Canadian Cartographic Association
L'Association canadienne de cartographie

Newsletter

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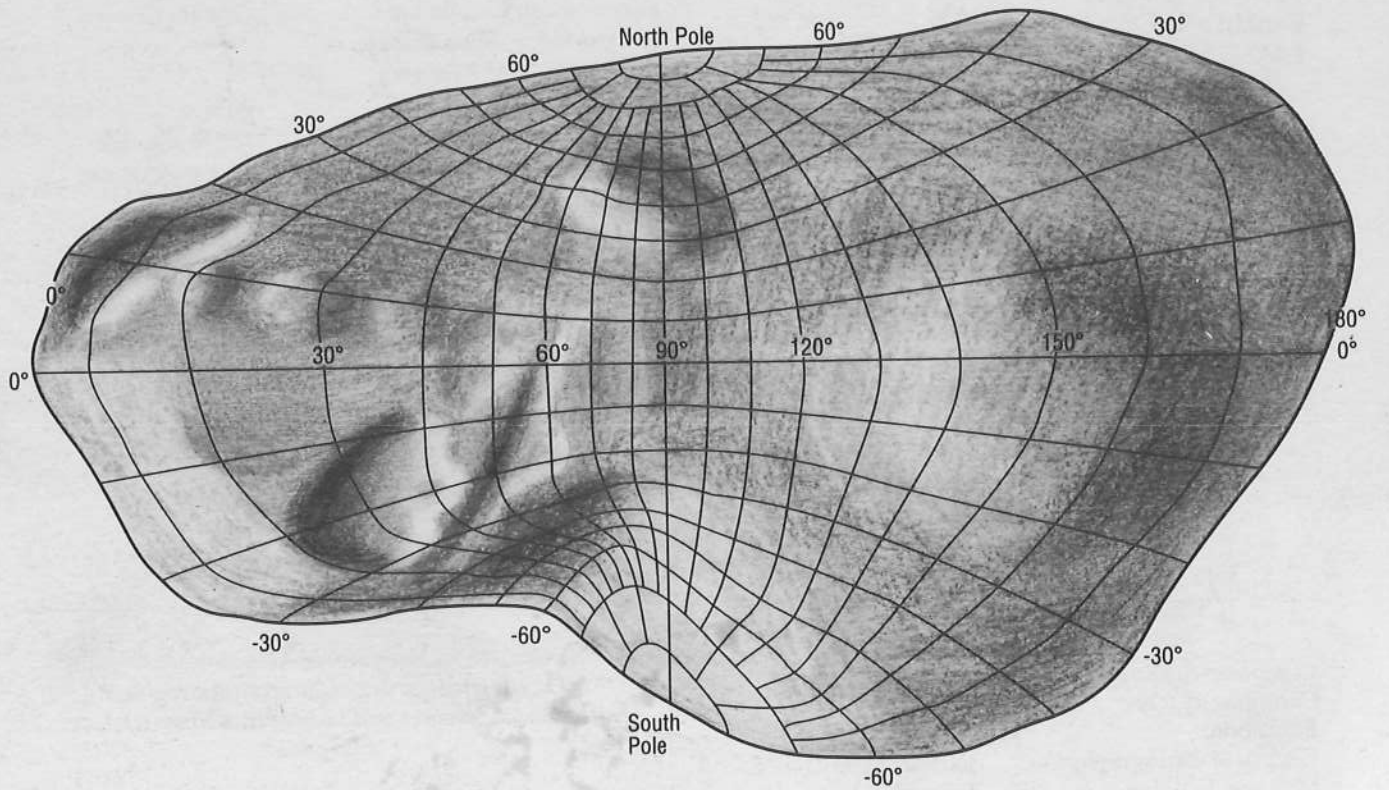
Editor/Rédacteur :
Gordon Shields
Department of Geography
The University of Western Ontario

Volume 16, #2, 1990

In this issue...
Dans ce numéro...



The Nucleus of Comet Halley

by P.J. Stooke
The University of Western Ontario
1990

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CCA EXECUTIVE 1990-91
COMITE EXECUTIF DE L'ACC 1990-91

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CHEFS DES GROUPES D'INTERET

Computer-Assisted Cartography/GIS:	David Douglas
Education:	Brian Klinkenberg
History of Cartography:	Jeffrey Murray
Map use / Design:	Janet Mersey
Technology:	

We welcome the following new members to our association/
Bienvenue aux nouveaux membres de l'ACC

Patricia Caldwell Lindgren	Sausalito, CA
Robert Churchill	Middlebury, VT
Martin Colman	Willowdale, ONT
Sukh Dhaliwal	Calgary, ALTA
Janet Hicks	Calgary, ALTA
James Krull	Fort Washington, PA
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Tom Poiker	Burnaby, BC
Iris Schmitt	Toronto, ONT
Pam Sherwood	Calgary, ALTA
Choi Fun Shun	Shatin, Hong Kong
Gary Thomas	Calgary, ALTA
John Thompson	Ottawa, ONT

CORPORATE MEMBERS

DataSpan Technology	Calgary, Alberta
Defence Mapping Agency	Washington, D.C.
ESRI Canada Ltd.	Toronto, Ontario
J.M. Ellis Ltd.	Metcalfe, Ontario
Idrisi	Worcester, MA. USA
Intergraph Canada Ltd.	Calgary, Alberta
Land Information Branch, Alberta Dept of Forestry, Lands and Wildlife	Edmonton, Alberta
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Metric Mapping Ltd.	Calgary, Alberta
New Era Software Products Inc.	Victoria, B.C.
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Tydac Technologies Inc.	Ottawa, Ontario
Weller Cartographic Services	Surrey, B.C.
Zycor Computing Inc.	Calgary, Alberta

The Canadian Cartographic Association gratefully acknowledges the financial support given by the Social Sciences and Humanities Research Council of Canada

L'Association canadienne de cartographie remercie vivement le Conseil de recherches en sciences humaines du Canada pour son apport financier.

Letters to the Editor

Dear Sir,
I have just returned from the joint Canadian Cartographic Association/Pacific Institute of Cartographers conference held in Victoria, B.C. last week. Several of the speakers at that conference expressed concern that the "art and science of cartography" was being taken over by computer scientists and statisticians who are busy writing and using computer-based mapping systems and geographic databases without any cartographic knowledge or experience.

I would like to draw your attention to the following position vacancy (see ad below) in which MacMillan Bloedel Limited, one of British Columbia's major forest companies, is seeking a "Secretary/ Draftsperson" (Vancouver Sun, Thursday June 14, 1990). In private industry, "cartographer" is rarely if ever used to describe someone who creates or revises maps. "Map Draftsperson" or just "Draftsperson" are the usual terms.

Please note that the major requirements of the position are "...a working knowledge of computers (Lotus, MSWord, etc.)...", e.g. data and word processing, and that GIS experience is only a minor afterthought. If MacMillan Bloedel feels that a part-time secretary can also handle GIS functions, answer ARE in trouble!

Yours truly,
Susan Haworth
Pitt Meadows, B.C.

SECRETARY/ DRAFTSPERSON

A Secretary/Draftsperson is required immediately for our Cowichan Woodlands Operation. This is a permanent part time position that is subject to layoff during periods of curtailment of operations.

This position is an integral requirement of the Forestry and Engineering department and entails processing activities and maintaining records to allow long term continuity.

A working knowledge of computers (Lotus, MSWord, etc.) and any experience with G.I.S. would be extremely beneficial.

Send resume to **R.J. Lavis, Superintendent of Forestry and Engineering, MacMillan Bloedel Limited, Cowichan Woodlands Division, Chemainus, B.C. V0R 1K0.**

Closing Date: Friday June 22, 1990

Where you grow with the forest.

MacMillan Bloedel Limited

Dear Gordon,

By now you may have already been besieged with letters about your item "The CCA: The First 15 Years." If not, you should consult the Canadian Cartographer, Vol. XII, #2 for December 1975 where the minutes of the inaugural meeting in OTTAWA in October of 1975 are recorded — p. 196ff. The first annual MEETING was then held in Kingston in the following Spring of 1976!
Henry Castner
Pittsboro, N.C.

Dear Sir,
I am a Cartographer in the Geography Department at Nottingham University, and I am very interested in the idea of a work exchange with a Cartographer from abroad. I have worked as a Cartographer for six years, after starting as a trainee. Our work in the Unit is to produce maps and diagrams either for use in publications or for lectures to students. These are mainly of black and white work, although we do colour work for slides also.

If you know of a Cartographer who would be interested in considering the possibility of an exchange then I would be delighted to take the idea further. The other Cartographer, however, would need to have done work similar to mine and be of a compatible standard to make the exchange feasible. I look forward to hearing from you or from one of your colleagues in the near future should there be any possibility of an arrangement.
Miss Elaine Watts
79 Woodbank Drive
Wollaton, Nottingham, England NG8 2QW

New Executive elected

The result of our annual election of officers was announced at the General Meeting of the membership in Victoria B.C.
Our new vice-president is C. Peter Keller of the University of Victoria. The secretary and newsletter editor is Jim Britton of Sir Sandford Fleming College, Lindsay, Ontario.

Interest Group chairpersons elected include Janet Mersey, University of Guelph (Map Design/Use), David Douglas, University of Ottawa (Computer Assisted Mapping/GIS), Jeffrey Murray of the National Library of Canada, (History of Cartography).

