

Some assignement examples:

<p>Industrial IT transformation management</p> <p><i>A master plan is not haughty vision of a future situation that will be meaningless to maturity in a techno-economic context that does not obey a voluntary projection. A true permanent process of transformation can offer the level of service and responsiveness necessary for effective support of the industrial system.</i></p>	<div data-bbox="699 241 821 324"> </div> <p><i>Industrial IT master plan</i> Steering the establishment of a global transformation blueprint led with 3 other CCG consultants integrating functional, technology, security, organizational and economic aspects. In charge of the transformation process and economic evaluation.</p> <hr/> <div data-bbox="699 430 863 504"> </div> <p><i>Support to MES transformation</i> Definition and alignment of business / functional / technical targets Specification of the MES transformation process.</p> <hr/> <div data-bbox="699 600 877 672"> </div> <p><i>Support to MES transformation</i> Awareness to structural transformation, impact on documentation structure.</p> <hr/> <div data-bbox="699 768 778 840"> </div> <p><i>Research</i> Development of a model of industrial IT transformation management taking into account modeling, planning and implementation of technological, functional, and topological dimensions.</p>
<p>Performance management</p> <p><i>The performance measurement must fit into a wider behavioral change framework directed to the common benefit of the company.</i></p>	<div data-bbox="699 927 831 1019"> </div> <p><i>Performance of CSP superheated steam generators</i> These indicators assess the operating performance reflecting the ability to take advantage of the sunshine (start time up to temperature time, efficiency energy transformation ...) and performance monitoring in terms of stability and respect of equipment constraints. On this basis, highlighting the shortcomings of the control strategy and recommendations to achieve the performance objectives within the limits of mechanical design.</p> <hr/> <div data-bbox="699 1137 981 1220"> </div> <p><i>Transformational performance</i> Transformation performance management of R&D experimentation IT through an organizational model integrating the provider in enterprise R&D IT.</p> <hr/> <div data-bbox="699 1317 778 1388"> </div> <p><i>Research</i> Development of a cybernetic model of performance interactional management.</p>
<p>Intelligence of industrial systems</p> <p><i>Technology is merely one tangible aspect of information whose ultimate nature is revealed through many concepts : facts, data, meaning, knowledge, psychology, culture, conscience, interactions, communication, processing, intelligence, wisdom...</i> <i>This fledgling research area offers new opportunities for the management of industrial performance.</i></p>	<div data-bbox="699 1462 778 1534"> </div> <p><i>Research and academic lecture</i> Study of the application of physical and social sciences in industrial enterprise system. Lecture for SY20 "Industrial Intelligence" at the University of Technology of Troyes (UTT)</p> <hr/> <div data-bbox="699 1630 933 1720"> </div> <p><i>Human resource development</i> Foundation and management of a professional training company covering industrial systems control and management.</p>
<p>ISA-88, ISA-95 ISA-106 and B2MML</p> <p><i>Only active French member in these standardization committees: interaction within a community of experts, constructive criticism, respecting existing practices, no dogma.</i></p>	<div data-bbox="699 1818 837 1886"> </div> <p><i>Expertise</i> Animation of a workshop to assess the interest of the ISA-88 / ISA-95 standards to streamline the industrial IT application landscape</p> <hr/> <div data-bbox="699 1982 774 2049"> </div> <p><i>Dossier "Industrial practices of traceability"</i> Writing of the article "The use of the ISA-88 and ISA-95 standards for traceability in production"</p>



Guide for mastering the NF/EN61512 standard for the design of automated systems
Participation in the workshops of the working group and drafting of the guide



Training

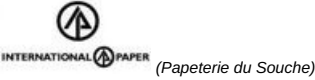
Authorized ISA trainer for ISA-88 and ISA-95 courses
Development of ISA-88 and ISA-95 training courses performance through ISA France, ISA Belgium and ISA Russia

MES / MOM

Manufacturing execution control benefits of dedicated software offer and a consensus standard, ISA-95 since two decades. Apparently mature, this area remains delicate because of functional redundancy between control systems and ERP and the lack of organizational articulation of projects based on solutions.



Feasibility study and supplier selection for a global MES project
Expertise to replace homegrown applications by MES market application.
Definition of selection criteria, framing of the economic study and transition plan



MES functional specifications
Modelling of the production system, functional requirements, and specification of interoperability with ERP



Finite capacity scheduling
Implementation of ORTEMS scheduling application in a painting fabrication workshop

Interoperability

Interoperability directly impacts the evolutionary ability and intellectual development of the industrial system: interactions materialized by the interfaces condition the application autonomy and systemic coupling.



