# Caplan 3.02 ©

by

PRESTIGE TELECOM

AirTel Communications

# AirTel Communications Spin-off of Prestige Telecom

AirTel Communications

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For the careful use of your resources

Web site: http://www.prestige-tel.com

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## The Right Solutions

*Planning without acting is futile – Acting without planning is fatal!*

# Caplan 3.02 ©

Welcome to the most efficient and versatile telecommunication network optimisation and dimensioning tool available today!

In the planning of a telecommunication network, there are five essential steps:

1. Traffic forecasting
2. Site location
3. Routing
4. Dimensioning
5. Circuit routing

Caplan is an optimisation & dimensioning software therefore the three first steps must be completed beforehand.

## *The Network Dimensioning Problem...*

The classical telecommunication network dimensioning problem can be stated as follows: given a network structure, a demand matrix and a routing method, *compute the size of the links that minimize network cost under given grade of service constraints.*

The sizing or dimensioning of the number of trunks per group is a major task of the systems engineer.

The well known ECCS method, which selects the grade of service as a constraint, is useful in solving the classical dimensioning problem.

In cases where capital is not readily available the budget becomes a constraint on the dimensioning, we must therefore approach the problem differently. In this case the grade of service constraint is replaced by a budget constraint.

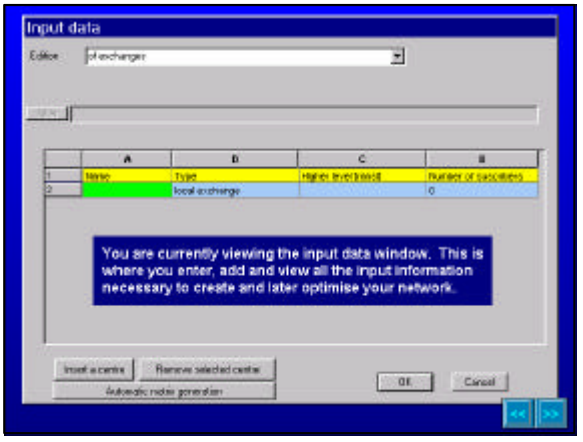
Caplan is unique in that it calculates the optimal dimension of the network, relative to either grade of service constraints or budget constraints (budgets known in advance) and make possible an evaluation of the grade of service while taking into account the available financial resources. Caplan also facilitates the effective diagnosis of the grade of service of an existing telecommunication network.

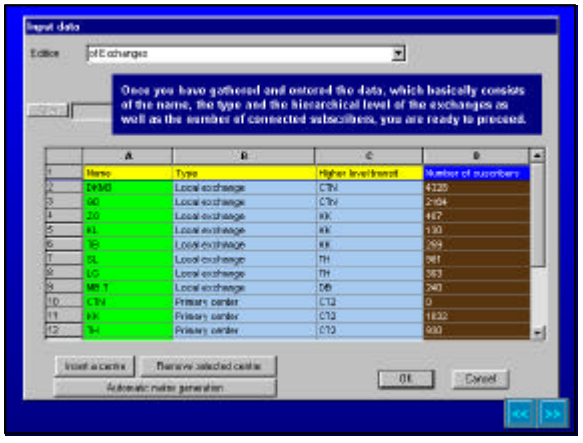
Caplan (CApacity and PLANning) is a software based tool for optimizing and dimensioning telecommunication networks, designed to respond to the particular needs of telecommunication network operators with limited capital resources.

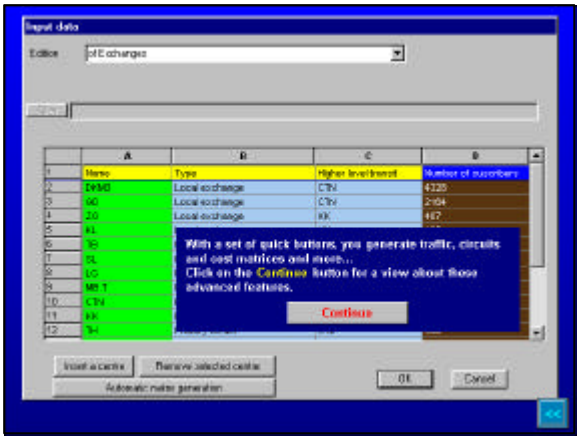
Caplan is based on an exact algorithmic approach offering optimal solutions for any size network

