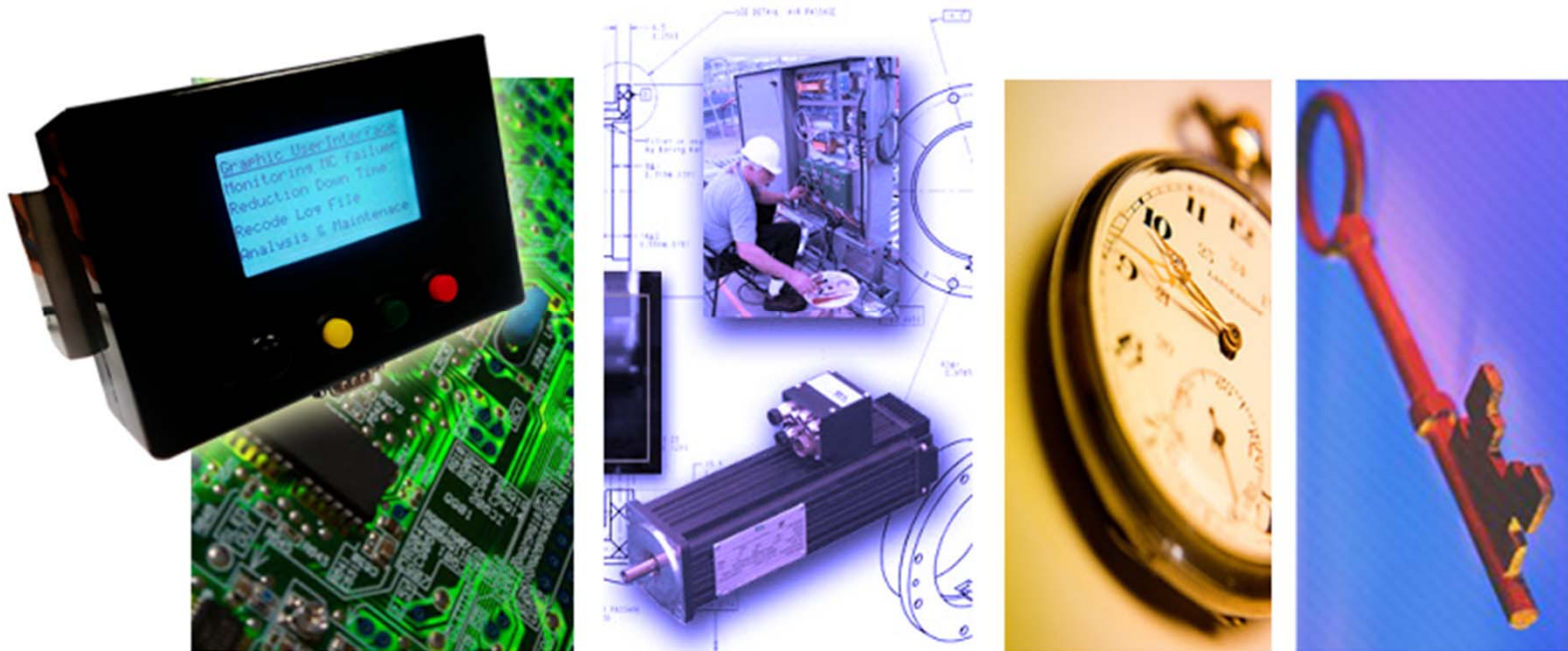


GRAPHIC USER INTERFACE

PRESENTATION



Problem statement

- What/when/where/why machine stop or can't operate ?
- How long to check and repairing machine?
- When machine can start operate again?
- How often machine problem and stop operate?
- How to separate problem per day and per month?
- How can analysis problem for part preparation, maintenance forecast and reduction downtime?

