

'98 JAN 2 PM 3:5

THE WHITE HOUSE
WASHINGTON

THE PRESIDENT HAS SEEN

1-5-98

January 2, 1998

cc J Podesta

(also think we need
a judge by judge status)

MEMORANDUM FOR THE PRESIDENT

FROM:

ANN LEWIS

SUBJECT:

COMMUNICATIONS OFFICE UPDATE

We are continuing work on our judges communications strategy, which was rolled out immediately after the Rehnquist statement and will continue through next week. We are preparing a communications package for our staff, the Senate Democratic leadership, Senator Leahy and other outreach groups that includes talking points and specific information on numbers of vacancies, lengths of time for pending nominations, and hardship examples. We are recommending that this information be disseminated through state press conferences or editorial board meetings with Senators, bar associations, law enforcement leaders and consumer groups. We are also working to get the issue covered on evening news and weekend talk shows.

I spoke with Tom Patterson about observing the State of the Union process. He is very pleased with this positive response and we are now discussing the type of schedule we suggest to meet his -- and our -- needs.

The planned release of Administration messages during the holidays was successful. Beginning before Christmas and lasting through the new year, nearly 80 positive stories were carried in the national papers and a wide range of local papers. (While this number does not include wire, television or radio coverage, every story was well covered in the wires and radio, and received some coverage on television.) The messages covered included the Administration's efforts to: increase funding for homeless grants; provide targeted expansion of Medicare benefits in the balanced budget; increase funding for food safety initiatives; and increase support for AIDS drug assistance programs.

copied
Lewis
Podesta
Bowles



THE PRESIDENT HAS SEEN

1-5-98 8:15am
Sat

MR ✓ PRESIDENT:

TWO TIME SENSITIVE ITEMS:

✓ 1) IRAQ INCIDENT - THIS IS DETAILED IN YOUR PDB SUPPLEMENT. JOE NEEDS TO BE ABLE TO TELL THE PRESS THAT YOU WERE INFORMED IN A TIMELY FASHION AND HOW YOU WERE INFORMED. WOULD YOU PLEASE HAVE SOMEONE (DAVID) CALL ME AND LET ME KNOW YOU ARE INFORMED.

✓ 2) SS/RETIREMENT MEMO - MY APOLOGIES IF YOU HAVE ALREADY TAKEN CARE OF THIS, BUT IF NOT ARE YOU OK W/ GENE'S MEMO? WE NEED TO START IMPLEMENTING THIS AM.

✓ OK DISAPPROVE

CALL ME IF YOU WOULD LIKE TO DISCUSS.
(OR JUST HAVE SOMEONE CALL)

THANKS - GOOD GOLFING

Smart

✓
Copied
Mathews
Bowles

THE WHITE HOUSE
WASHINGTON

THE PRESIDENT HAS SEEN
1-5-98

January 2, 1997

[Handwritten signature]

MEMORANDUM FOR THE PRESIDENT

FROM: PAUL BEGALA
RE: WEEKLY REPORT

As you know, I'm not a big memo writer, but I thought I'd give you a look ahead at the strategy and message behind the Monday budget briefing, so as to save briefing time when you return.

Strategic Context

We want to start the new year with a burst of activity on the big issues. "Action" and "Big" are the key concepts. The budget deficit, Medicare, child care and education are the specific issues that will illustrate those concepts your first week back.

You should also know that Speaker Gingrich is planning what he's billing as a major agenda-setting speech for Monday, at the Cobb County (GA) Chamber of Commerce. A copy of the Reuters story promoting the speech is attached. In short, Gingrich seems to be planning a broad, thematic agenda on the following topics: education, crime and drugs, tax reform, and "ensuring Social Security benefits are funded well beyond the start of the 21st century, when the Baby Boomer generation will retire." I don't look for him to be very specific, but we should be prepared to respond.

But more important than Gingrich's continuing (and unsuccessful) efforts at political rehabilitation, the overriding strategic goal of Monday's budget briefing is for you to claim some credit for the remarkable deficit reduction you've accomplished, and the economic growth it has brought us. It has been the condition precedent for all the country's economic success these past five years. It's important that, even as you lean into your new agenda, you stake your claim to the principles that got us here.

Message

Here are some ideas you might consider as you formulate the message you want to deliver during the press opportunity at the beginning of Monday's budget meeting:

The new deficit numbers being announced today are yet another sign of the fundamental strength of the American economy.

*Copied
Begala
Bowles*

- To put this remarkable news into perspective, think about this: in the 12 years before this Administration came to office, Washington ran up deficits totaling nearly \$2.3 Trillion. (NOTE: the exact number is \$2.27 trillion.) That's a bill of \$8,600 for every man, woman and child in America, or more than \$20,000 for every American family. [NEC is still double-checking the numbers.]
- We brought responsibility, discipline and sanity to Washington's budget for the first time in a generation. And the American people are now enjoying the strongest economy in a generation. You don't have to be an economist to see the connection.
- When we embarked on our new economic policy of reducing the deficit even while we invested in our people, there were critics who said it couldn't be done. And if we had listened to them it would never have been done.
- So now that a balanced budget is just beginning to come into view, I am more committed than ever to our new economic strategy, and I will do all I can to prevent anyone from using the surplus of the future as an excuse to return to the old, failed policies of the past. We know that discipline and targeted investments in our people got us into shape. We cannot allow any attempts to abandon that discipline just when the goal is in sight.
- It is ironic that some of the very critics who opposed nearly every effort to end these deficits now want to stake a claim to a surplus they didn't create.
- Despite the good news, we do not yet have a surplus, and we never will if we walk away from the discipline and investments that have created the conditions for a surplus.
- As this new year begins, and following through the State of the Union message, I'll be providing you with policy proposals that help prepare our Nation for the 21st Century; carrying forward the new ideas we've begun. And I welcome other proposals as well. But I will not welcome any attempts to take our country back to the old, failed policies of debt and deficit and decline.