Congratulations to the new executive members and thanks to all those who ran for office and helped to maintain a democratic process!

A word of thanks...

This issue marks my last as editor. During the past two years, I've had the pleasure of working with the Executive and membership of the Canadian Cartographic Association to produce a newsletter which has, I hope, served to keep us all better informed.
To those of you who sent in material for publication, or who assisted with editorial activities, I extend my thanks. You have helped to make my term as editor an enjoyable one. The new editor of the CCA Newsletter, soon to be known as Cartouche, is Jim Britton of Sir Sandford Fleming College in Lindsay, Ontario. Please send your newsletter submissions to him at the address on the inside front cover. Best of luck, Jim.

It's Cartouche....

At the Annual General Meeting of the Canadian Cartographic Association, held in Victoria B.C. on June 12, 1990, the membership voted to adopt a new name for the CCA Newsletter. After some debate the choice of names as suggested by the membership was narrowed to a run-off between Cartouche and Nunnanguaq (land-mapper in the language of the Inuit of the eastern Arctic). Cartouche won by a mere five votes, 18 to 13. Cartouche, from the Italian "cartoccio", is a term with long standing application in cartography. It is defined as "a panel on a map, often with decoration, enclosing the title or other legends, scale etc..." (from Stamp, Sir Dudley, A Glossary of Geographical Terms, 1966)
Our next issue (v.16, #3) will bear the new name.

Canadian Cartographic Association meets in Victoria

The 1990 conference of the Canadian Cartographic Association was held at the University of Victoria, Victoria, British Columbia from June 10 to June 14 1990, with over 100 delegates registered.

The theme of the conference, entitled "Reflecting the 80's, Predicting the 90's" aptly described the range of presentations dealing with the technologies used in cartography.

The conference began with a plenary session on Monday morning, at which Prof. J.B. Harley of the University of Wisconsin spoke on the topic of "Crises of Representation in Cartography". Dealing in part with his previously published paper on "Deconstructing the Map", his presentation elicited a discussion of the role of cartographers and cartography in society.

Some delegates scaled mountains to get to Victoria

On the buses...Victoria style

Paper sessions followed the plenary session, dealing with topics in GIS as well as more traditional cartographic concerns. A perusal of the conference program indicated a range of sessions themes, including implementation and evaluationof geographic information systems, cartography and remote sensing, desktop mapping on the Macintosh, research in the history of celestial and marine cartography and the role of GIS in education, to name but a few. Numerous exhibits by cartographic firms and software vendors gave delegates a chance to view some of the more recent advances in cartography/GIS.

A number of field trips were organized to view some of the cartographic facilities of the Vancouver and Victoria areas. These included the British Columbia government mapping facilities in Victoria as well some of the GIS facilities installed in municipal mapping offices in the Vancouver area. On the social side, there were numerous opportunities to unwind at the end of each day, culminating with a Native Feast in a cedar long house on the grounds of the Provincial Museum in Victoria. We were treated to a salmon barbeque followed by a demonstration of west coast native dancing.

Those in attendance agreed that the conference had been a success, thanks in large part to the organizational skills of Peter Keller and his associates at the University of Victoria.

Enroute to Vancouver

Canadian Cartographic Association
Awards and Prizes 1990

Norman Nicholson Scholarship Winner

The CCA is pleased to announce that the winner of the Norman L. Nicholson scholarship for 1990–91 is Heather Nicholson, (no relation) a student at Sir Sandford Fleming College.

The President's Prize Competition, 1990

The following were announced at the annual meeting in Victoria, as the winning entries in the President's Prize competition, with categories as stated:

Monochrome:
"Castle of White Otter Lake", by Eva C. Willett
This map was produced for the advanced thematic course at the College of Geographic Sciences, Lawrencetown, N.S..
It depicts the access to and site of a historic site near Atikokan, Ontario, and will be used by a local society to promote the castle and its restoration. (1:100,000)

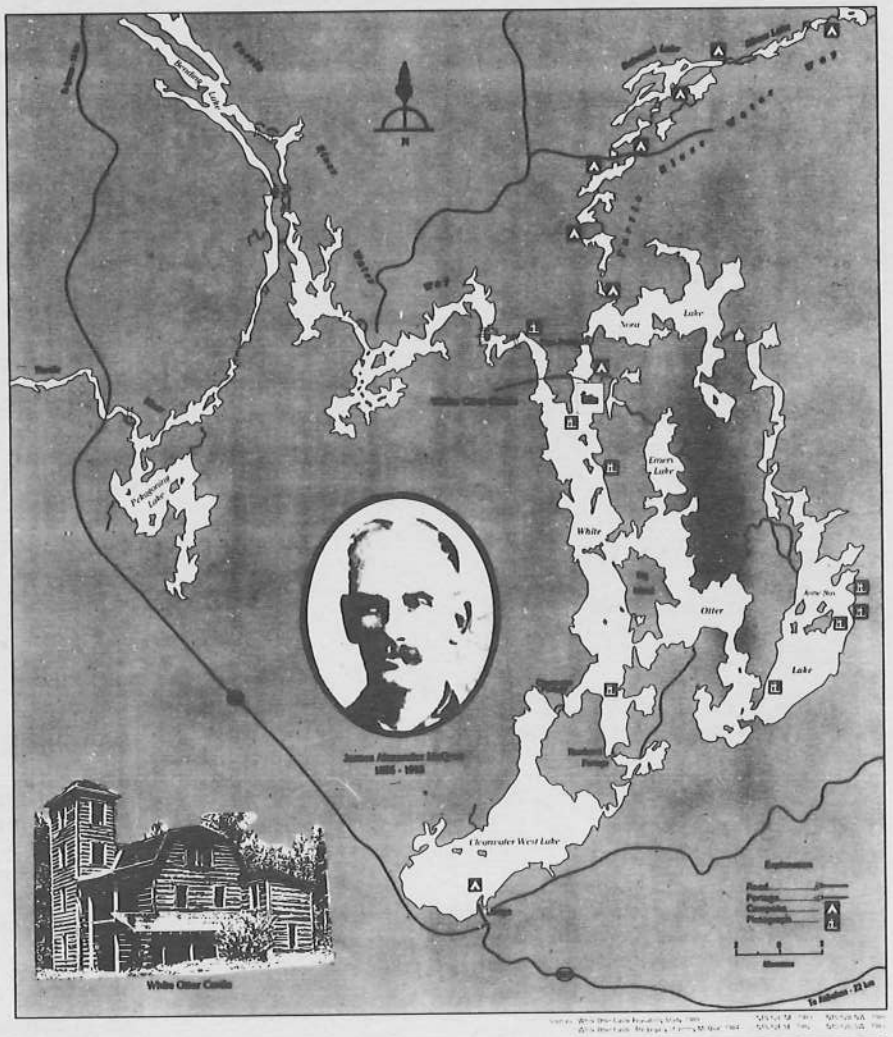
Color:
"Regina, Saskatchewan", by Diane L. Larsen, COGS, N.S.
This is a full color map at 1:50,000 of the urban centre, designed for the tourist and traveller, to highlight areas of public and special interest. (not reproduced here)

Journalistic:
"Angry mountain in paradise", by Jeffrey S. Martz, Pennsylvania State University.
This color map, depicts the effects of eruptions from 1983 from Kilauea, on a south–west section of the main island of Hawaii, including a longitudinal cross–section, designed in journalistic style for newspapers/ magazines.(1:300,000)
(Unfortunately, colors not reproducible here)

castle of white otter lake

In 1887, James McQuat moved west from Brownsburg, PQ to settle on a 114 acre land grant in Lash Township near Emo, ON. By 1898, Jimmy had expanded to 334 acres by purchasing 2 other farms. That year, he sold everything he owned and began prospecting for gold near Mine Centre. By the turn of the century, gold had depleated and Jimmy had lost everything. In 1903, he settled on White Otter Lake, where he built a shack near the future site of the castle. He survived by trapping, in order to buy those staples which he himself could not grow or catch.
In 1915, Jimmy tried to buy the land on which the castle stood. but he had little success. The land on which Jimmy had settled was crown land, not open for settlement. The one ray of hope that the government gave him was that they had kept the deposit money Jimmy had sent with his letter and survey plans
He tried again in 1918 and this time it looked like Jimmy would get his wish. But he never received the reply.
James Alexander McQuat drowned in White Otter Lake in October of 1918. His grave is near the castle, which acts as his head stone.
Today, White Otter Castle stands as a reminder to us of Jimmy McQuat. His name and legacy have a secure place in Canadian folklore. "The Castle is the most unusual log structure in Canada. It springs for the ground as a part of the landscape, a lonely sentinel alongside a pebbly beach on the northern shore of White Otter Lake. It reminds us that though Jimmy was small in build, he was a giant in spirit and that he transformed his dream into a reality.
As he kept no diary on why he built the castle, or exactly how he built it, we can only guess at his reasons and speculate on his methods. Because of this, there is an air of mystery and romance surrounding the castle and its past. Some say he built the castle for his bride and lost love. Some say that he was an excentric, maybe even a King. This mystery, romance and majestic structure is what attracts so many people to the Castle each year.

