



ELSY
IT-system for vehicles

What is Unique with ELSY?



Since Thoreb aims at always being at the frontier regarding functionality and technique, we can guarantee that our customers will get a reliable system which enhances the performance and experience of the vehicle. Thoreb cooperates with leading coach builders all over the world. Together we have produced thousands of buses containing the latest ELSY technology.

ELSY provides not only a reliable electrical system, it also has other features. Via the nodes and the vehicle computer, which are part of the ELSY, it is possible to utilize information that is present in the system.

Events are constantly logged, and can be analysed when needed. For instance, intermittent errors, like a loose contact will be easy to locate when a vehicle comes in for service.

The possibility for storing information provides a potential basis for maintenance on demand. Buses today are usually subjected to servicing at intervals depending on the number of kilometres driven. Instead, logged data can be sent to a depot system at the end of each day via WLAN, or GPRS, where the latest operational data (engine rpm, speed, pressures, temperatures, etc) are compiled. We are thereby able to identify any deviation from normal conditions, that might imply the need of a service, due to other indicators than distance driven. For example, the amount of decelerations since the last service, might indicate that the brakes need to be maintained sooner than expected.



Advantages

- Flexible design
- Reduced installation time
- Fewer component
- Reduced weight
- Maintenance on demand
- Economy
- Environment
- Remote diagnostics

Added Value in Public Transport



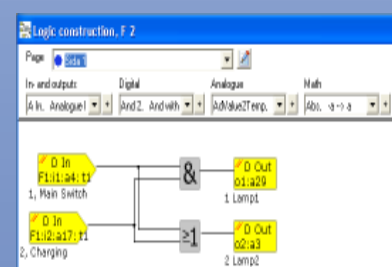
ELSY is easily integrated with other systems in the bus and can replace a number of interfaces by using the Thoreb vehicle computer and LCD screen. Setting the destination signs, controlling the bus' climate system, making safety checks before driving, etc., are only some of the features available. The vehicle computer can also be used to automatically display images from rear view cameras when moving backwards. During normal operation the driver will be able to see the status of the doors. Fault conditions on any of the door sensors alert the driver immediately. On the vehicle computer display, warnings and error messages can be displayed immediately, if an unexpected event occurs.

With ELSY inside the bus, the bus owner will have a vehicle with a reliable electrical system. Should there nevertheless be a fault, it is easily traced, either by using the vehicle computer display or the Thoreb application ThService (installed on a portable computer). If the bus is a part of Thoreb's IT-radio system, error reports are also automatically sent to the Traffic Management module. Using ELSY Graf, logical conditions for the electrical system can be designed by using graphic symbols instead of cryptic programming code. Just drag and drop graphic symbols to build complex logical conditions, e.g. for door control.

Based in Brazil, Marcopolo is one of the world's largest bus builders. They use Thoreb's dashboard module in order to optimize the use of the dashboard space available. Like others, Marcopolo also uses ELSY to control the doors in their buses, since the safety requirements are extensive and a reliable system is essential for door control.

Advantages

- A number of interfaces
- Possible to integrate with IT-radio
- Replaces a number of control units
- Customization easy to achieve
- Powerful tools for designing the electrical system
- Reduced maintenance and life cycle cost



Thoreb's Vision

Superior performance through innovative solutions and distinctive products. This has been Thoreb's vision since the late 70's. We use a unique approach. With fresh thinking and attitude we challenge our competitors and offer an alternative to conventional platforms. By choosing Thoreb and our products, you will not only get first class systems with truly unique features – you will also get our hard earned experience from many years of delivering previous projects.

It is essential to see structures, relationships and opportunities for development, as well as the accompanying economic and geographical limitations. Within such frameworks, we build systems that meet every customer's requirements. The most important aspect of our work is the creation of a step-by-step implementation which lets existing and future systems integrate.

AB Thoreb
Gruvgatan 37
SE-421 30 Västra Frölunda
SWEDEN

Phone + 46 31 734 39 00
Fax + 46 31 734 39 10
E-mail marketing@thoreb.se

Thoreb Australia Pty Ltd
PO Box 108
Kingsway West
AU-NSW 2208
AUSTRALIA

Phone + 61 02 958 405 88
Fax + 61 02 958 407 88
E-mail bob.barwick@thoreb.se

Averroes Ltd
1 Park Raw Leeds
LS1 5AB
UK

Phone + 44 20 769 25 716
Fax + 44 20 769 25 715
E-mail info@averroes-ts.com
(for the Turkish market)

Ajodata Oy
PL 34
FI-02 211 ESPOO
FINLAND

Phone +35 8970 01 922
Fax +35 8980 44 919
E-mail mikko.vahaaho@ajodata.pp.fi

Thoreb do Brasil Lda
Rua Dom José Barea, 2380, Sala 41
Bairro Exposição
BR-95084-100 Caxias do Sul-RS
BRASIL

Phone + 55 54 222 16 22
Fax + 55 54 99 72 70 60
E-mail thoreb@thoreb.com.br

El-Moltaqa for Technological Solutions Ltd.
Wasfi Al-Tal Street, Building No. 98
Amman
Jordan

Phone + 96 26 567 1522
Fax + 96 26 567 1511
E-mail info@el-moltaqa.com.jo
(for the MENA market)

Castmaster Thoreb Telematics Private Ltd
46 Industrial Estate, Sector-6,
Faridabad 121006
Haryana
INDIA

Phone +91 129 4063001
Fax +91 129 4063007
E-mail marketing@thoreb.se

Epsilon Delta Holdings & Investments Ltd
P.O. Box 50256
Nazareth 16102
ISRAEL

Phone +97 24 641 47 00
Fax +97 24 641 47 20
E-mail info@epsilon-delta.com