NEXT CHECK	HOW SURE
1	**LIC-301** level	Instrument frozen	Check the transmitter and its wiring. Compare with a local gauge.	High
2	**FIC-102** flow	Sticking valve suspected	Agree a small-step test with operations; use the valve's response to plan its inspection.	Medium
3	**FIC-103** flow	Valve dead band	Check the linkage, positioner and actuator for friction or play; check positioner calibration and correct it as needed.	High
4	**FIC-104** flow	Output saturated	Check operating limits, valve or pump response and duty before deciding whether to retune.	High
5	**TIC-201** temperature	Loop swinging	Observe in manual with operations: if the swing stops, check the valve before retuning; if not, look upstream.	Low
6	**TIC-203** temperature	Loop swinging	Observe in manual with operations: if the swing stops, check the valve before retuning; if not, look upstream.	Low
7	**FIC-105** flow	Left in manual	Confirm why it was in manual. Resolve any fault, then agree with operations whether to return it to automatic.	High
8	**PIC-401** pressure	Export again	Follow the named export correction, or record a fresh stretch where detail has been lost.	—
9–12	**FIC-106, TIC-202 FIC-107, FIC-101**	No problem found	No action. Keep it in next month's check.	Medium

HOW IT WORKS

Export. Check. Confirm. Read the list.

1 Export
CSV or Excel, wide or long, one file or several.

2 Data check
Each file graded, with how to export again.

3 Tags
Loops found from your tag names; you confirm.

4 Run
The example unit of twelve loops: 31 s on one PC.

5 Report
Ranked list, next checks. Print or PDF.

6 Next month
Run again: what changed.

CARI-Loops · result

5. Result

12 loop(s) checked in 28.8 s, over 3.0 hours of records. Saved in this project.

12	7	1	4
loops checked	with a problem found	could not be judged	no problem found

What to look at first

#	Loop	What is wrong	What to do	How sure
1	**LIC-301**	The measurement stopped changing for a long stretch.	Check the transmitter and its wiring. Compare with a local gauge.	high
2	**FIC-102**	The loop swings up and down in the pattern a sticking valve makes.	Put the loop in manual and move the output in small steps (0.5 %, 1 %, 2 %). If the reading does not move until several steps add up, then jumps, the valve sticks. Then service the valve.	medium
3	**FIC-103**	The valve does not follow small changes of its signal; it waits, then moves.	Check the linkage, positioner and actuator for play; re-calibrate the positioner.	high

Every file graded

Compressed, rounded or gappy exports named, with how to export again.

Valves to visit

Suspected sticking and valve dead band, with next checks; outputs at their limits, with operating checks.

Manual valve test

Your team runs the app's step plan under plant procedures; the app reads the exported response. Stroke tests support repair planning.

Your cost, your ranking

Example: TIC-201 gives Rs 2,706 over three hours at Rs 1,500 per °C away from set point per hour.

START WITH A GUIDED FIRST UNIT

Send one export. Get one ranked list. We run the first unit with you, on a call on your PC or from an export you send. Write to **contact@carimo.tech**.

PART OF THE FAMILY

CARI-Loops finds the trouble. CARI-Tune is CARI-Loops plus tuning. Read-only trend review on your own PC.