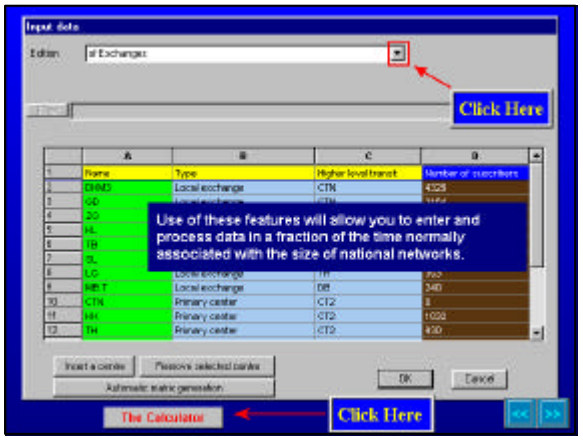
## CAPLAN
### Planning Makes All the Difference

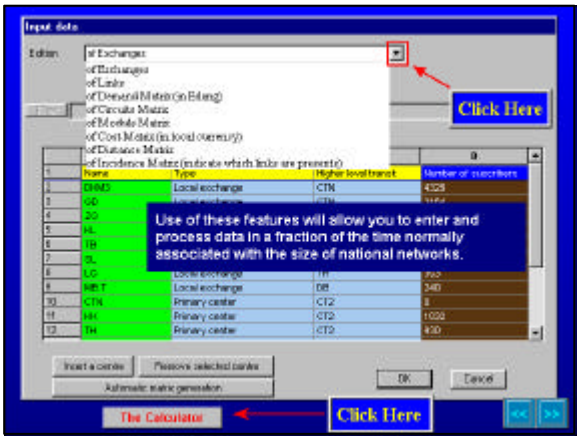
- CAPLAN, CApacity PLANning
- The solution to efficient traffic flow
- Highly useful diagnostic tool
- A winner with cellular system
- A simple way to maximize savings (CAPEX and OPEX)