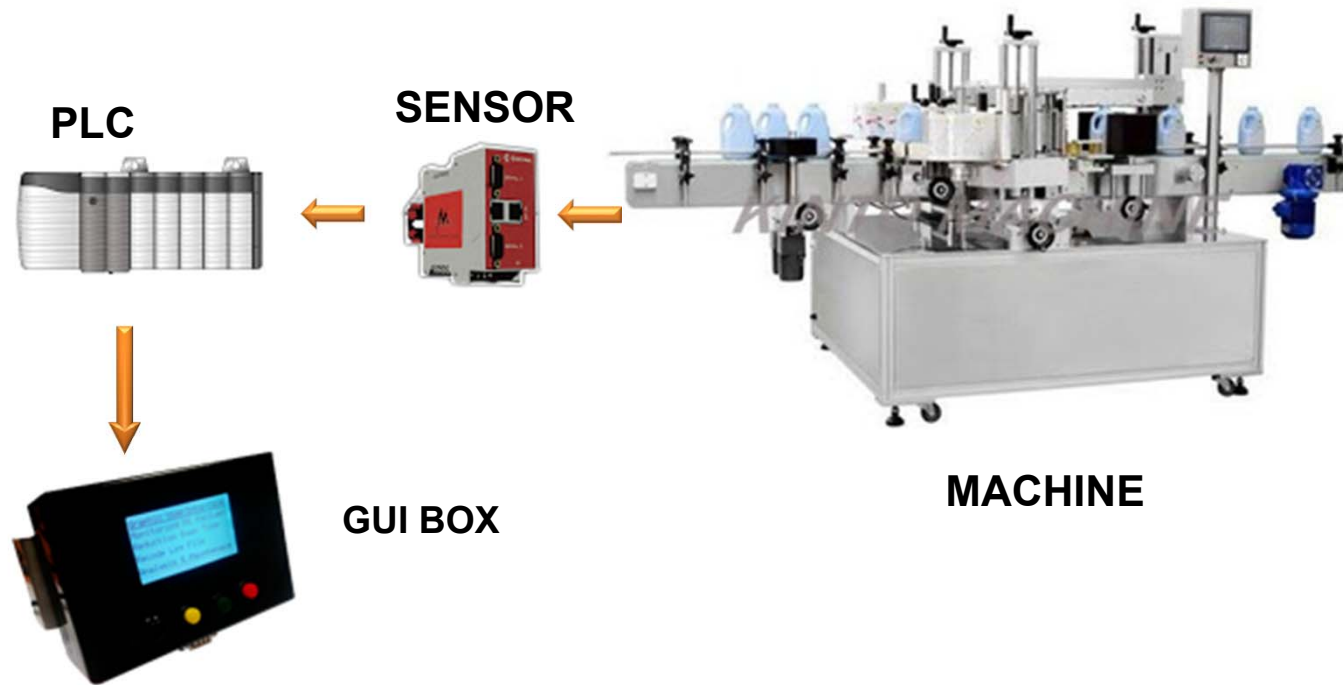




Future & Benefit

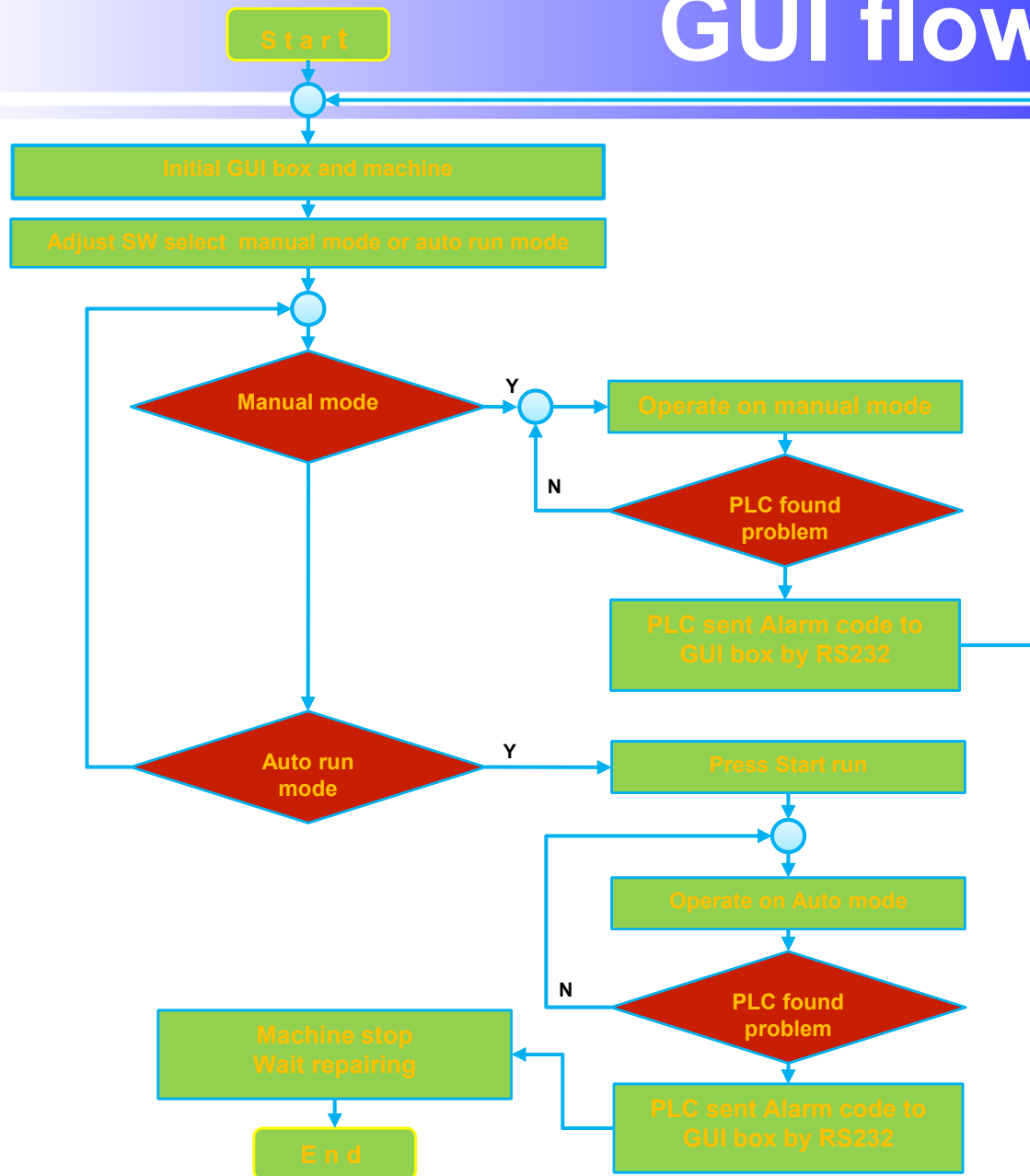
- Monitoring machine failure.
- Reduction downtime of repairing.
- Recoding problem into SD card.
- Analysis problem, Maintenance Forecast and part preparation for Improvement plan to reduction operation failure of machine by using data base in SD card.