ERP - MES Interfaces
Specification of manufacturing information exchanges between central SAP and the group factories.
On this occasion, development of B2MML extension mechanism.



ERP - MES Interfaces
In a more modest context, the canonical approach ISA-95 / B2MML was proved to be hardly workable. This situation provided an opportunity to develop a meta-model to take advantage of the underlying concepts without the need to transpose existing languages. The exchange specifications could then be carried out very quickly and easily.



Standardisation of XML manufacturing information exchanges
Contribution to B2MML development committees for MES / MOM interoperability.
Development of an alternative XML schema specification B2MML offering much more flexibility with 10 times less code.

Process control and instrumentation

Leverage natural stability attractors of processes for designing "lean" robust and effective control strategies



Instrument supervisor
Planning and coordination of instrument routing for a steamcracker facility



Control optimization of fluidized bed furnace "Ignifluid"
Process modeling and initial design of control. Redesign and simplification during commissioning with radically improved startup and responsiveness of the boiler, robustness of combustion against large variability in the fuel quality and mix (coal or lignite, oil or gas, sugarcane pith).
35 years ago, using vintage pneumatic and electromechanical control technology!



Optical fiber drawing control Optimization
Simplification and change of the control paradigm greatly improving process stability.



Optimization of extrusion temperature control
Reduction by more than 50% of the energy consumption

Automation

Inspired by ISA-88 (but not only), control engineer is at the service of the



equipment, the process and the operator.

Supervision of the functional specification automation of a flexible multi-product workshop
The work was successfully conducted by operators using the ISA-88 basis design and applying Delta Nodes modeling rules.



Interoperable automation

Lead of the consortium work

Deterministic modeling specification based on the ISA-88 and formal flow management applicable to applications from different integrators without questioning their expertise.

This base has allowed to define concepts and methods for interoperability between automation applications of these integrators (eg command of a silo operating under a storage application from a formulation application).



Rapid automation modular design

Ultra fast development of N2, H2 and O2 in-situ PSA/VSA production units thanks to "Olympus"

AutoCAD/AutoLisp application for pre ISA-88 modular design, extensive formal documentation and database structuration

ACTEMIUM, AGRANA, AIR LIQUIDE, AKTEHOM, ALSTHOM, APRISO, APV-INVENSYS, ARC ADVISORY GROUP, ARC-INFORMATIQUE, ARCELOR MITTAL, AREVA, ASPEN TECH, ASSYSTEM, ATOS ORIGIN, AXENS, BAXTER, BAYER, BEL, CEGELEC, CETIM, CHEVRON, COGESAL-MIKO, COURBON, CRT, DASSAULT-AVIATION, DCN, DUPONT, EDF, EKIU, ELAN SOFTWARE, EURIWARE, EVALI, EXXON MOBIL, FANAP, FIVES, FLEURY MICHON, GENERAL ELECTRIC, GDF Suez, GSK BIO, HEXCEL, HD TECHNOLOGY, HONEYWELL, IDBS, ILSYS, INCOTEC, INFOVISION, INSA Lyon, JOHNSON & JOHNSON, KOMAX, LACTALIS, LE GOUESSANT, LILLY, LOGICA, L'OREAL, LYONNAISE DES EAUX, MASTERFOOD, MICHELIN, MILLIPORE, MSD, NESTLE, NEXANS, OET, ORDINAL, PERTINENCE, PFIZER, PHILIPP MORRIS, REMINEX, RENAULT, RHODIA, ROCKWELL AUTOMATION, ROHM & HAAS, ROQUETTE FRERES, SAINT LOUIS SUCRE, SANOFI AVENTIS, SCANIA, SCHNEIDER ELECTRIC, SIEMENS, SILICOMP, SOLVAY, SPC-CONSULTANT, SAINT GOBAIN, SUEZ ENVIRONNEMENT, SUPELEC, SYDEL, TECHNIP, TEFAL, TETRA PAK PROCESSING, TINEA, THESAME, TV5 MONDE, UCB-PHARMA, UNILEVER, UNILOG, UNIV. DE TECHNOLOGIE TROYES, VALLOUREC & MANNESMANN, VEOLIA, VISEO, WONDERWARE, WRIGLEY, YOKOGAWA

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