Wednesday December 31 7:12 PM EST

Gingrich Gives Peek at Republican Agenda

MARIETTA, Ga. (Reuters) - U.S. House Speaker Newt Gingrich prepared Wednesday a policy address that he believes will become the Republican agenda for "a generation."

Gingrich, R-Ga., said he plans to introduce an agenda he called "Goals for a Generation" in an address to the Cobb County Chamber of Commerce Monday.

"The themes that I will be talking about Monday are a starting point for the Congress this year," Gingrich said. "But they are also goals for a generation as we enter the 21st century."

Gingrich declined to release details of his policy initiatives but said they would revolve around four areas of concern: education, child welfare, tax reform and preserving Social Security.

The speaker said earlier this month that a second "Contract With America," the initiative he introduced in 1994, would ensure a Republican presidential victory in 2000. He also said he would decide by Labor Day 1999 whether to pursue the office himself.

A spokesman for Gingrich said the policy speech, however, has nothing to do with political ambition.

"This is not a campaign document," said spokesman Allan Lipsett. "This is an opportunity to begin a dialogue with the American people. They are all nonpartisan ideas."

Lipsett said Gingrich would discuss ways of improving education, how to protect children from drugs and violence, a plan for a fair and simpler tax system and ideas for ensuring Social Security benefits are funded well beyond the start of the 21st century, when the Baby Boomer generation will retire.

Gingrich has said previously he wants to see the level of all taxes paid by Americans -- local, state and federal -- at no more than 25 percent of their annual income. He has also said an all-out battle against illegal drugs would be a major congressional initiative in 1998.

Gingrich often uses speeches to Georgia groups as a platform for introducing ideas he plans to pursue in Washington, which is what he did in 1994 when he unveiled his "Contract With America" at a luncheon sponsored by the state Republican Party.

1-5-98

*Podesta
We had a strategy
that involved
warning about further*

*Copied
Podesta
Bowles*

Partisan Sniping on Judicial Vacancies Gets Louder

Democrats Talk of 'Constitutional Crisis' While Republicans Assert Clinton Is to Blame

By David S. Broder
Washington Post Staff Writer

Partisan finger-pointing over blame for the rising number of judicial vacancies became more shrill yesterday, with Senate Democrats warning of a "constitutional crisis" and Republicans asserting that the responsibility lies with President Clinton and the judges themselves.

The latest battle, which broke the usual holiday truce, was triggered by Chief Justice William H. Rehnquist's chiding the Senate for tardiness in his annual "State of the Judiciary" statement issued on New Year's Day.

Democrats, who have been complaining since 1996 that the Republican majority is unfairly holding Clinton judicial appointees hostage, pounced on Rehnquist's words as proof of their charges. Sen. Joseph R. Biden Jr. (D-Del.), a former chairman of the Senate Judiciary Committee, said yesterday he was "stunned" that Rehnquist, an appointee of President Richard M. Nixon and a political conservative, had added his influential voice to their chorus of criticism.

Rehnquist warned that, with nearly one of every 10 judgeships open, "vacancies cannot remain at such high levels indefinitely without eroding the quality of justice that traditionally has been associated with the federal judiciary." This is not a new concern for the chief justice, who has warned before of the consequences of the vacancies problem, saying "no issue [is] more important to the judiciary."

Sen. Patrick J. Leahy (D-Vt.), ranking minority member on Judiciary Committee, said the current figures cited by Rehnquist were "pretty frightening" and said, "If this continues, it becomes a constitutional crisis."

But Judiciary Chairman Orrin G. Hatch (R-Utah) responded in an interview that Clinton has submitted names for barely half the current vacancies—42 of 82. "The president needs to do a better job," Hatch said. "And we need help from the judiciary. Every time we see another example of judicial activism, it makes my job harder. It increases the number [of senators] who want to scrutinize the next appointee even more closely."

The battle over the judiciary has been building steadily since the 1996 presidential campaign, when Republican nominee Robert J. Dole accused Clinton of stacking the third branch of government with "activists" eager to pursue their own liberal agenda.

Several academic studies, however, have characterized the Clinton appointees as less liberal in judicial philosophy than those of President Jimmy Carter and more like those of Carter's Republican predecessor, President Gerald R. Ford.

Hatch yesterday cited Clinton's two Supreme Court appointees, Justices Ruth Bader Ginsburg and Stephen G. Breyer, as people "whose approach would give us hardly any problems." But too many others, for the appellate and district court benches, have raised alarm bells in the Senate, he said, "and not just among Republicans."