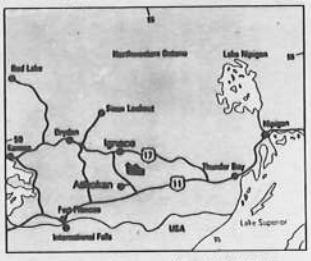
The Friends of White Otter Castle, a group of concerned people from Atikokan, Ignace, Dryden and Thunder Bay, have been working towards the $1.5 million restoration project. The Ontario Government has officially recognized the castle as a "significant historical site."



The following is an excerpt published in the December 1914 issue of ROD AND GUN *by Hodson.*

First it is "the house", and he gives me a wealth of interesting information as to measurements, material used, and how he overcame apparently insurmountable difficulties that cropped up in the building of it. And as he talks I realize that this is no ordinary backwoodsman, but a man of rare intelligence, capable of adapting the principles of counterpoise and leverage so that manipulation of the ponderous logs became a comparatively simple task. And yet - think of it!
These logs of green pine averaged thirty-seven feet when cut, and were trimmed after they were up. Their weight runs from about 1600 pounds to probably a ton apiece. The main building is twenty-four by twenty-eight feet. The "kitchen" fourteen by twenty. One each side twenty-one logs lie one upon another to the eaves, twenty-two feet; thirty logs to the peak of the twenty-nine foot roof, which is "hipped", and forty-three logs are in each side of the forty-one foot tower.
The logs were cut within a radius of twenty to sixty rods (100 to 300 yards) from the site and were "snaked" out with a homemade winch and a 100 foot line. And at every corner the logs are DOVE-TAILED. Not merely notched! In the expressive query of one lumberjack, "How in the h_l did he hold 'em while he pinched 'em in?"

When Hodson wrote this article, Jimmy was 59. He had the walls up and the roof on.



For more information please contact
Chairman, The Friends of White Otter Castle Inc.
PO Box 2096 Atikokan, ON Canada P0T 1C0

CAM/GIS Interest Group

REPETITION STRUCTURES

by Ron Eastman

In the last installment of our short course in Pascal we looked at control structures — methods by which we can change the flow of program operation from something other that a simple sequential processing of instructions. We looked by unconditional branches such as procedure calls and the GOTO statement, and conditional branches such as the IF and CASE statements.

In this installment we will look at repetition structures. Repetition structures allow us to repeat a set of instructions any give number of times, or until some condition is met, or some event occurs. These are what really give computers their enormous power — the ability to do large sets of operations through simple repetition commands.

a) Repetition Structures

Let's suppose that we wish to create a simple table of the length of a degree of longitude for all latitudes between 0 and 90 degrees. One possibility would be to use the conditional branching tools we have learned as follows :

```
program deglong;

uses crt;

label loop;

const degree_in_miles = 69;

var lat : integer;
  length_deg : real;

procedure compute_long;

var lat_in_radians : real;

begin

  lat_in_radians:=lat*pi/180;
  length_deg:=cos(lat_in_radians)*degree_in_miles;

end;

begin

  clrscr;
  writeln('Length of a Degree of Longitude');
  writeln;
  writeln('Latitude':12,'Length':12);
  writeln('————————':12,'————':12);
  writeln;
  lat:=0;
  loop: compute_long;
  writeln(lat:12,length_deg:12:2);
  lat:=lat+1;
  if lat<=90 then goto loop;

end.
```

There are three components to a repetition structure and we see all of them in this example. The first is to initialize a counter that will keep track of the number of repetitions we have undertaken. Our counter here is the variable named "lat". It does double duty here since it also is used to indicate the latitude we are working on. It is initialized to 0 before the main operations are begun. Counter initializations always occur outside of the loop in which they are used.

The second component is the operation of incrementing the counter. This occurs with the line that reads "lat:=lat+1;". This literally reads "assign to lat a new value equal to the current value of lat plus 1". It is here that our counter will change in value from 0 to 90 degrees in one degree increments.

The final component is a "test and loop" conditional branch. This is the line that reads "if lat<=90 then goto loop;". It reads literally as "if the value of lat is less than or equal to 90 then goto to statement that begins with the label named loop, else go the to next statement". Remember that IF statements have an implied "else" unless you specify one in particular.

These three components provide a complete repetition structure. Our counter (lat) starts at 0. The program then computes the length of a degree of longitude for 0 degrees and prints the result. The counter (lat) is then incremented by 1 followed by a test to see whether it is less than or equal to 90. It is, so program control is now transferred to the statement that begins with the label named "loop". The program then computes the length of a degree of longitude for 1 degree and prints the result. It then increments lat again so that it now has a two. It then tests this value and branches again, and so on, and so on. Eventually, the counter will have a value of 90 and it will print out the length of a degree at 90 degrees latitude and will increment the counter to be 91. At this point, the test "fails" since 91 is not "less than or equal to" 90. As a result, the program will not branch as before, but will simply continue to the next program line, which in this case is simply the program end.

This kind of repetition structure can always be used. However, Pascal also provides some additional features that facilitate this process. The logic really isn't any different from what we've done. We are simply trying to facilitate the process of constructing a repetition structure such as in our example above.

b) REPEAT/UNTIL

The first of these built–in repetition structures is the REPEAT/ UNTIL statement pair. Compare this version of our program to the one above :

```
program deglong;

uses crt;

const degree_in_miles = 69;

var lat : integer;
  length_deg : real;

procedure compute_long;

var lat_in_radians : real;

begin

  lat_in_radians:=lat*pi/180;
  length_deg:=cos(lat_in_radians)*degree_in_miles;

end;

begin

  clrscr;
  writeln('Length of a Degree of Longitude');
  writeln;
  writeln('Latitude':12,'Length':12);
  writeln('————————':12,'————':12);
```

```
  writeln;
  lat:=0;
  repeat
    compute_long;
    writeln(lat:12,length_deg:12:2);
    lat:=lat+1;
  until lat>90;

end.
```

All that the REPEAT/UNTIL structure does is to allow us to remove the branch label and simplify the conditional test. Pascal programers prefer this kind of statement since it is very clear to read and avoids the declaration step for the label. Otherwise, it doesn't look much different from before (note with care, however, the wording of the test with the UNTIL statement).

c) WHILE/DO

A close relative to the REPEAT/UNTIL structure is the WHILE/DO pair. Let's look at the same program using the WHILE/DO :

```
program deglong;

uses crt;

const degree_in_miles = 69;

var lat : integer;
  length_deg : real;

procedure compute_long;

var lat_in_radians : real;

begin

  lat_in_radians:=lat*pi/180;
  length_deg:=cos(lat_in_radians)*degree_in_miles;

end;

begin

  clrscr;
  writeln('Length of a Degree of Longitude');
  writeln;
  writeln('Latitude':12,'Length':12);
  writeln('————':12,'————':12);
  writeln;
  lat:=0;
  while lat<=90 do
    begin
      compute_long;
      writeln(lat:12,length_deg:12:2);
      lat:=lat+1;
    end;

end.
```

The only real difference here is that the test occurs at the beginning of the repetition structure rather than at the end. In addition, note that the set of operations to be preformed is nested with a pair of BEGIN/END statements. This is common in Pascal, but is oddly missing in the REPEAT/UNTIL pair.

d) FOR/DO

Finally, let's look at the program again with what is perhaps the most important of the repetition structures, the FOR/DO pair.

```
program deglong;

uses crt;

const degree_in_miles = 69;

var lat : integer;
  length_deg : real;

procedure compute_long;

var lat_in_radians : real;

begin

  lat_in_radians:=lat*pi/180;
  length_deg:=cos(lat_in_radians)*degree_in_miles;

end;

begin

  clrscr;
  writeln('Length of a Degree of Longitude');
  writeln;
    writeln('Latitude':12,'Length':12);
  writeln('————':12,'————':12);
  writeln;
  lat:=0;
  for lat:=0 to 90 do
    begin
      compute_long;
      writeln(lat:12,length_deg:12:2);
      lat:=lat+1;
    end;

end.
```

Notice here that we now have all three parts of our repetition structure placed together into a single statement! The FOR/DO statement initializes the counter (the "lat:=0" part), increments it by 1 with each repetition automatically, and conducts the test (the "to 90" part). It is perhaps closest in structure to the WHILE/DO statement, but is clearly the simplest of all. Also, note that it is possible to have the counter start at a high value and progressively decrement itself. For example, if you wanted to print your table in reverse order, you could state "for lat:=90 downto 0 do" (note the use of "downto" rather than "to"). Finally, note that with the FOR/DO statement, the counter variable must be integer (not real).

e) Conclusion

When should you use one of these structures rather than another? There is no easy answer except to say if it seems right, use it. They all achieve the same result and just as efficiently. In most cases it will be self–evident as to which is best. However, bear in mind that whenever you can use the FOR/DO statement, do so — it is well worth it and you will you is constantly later on. Also note that the wording of the test is critical in all but the FOR/DO statement. Think through the action of the loop and you won't go wrong.

Finally, a note for BASIC and FORTRAN programmers. There is no equivalent of the "step" command in BASIC such that the counter can be incremented or decremented by a value other than 1. For this you will need to use one of the other forms such as WHILE/DO.

In the next installment we will look at the very important topic of arrays. Repetition structures give us a very powerful tool, but we will also need a much more flexible form of memory storage and addressing than we have used before. Arrays will provide this and ultimately allow us to manipulation such complex features as region boundaries and roads.

