Virtual from page 1C

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vest crops.

Through the use of virtual reality, Caterpillar was able to confirm or reject questions regarding visibility from the combine's cab

so operators can see better.
"That means tremendous cuts in engineering time." Aukstakalnis said. Virtual reality can be used in a variety of similar applications. A car design that currently takes three years to bring from concept to manufacturing could be brought about within six months.

concept to manufacturing could be brought about within six months.

This is only the beginning.

Within the next two years, we'll be seeing a lot of new software that will greatly accelerate the use of virtual reality.

of virtual reality."

Let's say an architect wants to show a home buyer a new house design. Currently, he rolls out a blueprint and tries to convey what the home will look like in

blueprint and tries to convey what the home will look like in three-dimensions.

"Most people can envision three-dimensions from a drawing, hough," Aukstakalnis said. Virtual reality would allow an architect to take a client on a guided tour of a bouse yet to be built.

"We have new software that will allow the user to make changes inside the virtual reality environment," he said. If a client were to express dissatisfaction with the placement of a window, for example, the architect could reach out, grab the window frame and pull it across the wall."

"And that change will be reflected in the computer assisted design drawings," Aukstakalnis said.
Researchers are also developing

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around the virtual reality generated house.

"When the architect moves the window, you can tell which way would give the better view of a lake or surrounding property," Aukstakalnis said. The architect

could even move the house on the site until the client is completely satisfied.

Brian Lareau, executive editor of Virtual Reality News, a general interest magazine about virtual reality published by Magellan Marketing Inc. in Farmington Hills, said virtual reality has unfortunately gotten a bad rup in the media and in hollywood.

People would be Surprised at the uses virtual reality has even at this early stage of development. "Anything you can do in a virtual world."

One of the most important in-

"Anything you can do in the real world, you can do in a virtual world," ou can do in a virtual world."

One of the most important industries served by the developing technology is engineering and one of the more helpful ways virtual reality is used by engineers is through "virtual prototyping," Lareau said.

"Manufacturers spend hundreds of thousands of dollars on prototyping," he said. "Virtual reality is more cost effective."

Presently, an automobile manufacturer designs a car (typically on computers), builds small scale models, looks for mistakes and makes corrections, takes those models, looks for mistakes and makes corrections, takes those models, looks for mistakes and makes corrections. Lureau said. If a carpasses each step without engineers discerning any uncorrectable flaws, it is then that the car is actually built.

Despite how accurate and intuitive engineers have become with this system, errors are often not discovered until late in the design process, sometimes resulting in major engineering changes or even the scrapping of a project.

With virtual reality, the time and costs of the process is dramatically reduced.

Virtual reality is also being used as a teaching tool, he said.

Surgeons-in-training currently rely on the availability of ca-davers to gain the hands on expe-ience they need in order to pre-pare themselves for the real thing,

davers to gain the names on experience they need in order to prepare themselves for the real thing. Leaves said.

Difficult or untried surgical techniques are often tested on real patients.

Now imagine that a dector could attempt a radical new surgical technique on a patient early in the development attage with the development attage with the development attage with the discerned early in the process.

Virtual reality allows this, Doctors starp on specially designed head gear and body apparatus that allows them to immerse themselves into a computer-simulated patient.

This gear is so advanced that special gloves provide actual tactile feedback and actually simulate that slight back pressure felt when a surgeon makes an incision with a scalpsel, Larcau said.

These are just a few of the uses of virtual scality there are only

These are just a few of the uses of virtual reality that are only limited by the ability of computer programmers to develop a program sophisticated enough to imitate reality.

Virtual reality is developing at breakneck speeds, he said. "Things are moving a lot faster than people think."

than people think."
Nintendo, the home video game
manufacturer is planning to bring
out head gear that will allow players
to immerse themselves into a
video game for between \$200 and
3300 in time for Christmas.
"Three years ago, you couldn't
touch something like this for less
than a quarter of a million dol-lars."

