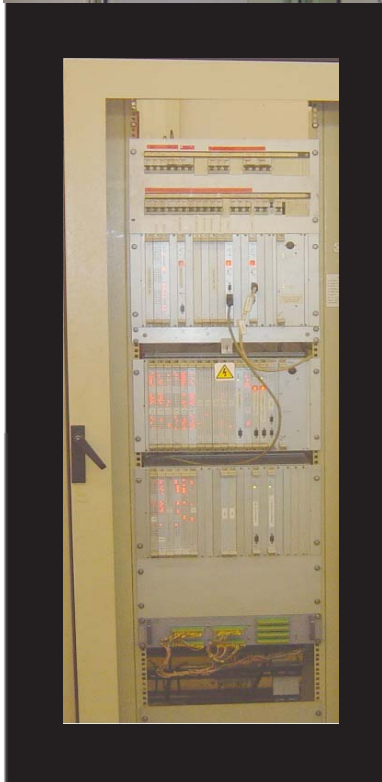


CASE STUDY

Retrofitting INGETEAM PLC's



INTRODUCTION

For older PLC's, that formerly were state-of-the-art equipment, that is the case of "Sisteam M PLC", nowadays there are difficulties to obtain spare parts, besides problems to repair damaged components.

It is our aim, as a reliable partner, to help you as customer of the Ingeteam Group, offering a whole set of solutions to retrofit the existing automation equipment.

ADVANTAGES

The migration from actual installed Sisteam M PLC control system platform to a new generation PLC, the so called Sisteam OCS PLC provides the following major advantages:

- The existing PLC application software is fully usable. The source code program is exactly the same. Only some parts, mainly all those dedicated to tasks such as communication interfaces or counters will be easily readapted.
- Reusing the internal source code program will mean that IS NOT NECESSARY TO TRANSLATE THE PROGRAM, ONLY RECOMPILING functions is applicable. Therefore, the readapting software engineering is reduced to a MINIMUM work.
- Due to the above mentioned facts the Maintenance Personnel will have a fully understanding of the program main Directory structure, Programming blocks and language tools, etc.
- Line/Mill operators will not have any type of operative changes in the machine procedure respect to the local push-buttons, alarms and events on the HMI screens, flow chart sequences, etc. Due to this fact, the operating capacity of the machine will be fully kept as the actual one and that will improve the operators adaption time and line start up curve.
- The configuration program of new PLC supports the Sisteam language structure according to instructions list (IEC61131-3) of the actual system. The program language will continue the same.
- New hardware engineering will be right the same as it is nowadays designed for the line/mill.
- The proposed PLC system supports and easily interfaces to the rest of electrical (drives) and automation equipment based on Siemens/ABB components referred to DC Converter Drives Sinamics DC M, idem for DCS800 (ABB make), Remote I/Os ET-200M (Siemens make), field bus Profibus-DP, Interbus S (where applicable), Siemens S7-400/300, etc..
- Finally, we would like to remark our support very close to the customer, our knowledge and expertise in this type of revamps and retrofittings as well as our great experience supplying both technical and maintenance back-up.

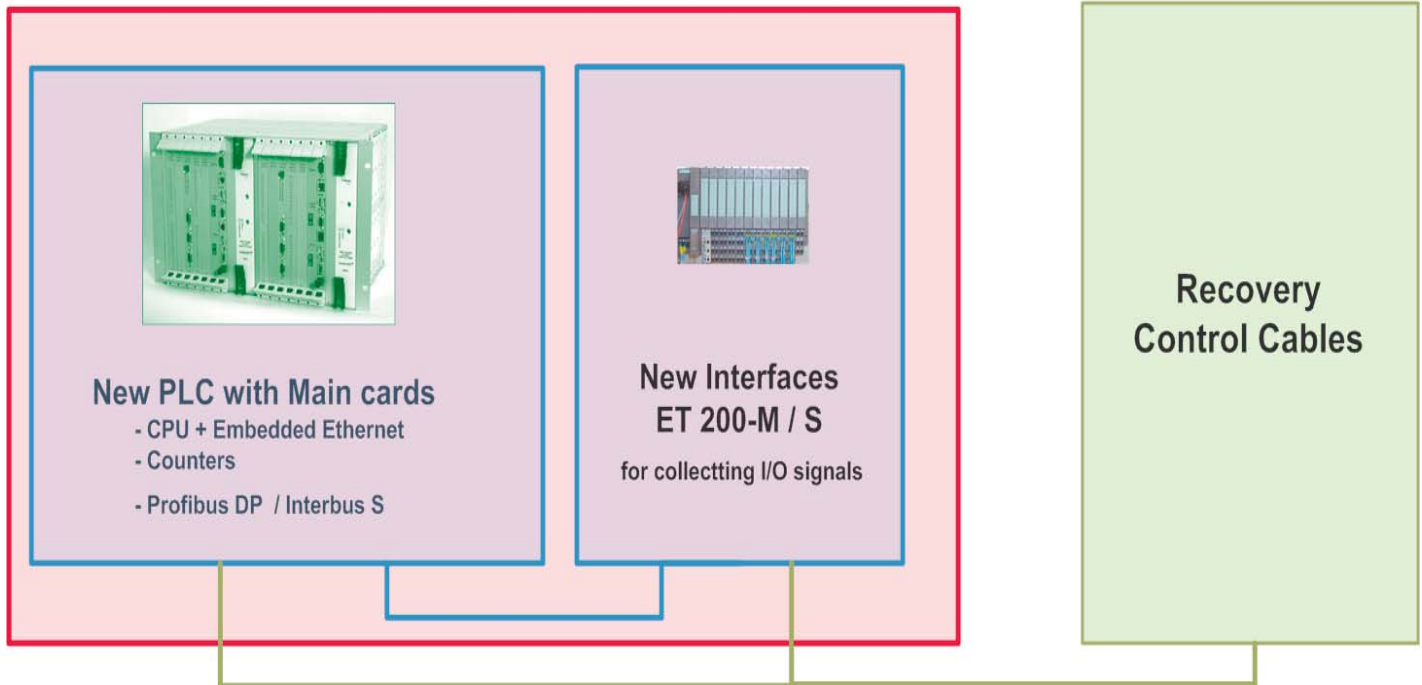
Automation Solutions

Modular Setup for Revamping PLC

Solutions for revamping existing Sitem M PLC's

Existing PLC Enclosure

Field Elements



Reference List

References for the modernization of automaton equipment:

Year	Installation	Customer	Country
2003	Complete new revamp N° 1 Tin free Steel Line	AM Etxebarri	Spain
2005	Revamp Nr 60 Inspection Line	AM Sagunto	Spain
2006	Revamp on line Soaking Furnace of CGL	AM Avilés	Spain
2008	Revamp of Exit Section of CGL	AM Sagunto	Spain
2010	Revamp of Process Sexction + SKP PLC in CGL N°2	AM Aviles	Spain
2010	Revamp of Process Sexction in N°2 Pickling Line	AM Aviles	Spain
2010	Medium Section Mill	AM Olaberria	Spain
2011	Revamp of Entry & Exit Sections in n°2 Pickling Line	AM Aviles	Spain
2011	Revamp of Process Section of CGL	AM Sagunto	Spain