Report from the Education Interest Group Chair

The papers presented in the two education sessions at the CCA Annual Conference in Victoria were all well presented and generated much discussion. One of the issues raised was the usefulness of the NCGIA curriculum. Although many people initially attempted to use the materials as is, it was soon found that the NCGIA lecture notes best served as background materials in a course more structured around the particular instructor's areas of expertise. Of course, the revised NCGIA lecture notes may address some of the concerns—we'll have to wait until next year's conference to see what the consensus it.

Another issue raised relates to the appropriate level at which GIS should be taught—whether at the more technical level, or at the more conceptual level. While many educator's may prefer to present the material more at the conceptual level, many students (with an eye to the job market) would prefer a more practical hands–on approach to the subject. Are these two approaches two solitudes, or can a common ground be reached? Given some of the comments "overheard" at the CAG—calling GIS nothing more than 'high tech trivial pursuit'—this is a serious issue which must be addressed. You're encouraged to send in your thoughts on this issue.

There was, unfortunately, a lack of papers submitted for the student paper competition. Opportunities such as this CCA prize offer students a chance to add something special to their CVs, and faculty members are reminded that a little encouragement is often all that is necessary to get a student to submit an essay (possibly already written as a course requirement) for consideration. We hope to see more papers entered in next year's competition at Brock.

All the best, Brian Klinkenberg

NCGIA Core Curriculum Project

In July, the National Center for Geographic Information and Analysis will release the tested and revised version of the GIS core curriculum. The three volumes provide materials for a series of 75 one hour lectures, grouped into three courses, with supporting handouts, overheads and slides. The lecture text is also supplied on diskette. The lectures were compiled with the assistance of over 35 experts from the world-wide GIS community, and tested in the 1989-90 academic year at over 100 institutions. The materials are designed to be adapted into existing programs or taught as entire courses, and are suitable for use in a variety of disciplines at the upper undergraduate or beginning graduate levels.

3 volumes with diskettes and slides $200 US.

For further information contact NCGIA, University of California, Santa Barbara, CA 93106, phone (805) 961-8224, Fax (805) 961-8016 E-mail ncgia@voodoo.bitnet or ncgia@topdog.ucsb.edu.

New product from the Great Lakes Cartographic Resource Centre

The Centre has reproduced, from an original in their collection, a facsimile of Matthew Seutter's map of eastern North America [1734], the eighth in an ongoing series of reproductions of cartographic material related to the Great Lakes. This large 23" by 26" full colour reproduction (reduced copy pictured below) is priced at $10 CDN plus $2 for postage and handling.
Send requests for orders to:
Great Lakes Cartographic Resource Centre,
Map Library, Department of Geography,
University of Western Ontario, London, Canada N6A 5C2

THE CANADIAN CENTRE FOR GIS IN EDUCATION

The Canadian Centre for GIS in Education was established as a not-for-profit organization in September 1989. The goal of the Centre is to promote and facilitate GIS education and the adoption of GIS in education and research.

The Centre assists universities and colleges to establish laboratories for teaching GIS and for the use of GIS in teaching a wide variety of subject matter from environmental sciences to engineering, economics and business.

The Centre has produced a GIS Curriculum Development Toolkit based on the SPANS GIS software. Included in the toolkit are SPANS research and academic software, learning units, case studies and databases for further case study development. The GIS curricula can be customized by the teacher and the Toolkit has been designed specifically to facilitate customization. The package is currently being tested in fifteen universities worldwide and will be released in August 1990.

The software and the curriculum development toolkit have been developed for microcomputers running MS-DOS and OS/2. The UNIX/AIX version will be released late in 1990. Institutions which seek to move from MS-DOS to OS/2 or UNIX will be upgraded at a low cost if they are full participants in the Centre's network.

The Centre believes the no GIS curriculum can ever be complete and divorced from the need to revise, recast and add. For this reason. full participants have access to updates, new data sets, new developments, new and revised learning units, and new case studies on an ongoing basis.

A program of prizes and scholarships for undergraduates and graduates in user universities has been developed. In addition, research grants will be awarded to students working through the Centre on GIS thesis projects.

The Canadian Centre for GIS Education of Ottawa has announced the appointment of Dr. Robert Rogerson to the position of Executive Director.

On secondment from Alberta's University of Lethbridge, Dr. Rogerson will be responsible for directing and managing the Centre's program development.

Dr. Rogerson is Professor of Geography at the University of Lethbridge, and recently was its Dean of the Faculty of Arts and Science. Previously, Dr. Rogerson was Professor of Geography and Earth Sciences at Memorial University of Newfoundland.

Dr. Rogerson, who holds a Ph.D. in glacial geomorphology, has participated in a wide range of academic committees and published numerous articles in scientific journals. Dr. Rogerson is a fellow of the Geological Association of Canada, and a member of the Canadian Association of Geographers, the British Geomorphological Research Group and the Association of American Geographers.

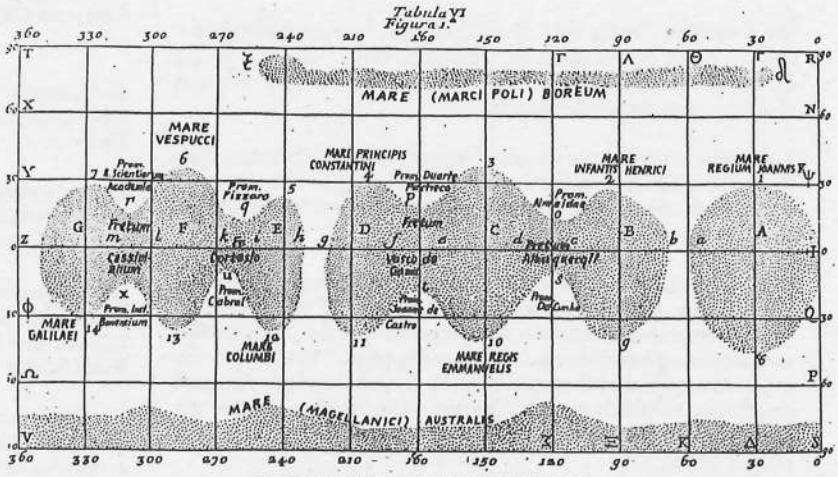
A non-profit organization, the Canadian Centre for GIS in Education facilitates the development and dissemination of materials for instruction in geographic information systems (GIS) and its practical applications. The Centre offers a GIS curriculum Development Toolkit and Teaching Program which consist of academic teaching and research GIS software, a set of learning units, and real-world case studies and databases.

NEW PRODUCTS FROM THE CCA

"MAPPING THE PLANETS"

by P.J.Stooke and C.P.Keller

A new slide set, "Mapping the Planets", is now available from the CCA. In 40 slides and an explanatory booklet it gives an overview of the history and current status of efforts to map the Moon and planets. The booklet contains background information on astronomy and space exploration and a set of captions for the slides. The emphasis is on relatively recent cartographic work, undertaken in support of the solar system exploration programmes of the United States and the Soviet Union. A few maps drawn before the space age are included to give historical perspective. Information on obtaining copies of the maps themselves is included. The set was prepared by Philip Stooke of the University of Western Ontario and Peter Keller of the University of Victoria. Price: $50.00 (including postage and handling)

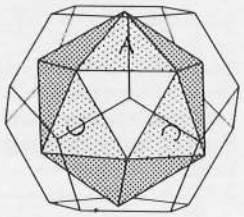


BIANCHINIS VENUSNOMENKLATUR
(F. Bianchini, Hesperi et Phosphori nova phaenomena, Rom 1728)

CANADIAN CARTOGRAPHIC ASSOCIATION

CARTOGRAPHERS *'RULE'* THE WORLD

ASSOCIATION CANADIENNE DE CARTOGRAPHIE



"CARTOGRAPHERS 'RULE' THE WORLD"

Bumper sticker
In blue lettering, Price $3 each, 2 for $5, 5 for $10.

Order both above items ("Mapping the Planets" and bumper sticker) from:
Roger Wheate (CCA/ACC),
Geography Department,
University of Calgary
Calgary, Alberta T2N 1N4

"LAST CHANCE FOR CARTOGRAPHICA BACK-ORDERS"

University of Toronto Press will be shredding their back stock of old issues of Cartographica and the Canadian Cartographer this summer. If you wish back issues ($6 single issue/$12 double issue + postage), please contact the CCA manager immediately, or order from University of Toronto Press, 5201 Dufferin Street, Downsview, Ontario, M3H 5T8 (attention: Anne Marie Corrigan)

EXPLORATIONS IN THE HISTORY OF CANADIAN MAPPING A COLLECTION OF ESSAYS

Edited by/
Publié sous la direction de:
Barbara Farrell, Carleton University
Aileen Desbarats, Université d'Ottawa
Ottawa: Association of Canadian Map Libraries and Archives
1988, 274 pp. $25.00 soft cover.
Ottawa: Association des cartothèques et archives cartographiques canadiennes,
1988 274 pp. $25.00 broché.

A collection of articles that have appeared over the years in the Bulletin of the Association of Canadian Map Libraries.
Un collection d'articles en histoire de la cartographie du Canada qui on d'abord paru dans le Bulletin de l'Association des cartothèques canadiennes.