Input data
Edition
Click Here
Use of these features will allow you to enter and process data in a fraction of the time normally associated with the size of national networks.
The Calculator
Click Here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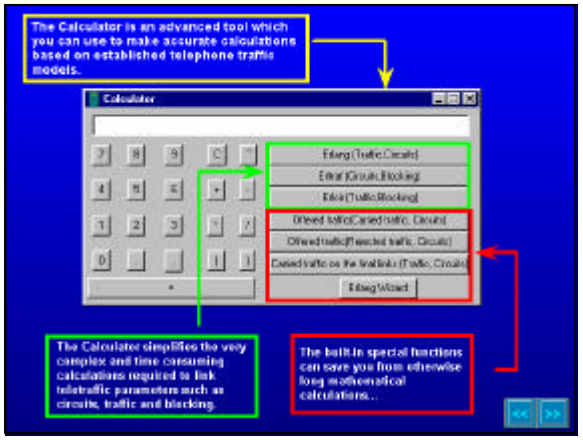
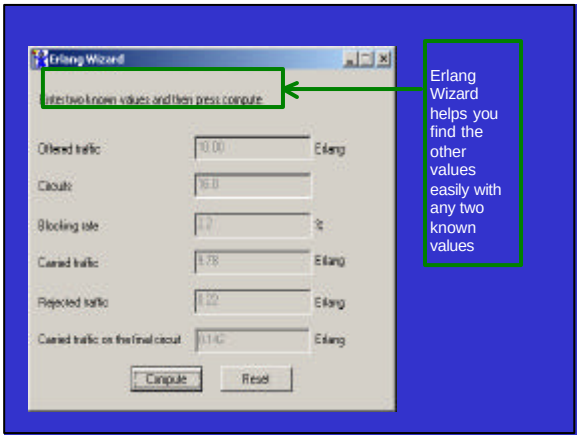
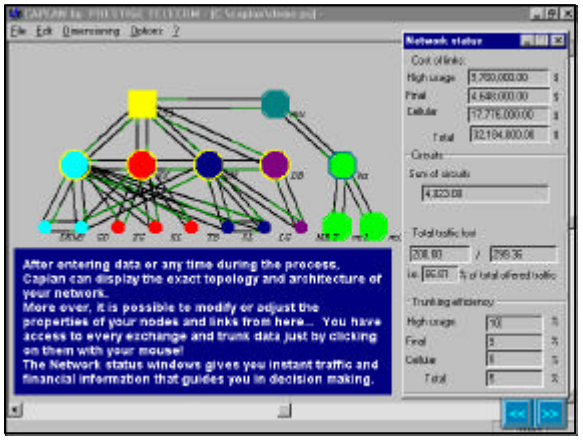
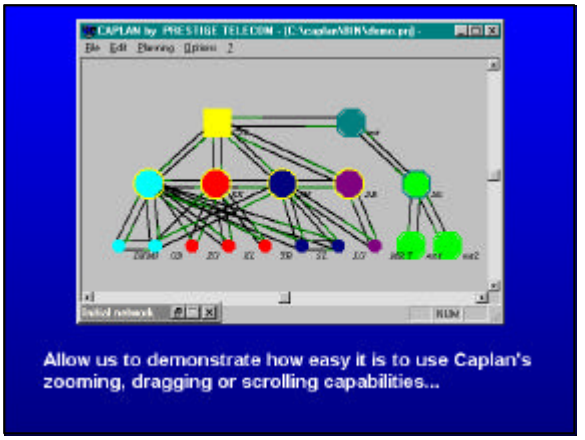
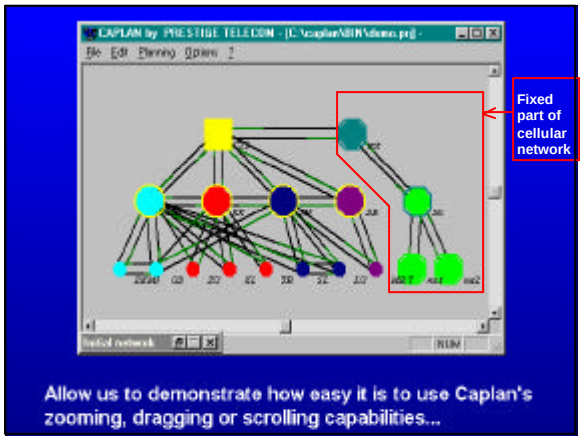

The Calculator is an advanced tool which you can use to make accurate calculations based on established telephone traffic models.
Calculator
The Calculator simplifies the very complex and time consuming calculations required to link teletraffic parameters such as circuits, traffic and blocking.
The built-in special functions can save you from otherwise long mathematical calculations...


Erlang Wizard
Enter two known values and then press compute
Offered traffic
Circuits
Blocking rate
Carried traffic
Rejected traffic
Carried traffic on the final circuit
Erlang
%
Compute
Reset
Erlang Wizard helps you find the other values easily with any two known values


Network status
After entering data or any time during the process, Caplan can display the exact topology and architecture of your network.
More over, it is possible to modify or adjust the properties of your nodes and links from here... You have access to every exchange and trunk data just by clicking on them with your mouse!
The Network status windows gives you instant traffic and financial information that guides you in decision making.


Allow us to demonstrate how easy it is to use Caplan's zooming, dragging or scrolling capabilities...




Allow us to demonstrate how easy it is to use Caplan's zooming, dragging or scrolling capabilities...

