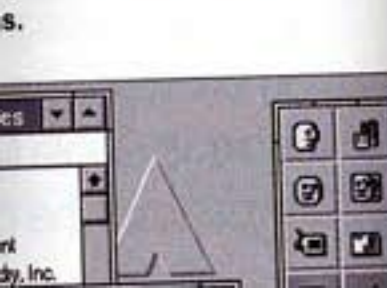


supports a manager's
ng with a multitude of
s and linking them to-
puts it, "Vineyard of-
isorganized data into a
"

Over Time

tools and business-plan
ard deal with static ele-
perform what-if analy-
erent business scenar-
track the flow of cash
over time. "The analy-
y, and other assets over
n that every manager
Warren of the London



Business School. Some examples are move-
ments in market share, production control,
and the influence of a single project on
overall cash flow.

One tool that analyzes such system dy-
namics is Powersim from Powersim AS
(Bergen, Norway). The program is based
on a formal method that was developed
in the late 1950s by Jay W. Forrester of
the Sloan School of Management at MIT
(Cambridge, MA). A Powersim model
consists of a set of interrelated graphical
variables, which you can connect using a
diagram editor. You then use the Powersim
simulation language to develop the exact
definition of the relationship you're ana-
lyzing.

However, it takes several hours to pro-
duce your first useful model. "The devel-
opment of a business model is usually a
three-stage process," explains Eric Melse
of Oasis Process Consulting (Nieuwegein,
The Netherlands). "First of all, it's im-
portant that [members of] a team of man-
agers share the same view of the world."

Powersim supports the first modeling
stage, which is known as rough modeling,
through *Causal-Loop Diagrams*, which
offer heuristic models in which you do
not have to distinguish between the dif-
ferent types of variables and connections.
A Causal-Loop Diagram is then trans-
formed into a flow diagram, using the
graphical simulation language. This second
stage is where the actual analysis of a pro-
cess takes place and proposals for im-
provement show up. Finally, in the third
modeling stage, you run several scenarios
with different settings.

Creative Problem-Solving

Modern management approaches rely on
not only analytical models but also the
creative power of workgroups, especially

for carrying out innovative work. Whether
you're designing new products, developing
inventive marketing campaigns, or defin-
ing an outstanding user interface for a piece
of software, creative problem-solving is
important.

"Creativity always includes motivational
and emotional aspects. But that's not an
argument against computer support," ex-
plains Dr. Tapani Savolainen, director of
CAC-Research (Espoo, Finland) and
sometimes referred to as the father of com-
puter-aided creativity (CAC). The result
of his research is the second-generation

tool Idegen++, which supports problem-
solving through brainstorming, idea gen-
eration, and idea-evaluation modules.

Idegen++ assists users in organizing and
constructively evaluating ideas. "It's the
opposite approach to artificial intelli-
gence," explains Savolainen, "because it's
the best computer in the world that solves
the problem—the human brain." ■

Rainer Mauth is a senior editor in BYTE's
Frankfurt bureau. You can contact him on
the Internet or BIX at rmauth@bix.com or
75372.3464@compuserve.com.

Corporations trust their data to Cheyenne Software.

Cheyenne trusts their data to Raima's database technology.

Cheyenne, like many leading application developers around the world, uses Raima's Velocis™ Database Server.

Why?

Because they want to know their customers' data is secure and can be restored quickly. And because they've compared client/server database engines and found Velocis' performance and reliability are second to none.

Velocis provides scalability, flexibility, reliability, and, above all, superior price and performance.

Find out why companies like ADP, IBM, Siemens use Raima's embeddable, high performance database technology.