The Judiciary chairman is described by several students of the confirmation process as walking a narrow line while dealing with conflicting pressures from the administration and from more conservative members of his own caucus.

Nan Aron, president of the Alliance for Justice, a liberal group, said that some of those senators, aided by outside groups, have mounted "a well-coordinated effort that threatens the independence of the judiciary."

She said three Republicans on Judiciary, Sens. John D. Ashcroft (Mo.), Jeff Sessions (Ala.) and Jon Kyl (Ariz.), have used delaying tactics to prevent Senate votes on Clinton nominees.

Hatch insisted that the "blue slip" process by which individual senators put holds on nominees "is no different now from what it was when the Democrats were in control," a statement that Biden and Leahy disputed.

Hatch said, "In the last five years, we have put through 240 Clinton judges, almost one-third of the judiciary. In May of 1991, when President Bush was in office and Democrats controlled the Senate, there

were 148 vacancies—66 more than now—and no one was writing articles about a crisis in the judiciary."

But the Judiciary chairman conceded, "If I were chief justice, I would be keeping the pressure on too." And he confirmed that he had intervened to block "tit for tat" moves against Clinton appointees by what he termed "a handful" of Republicans.

Early this year, Hatch and Sen. Charles E. Grassley (R-Iowa), a senior member of Judiciary, stopped an effort in the Senate Republican conference to require Clinton to make half his judicial appointees from lists submitted by GOP senators.

Grassley, who heads the subcommittee that monitors the judiciary, said his own research shows "some circuits say they need more judges and others are doing fine." Delays in filling vacancies, he said, "are partly the blame of the president and partly ours."

Clinton put the responsibility squarely on the Senate's back in a radio talk last September, calling the slowdown "a very real threat to our judicial system." A White House official said last night, "We're determined to make this an issue when Congress returns."

And Democrats found a rare ally in Rehnquist, who noted, "The Senate confirmed only 17 judges in 1996 and 36 in 1997, well under the 101 judges it confirmed during 1994," the last year the Democrats were in control.

"The Senate is surely under no obligation to confirm any particular nominee, but after the necessary time for inquiry, it should vote him up or vote him down," Rehnquist said.

Hatch replied, "It has taken the president an average of 534 days to appoint a judge and the Senate 97 days to confirm. If he will give us good nominees, they will move quickly."

Staff researcher Ben White contributed to this report.

The Washington Post

SATURDAY, JANUARY 3, 1998

Warnings or Welcomes? Muslim School Plan Divides Loudoun

By David Nakamura
Washington Post Staff Writer

AT

William Groves doesn't want a big, new Muslim school in Loudoun County, fearing the Saudi government project would attract terrorists to the county. Kathryn Kern-Levine is more worried about what people will think of Loudoun when they hear that kind of talk.

"We don't want to be exposed to the possible terrorism danger of having a Muslim and Saudi target in our backyards," Groves and his wife, Annette, wrote in a letter to county planners. The couple, who live in Ashburn Village near the proposed school site, attached a list of reasons to oppose the "Saudi Arabian invasion of Ashburn," including that "bullets fired by terrorists from within the Saudi training center could reach and kill Loudoun children."

Kern-Levine, who lives in Leesburg, wants to counter what she says could be devastating publicity from the controversy. She is urging area homeowners to display the Muslim star and crescent in their windows as a sign of welcome for the school, which would teach 3,500 children in kindergarten through 12th grade.

"This is an incident that could really hurt a community," she said. "I want Muslims who move into Loudoun County not to feel scared."

The proposal to build a \$50 million school on 100 acres north of Dulles International Airport has prompted sharply divided reactions in Loudoun. The Islamic Saudi Academy, financed by the Saudi government, would replace a smaller, crowded facility now operating in Mount Vernon.

Saudi officials, who were unsuccessful in an attempt to build the school in Poolesville, hoped to have an easier time when they turned to Loudoun in November. But in mid-December, an unsigned flier appeared on some doors in the Ashburn Village subdivision, warning homeowners that the school would "bring Muslim and Arab terrorists to Loudoun" and that "thousands of Middle Eastern strangers [would be] roaming our streets while we work." Since then, Loudoun officials say, they have received several complaints about the school plan.

See SCHOOL, A13, Col. 1

SCHOOL, From A1

appeared on some doors in the Ashburn Village subdivision, warning homeowners that the school would "bring Muslim and Arab terrorists to Loudoun" and that "thousands of Middle Eastern strangers [would be] roaming our streets while we work." Since then, Loudoun officials say, they have received several complaints about the school plan.

The proposal by the Saudi government comes at a time of enormous growth and increasing diversity in Loudoun, which is adding 3,000 houses and 7,000 residents each year, mostly in eastern Loudoun, where the Islamic school would be built.

If approved by the County Board of Supervisors, the school would be the largest private Islamic academic institution in the country, Saudi rep-

resentatives said. It would resemble a small college campus, with separate buildings for elementary, middle and high schools that would be connected by enclosed walkways.

The campus would have tennis courts, a gymnasium, soccer, lacrosse and softball fields, and a three-story dormitory for 800 students. A mosque would be built at the center of the complex. In addition, a Virginia-certified curriculum, students would be taught Islamic studies and traditions.