GUI Concept



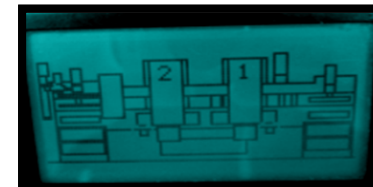
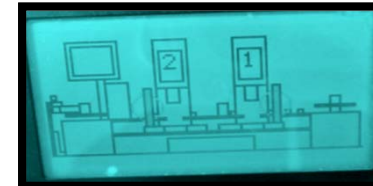
1. When sensor found problems (from operation) and inform to PLC.
2. PLC stop machine and sent the alarm code to GUI box.
3. GUI box display what problem and how to action message, Recode message and alarm code into SD card in the same time.

GUI flow chart



Display alarm code on GUI

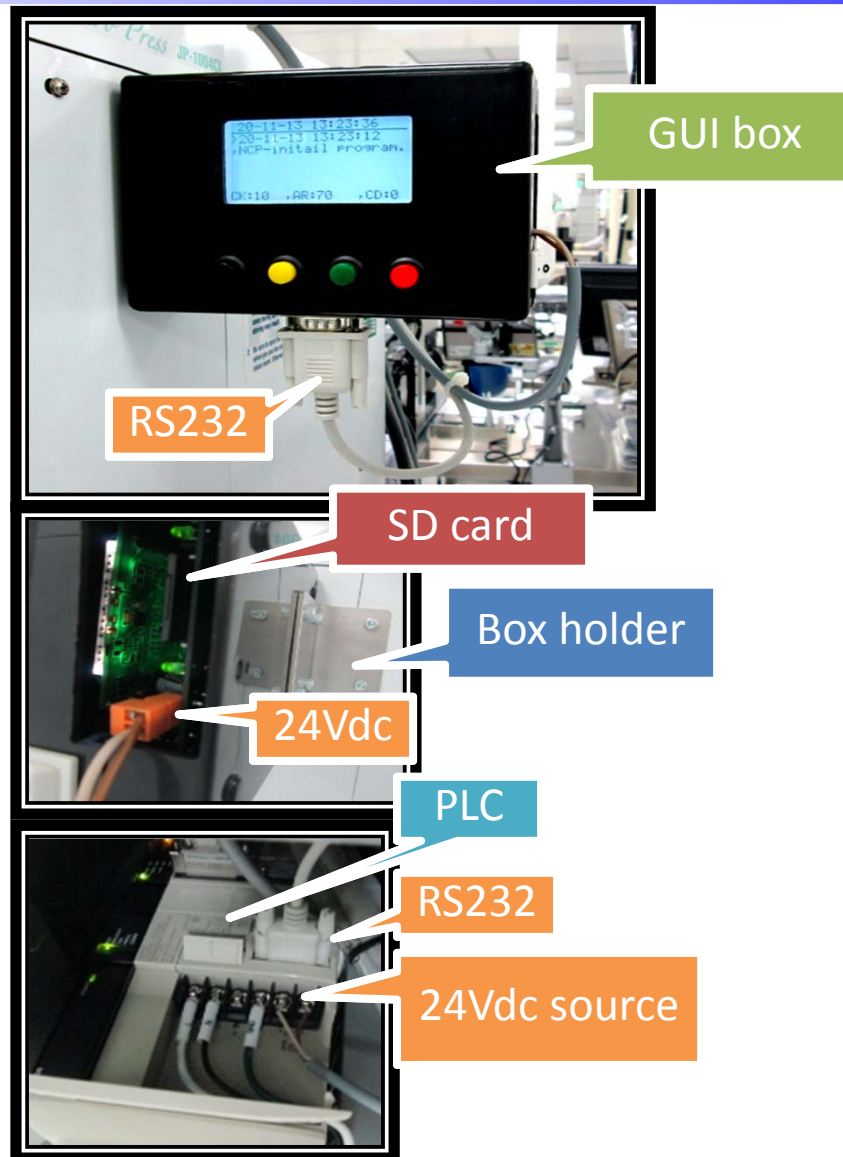
02-02-15 17:59:26
>02-02-15 17:59:18
,CLP-Area sensor.
CK:417 ,AR:2919 ,CD:16