"Forty years ago, not everyone had a television because some people didn't think it was neces-sary," Larcau said. "Now every-one has one."

DATEBOOK

WIRTUAL REALITY
Oakland University is sponsoring
a Virtual Reality seminar with
demes on Friday, June 11 at it
Rochester Hills campus. Call 370-

■ PROFESSIONAL WOMEN
The Professional Women's Network will host its Monthly breakfast club on Friday, June 11 at the Botsford Inn in Farmington Hills beginning at 7:30 am. Call 478-8122 or 647-0747 for more information.

B CCBC
Larry Williams, store manager, Hudson's Northland, and Dennis Toffolo, president, Hudson's will address he Oakland County Business Consortium at its general membership meeting Saturday, June 12, from 10 a.m. to noon.

B WORKER' COMP
"Workers' Compensation: Mediations, Redemptions and Trials",
a seminar sponsored by the American Society of Employers is
schieduled for Monday, June 14
from 9 a.m. to 4:30 p.m. Speaker.
Ervin Valariatan, former director
and deputy director Michigan Bureau of Workers' disability compensation. Call 353-4500 for information.

m MCPA
The Michigan Association of Cartified Public Accountants is presenting its annual Administrative Staff Development Conference on Tuesday, June 16, at the Embassy Suites Hotel in Southfield beginning at 8 a.m. Speaker Marilynn J. Semonick, president of Spectrum Communications, will discuss "Obtaining the Leading Edge." Call 855-2288.

■ PERFORMANCE APPRAISALS
"Conducting Effective Performance Appraisals", a seminar

sponsored by the American Society of Employers is scheduled for Tuesday, June 15 from B a.m. to 430 p.m. Speaker: Joyce Kelly, Marshall Group. Call 353-4600 for information.

m NAFTA
The North American Free Trade
Agreement will be discussed by
Wilhelm Kast, chairman of the
Michigan Export Authority and
DPCS International Inc., and
Leslie Touma, executive director
ofthe Michigan International
Trade Coalition, at the Wednesday, June 16 Oakland County
Chamber of Commerce economic
forum. Call 456-8600.

■ DATA PROCESSING
The Detroit Chapter of the Data
Processing Management Association will hold its June Meeting on
Wednesday, June 16, at the Skyline Club in Southfield. 696-2707.

■ SUPERVISOR'S SAFETY ROLE
"Supervisor's Role in Safety", a
seminar sponsored by the American Society of Employers is
scheduled for Wednesday, June
16 from 9 a.m. to 1 pm. Speaker.
Richard Zdeb, safety consultant,
Michigan Department of Labor.
Call 353-4500 for information.

marketing professionals
The Society of marketing professionals will be the focus of the
June 17, 1993, meeting of the Society of Marketing Professional
Services to be held at the Troy
Marriott in Troy, Call 351-4619.

WRITE US To have your upcoming item inserted in this calendar, write the databook calendar, business editor, Observer & Eccentric Newspapers, 30251 Schooleraft, Livonia MI 48150 or have the item dropped off at any of the Observer or Eccentric offices.

We are pleased to announce that

James D. Buhr

has been promoted to Managing Director.

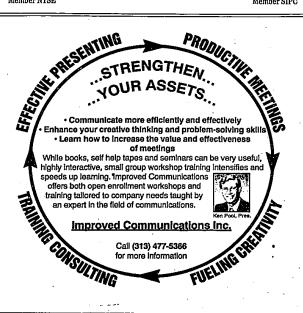
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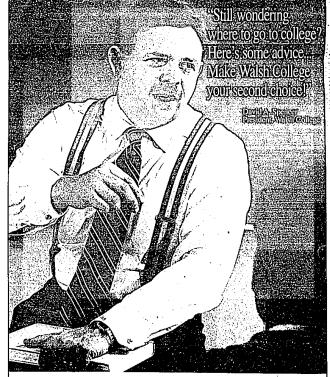
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