The proposal reflects the growing Muslim community in the Washington area, which has in recent years increasingly turned to private Islamic schools as a solution to the problem of educating Muslim children in a non-Islamic culture. According to the American Muslim Council, about 200,000 Muslims live in the Washington area. Loudoun already is home to the School of Islamic and Social Sciences, a university of about 50 students in Leesburg devoted to graduate-level study of Islam and Muslim culture.

Much of the rhetoric by opponents of the proposed school has been aimed at Saudi Arabians and others from the Middle East, but Islam is a religion followed by people in many countries, not just the Arab world. The Islamic Saudi Academy's existing facility has Muslim students whose families come from 35 countries.

It is unclear how many Ashburn residents have received the fliers opposing the school or how many people share such views.

Loudoun Supervisor David G. McWatters (R-Broad Run) said he has received three calls from people who wonder "whether a foreign government was establishing a foothold in Loudoun County."

"I'm disgusted by that," McWatters said. "Based on the membership of this board, we'll only be concerned with land-use issues, not with that type of xenophobia. That's not our job." The board will hold a public hearing on the issue Jan. 28.

Matthew Claassen, a board member of Ashburn Village's homeowners association, said the fliers have sparked debate in the community.

"Much of the opinion is that it's too bad that this anti-Muslim issue has been raised, because not all of the people in the neighborhood are that way," Claassen said. "And it would be a shame if the Saudi school is turned down because of racial issues."

William Groves said in an interview that at least 100 Ashburn residents have been trying to disseminate information aimed at barring the school.

With his letter to the planning commission, Groves attached an 11-page document that he said is being circulated by others in Ashburn. It warns that the school could become a target of anti-Saudi terrorism, endangering Loudoun residents. It also urges opposition to the school on grounds that "it

will encourage prejudice against women and girls" and "will interfere in the development of American values in Ashburn's children."

Said Groves: "I don't really know who's behind it all. I just know there's a lot of people doing it. ... We have no agenda other than that and no aspirations other than trying to stop this thing."

Robert M. Gordon, a Leesburg land-use lawyer who is representing the Saudi government on the proposed project, said such fears are unfounded.

"Let's bear in mind what we're talking about here: a school for children, not a terrorist training organization," Gordon said. "The school has a favorable reputation ... at its existing location."

Susan Parrott, an Ashburn resident with three children, said talk of terrorists must stop. "We're not going to get anywhere if we don't stop the extremism and intolerance," she said.

Others said the anti-Saudi rhetoric has overshadowed more legitimate concerns about the school, such as the traffic congestion it might create. Robert Muir, president of the Ashburn Village homeowners association, said many residents are concerned that the school would not be taxed, costing the county as much as \$90,000 a year. On the flip side, the county would save money if children left the public schools and enrolled in the Islamic school.

The Saudi government's attempt to build the school in Poolesville was met with heavy resistance in part because of concerns about growth, although the ensuing debate led to charges of bigotry and cultural intolerance.

Kareema Altomare, a Muslim who lives in Leesburg, said the statements on the flier distributed in Ashburn Village are "not only unfounded but also inflammatory and false."

The school "is there to serve the educational needs, not political needs," she said. "Northern Virginia has one of the largest concentrations of Muslim citizens in the country. And most of them are American citizens. The need for a school like that is for children to learn about Arabic and so on."

Staff writer Jennifer Lenhart contributed to this report.

FOR MORE INFORMATION

To learn more about issues affecting Loudoun County, click on the above symbol on the front page of The Post's Web site at www.washingtonpost.com

THE PRESIDENT HAS SEEN

1-5-98

Rahm J. Winston
Bowles
Matthews
Be

copied
Rahm
J. Winston
Bowles
Matthews

THE PRESIDENT HAS SEEN
1-5-98

TIME OF TRANSMISSION:

TIME OF RECEIPT:

**WHITE HOUSE
SITUATION ROOM**

PRECEDENCE

CLASSIFICATION:

RELEASER:

IMMEDIATE

Unclassified

DATE/TIME:

UNCLASSIFIED

MESSAGE #:

2 PM

021841Z

SR 020

FROM:

Gene Sperling

PHONE:

Thru Signal

ROOM:

SUBJECT:

PAGES:

3

PLEASE DELIVER TO:

LOCATION	DELIVER TO	ROOM	PHONE
St. Thomas	Military Aide → ENGSKOV		
St. Thomas	Sylvia Mathews		
	MILANDE FOR POTUS		

SPECIAL DELIVERY INSTRUCTIONS/REMARKS:

copied
mathews
Sperling
Bowles

THE WHITE HOUSE
WASHINGTON

THE PRESIDENT HAS SEEN

1-5 98

January 2, 1998

MEMORANDUM FOR THE PRESIDENT

FROM: GENE SPERLING

The attached proposal reflects conversations between the Chief of Staff's office, your economic team, and key political advisers. Erskine asked that we submit this to you (through Sylvia) for guidance on whether we should implement it as written or whether you had suggested changes. You could relay your comments or questions either to Sylvia, who has been participating in the discussions, or directly to Gene.

