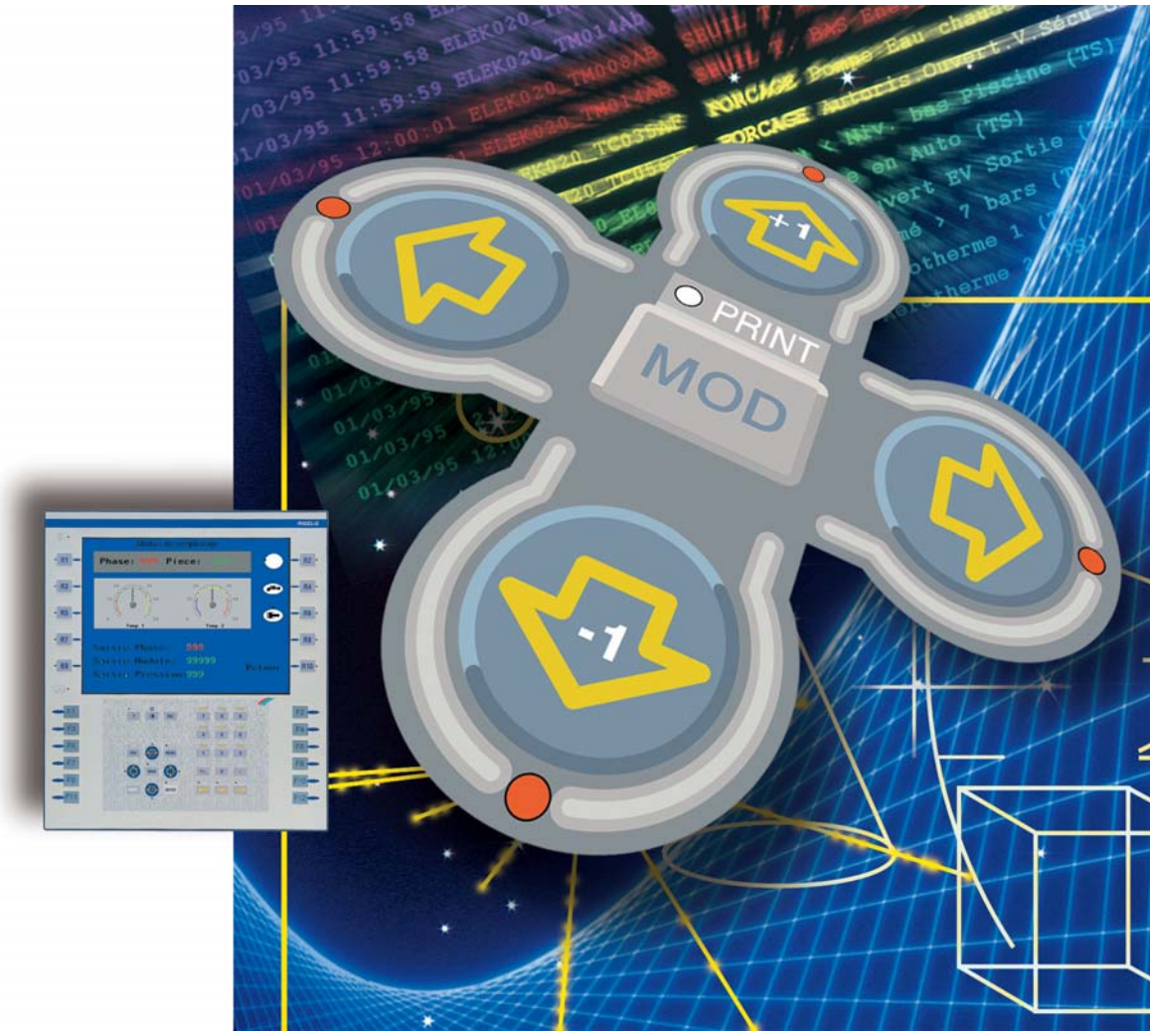
Schneider Egypt external newsletter - N0.2 - April 1999

Magelis...

dialogue without frontier

Summary



Merlin Gerin
Modicon
Square D
Telemecanique

Schneider Electric

What's new?