To order, please contact:
Gary McManus,
Treasurer, CCA
c/o Department of Geography,
Memorial University of Newfoundland,
St. John's Nfld. A1B 3X9 (709) 737-8996

Pour commander, veuillez contacter:
Gary McManus,
Trésorier, ACC
a/sDépartement de géographie,
Memorial University of Newfoundland,
St. John's Nfld. A1B 3X9 (709) 737-8996

Payment: Cheque payable to Canadian Cartographic Association
Visa or MasterCard (card no., expiry date and signature required)

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Visa or MasterCard (le numéro de la carte, sa date d'expiration et votre signature sont requis)

Automation Interest Group
Groupe d'Interet en Automatisation
DISK LIBRARY ORDER FORM

In the listings below, the last line of each entry lists the computer system for which the programs were written and the cost (generally $10. per disk). All MS-DOS disks are assumed to require MS-DOS 2.0 or higher. Disks listed with a "P" prefix indicate that their primary content is computer programs, those with a "D" prefix primarily contain data, while those with an "A" prefix are primarily concerned with the presentation of documented algorithms. Lower-case letters after a disk number indicate that more than one disk belongs to the set.

DISK Description

P1 ab A special enhanced version of the program set described in the Dec. 1987 issue of BYTE for programming map projections. Includes source code (Turbo Pascal version 4), executable program (complete with Metawindow driver for virtually any graphics display and a printscreen utility) and three versions of World Data Bank I (the highest resolution version includes political boundaries and consists of 90,000 points). This set is not available from BYTE listings, but only through the authors (Robert Miller and Francis Reddy) or the CCA. This two disk set is distributed in compressed format and requires disks with a capacity of 720k or more for decompression.
MS-DOS $20. (2 disks) non-members $30

P2 A single disk version of P1 that only requires 360k disks. Contains all of the same programs but only two versions of World Data Bank I — the low (6,000 points) and medium (15,000 points) resolution versions (neither with political boundaries).
MS-DOS $10. non-members $15

P3 A line generalization program contributed by Ron Eastman. The program (distributed in both Turbo Pascal 4.0 source code and as an executable file) generalizes by point selection, low-pass filtering (3 or 5 point), and tolerance band filtering (the Douglas and Peucker technique). Output consists of a new data file in generalized form. Generalization statistics are given at the end. The disk also contains a simple plotting program that allows that lines to be viewed on Hercules, CGA, EGA and VGA monitors
MS-DOS $10. non-members $15

P4 UVIC_SDT Spatial Data Translation Routines, contributed by Peter Keller and Mike Gartrell. Allows translation of data files from a. World Digitised to Atlas Graphics/ b. ARC/INFO to PAMAP/ c. Area Master File to PAMAP
$20. (2 disks) Non–members $25

P5 "Zapper" A set of line generalization routines contributed by Steve Prashker, Carleton University, generated from algorithms described in 1988 Caertographica monograph "Numerical Methods in Cartography" Comes with 6 sample base maps.
$10 members, $15 non-members NEW!!!

P6 Quickmap World SW A computerized atlas, for educational purposes contributed by Caertosoft Ltd. Devon, AB. Finds geographical locations and features, including lat/long, plus call-up fact such as po. etc.
$10 members, $15 non-members NEW!!!

D1 Two North American data sets (provincial and state boundaries) contributed by David Douglas. One is projected on a Lambert projection while the other is in the form of an area cartogram equalized for population density (the isodemographic boundaries are those of Eastman, Shields and Nelson). The pair of data sets provides an excellent base for choropleth mapping.
$10 non-members $15

D2 Micro-World Data Bank II level 3. Contains over 26,000 points and describes coastlines, political boundaries, islands, rivers and lakes.
MS-DOS $35 (for disk set) non-members $45

D3 abcd A four disk set of raster GIS layers for Kenya produced by the FAO. Includes district codes, thermal zones, length of the growing period, rainfall pattern, dominant and secondary physiological and geological mapping units, forests, irrigation and cash crop zones, tsetse counts national parks, game reserves and population density. Also includes a module contributed by Ron Eastman to download the data into the IDRISI GIS system. However, the data are stored in ASCII format and can be loaded into any system with a little bit of programming. An excellent teaching set!
MS-DOS $30 (a four disk special) non-members $45

D4 A set of raster GIS layers for Kootenay Park, B.C., produced by Alan Masters. Includes elevation, ecological land classification, elk habitat, forest classification, stand origin, prescribed wildfire units. A Canadian teaching set!
$20 (2 disks) Non–members $25

Prices in Canadian dollars

send orders to :
Roger Wheate/ Canadian Cartographic Association
Department of Geography
University of Calgary
Calgary, Alberta T2N 1N4

Number of disks refers to 360Kb.

Name: _____ Institution: _____
Address: _____ _____
_____
City: _____ Prov./State: _____
Postal Code: _____ Country: _____

Check disks required:
P1☐ P2☐ P3☐ P4☐ P5☐ P6☐
D1☐ D2☐ D3☐ D4☐

Preferred format:
○ 1. 5.25"DD
○ 2. 5.25"HD
○ 3. 3.5"DD
○ 4. 3.5"HD

Total:$ _____

Make cheques payable to the Canadian Cartographic Association.

GIS AND PRAIRIE AGRICULTURE

A conference on the Application of Geographic Information Systems to the Management of Agricultural Land was held on April 11 and 12 at the University of Regina. Hosted by the Department of Geography of the University of Regina, the conference brought together a diverse collection of managers, researchers, technicians, and field staff involved in agricultural resources throughout the Prairie region.

The first day of the meetings consisted of paper sessions on research, implementation and operational use of GIS in the agricultural sector. Perhaps the most important observation of the day was put forward by Dave Sauchyn, one of the organizers. He noted that agriculture has been slow to adopt the use of computerized geographical information systems and that there is much work to be done. Applications such as soil mapping, crop insurance, climatic change, waste management, etc. were discussed in the various presented papers.

Day two of the conference started with breakfast at the faculty club and an address by Bruce MacDonald of the Land Resource Research Centre of Agriculture Canada. His topic was the Canada Soil Information System (CANSIS). The next item on the agenda was a "live" demonstration of the ARC/INFO system used by the Department of Geography. The Electronic Learning Centre of the University of Regina is equipped with 25 microcomputers and provided an excellent location for this "hands–on" session. The department also makes use of SPANS and TerraSoft software. The conference concluded with three workshops. These were entitled:"Implementation, Management and Training", Research, Development and Education", and "Spatial Modelling".

In general, the conference was very well organized and the 100 or more people in attendance were enthusiastic about future meetings of this nature. It would appear that smaller conferences like this one dealing with a specific field of study may become more common for GIS meetings

Malcolm Brown

MANITOBA GIS SEMINAR

.ESRI Canada and the Geography Department of the University of Manitoba were the sponsors of a one day GIS Seminar held on May 10, 1990 in Winnipeg.

The program was divided into two parts. The morning session consisted of five papers related to GIS applications. Speakers included Dr. S. Hathout of the University of Winnipeg, Clark Beattie of Linnet Graphics International, Dave D'Andrea of the Winnipeg Police Department, Barry Hall of the Manitoba Department of Justice and Chris Kirby of the University of Manitoba.

The entire afternoon session was presented by Alex Miller, the president of ESRI Canada, who dealt with the topic of the basic principles of geographic information systems. An elaborate demonstration of ARC/INFO software was also part of the afternoon program.

This was the third year that the Geography Department of the University of Manitoba has hosted such an event and if the number of registrants is an indication of success, this was the most successful with over 110 people in attendance.

Malcolm Brown
Marci Faurer

CANADIAN NATIONAL COMMITTEE FOR ICA MEETS IN MONTREAL

The Canadian National Committee of the International Cartographic Association (ICA) met on January 26, 1990 on the campus of McGill University in Montreal. Hosted by the Department of Geography at McGill with arrangements made by Professor R. Norman Drummond, the Committee discussed the various activities underway in preparation for the 15th International Cartographic Conference and the 9th General Assembly of the ICA in Bournemouth, England, 23 September to 1 October, 1991. The Canadian National Committee is composed of representatives from the major cartographic organizations in Canada, including the Canadian Institute for Surveying and Mapping (CISM) represented by Professor Clifford H. Wood, the Canadian Cartographic Association (CCA) represented by Professor R. Norman Drummond, the Ontario Institute for Chartered Cartographers (OICC) represented by Mrs. Claire Gosson, Carto–Quebec (C–Q) represented by Professor Jean Carriere, Pacific Institute of Cartographers Society (PICS) represented by Professor C. Peter Keller, and the Association of Canadian Map Libraries and Archives (ACMLA) represented by Mr. Lou M. Sebert. Pictured in the photo from left to right are: Professor R. Norman Drummond (CCA), Chair of the Map and Atlas Display Sub–committee (who also points to the site of the next ICA meeting in England), Professor Clifford H. Wood (CISM), Chair of the Canadian National Committee and Chair of the Canadian National Report Sub–committee, Mr. John Thompson (OICC), Professor C. Peter Keller (PICS), and Professor Jean Carriere (C–Q) Chair of the Technical Papers Sub–committee. Missing from the photo was Mrs. Alberta Auringer Wood (ACMLA), who was the photographer!

BRIEF THOUGHTS ON MAPS

Albert Szent–Gyorgyi, who knew a lot about maps according to which life is on its way somewhere or other, told us this story from the war due to which history is on its way somewhere or other:

The young lieutenant of a small Hungarian detachment in the Alps send a reconnaissance unit out into the icy wasteland. It began to snow immediately, snowed for two days and the unit did not return. The lieutenant suffered: he had dispatched his own people to death.