THE PRESIDENT HAS SEEN

1-5 98

Actions for our Social Security message over the weekend
January 2, 1998

As you know, we engaged with the Republican leadership as early as our CPI discussions on the issue of a possible Social Security commission or process. Erskine has also discussed that possibility at other times with the Republican leadership. The issue before us is whether or not we should take some message actions over the weekend to ensure that our message and our leadership are not pre-empted by others' rushing out ahead of us with process proposals. On the substance of Social Security reform, we will be meeting with you next week to finalize our strategy for emphasizing that the surplus should be reserved in some way for Social Security.

A recommended proposal for this weekend is the following:

1. A story in the *Washington Post* on Sunday morning, giving some indication of our intention to take a leadership role on Social Security and to propose some form of national dialogue.
2. Bob Rubin and Frank Raines confirm the story during their appearances on the Sunday shows (Raines is appearing on *Meet the Press*, and Rubin is appearing on *Face the Nation*).
3. Welcome any process proposals put forward on Monday as ideas that could be considered within the President's plans for a bipartisan national dialogue, but stress our principles on the importance of preserving and protecting Social Security as the progressive and universal structure that has served the nation so well over the past six decades.

Message for Sunday paper and shows

1. The President is strongly committed to trying to pass long-term Social Security reform and feels that it must be done within the next two years.
2. The President and his team are actively considering a wide variety of substantive options for Social Security reform. While it would be unlikely that the President would announce a complete proposal prior to engaging in further bipartisan dialogue, he has not ruled out making a partial statement on the substance of Social Security reform in the next several weeks. [This element is designed to signal that you are not limiting your role in 1998 to process -- leaving room for the surplus statement -- without raising expectations too high.]
3. Regardless of any substantive proposal he may or may not make, the President plans to call for a major and broad national dialogue on Social Security and retirement needs. The dialogue could include a series of national fora or a bipartisan commission. The primary focus of the effort would be reforming Social Security while protecting the basic universal and progressive structure that has dramatically reduced poverty among elderly Americans. The President also plans to confer with the Republican and Democratic

leadership regarding the best process for producing a bipartisan legislative proposal.

The President's staff has already been in discussions with several major groups, which are also interested in a strong national dialogue:

- The bipartisan Congressional working group on Social Security co-chaired by Congressmen Jim Kolbe and Charles Stenholm;
- The AARP, which has asked the President to raise the profile of the conferences it plans to hold in each of the 435 congressional districts; and
- The Concord Coalition, which has asked the President to support its planned regional fora on Social Security reform.

4. In addition to this effort to produce substantial Social Security reform, the President is committed to promoting retirement security more broadly:

- The Administration plans additional, specific pension proposals as part of the State of the Union address;
- The Administration is planning to take steps to highlight the National Summit on Retirement Savings, which must be held at the White House by July 15, 1998, as mandated by the Savings Are Vital to Everyone's Retirement (SAVER) Act of 1997. The Summit, which will be presided over by leaders from both the executive and congressional branches and will include up to 200 additional participants, is intended to increase public awareness of the value of personal savings for retirement, and to facilitate the development of a broad-based, public education program to enhance personal retirement security.

Personal saving and pensions are important complements to Social Security, which is the principal leg of the retirement stool.

THE WHITE HOUSE
WASHINGTON

THE PRESIDENT HAS SEEN

1-5-97

98 JAN 2 PM 3:20

January 2, 1998

MEMORANDUM FOR THE PRESIDENT

FROM: Sylvia Mathews
Mickey Ibarra *for me*

SUBJECT: Virgin Islands/Puerto Rico Rum Tax Transfer Recommendation

CC: Fred DuVal
Janet Murguia
Jeffrey Farrow

We have agreed with OMB to recommend that the FY99 Budget propose a \$2 per gallon increase over current law in the amount of the tax on rum produced by Puerto Rico and the Virgin Islands transferred to the insular governments. An additional aspect of this proposal is that \$.50 per gallon of the Puerto Rico collections would be earmarked for Puerto Rico conservation activities as agreed by the Interior Department and the Governor of Puerto Rico.

As you know, Virgin Islands Governor Schneider and Delegate Christian-Green and Puerto Rico Governor Rossello and Resident Commissioner Romero-Barcelo had requested the transfer of the entire \$3 of the tax that current law would not transfer to their areas as of next fiscal year.

This recommendation is a reasonable compromise. It would provide the Virgin Islands with at least \$8 million a year more and Puerto Rico \$23 million a year more than current law.

If you agree and inform Governor Schneider and Delegate Christian-Green of this at the reception that they are hosting for you tomorrow night (January 3, 1998), we will inform Governor Rossello and Congressman Romero of it on your behalf.

DECISION:

☐ Approve ☐ Approve as amended ☐ Reject ☐ No action

(Mickey will call the PR's as soon as you approve so they will know at the same time.)

Actually

1) They asked that all \$3 of the rum tax be dedicated to them.

2) Current law which gives them .80/\$3.00 is expiring

3) So we will extend the .80 and add 1.20

4) Mickey describes it as a \$2.00 increase but I am not sure the VI's or PR will see it as such.

