# science

# Virtual reality offers new worlds Almost better than the real thing creation and put it through its paces like you to think so - they plan to the office using VR, you visit friends ing in their own little computer-generby Garth Sweet

Virtual Reality (VR). Is it the beginning of a new era of technology or just some marketing gimmick? The answer? A little bit of both with perhaps a dash of media hype for taste.

In reality (that's 'real reality' not 'virtual reality') VR systems do have a great deal of immediate and practical uses. Moreover they can offer up benefits without many drawbacks.

What VR can deliver at its present stage is a wonderfully dynamic tool that can be adapted for uses across industry. Unlike robotics, which also made a similar claim, this tool doesn't replace workers, it assists them. With existing VR systems doctors operate on tiny blood vessels in someone's hand and have it seem as if they are almost standing in the vessels themselves. Chemists research molecular bonds, not by tedious calculation and experiment, but by actually carrying molecules around in a VR simulation and test-fitting them together by hand. Pilots earn their wings on the ground before ever setting foot in a real plane. Engineers climb inside of their newest

before it's ever constructed.

All these things are existing uses for existing VR platforms. They don't try to replace reality but they do try to offer you a view of it you couldn't normally get. VR as a research tool is really just a method of bridging the gap between computers and humans. It takes the mountains of data generated and converts it to a something more tangible, something more suited for our senses. It takes input in a natural form, it allows us to grab the data and physically manipulate it. Display screens, keyboard, mice, printers. They are all other forms of bridging the gap between computers and ourselves. VR is just a better bridge.

If you listen to the marketers, VR promises us a lot for our future. With VR systems we can travel to new and unimaginable places in the comfort of our living rooms, we can visit with friends and family even if they're thousands of miles away, we can go to work without ever leaving our homes and we can socialize and meet new people all from within a VR system. Sound nice? The marketers would

sell a billion dollars worth of this stuff in the next year.

### "Wouldn't it be nice if the beach was mint green instead of sand brown?"

To me, though, it doesn't sound nice at all. In fact it sounds quite fright-

using VR, and you vacation using VR. You never leave your home and you never leave your VR, and why should you? Anything puny old mother nature can create, like a beautiful beach or a windswept mountaintop, can be created in your own VR system, and with VR that cold cloudy day can easily be changed into a warm sunny one — and while we're at it, wouldn't it be nice if the beach was a nice mint green colour instead of boring old sand brown? Follow their road to the VR future and we're on the fast track to ening. Imagine a world where you go to being technological shut-ins, each liv-

ated dream world. Ah, but fear not, the choice to follow such a road won't even be given. A VR system that could promise that kind of realistic experience is far from being created, so far in fact that it may prove to be so much wishful thinking.

Should we fear VR? No, not until it's being toted as a reality replace-it may prove to be the link to computers that finally allows us to use them to their full potential. It's like finally getting a steering wheel for your car

# It's a dirty job, but

#### by Steve Tonner

Well, it's another week, and another science section.

If you'll notice, this has been one of the largest sections yet. Why is this, you may ask? Well, actually, it's just because of luck.



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looking ahead towards an:



doesn't get better when stories that you were promised end up not showing. When that happens, you're left with a science section somewhere between War and Peace and a pamphlet, but it's usually closer to the latter.

This week, we all got lucky, because a couple of good stories came in from some good writers that I know I can count on to get the job done, and done well. Usually, the way things work around here is something like this, but remember, actual mileage may vary:

First, the editor (that's me) gets an idea for a story, or one comes in. This story then goes on the science board, with a suggested title to give an idea of what the story is about, and maybe a person to contact if you want to actually write the story.

This is where things get a little hairy, because next to the story title, there is a space for the name of the person who will be writing it. Of course, not many of those spaces get filled in your average work week.

Of course, if a story is taken, that's great. It means that either the person who is writing it either calls me to find out more, which is wonderful, or I never hear from them again and they fall off the face of the Earth. When that happens, I try to get in touch with them, but if they won't return my calls,

You see, the job of being an editor well, that's it. I assign their idea to can at times be pretty hard, and it someone else, whom I know I can count on to get the job done. Maybe The Globe and Mail offered them fifty thousand dollars for my ideas? Naw.

After the story gets written and polished by the writer, he or she will give it to the science editor, who looks it over to make sure that it's all right and that it covers all the areas of the topic that should be covered and all that. Then, it goes to the paper's editor, the big guy whose job it is to make sure that all the section editors co-operate and who makes sure all the stories are the right length (if not, the story is either shortened or lengthened in a number of ways). Of course, it helps if the stories all come in at the proper time. Yeah right, I'm writing this 24 hours after deadline myself, so I can't talk about that too much and expect to be taken seriously.

Basically, what it boils down to is that there is a shortage of writers who seem to want to write science stories. Or maybe I'm just not looking hard enough. In light of the fact that I can't quit a volunteer job, I'll have to start looking for more writers, and hope for the best. In the future, maybe the science section will stay this size, maybe it won't. But one thing can be counted on, and that's the fact that the science section will be here.

# Inter-reacting

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lem-free operation. There are numerfrom the 30 tonnes of concrete sitting the reactor's fuel has burned in the last ten years.

According to TARC's last trienous safety measures in place ranging nial report (July 1990 - June 1993),

## (M.B.A. information only)

Harvard Business School seeks top graduates from all academic disciplines with a career interest in General Management. A Harvard representative will speak with students about work and leadership experience and the M.B.A. program.

### THE DENTISTRY BUILDING **ROOM: DENTISTRY-2126** (corner University and Robie St.) Thursday November 25, 1993 3:00 p.m. to 4:00 p.m.

Harvard is committed to the principle of equal education opportunity

on top of the reactor to the dosimeters' visitors are given that measure any at Dalhousie." Hopefully the Slowpokechange in radiation levels between the 2 reactor and TARC labs will be able to time when someone arrives at the lab expand to include a larger number of to when they leave. As Dr. Chatt states, undergraduate students in the future "Safety before science." No waste is and not have their funding slashed as generated either as only one percent of so many unfortunate programs have.

President Clark "has emphasized the importance of undergraduate teaching

### POINTLESS PONDER ABLES

To correctly label the boxes, you must draw a marble from the box labeled RED AND BLUE marbles. If the marble you pull out of the box is blue, you know it's not the red box. It also can't be the red and blue box, since the labels are all supposed to be wrong. Therefore, it should now be labelled BLUE. The box originally labeled RED must be wrong (since it was stated all boxes are labeled wrong) so it must be given a different label. The only free label to give it (remembering you just used BLUE) is the RED AND BLUE label, so give it that one. Now you're left with one label (RED) and one box without a label so it must be given RED. If a red marble had been drawn out instead of a blue then a similar logic would be followed where the RED AND BLUE box would be labeled RED, the RED box labeled BLUE and the BLUE box labeled RED AND BLUE.

This brain teaser should prove to be either a new challenge or at least a sound experience in trying all the combinations. You are given a chain with 21 links. You are asked to make as few cuts in it as possible so that any number of links from 1 to 21 can be collected together. For instance if you made 21 cuts in the chain and someone asked for any number of links between 1 and 21, you could count off that many and give it to them. This of course isn't the answer, but what is? How many cuts must be made and where are they to be made at? By the way, there is more then one answer to this problem.