But the third day the unit came back. Where had they been? How had they made their way? Yes, they said, we considered ourselves lost and waited for the end. And then one of us found a map in his pocket. That calmed us down. We pitched camp, lasted out the snowstorm and then with the map we discovered our bearings. And here we are.

The lieutenant borrowed this remarkable map and had a good look at it. It was not a map of the Alps but of the Pyrenees.

Goodbye now.

Miroslav Holub

FROM: A Geological Miscellany,
G. Craig and E. Jones, Princeton, 1982

NEW REMOTE SENSING IMAGE ANALYSIS SOFTWARE

Toronto, Ontario, June 11, 1990 — A powerful new and unique software package for analyzing remote sensing data has been released. DIRIGO, the name of the software, is the first of its kind designed to run exclusively on the Apple Macintosh II computer.

DIRIGO is a sophisticated, yet easy–to–learn multispectral image analysis system. It is available to natural resource managers in government, universities, consulting firms, and other institutions around the world. DIRIGO's affordability makes remote sensing software more readily available, which will be particularly welcome to educational institutions involved in this field. Students will be able to significantly enhance their studies in remote sensing by using DIRIGO.

DIRIGO operates on a Macintosh II computer; its "user–friendly" interface makes the learning process extremely simple. Users can concentrate on the fundamentals of image analysis rather than having to lose time learning the mechanics of a computer.

DIRIGO was developed by the Department of Surveying Engineering of the University of Maine, U.S.A.. It is distributed worldwide exclusively by PCI Inc. of Toronto, Canada.

For more information, please contact:

Hilda van Walraven
PCI Inc.
50 West Wilmot Street
Richmond Hill, Ontariot
Canada L4B 1M5

phone: (416) 764–0614
fax: (416) 764–9604
telex: 06–964–516

Some Ideas on GIS Design

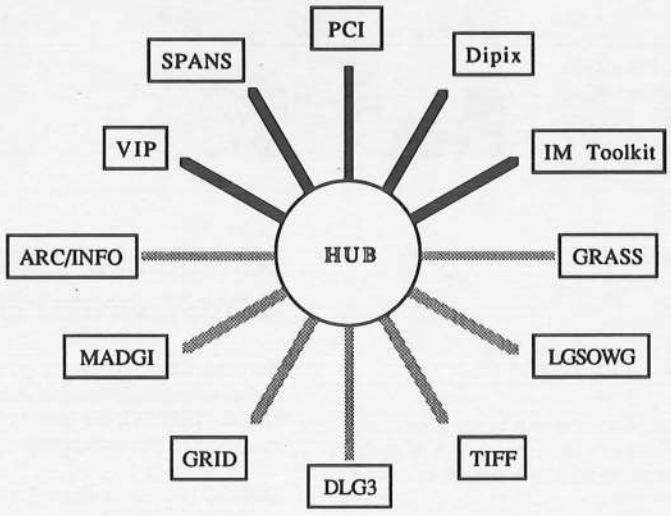
Joseph M. Piwowar
Earth Observations Laboratory
Department of Geography
University of Waterloo
Waterloo, Ontario N2L 3G1

Over the past few years, we have seen a proliferation of geographic information systems (GIS), with each new release building upon the past. In spite of the increased competition among system developers, users quickly realize that each individual GIS can still be improved upon. In fact, many users of spatial data are now beginning to routinely employ a number of different GIS in a single project to take advantage of processing capabilities that some systems have and others do not.

In practice, this sharing of spatial data processing among several different systems is difficult for two major reasons. First, there are natural incompatibilities in the techniques used to model our spatial environment. This is essentially the vector vs. raster issue and reduces to the simple fact that the integration of data stored in these formats can be tedious and error–prone. Secondly, data sharing has also been hindered by incompatibilities imposed by the analysis systems we use. Different systems generally make use of different data formats and different computer architectures. Consequently, spatial databases are usually incompatible from one system to another. Unfortunately, most system developers take an egocentric view of the world and provide many more facilities for importing spatial data from other formats than facilities for exporting data.

The net result of these data sharing problems is that even though users may wish to access a variety of analysis systems, it is unnecessarily difficult, or impossible, to move their data sets between them. This is unfortunate because users of GIS should be free to devote all of their time to analyzing their data: they should not be concerned with manipulating the format of their data sets to get them into some prescribed order.

Over the past few years, we have been trying to find ways to make the sharing of data between systems more transparent (Piwowar and LeDrew, 1989; Piwowar, Joyce and LeDrew, 1990a; Piwowar, Joyce and LeDrew, 1990b). We have developed a prototype data conversion program which allows us to exchange image data between several image processing systems. We suggest that the unique approach in this program's design can be put into place in the data stream of any GIS to enable the system to access many different databases.



Schematically, this system resembles the hub of a spoked wheel (Figure 1). Converting data from one system to another is accomplished in two steps: data are exported at the source of the hub, extracting all available ancillary information; the image is then imported at the destination, compiling the required ancillary data from what is available. Adding another system into the scheme requires writing only one more program to read and write from/to the intermediate data format.

While our design performs the same role as many of the conversion programs found attached to existing systems, it differs from these in two important ways. First, it is designed to be internal to the processing system; not part of a data exchange module.

This means that its functions would not be controlled by the user, but by the system itself as it assembled the necessary data to satisfy an analysis request. Secondly, it would not need to create new files: data which are converted would be immediately passed into the analysis procedure, as if they originated in the system's own database.

The second point is achieved through a programming technique called task–to–task communication or piping. Most image processing programs are non–piping: they read their data from disk, process them, and write the results back out to a new file. If a second program is to be run sequentially after the first, it has to wait until the first procedure has completed before it can start reading in the image data to be processed. In a piped operation, the first program sends its data to an internal buffer. A second program can then read the information directly from the buffer just as soon as it is created; the program does not have to wait until the entire data file is created.

This technique is best demonstrated by an example. Suppose you have a Tydac SPANS (@ Tydac Technologies Inc.) map that you would like to display on a SUN workstation using the IM Toolkit (@ University of Waterloo Computer Graphics Lab) display program for the sun, imsunw. This is easily accomplished by a single command string:

spanscon –e < elev.rnh / imcon –i / imsunw

This command instructs the system to take the file elev and export it from SPANS format (spanscon –e), import this data directly into IM Raster format (imcon –i), and display the result on the SUN monitor (imsunw). The facilitator in this command string is the UNIX pipe function (indicated by /). No new files are created as a result of executing this command.

Initial tests using a prototype system we have developed at the Earth Observations Lab indicate that this type of in–line integration does not significantly impede execution times. We have seen times increase by only 1–2 seconds for the display of a 512 x 512 image by using this technique. Some operations, such as spatial filtering, which must access several lines of an image at once are impacted more heavily. We feel that the increased utility of transparent access to multiple databases without creating intermediate files offsets any time delays.

What is significant about this system is that we were able to directly access files stored in one GIS database from a completely different system. If this command was built in to the data access stream of a GIS, then this type of data sharing would become totally transparent to the user. We challenge GIS designers to incorporate such an integration strategy into their systems.

LITERATURE CITED

Piwowar, Joseph M. and Ellsworth F. LeDrew, 1989. "Selected Issues in Spatial Data Integration", Proceedings: National Conference Challenge for the 1990s Geographic Information Systems, Ottawa, ON. Ottawa: Can. Inst. Surveying and Mapping. pp. 668–677.

Piwowar, Joseph M., Stephen P. Joyce, and Ellsworth F. LeDrew, 1990a. "Designing Multi–Format Spatial Databases", Proceedings: National Conference GIS for the 1990s, Ottawa, ON. Ottawa: Can. Inst. Surveying and Mapping, (in press).

Piwowar, Joseph M., Stephen P. Joyce, and Ellsworth F. LeDrew, 1990b. "Beyond File Conversion: Direct Data Sharing Between Systems", Proceedings: 13th Canadian Symposium on Remote Sensing, July 1990, Fredericton. Ottawa: Canadian Aeronautics and Space Institute, (in press).

RECENT VIDEOTAPES RELATED TO GIS AND CARTOGRAPHY

Mark MacLennan
Department of Geography
State University of New York at Buffalo

Recent years have seen videotapes become an increasingly popular medium for disseminating information, particularly when graphical or visual communication is considered important. The use of videotapes for instructional purposes is quite common. Presentations concerning geographic information systems and map-making would seem to be well suited to this particular medium and in fact quite a number of videos on the topic are now available. The following list is a compilation of many of these videotapes. They represent a variety of international and disciplinary perspectives. Not unexpectedly, the majority are concerned with various aspects of GIS. Nonetheless, the primary graphical output from a GIS is a map of some sort and they are quite prominent in all of these videos although to varying degrees of effectiveness.

An especially exciting potential of the video medium is the ability to incorporate the time dimension with spatial information by using animated sequences. The three videotapes listed under the category of "Visualization" well illustrate this capability using satellite data. Undoubtedly there will be many more applications and videos of mapping dynamic spatial phenomena in the future.