Copied
Mathews
Ibarra
Bowles

THE WHITE HOUSE
WASHINGTON

cc: Judy
Winston
Sylvia
Matthews

January 5, 1998

Anna Eleanor Roosevelt
Director
Mayor's Office of Program Development
City Hall, Room 604
121 North LaSalle Street
Chicago, Illinois 60602

Dear Anna:

Thank you for writing and for sending Robert Blackwell's good letter. I valued his comments and have forwarded a copy of the materials you sent to Judy Winston, the Executive Director of the President's Initiative on Race, for her review.

It was wonderful to see you last month, and I appreciate your words of support and all your good work. I love the idea behind your book club and hope that you'll continue holding those meetings. They really sound terrific.

Hillary joins me in sending you our best wishes for the new year. I do plan to "call on you more" and will look forward to the next opportunity to do so.

Sincerely,

Bill Clinton

Anna Eleanor Roosevelt
Director
Mayor's Office of Program
Development
City Hall, Room 604
121 North LaSalle Street
Chicago, Illinois 60602

copied
Matthews
Winston
COS



City of Chicago
Richard M. Daley, Mayor

Mayor's Office of
Program Development

Eleanor Roosevelt
Director

City Hall, Room 604
21 North LaSalle Street
Chicago, Illinois 60602
312) 744-2298
312) 744-3618 (FAX)
312) 744-3619 (TTY)
<http://www.ci.chi.il.us>

December 4, 1997

*Eleanor
Roosevelt
on July 1997
before*

The Honorable William J. Clinton
President
United States of America
The White House
1600 Pennsylvania Avenue
Washington, D.C. 20500

Dear Mr. President:

It was delightful to see you last night at Lino's. I want you to know how very grateful I am to you for your warmth and openness to my family. With all the folks vying for your attention, I am touched that when we come to you with a disability or human rights issue, an historical matter, or something else that we feel reflects my grandparents' legacy you are so personally responsive.

So, many thanks for your interest in Top Cottage at Hyde Park. It will be an important element in the portrait of Franklin and Eleanor Roosevelt.

Your pal Betsy put you on the spot a bit about "calling on me more." I promise I did not ask her to say that! However, I would like to be of service to you as you see appropriate.

In the last two days I have been impressed again with your efforts on race relations - especially with your personal comfort level with articulating the hard truths of our inner emotions on race as we act out our lives. Being "brief and blunt" is so to the point, and so hard for so many of us.

In light of that, I want to say two things. First, Avis LaVelle and I have pulled together a group of women who meet monthly in order to have a racially blunt conversation, thereby expanding our individual worlds. Our vehicle is a "book club," but it is no holds barred. And it is wonderful. So, that is our contribution to your call for a national conversation on race.

Second, I am enclosing a letter written by a man I think you would find interesting. He isn't famous. He is just a local businessman; but he is one of the wisest people I know - and bluntest! Make use of him, and folks like him. He isn't an expert on race. He's an expert on life.

My very warmest wishes for a wonderful holiday season to you and Hillary and Chelsea. I am so glad Chelsea likes Stanford. There were parts of my undergraduate experience there that I adored, and parts that I hated. Now, at fifty, I mostly remember the good parts!

Sincerely yours,

Eleanor Roosevelt

Anna Eleanor Roosevelt

10



From: "Robert Blackwell Sr." <BBLACKW@bcsinc.com>
To: CITY_HALL.BUDG06(BU00310)
Date: 12/1/97 9:19pm
Subject: Comments on Crain's Extra on Chicago's Technology 100 list

Anne, this is e-mail that I sent to Crain's. Please let me know that you have received it. Thanks! I really enjoyed our lunch as usual. You really are one of my favorite people and I really treasure your friendship.
----- Forwarded by Robert Blackwell Sr./Chicago/BCSINC on 12/01/97 09:16 PM -----

Robert Blackwell Sr.
11/16/97 02:56 PM

To: ccbweb@ais.net
cc:
Subject: Comments on Crain's Extra on Chicago's Technology 100 list

Before I engage in my single criticism which spoiled the luncheon for me, let me compliment you on the idea and the energy that was applied to putting this magnificent event together. I found the list to be an interesting blend of large and small players and a blend of product, services, venture capital, and companies with outstanding CIO's. The list was extremely diverse and included the vast majority of organizations that I would think worthy of being on the list with one noteworthy exception.

There was to my knowledge, not a single person of color included in your list, and there was not a single company headed by a person of color that was on your list. There was no Asian, no Latino, No American Indian or East Indian, and there was no African-American.

This was absolutely amazing to me given the diversity of the list. My first assumption when I heard about the list was that it would be a routine list of Large influential companies who would buy all of the tables and attend a luncheon to congratulate themselves but it wasn't. It was an extraordinary list that not only included the familiar list of companies like Platinum Technologies, 3com, Spyglass, Motorola, etc, it also included outstanding small companies like Bricker & Associates, Campbell Software, American Information Systems, etc. In fact, if you had put together a plain old ordinary big company list, I would have absolutely nothing to complain about. I want to be clear that the only reason that I am complaining is because you did such a thorough job. Nevertheless, it amazes me that there are absolutely no non-white organizations or people on your list.