By providing last generation of Electrical Distribution, Industrial Control and Automation's Products, **Schneider Electric** is taking an active participation in the creation and modernization of the industrial base needed by Egypt to supply its growing market and to export to other countries.

This export activity becomes crucial, as the country moves actively to diversify its foreign currency resources.

But **Schneider Electric commitment** goes beyond, through being an **active industrial actor** with its two factories and a recently inaugurated extension of its Products one. Globally Schneider Electric employes in Egypt 500 highly qualified men and women.

Furthermore the development of our production of equipment, recognized at an internationally level allows us to:

- substitute traditionally imported Equipment, as we gain international contract to provide foreign contractors working in Egypt,
- increase our export activity.

More than ever we have faith in the future of Egypt. Let's work together to be part of it.

Bernard Mangin
Managing Director

Applications & Solutions

Are you read y for the Y2K bomb?

In the past decade the entire world started to talk about the Year 2000 problem (or Y2K problem) and due to its large impact on all fields they called it the Y2K bomb.

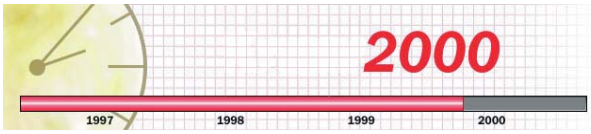
What is exactly this problem?

In fact this problem is related to all products, equipment or systems where the microprocessor include an embedded real time calendar clock. The problem in this case is due to the fact that clock date was written in two digits including the year, so 1996 is written 96 and 99 for 1999. But when it turns to the year 2000, it will turn to 00, which in fact could mean either 1900 or 2000. If we go further, February 1900 is 28 days while it is 29 days in 2000.

As seen from the previous explanation, a misinterpretation of the year may have wide effect on any information or automation system from bank accounts and inventory, to power generation plants and water treatment plants leading to complete shutdown or wrong operating sequence. So a location, not affected by the change of century is said to be Y2K compliant. Late statistics showed that more than 80% of the world systems might face serious failure and that over 30% of the companies worldwide will not be able to get Y2K compliance.

Is there a solution for the Y2K problem?

To answer this question, first we have to identify the device or software that might create this problem. The second step would be to run a certain test and see how would the system respond to the change between 1999 and 2000.



If the test fails to identify the year 00 as 2000 then it is non-compliant. From that point, different solutions could be applied, first would be replacing the program by totally new one and second would be changing some parts.

What is Schneider Electric Position?

The wide range of Schneider products from Modicon, Telemecanique, April and Square D PLC's to the Digital relays, has all been tested and a full report regarding their compliance could be provided to our customers who either have our products installed or are on their way to purchase new products. However, all newly developed products in the last few years are Y2K compliant. Internally for our own organization, Schneider Electric Egypt is working already on this issue by following up existing installations to make sure by the end of 1999 we comply 100% and that our service to our customers will not be affected.

If you have any inquiry about this issue, thank you to contact the Marketing team by either email, fax or phone call. We will be glad to provide you with the necessary help.

NEW

Magelis

integrates *perfectly*

into your *Automation* system,

both for *today and tomorrow*

From the simplest display panel, through dialogue stations to the most sophisticated control terminals, you will find the ideal Magelis terminal for your automation system.

A complete range

Fitted with the ideal type of display for your application
- alphanumeric LCD or fluorescent,
- size 5" or 10",
- graphical matrix,
- monochrome of colour screen,
- and even touch screen types.

The Magelis range performs the human-machine dialogue function perfectly.

Universal programming software

All terminals within the Magelis range may be programmed using the same software package (XBT-L1000) and the same configuration procedure is used in each case.
This approach optimises application development times, thus saving costs.

Easily customised the Magelis terminals bring even more added value to your machine and enhance the special functions often associated with specific machine operations.

Magelis: A passport for your machines!

Any application may be created in English language, then quickly converted to match that of foreign customers.