All of the videos listed here are available in VHS 1/2 inch NTSC (North American) format unless otherwise indicated. Similarly, the prices are in U.S. dollars unless noted otherwise. These prices do not include the cost of postage. Although this list is based on the most current and complete information available (as of May 1990), the various sources listed should be contacted as to the availability of their videotapes and current pricing.

GEOGRAPHIC INFORMATION SYSTEMS

TITLE: Community Benefit of Digital Spatial Information
FORMAT: VHS or BETA (NTSC or PAL)
LENGTH: 18 minutes
COST: $100
SOURCE: Joint Nordic Project
VIAK A/S Bendiksklev 2 – Postboks 14
N-4801 Arendal, Norway
(telephone 47-41-25-014)
SUBJECT: This video focuses upon various economic and social benefits of using digital map data. A wide variety of applications in Scandinavia are used to illustrate this theme.

TITLE: The New World of Geographic Information Systems
FORMAT: VHS
LENGTH: 45 minutes
DATE: 1988
COST: $50 ACSM member / $90 non-members
SOURCE: American Congress on Surveying and Mapping (ACSM)
5410 Grosvenor Lane
Bethesda, Maryland 20814
(telephone 301-493-0200)
SUBJECT: This lengthy video is intended as an introduction to and demonstration of GIS capabilities. A wide variety of issues are raised through a combination of case-studies, vendor demonstrations and interviews. The latter features were filmed at the November 1987 GIS Meeting in San Francisco.

TITLE: GIS Today
FORMAT: VHS (NTSC or PAL)
LENGTH: 30 minutes
DATE: 1989
COST: $50 ACSM member ($90 nonmember)
SOURCE: American Society for Photogrammetry and Remote Sensing
5410 Grosvenor Lane, Suite 210
Bethesda, Maryland 20814
(telephone 301-493-0290)
SUBJECT: This video covers a number of current topics in GIS such as training requirements, expert systems and local government adoption of GIS/LIS. It features interviews and demonstrations from the 1988 GIS/LIS Conference in San Antonio, Texas.

TITLE: GIS and the National Park Service
FORMAT: VHS or BETA
LENGTH: 25 min
DATE: 1987
COST: No Charge for Borrowing
SOURCE: National Park Service
Geographic Information Systems
Denver Service Center
P.O. Box 25287
Denver, Colorado 80225-0287
(telephone 303-236-7939)
SUBJECT: Applications and benefits of using a GIS for National Park planning and management are discussed in this video using a combination of case studies and interviews. Basic GIS concepts and functions are also explained.

TITLE: The GRASS Story
FORMAT: VHS
LENGTH: 16 minutes
COST: No Charge for Borrowing
SOURCE: Institute for Technology Development
Space Remote Sensing Center
Building 1103, Suite 118
John C. Stennis Space Center, Mississippi 39529
(telephone 601-688-2509)
SUBJECT: The U.S. Army Corps of Engineers Construction Engineering Research Laboratory produced this video to explain basic concepts and potential applications of GIS to land managers at Army installations. Although oriented towards the GRASS GIS, the presentation of GIS topics is fairly generic.

TITLE: Intelligent Infrastructure – The Movie
FORMAT: VHS
LENGTH: 20 minutes
COST: $79.95 ($99.95 with a companion 64-page workbook)
SOURCE: A-E-C Automation Newsletter
462 Via del Norte
Oceanside, California 92054-1233
(telephone 619-433-8189)
SUBJECT: This video examines how GIS technology can be used for managing a country's infrastructure and natural resources.

TITLE: Indianapolis Mapping & Geographic Infrastructure System (IMAGIS)
FORMAT: VHS (PAL format available upon request)
COST: $24
SOURCE: Utility Graphics Consultants
6200 South Syracuse Way, Suite 222
Englewood, Colorado 80111
(telephone 303-773-6166)

also available from:

A-E-C Automation Newsletter
462 Via del Norte
Oceanside, California 92054-1233
(telephone 619-433-8189)

SUBJECT: This video describes the multi-organizational IMAGIS GIS project in Marien County, Indiana.

TITLE: CAGIS: The Cincinnati Story
FORMAT: VHS
COST: $24
SOURCE: A–E–C Automation Newsletter
462 Via del Norte
Oceanside, California 92054–1233
(telephone 619–433–8189)
SUBJECT: This video discusses the CAGIS GIS project in Cincinnati, Ohio.

TITLE: Handling Geographical Information
FORMAT: VHS (PAL)
LENGTH: 16 minutes
COST: No Charge for Borrowing
SOURCE: The Barry Wiles Film and Video Library
London Road Trading Estate
Sittingbourne, Kent ME10 1NQ U.K.
(telephone 0795–25816)

also available from:
Information Branch
Ordnance Survey
Ramsey Road
Maybush, Southhampton S09 4DH U.K.

SUBJECT: The benefits of using a GIS are highlighted by focusing upon eight different applications in the United Kingdom. The emphasis is on case studies in both the private and public sector rather than on discussing basic GIS concepts.

TITLE: Modern Mapping
FORMAT: VHS
LENGTH: 7 minutes
SOURCE: Communications, Dept. of Energy, Mines and Resources
580 Booth Street
Ottawa, Ontario CANADA K1A 0E4
SUBJECT: This video was produced by the Surveys, Mapping and Remote Sensing Division of EMR to promote the use of GIS. It is available in both English and French.

TITLE: Inland Waters, Coastal and Ocean Information Network (ICOIN)
FORMAT: VHS
LENGTH: 12 minutes
SOURCE: Director, Planning and Development
Canadian Hydrographic Service
615 Booth Street
Ottawa, Ontario CANADA K1A 0E6

GIS – VENDOR's PRODUCTS

TITLE: GIS ARC/INFO – The Total Geographic Information System
LENGTH: 11 minutes
DATE: 1988
TITLE: Five Parts of a GIS
DATE: 1990

TITLE: Integration with ARC/INFO
FORMAT: VHS
DATE: 1990
COST: $10 each
SOURCE: Environmental Systems Research Institute Inc.
Attn: Video Sales
380 New York Street
Redlands, California 92373
SUBJECT: ESRI has produced a series of videos covering different aspects of using GIS technology. The first video is an introduction to GIS and is illustrated with a number of ARC/INFO applications. The second video discusses how a successful GIS is assembled and the last video listed focuses upon the integration of different data sources and information technologies.

TITLE: Project ORPHEUS
FORMAT: VHS
SOURCE: Prime Computer, Inc.
Prime Telemarketing
Prime Park, MS 15–74
Natick, Massachusetts 01760
SUBJECT: Describes the activities of Project ORPHEUS, a project sponsored by PRIME which examined the effects of locating a research and development facility in Illinois. A variety of GIS, CAD, remote sensing, civil engineering and surface modeling software were used in the project.

TITLE: Mapping the Future with ULTRIX
FORMAT: VHS
LENGTH: 10 minutes
DATE: 1987
SOURCE: GeoVision Corporation
1600 Carling Avenue, Suite 350
Ottawa, Canada K1Z 8R7
SUBJECT: This video tape promotes computer–mapping applications using the ULTRIX operating system as endorsed by GeoVision.

TITLE: GEOMAX 1 and GEOMAX 2
FORMAT: VHS
LENGTH: 37 minutes
DATE: 1987, 1988
SOURCE: Geo–Facilities Planning and Information Research Center
Department of Urban and Regional Planning
College of Architecture
University of Florida
Gainesville, Florida 32611
SUBJECT: The GEOMAX GIS project jointly sponsored by utilities and government agencies in Alachua County, Florida is described.

LAND INFORMATION SYSTEMS

TITLE Land Records Modernization: Issues, Applications, and Recommendations
FORMAT: VHS
COST: $35
SOURCE: Bureau of Audio Visual Instruction (BAVI)
University of Wisconsin Extension
P.O. Box 2093
Madison, Wisconsin 53701
(telephone 608–262–3902)
SUBJECT: This video discusses land records and their modernization. Ten basic questions concerning this topic are addressed using a section of land in Dane County, Wisconsin as an example. A written script accompanies the video and includes additional illustrations and references.

TITLE: LRIS: A Network of Opportunities
FORMAT: VHS
LENGTH: 29 minutes
COST: $25 CDN
SOURCE: MAPS ALBERTA
Alberta Forestry, Lands & Wildlife
2nd Floor, Petroleum Plaza North
9945–108 Street
Edmonton, Alberta T5K 2G6 (telephone 403–427–3520)
SUBJECT: This video discusses the province of Alberta land information system.

TITLE: Down to Earth
FORMAT: VHS
COST: $50.00 AUS
SOURCE: NSW Film and Television Office
Government Documentary Division
Box 1744 G.P.O.
Sydney, N.S.W. 2001 Australia
(telephone 02–281–8710)
SUBJECT: The Australian Land Information Council commissioned this video which describes the development and applications of the New South Wales Land Information System. The basis of land information systems and issues related to maintaining land records are discussed.

TITLE: Ontario: Progress Through Technology
FORMAT: VHS
LENGTH: 26 min
COST: No Charge for Borrowing
SOURCE: Geographical Information Services
Surveys, Mapping and Remote Sensing Branch
Ministry of Natural Resources
90 Sheppard Avenue East
North York, Ontario M2N 3A1
(telephone 416–733–5086)
SUBJECT: A description of the history and evolution of land–based information resources in the Province of Ontario is presented in a series of four individual videotape segments. Current developments in geo–referenced information systems are examined in the last two segments.