Our company, Blackwell Consulting Services started on October 1, 1992 with four people and five years later have revenues in excess of \$12 million and

we have roughly 100 people on our payroll. We don't sell hardware or software. We do Client-server and internet development along with network design and integration. We do work for some of the areas biggest companies, Waste Management, Abbott Labs, Motorola, City of Chicago, etc. And we are not unknown to Crain's. We appear regularly in your consulting lists and we advertise regularly in Crain's and I was invited to the luncheon by a Crain's sales person.

I'm not arguing that my firm should have been included in the list but we are certainly competitive with any of the small firms that were included in terms of revenue and profit growth. I also know that there are several other very good firms owned by Asians, East Indians, and Latino's. I am African-American and there are several first rate African-American firms in Chicago.

My fundamental concern is that people of color are routinely overlooked and not thought about seriously. And I do not think that it happens because of some evil intent, I think that it happens because we don't travel in the same circles, we don't have the same networks, and it simply doesn't occur to a lot of people that people of color can function at the highest intellectual levels.

The icing on the cake of my unhappiness was the article "Where are the Women" which focused on the shortage of women in the profession. How can you have an article wondering about the absence of women in the profession and not have a single person of color on your list and not have a single reference to that fact. It is as if diversity is the inclusion of white women into the work force dominated by white men.

In closing, let me give you an argument for Affirmative Action. "If they aren't forced to think about us, they won't".

Robert D. Blackwell, Sr.**Experience: Blackwell Consulting Services - Chicago, IL**

10/92 - Present President and Chief Executive Officer - Manage and Supervise the day to day business operations including the following activities:

Finance and Planning

- Creation of Five Year Business Plan.
- Securing Necessary Financial Arrangements and Lines of Credit Necessary to the Operations of the Business.
- Selection of Critical Outside Advisers:
 - Legal
 - Accounting
 - Graphic Arts
 - Health Insurance
- Establish Key Financial Yardsticks Designed to Evaluate the State of the Business.

Marketing

- Sell Directly To Our Large, Strategic Customers.
- Assist in Development of Sales Measures and Incentives.
- Develop Marketing Strategy.

**IBM Corporation
Greater Chicago Consulting Services - Chicago, IL**

1990 - 1992 Director - Directed the activities of an organization of over 200 people, and 220 million dollars in revenue. The lines of business included outsourcing, systems integration, application development, design, and installation of complex calling systems, value-added networks, and fee-based education. The organization doubled in size every year that I was in charge.

Chicago West - Oak Brook, IL

1983 - 1989

Branch Manager - Responsible for the sale of over 250 million in hardware, software, and services. The customer base included Ameritech, Centel, Waste Management, and Inland Steel. The office population was 175.

Chicago River Oaks - River Oaks, IL

1980 - 1983

Branch Manager - With a population of 75 people, this office was charged with the responsibility of marketing hardware, software, and services to steel and manufacturing companies in the Chicago metropolitan area.

IBM Midwestern Region - Chicago, IL

1978 - 1980

Administrative Assistant - Managed the administrative affairs of the office of the IBM Regional Office. This position was designed to give up-and-coming young managers a branch perspective of the business before they become general managers.

Chicago River Oaks - River Oaks, IL

1976 - 1978

Marketing Manager - Managed a group of ten sales representatives in a territory made up of small manufacturing companies.

Chicago Public Sector - Chicago, IL

1973 - 1976

Salesman - Sold hardware, software, and services in an education territory comprised of the University of Illinois and the University of Chicago.

Education:

Wichita State University - Wichita, Kansas
B.A. in Psychology
1966

CRAIN'S

CHICAGO BUSINESS

EXTRA

100 TECHNOLOGY

Chicago's Most Influential Technology Players

We've come a long way, baby. Our local economy—built on the McCormick reaper, Swift's refrigerated railcars and more Rust Belt industries than you could shake a stick at—today is squarely in the middle of the technology revolution, from advances that make the Internet tick to wireless telephones that can be used anywhere in the world to the latest in biotech breakthroughs. Meet the people shaping Chicago's new economy. Check out a timeline of the region's technological evolution. And learn why there's a dearth of women in top high-tech jobs.

Inside:

MONEY, MONEY, MONEY.....T5

Cash is the lifeblood of any high-tech or biotech startup. But Illinois firms say there isn't enough money to go around. Many rely on a patchwork of financing sources. Thank heaven for "angels."

CHICAGO'S STORY.....T12

Long before HDTV and high-speed modems, Chicago was a center of technological advances. A timeline traces our history of innovation—from the first Native American arrowheads to the latest wrinkle in Web software.

WHERE ARE THE WOMEN?.....T21

Women account for nearly half of the American workforce, but there are few female top managers at the region's leading technology companies. Find out the reasons behind the gender gap.

THE TECHNOLOGY 100.....T26

Meet Chicago's most influential technology players. They are shaping Chicago's new economy. Some names you'll know. Perhaps more interesting are the ones you don't know—yet.

GUIDE TO VENTURE CAPITAL FIRMS.....T56

This is no guaranteed ticket to success, but it's a start: a directory, compiled by a local technology advocacy group, listing local tech-oriented venture capital firms, their partners and their investment criteria.



