WLC, LCC ANALYSIS PRODUCTS

SIMLOX

SIMLOX is Systecon's discrete event Monte Carlo simulation model developed as an extension to OPUS10.

Although OPUS10 makes it possible to solve logistic support/spares optimizing problems analytically, a number of problems remain that require simulation.
SIMLOX uses a Monte-Carlo technique that enables many replications per 'run' of the model. It simulates the operation, maintenance logistics and their interactions, for any technical system.

<A HREF="simlox.htm">Visit the SIMLOX product page</A>

OPUS10

OPUS10 is a versatile computer model for solving logistics problems. Its powerful modeling capability makes it the worlds leading logistic support optimization tool.

OPUS10 is the result of Systecon's continuous development over a period of 30 years of embedded experiences from consulting and software development.

Most cost effective design alternatives<
Most cost effective logistic support structure
Most cost effective allocation of spares
Most cost effective mix of spares
Most cost effective choice of repair policies

<A HREF="opus10.htm">Visit the OPUS10v4 product page</A>
<A HREF="opus10_v5.htm">Visit the OPUS10v5 product page</A>

MaDCAT

MaDCAT (Maintenance Data Categorization and Analysis Tool) is a software package for analyzing how reliability develops over time.

Examples of analysis features are:

Multi-dimensional categorization
Trend analysis
Reliability data estimation>
Consequence analysis
Maintenance optimization support
Verification functions
System Independent Database Interface

Visit the MaDCAT product page

CATLOC

After a successful delivery to its primary customers Systecon (UK) Limited are now able to offer a new and flexible Whole Life Cost, WLC and LCC tool, CATLOC (Calculation and Analysis Tool for Logistics and Operational Costs).

Whole Life Cost is a well established method used in systems engineering, for procurement and other assessment activities where it is of interest to estimate and compare costs for development / acquisition, operation, support and disposal during the whole life of a system.

Visit the CATLOC product page

BESPOKE SOLUTIONS - DATABASES

Systecon has experience of developing or providing pragmatic databases that allow the use of its models in complex data environments such the interfacing to ERP or PDM systems. Examples of such databases are:
STIL

Systecon ILS Suite consists of a number of software products, which, for each customer, are combined and integrated in order to fulfil the specific requirements for an analytical environment.

This approach is chosen, as it is impossible to create a tool, which fits all purposes, as different companies or authorities have their specific analysis process and data environments.

A complete customer tailored, LSA Suite enables the user to

1. Collect and store all logistics information needed for different purposes.

2. Perform the analysis required in the ILS process. This is made from a concept where trade-off between different alternatives is made based on availability and cost. All the results need to be manually evaluated in order to avoid the trap that too much automated and hidden calculation can lead you into.

A modular concept

Systecon ILS Suite is constantly developed and at present includes modules for

Project and scenario administration - All analysis are performed for different scenarios within a project. The project and administration module contains information specific to the requirements of the project.

System description - The module enables a modeling of a system with operational applications built from different hardware and software items. An unlimited number of indenture levels can be modeled. The system is shown in a tree view in order to give the analyst an easy overview.

Organizational description - This module allows a flexible operating and support organization. There are no limitations in the number of organizational levels and very flexible supply lines are allowed. All organizational data can be given individually for each site. The organizational description includes information about applications deployed at different sites.

Operating profile - The operation profile for each deployed application can be described individually. The structure of the operational profile can be adopted for each customer.

Reliability analysis - The basic reliability characteristics of the system are defined as failure rates and failure modes, which can be defined separately for different environments.

Maintenance analysis - The maintenance analysis module enables definition of all maintenance tasks including requirements on skills, support equipment and spares. The maintenance tasks are all allocated to the different failure modes.

Availability analysis - The availability is one of the main effectiveness measures for the whole system. The model used for the availability calculations, including redundancies and graceful degradation, are built individually for each customer.

Life Cycle Cost-analysis - The Life Cycle Cost is the other main effectiveness measure in the trade off analysis done in the logistic analysis process. Also the model is individually build for each customer.

Spares optimization - OPUS10 is provided as an integral part of the ILS

Suite and is the tool for producing spares strategies for the system. OPUS10 also provides some measurements used in other modules.

RCM - The RCM module can be provided with different RCM logics.

Maintenance Planning - As a result of all the analysis work you get an maintenance plan for the system, defining what to do at each organizational element.

Architecture

All the modules are operating with data stored in a common SQL database.

Systecon ILS Suite makes use of MS Access for the clients and can, via ODBC, be provided in different data base environments.

SMILE

Life Cycle Cost MODEL

LISA

SYSTECON FIELD DATA ANALYSIS SERVICES

Systecon's Field Data Analysis concept consists of a number of means to retrieve, analyse and deliver information regarding cost, reliability and operational performance for technical systems. Both services and software are provided.

Services

Establishment of experience feedback processes - Systecon supports the establishment of processes for improved feedback by the definition of strategies for the use of information and the knowledge and resources required.

Specification and design of information system support - Systecon provides the necessary structure to enable effective use of the registered data.

Specification of evaluation models - For specific, customer defined purposes, Systecon specifies and creates the models/analysis software necessary for decision support.

Generation of decision support data - Systecon can also provide the analysis service; collection of data from its sources, analysis and decision support generation.

Analysis Package

Systecon develops the Maintenance Data Categorisation and Analysis Tool (MaDCAT), a software package with special emphasis on the analysis of reliability development over time. Examples of analysis features are.

Multi-dimensional categorisation, with possibilities to use a multi-criteria grouping of data for analysis.

Trend analysis, with a set of statistical methods to analyse the development of events, not only over time but for any series of time-related operational performance measure.

Reliability data estimation, including definition of uncertainties.

Consequence analysis, for any type of numerical values, such as production parameters, cost and waiting times.

Maintenance optimisation support, with recommendation on maintenance intervals Verification functions, with control chart and sequential test

plan functions.
Easy connection to existing systems, via set-up and "translation" functionality between the analysis package and the customers databases.

Quality Assurance

All software development at Systecon are based on a formalised methodology based on the companies long experience, primarily manifested in the OPUS10 program, which has been in operation and continuously developed and maintained over a 30 years period.