## Functions of Caplan

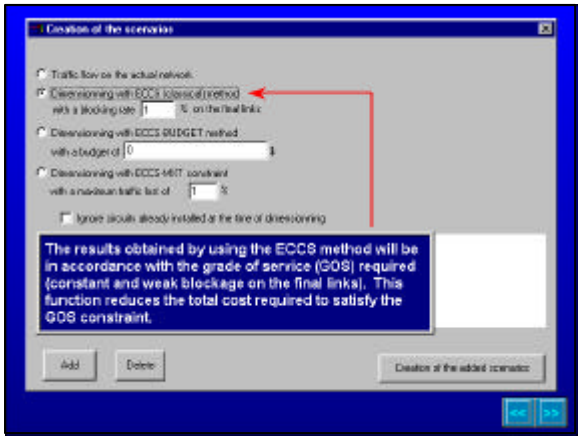
**Input**

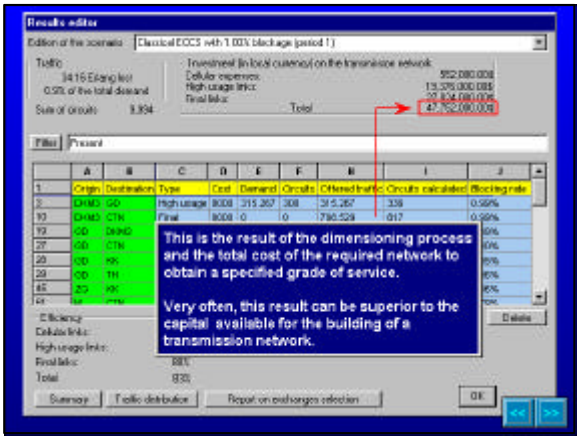
- -Investment
- -Demand forcast
- -Grade of service
- -Network topology
- -Traffic matrix
- -Routing matrix
- -Cost matrix

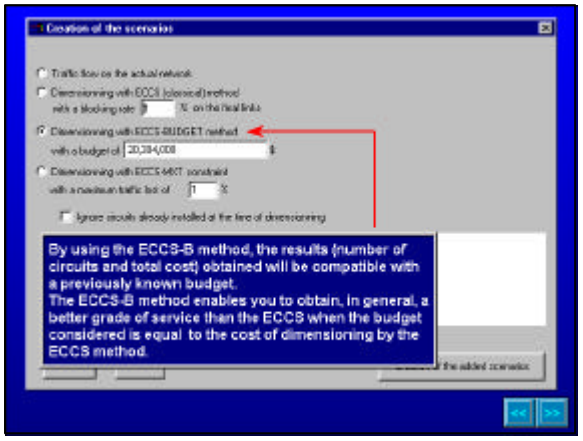
**Caplan**

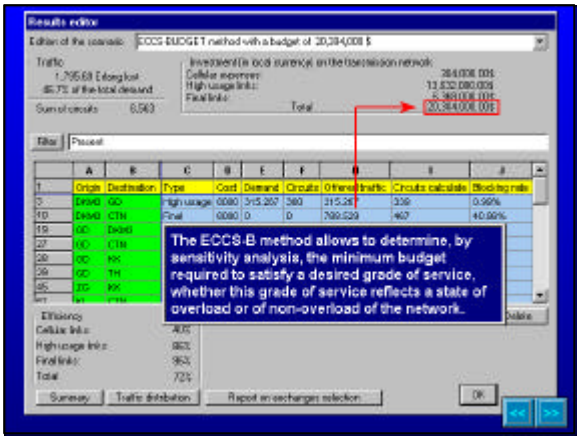
**Output**

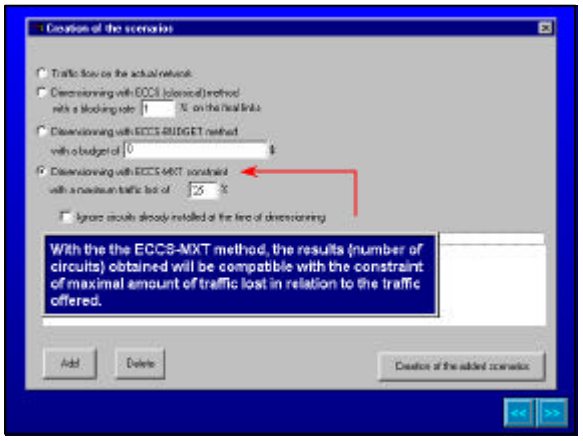
- -Traffic separation
- -Blocking rate per link
- -Ratio of traffic lost
- -Number of circuits per link
- -Total cost of dimensioning
- -Traffic flow
- -Traffic lost per link
- -Total traffic lost
- -Status of exchanges (traffic & circuits)