MAP MAKING

TITLE: Maps: From Quill to Computer
FORMAT: VHS
LENGTH: 26 minutes
COST: $280 for purchase, $45 rental cost
SOURCE: New Dimension Media, Inc.
85895 Lorane Highway
Eugene, Oregon 97405
(telephone 800–288–4456 or 503–484–7125)
In Canada:
Canadian Learning Company
2229 Kingston Road, Suite 203
Scarborough, Ontario M1N 1T8
(telephone 416–265–3333)
SUBJECT: A documentary produced for the Canadian Broadcasting Corporation's television series THE NATURE OF THINGS which traces the major technological advances that have changed map–making through the centuries to the present.

TITLE: Mapping in the Fourth Dimension
FORMAT: VHS
LENGTH: 10 minutes
DATE: 1986
SOURCE: Analytical Surveys, Inc.
1935 Jamboree Drive, Suite 100
Colorado, Colorado 80920
(telephone 719–593–0093)
SUBJECT: This video presents a brief history of mapping and photogrammetry to the current state of computer–based technology. The involvement of Analytical Surveys in this evolution of technology and services is also described.

TITLE: National Atlas Information Service
FORMAT: VHS
SOURCE: Director, Geographical Services Division
Canada Centre for Mapping
615 Booth Street
Ottawa, Ontario CANADA K1A 0E9
SUBJECT: This video outlines the new National Atlas Information Service available through the Geographical Services Division.

SURVEYING

TITLE: A Matter of Degrees
FORMAT: VHS or Beta
LENGTH: 28 minutes
DATE: 1986
COST: $75 ACSM member/$100 nonmember
SOURCE: American Congress of Surveying and Mapping (ACSM)
5410 Grosvenor Lane
Bethesda, Maryland 20814 (telephone 301–493–0200)
SUBJECT: This video is an introduction to the modern field of surveying. After touching upon the history, development and future of surveying and information science, it illustrates the development of a raw parcel of land to become the site of shopping centers and housing.

VISUALIZATION (ANIMATION)

TITLE: Digital Landscapes ... A View from Space
FORMAT: VHS or Beta
LENGTH: 24 minutes
COST: $19.95
SOURCE: Video Publishing Group, Inc.
5055 NW 159th Street
Miami, Florida 33014
(telephone 305–621–7283)
SUBJECT: This video was created at NASA's Jet Propulsion Laboratory and consists of four animated sequences of the surfaces of the Earth, Mars, Miranda and the Los Angeles basin. These three–dimensional perspectives were produced using satellite and spacecraft imagery.

TITLE: Northern Great Plains Video
FORMAT: VHS
LENGTH: 6 minutes
DATE: 1990
COST: No Charge – Provide a Blank Video
SOURCE: EROS Data Center, Attn: Jeff Eidenshink
Sioux Falls, South Dakota 57198
(telephone 605–594–6028)
SUBJECT: Using AVHRR satellite data, this video depicts an animated sequence of greenness change over a growing season in the northern Great Plains. The effects of drought and land cover change are discussed and illustrated.

TITLE: Animated Atlas of TOMS Ozone Data, 1978–1988
FORMAT: VHS
LENGTH: 40 minutes
DATE: 1989
COST: $20.00
SOURCE: National Space Science Data Center
Request Coordination Office
NASA/GSFC/Code 633.4
Greenbelt, Maryland 20771
(telephone 301–286–4952)

Requests from outside the United States may need to contact:
World Data Center A for Rockets and Satellites/
Code 630.2
Goddard Space Flight Center
Greenbelt, Maryland 20771
(telephone 301–286–6695)
SUBJECT: This video consists of several segments each being a time–lapse atlas consisting of images from the Total Ozone Mapping Spectrometer (TOMS) on NASA's NIMBUS–7 weather satellite. The video was originally produced as a browsing tool for the TOMS digital database but as well illustrates global atmospheric physics and dynamic climatological features.

IDRISI Goes Global !!

We are proud to announce the sale of IDRISI number 1500 during June 1990, with sites in over 40 countries world wide. Since its introduction in 1987 sales have consistently doubled each year. In that time we have gone through three major version changes, and several interim updates. If you haven't seen IDRISI for a while, you may not have seen the new things we can do. Version 3.2 is due out September 1, 1990, augmenting the existing set of modules with extensive Image Processing capabilities, extending the function of many other modules and increasing the number of packages available for data transfer. See our ad this issue for ordering info.

UNITAR uses IDRISI for GIS training

Clark and UNITAR (United Nations Institute for Training and Research) have entered a cooperative relationship for the provision of training in GIS. UNITAR has a program in GIS technology transfer and provides the training associated with the GRID (Global Resources Information Database) nodes being established by UNEP (United Nations Environmental Programme). GRID currently has three operational nodes — Nairobi, Geneva and Bangkok — and IDRISI is used in all three locations for training programs. Clark has also been involved with UNITAR in helping to develop the curriculum and materials for training programs. The structure and many of the details for the current curriculum used in GRID/Nairobi was developed by IDRISI Project Director, Ron Eastman. In return, many of the enhancements incorporated into Version 3.2 are in direct response to GRID's needs. During the past year Dr. Eastman has made several trips to GRID Geneva to discuss software needs with Dr. Benhaz Zand and to GRID Nairobi and GRID Bangkok to discuss training needs and develop software. The Nairobi visit, for two months in the beginning of the year, provided time for most of the programming for Version 3.2 to be completed. One of the many positive outcomes of this relationship has been the ability to test IDRISI image processing modules against five other systems — ELAS, LAS, ERDAS, ILWIS and IAX.

NACIS ANNUAL MEETING 1990

The North American Cartographic Information Society (NACIS) will hold its tenth annual meeting at the Holiday Inn on International Drive in Orlando, Florida, October 24–27, 1990. The Society is a young, interdisciplinary organization whose goal is to promote communication, coordination, and cooperation among the producers, disseminators, curators, and users of cartographic information. The NACIS membership includes professionals from government, academic, and private organizations.

The theme of this year's meeting is "Changing Cartography in the Nineties". The program will include such topics as cartographic activities in Latin American and Canada, cartographic education, cartographic laboratories, mapping of water resources, cartography and the media, cartographic software, geological mapping, geographic information systems, navigation, atlases, and map library technology. There will be a mixture of contributed papers, keynote speakers, invited papers, panel discussions, poster displays, exhibits, workshops, and field trips. The deadline for submitting abstracts is July 15, 1990. For program and registration information contact Dr. James F. Fryman, Program Chair for NACIS X, Department of Geography, University of Northern Iowa, Cedar Falls, Iowa 50614–0406. Telephone: 319/273–6245 or 319/273–2772.

Coming Events.....

3-7 September 1990 Ottawa, Canada
Second International Symposium on Precise Positioning with the Global Positioning System
Contact: GPS
Room 508, 615 Booth St.,
Ottawa K1A 0E9
tel: (613)996-2795

17-21 September 1990 Victoria, British Columbia
ISPRS Commission VII
Mid-term Symposium,
Global and Environmental Monitoring
contact: Frank Hegyi,
President, Commission VII,
1450 Government St.,
Victoria, B.C., Canada V8W 3E7
tel: (604) 387-6722

1-4 October 1990 Washington, D.C.
International Map Collector's Society (IMCOS)
8th Annual Symposium
"Mapping America"
Contact: Eric Wolf,
6300 Waterway Dr., Falls Church, VA. 22044

24–27 October 1990 Orlando, Florida
Tenth Annual Meeting of the North American Cartographic Information Society (NACIS X)
Contact: Dr. James F. Fryman, Program Chair,
Department of Geography,
University of Northern Iowa,
Cedar Falls, Iowa 50614–0406.
Telephone: 319/273–6245 or 319/273–2772.

7-10 November 1990 Anaheim, Ca
GIS/LIS '90
Sponsored by ACSM/ASPRS, AAG, URISA & AM/FM
contact: ACSM/ASPRS
5410 Grosvenor Lane,
Bethesda, MD 20814-2122 tel: (301) 493-0200

24-29 March 1991 Baltimore Md.
ACSM/ASPRS Annual Convention
contact: ACSM/ASPRS
5410 Grosvenor Lane,
Bethesda, MD 20814-2122 tel: (301) 493-0200

23 September - 1 October 1991 Bournemouth, U.K.
15th International Conference of the ICA
Contact: (in Canada) Prof. Clifford Wood,
Department of Geography,
Memorial University of Newfoundland,
St. John's Nfld. A1B 3X9

17-19 April 1992 Vancouver, B.C.
Vancouver Conference on Exploration and Discovery
Contact: Conference Director,
Department of History, Simon Fraser University,
Burnaby, B.C. V5A 1S6

2-14 August 1992 Washingrton D.C.
17th ISPRS Congress
contact: ISPRS 1992 Congress
P.O. Box 7147,
Reston Va. 22091 tel: (703)648-5110

9-16 August 1992 Washington, D.C.
27th International Geographical Congress
Contact: Dr. Anthony de Sousa, 27th IGC,
17th and M Sts. NW,
Washington, D.C. 20036

The Annual Conference of the Canadian Cartographic Association

Le Congrès annuel de l'Association canadienne de cartographie

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May 31 - June 3, 1991 **le 31 mai - 3 juin, 1991**

INFORMATION / RENSEIGNEMENTS

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