Using many different protocols, Magelis can communicate easily with the majority of programmable controllers in use today.

Conforming to the major international standards, machines incorporating Magelis terminals can be exported virtually anywhere in the world.

Magelis terminals have been designed to accept standard PCMCIA communication memory cards, making them ideal for modern, distributed control architectures.

In addition, they offer combined PLC and HMI functions, as well as simple access to " Intranet " networks.

Programming transparency

The Magelis configuration software is perfectly compatible with the PL7 and Concept PLC software packages, thus facilitating integrated applications.

Complete, precise diagnostics

Magelis terminals are ideal for indicating and identifying machine fault conditions rapidly. Any or all the sophisticated diagnostics procedures integrated within the PL7 and concept packages may be fully exploited by the Magelis range of terminals, thus minimising down time.

Magelis TXBT : The open terminal

By incorporating Windows® 95 with the OLE (object linking embedded) Automation "server" function, the Magelis TXBT terminal is able to execute other tasks in parallel with its own dialogue functions and can access any of the PLC variables in real time to ensure perfect production control and quality assurance.
In addition, two slots are provided within the terminal so that a PCX co-processor or other types of ISA module can be accommodated.

Minimize your development time…

Based upon a Windows® programming environment, the configuration software has been designed to shorten your machine development cycles.

… by giving depth to the Human-Machine dialogue function.

The graphics terminals within the Magelis range incorporate a symbols library so that customised, animated mimic diagrams and operating screens may be designed and implemented very easily.

Fast implementation and maintenance

On all the graphics terminals, the application is stored on a PCMCIA memory card which can be changed or exported to another terminal at any time.

Each terminal incorporates a set of innovative mounting claws allowing fixing or removal of the terminal in under a minute, without the use of tools.

Glossary

HMI,

Human Machine Interface, is the means by which an operator receives information on machine status, and can send back to it commands and settings (push-buttons, pilot lights, graphic stations, Scada, ... etc).

RU,RX... the plug-in & interface relays

RU, RX...are industrial plug-in relays. These types of relays were originally used mainly in equipment with contact logic for control purposes in control panels. The needs can also be extended to simple automation system function. In the automation system structure, plug-in relays are used to carry out the following functions:

- input and/or output interfacing if there are more than 2 contacts.
- relay for logic processing by contacts.

RU , plug-in relay called " **universal** " with mechanical indication of contact position on the front face (contact rating 10 A, 250 V).

RX , plug-in relay called " **miniature** " (contact rating 5 A, 250 V).

RUN-31A21••

RXN-41G1 1••

3-pole plug-in control relays

Contacts	Mechanical indicator on front face	Socket type	Basic reference **(1)** to be completed
2 c/o	■	8 pin	**RUN-21D21••**
3 c/o	-	11 pin	**RUN-31A21••**
4 c/o	-	14 pin	**RXN-41G1 1••**

(1) Standard control circuit voltages are from 24 to 60 V d.c. and from 24 to 220 V a.c.

Varlogic RC12... the most powerful friendly user p.f. regulator

The Varlogic RC12 (ref. 52403) power factor controllers simplify the design, commissioning, control and maintenance of automatic power factor correction equipment and it includes six main modes: display, measurement, commissioning, programming, alarm and maintenance, meeting the specifications of most and specific applications with standard features as:

- automatic frequency detection & C/K ratio search.
- four programming options (normal, linear, circular A and circular B).
- visualization of programming and commissioning steps.
- automatic adjustment for current transformer and phase rotation polarity.
- electro-magnetic compatibility.
- control up to 43 electrical steps.
- generators application.
- power factor correction with fixed step.
- fan activating contact.

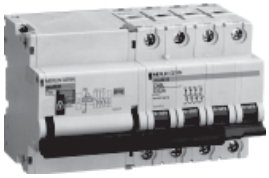
In addition to many other standard and optional features.The other references of Varlogic range, which are R6 (ref. 52400) and R12 (ref. 52401)performs the same basic functions but with less options.