Video file example

Alarm at area sensor.mpg

Install position





Analysis problem

Log file format

DD-MM-YY

01-01-15.LOG

02-01-15.LOG

03-01-15.LOG

Data in Log file format

DD-MM-YY hh:mm:ss, Alarm message

```

03-01-15.LOG - Notepad
File Edit Format View Help
01-01-15 07:44:28,CLP-Area sensor.
01-01-15 08:03:38,CLP-part miss position out sensor at ST2.
01-01-15 08:06:17,CLP-Area sensor.
01-01-15 08:11:22,CLP-M/C No enable unload.
  
```

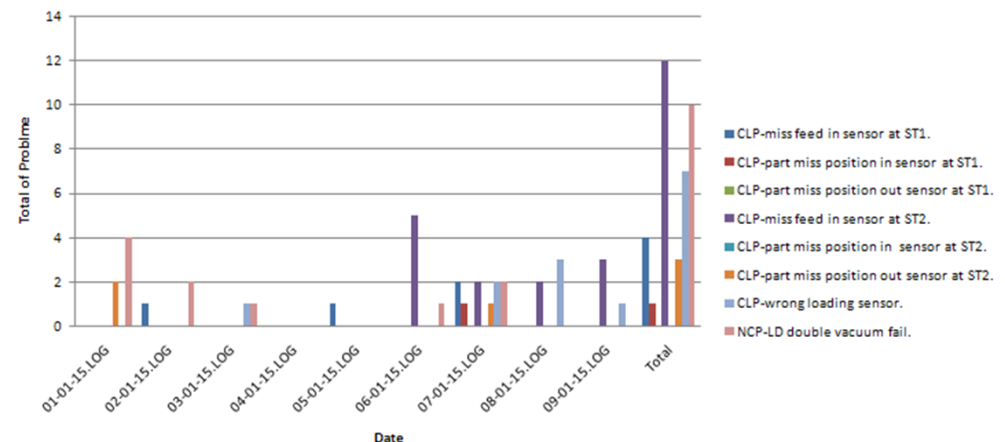


Analysis problem example

Summary of machine XXX since 1-6/1/2015

			Mar 2015									Total
Item No.	Code alarm	Date	01-01-15.LOG	02-01-15.LOG	03-01-15.LOG	04-01-15.LOG	05-01-15.LOG	06-01-15.LOG	07-01-15.LOG	08-01-15.LOG	09-01-15.LOG	
1	1	CLP-miss feed in sensor at ST1.	0	1	0	0	1	0	2	0	0	4
2	2	CLP-part miss position in sensor at ST1.	0	0	0	0	0	0	1	0	0	1
3	4	CLP-part miss position out sensor at ST1.	0	0	0	0	0	0	0	0	0	0
4	5	CLP-miss feed in sensor at ST2.	0	0	0	0	0	5	2	2	3	12
5	6	CLP-part miss position in sensor at ST2.	0	0	0	0	0	0	0	0	0	0
6	8	CLP-part miss position out sensor at ST2.	2	0	0	0	0	0	1	0	0	3
7	9	CLP-wrong loading sensor.	0	0	1	0	0	0	2	3	1	7
9	12	NCP-LD double vacuum fail.	4	2	1	0	0	1	2	0	0	10

Graph of machine xxx





Thanks