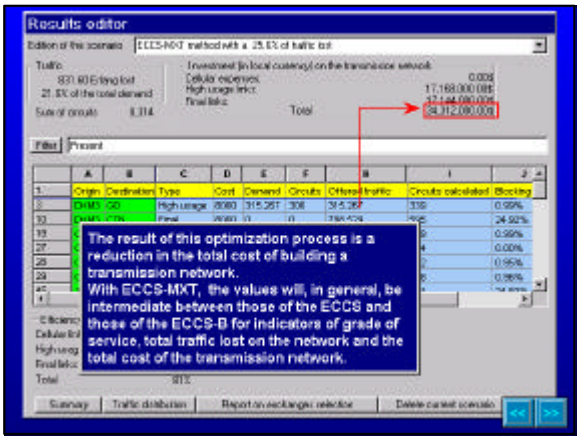


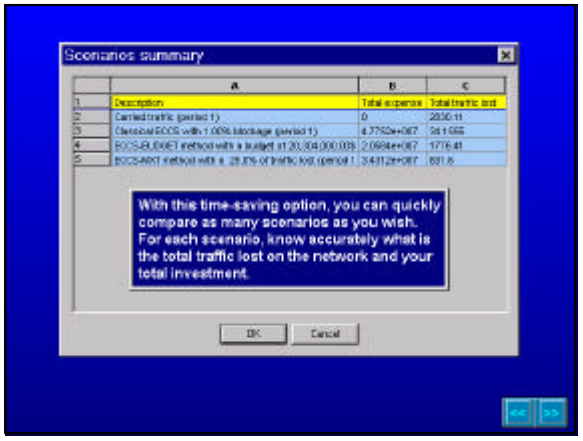



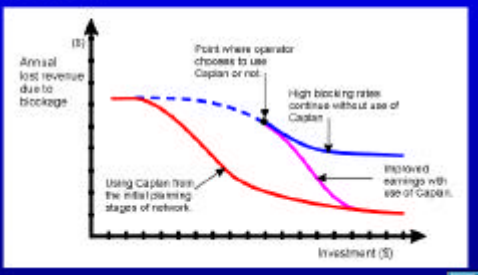



## Graphical Comparaison

Lost revenues due to blockage in relation to investments with the use of Caplan at different stages of network development.

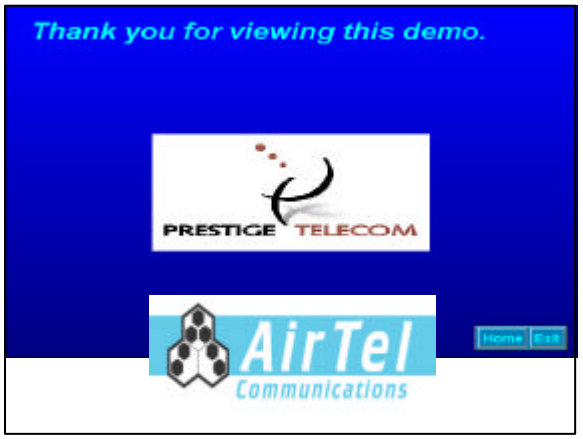



## Advantages of Caplan

- Assists in the early stages of network design by determining the most cost-effective configuration.
- Assists in the diagnosis of the network.
- Improves GOS while maintaining the possibility of diversifing resources.
- Facilitates decision making (study of various scenarios).
- Determines how much, when (time period) and where to invest in the network in relation to demand forecast.
- Determination of lower and upper limits of investment to maintain a satisfactory GOS.
- Minimizes traffic lost... increases revenue.
- Improves rate of return on network investment.

## Caplan Training

**Prestige Telecom is committed to provide the highest level of training to ensure that clients make the most of their investment in Caplan and other network planning and management tools.**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