Tm... remote control for MCB

The Tm module enables the latched order remote control of C60 miniature C. B. (up to 63 A) using timer, push button, photo cell... etc. Therefore, you can remotely switch " ON " or " OFF " the C60 while maintaining the possibility of receiving signal on the MCB status (tripped, ON, OFF) as well as adding Vigi earth leakage module. It is very useful in installation requiring centralized building management system or in areas of difficult access. Knowing that local control is still possible on the front panel by using the handle.

The Tm range comes in two references only:

- **ref. 18310:** for C60 1P & 2P
- **ref. 1831 1:** for C60 3P & 4P



Tm module opens in case of voltage absence > 0.45 sec and when the voltage returns it causes re-closing with response time of 2 sec.

Illuminated beacons and indicator banks

XVD illuminated beacons and indicator banks are visual or audible signaling units used mainly to indicate machine operation sequences and to check status from a distance. They are visible through 360°. Typical applications are indication of the start, stop status of a machine, no material, call technical staff, fault signaling, etc...

■ **Illuminated beacons:**
are complete units, ready assembled with a single illuminated signaling unit (steady, flashing, or with "flash" discharge tube).

■ **Indicator banks:**
are variable compositions, with up to 5 illuminated or audible signaling units, supplied unassembled for assembly by the user.
The illuminated or audible signaling units stack vertically and are held together by a single screw. Only one "flash" discharge tube unit can be fitted on each indicator, always at the top. Electrical connections between each unit are made automatically during assembly.

Example: to assemble an indicator bank with one red flashing light together with one audible unit, you have to add all the following references:

- **XVD-C21** ↖ base unit,
- **XVD-C02** ↖ 100 mm plastic tube with integral plate,
- **XVD-C4M4** ↖ red unit, 10 W, 48...230 V a.c., bulb not included,
- **DL1-BLM** ↖ 10 incandescent bulbs, 10 W, 230 V a.c.,
- **XVD-C9M** ↖ buzzer 75 to 90 db at 1 mt.

The *revival* of *Bibliotheca Alexandrina*

It was during the third century B. C. when the Greek built the famous library of Alexandria in Egypt (known as Bibliotheca Alexandrina - in Latin language). But a fire destroyed this library soon after its construction.

In order to revive this ancient library again, Egypt with UNESCO decided to rebuild the Bibliotheca Alexandrina to gather millions of books, thousands of manuscripts and lots of other modern media.

The design made by Snohetta (Norway) on a land surface area of 70,000 m^2 and Hamza-associates worked as the consultant of the project which its estimated cost is 172 million USD (excluding land and conference center). A consortium between Arab Contactors and Balfour Beatty (ACBB) won the contract as a main contractor.

Looking for high reliable and safe electrical equipment, **Schneider Electric Egypt** was selected (among other international bidders) to supply the electric lot; including medium and low voltage switchgears, MCC's (for the BMS supplied by Honeywell), cast resin transformers, UPS and full selectivity study, where they all were delivered on schedule.

This new library planned to be inaugurated before the end of 1999, and will be a real symbol of the Egyptian cultural image developed ever since the pharaohs, thousands of years ago.

Guide to standards

IEC 364 "Electrical Installations in Buildings"

This IEC standard specifies extensively the rules to comply with to insure safety and predicted operational characteristics for all types of electrical installations. Whether industrial, utility or housing installation they all fall within this standard. Since it is related to installations, it deals with methodology and choice of components rather than other IEC standards that gives guidelines for products design.

IEC 298 "AC metal-enclosed switchgear and controlgear"

This IEC is dedicated for MV equipment from 1 kV up to 50 kV. It gives information on the different technical aspects specifically for MV cubicles, e.g. difference between metal-enclosed Metal Clad, metal-enclosed Compartmented and simply the metal-enclosed enclosures. Where the metal-clad is the highest technicality in terms of safety and metal-enclosed is the least. **Example: Schneider Electric Egypt offers the Merlin Gerin Fluair range and SM6 range.**

Feedback coupon

For more information or you wish to have your name added on our mailing list, please fill out this coupon and fax or mail to:

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