Page T5



Page T12



Page T21

Letter from the editor

Singling out the 100 top players in the region's high-technology sector turned out to be a lot tougher than we expected. It wasn't very long ago, after all, that finding 100 would have been a near-impossible assignment. But the area's technology-driven economy is now booming, and narrowing down the roster took many meeting and countless hours.

In the end, the listing, which begins on Page T26, took months to compile. *CRAIN'S* editors and reporters started with hundreds of leads and company names—and even a few outside nominations from folks who'd gotten wind of the massive project as we embarked on the journey last summer.

The process was started under my former colleague, Lisa M. Keefe, who recently left *CRAIN'S* to become editor of *Marketing News* magazine. Associate Editors Arsenio Oloroso Jr. and Joseph B. Cahill played a critical role in compiling and sorting through candidates for the Technology 100 list. And, of course, it was our staff of reporters, copy editors (led by Assistant Managing Editor Carol E. Rosenthal) and graphics professionals (headed by Graphics Editor Thomas J. Linden) who pulled it all together—all while doing their week-in, week-out jobs of putting out our regular issues.

We invite your comments on this *CRAIN'S* Extra devoted entirely to the region's technology industry. Please write us—snail- or e-mail. (Our Internet address is ccbweb@ais.net.)

David Snyder
Editor

Tired of fighting lost documents, missing files & clumsy printouts?



Eliminate the printouts
(and the microfiche)

SPEEDSCAN's COLE
(Computer Output to Laser Disk) system converts the output from your computer to easy-to-access CD-ROMs. Completely indexed, the system allows instant secure access on your desktop PC or network.



Eliminate the documents
(the files, too!)

SPEEDSCAN's EDS
(Electronic Document Storage) converts your documents (any documents) to easy-to-access document image files on CD-ROMs. These indexed documents are available instantly on your secure desktop PC or network.

SPEEDSCAN is the Midwest's largest supplier of document archive and retrieval systems. We are the single source of responsibility for systems to handle all your Document Imaging, COLE, Document Storage and Retrieval requirements — or, if you prefer, we can do the work for you. Call today for more information!

SPEEDSCAN

Part of CRT Computer Recognition Technology
Dial (847) 581-1777 or (847) S-P-E-E-D-S-C-A-N
(At the prompt, enter Extension 14)
Authorized Panasonic Dealer

Intel 440LX AGPset w/AGP Accelerator BRING YOUR DREAM PC TO REALITY

- Intel Pentium® II Processor featuring MMX™ Technology
- UltraDMA/33
- ACPI Ready
- PC97 Compliant
- Smart H/W Monitoring
- Universal Serial Bus Ports
- LanDesk Client Manager

Monitor Not Included

Picture May Differ Slightly From Actual System



- AGP Graphics Controller
- The New Power in 3D & Visual Computing
- 2X to 4X Faster than PCI Data Bandwidth
- 128-bit Graphics with Breathtaking Performance
- Full Function 3D Engine with Triangle Setup Engine

- Intel Pentium® II Processor featuring MMX™ Technology, 64MB SDRAM (Max. 384MB)
- Intel 440LX Chipset MB, 24X IDE CD-Rom & 1.44MB Floppy
- Creative Labs Soundblaster AWE 64
- US ROBOTICS 56K Fax Modem w/Voice
- High Speed I/O Port, 2 Serial, 1 Parallel, 1 Game port
- AGP Graphic Accelerator w/4MB
- 6.4GB Ultra IDE Hard Drive
- Microsoft Intellimouse, Keytronic Keyboard
- Microsoft Windows 95 and Office Professional 97
- Yamaha System 25 Powered Multimedia Speakers w/Subwoofer (25 Watts Total Amplifier Power, Astonishing Deep Bass to 40Hz)

Pentium® II Processor - 233MHz

\$2299.00*

Pentium® II Processor - 266MHz

\$2419.00*

Pentium® II Processor - 300MHz

\$2629.00*

*Present this ad & receive a \$50.00 Discount



KOI COMPUTERS

800-287-2888

1225 Greenbriar Dr., Suite D • Addison, IL 60101 • Mon-Fri: 8:30-5:30
Local: 630-932-3023 • Fax: 630-932-3028 • www.koicomputer.com

regardless of a new technology's promise—and even guidance in finding funding is elusive.

Like many tech pioneers, Harmonic Vision's managers created a financing patchwork from a range of sources: a small venture capital firm, a wealthy individual investor (or "angel"), a state-sponsored investment fund, family and friends and their own bank accounts (as well as an array of maxed-out credit cards).

Some of that funding came through at crucial times, enabling the startup to continue paying staff, to refine its prototype, to bring the software to stores.

"At points, it was particularly difficult. Without some good fortune in the timing, (our company's outcome) would have been a very different story," says Mr. de Hueck, Harmonic Vision's president.

While some financiers maintain that money is always available to finance a truly top-notch proposal, experts generally agree that there is a gap in Illinois between the demand for capital and the ready supply of money for investment.

That gap, which limits the number of firms launched, is weakening Illinois' efforts to become a national trendsetter in the development of new technology powerhouses.

Nonetheless, the climate is certainly improving—just look at the success stories featured in CRAIN'S roster of the region's most influential technology players (starting on Page T27). Yet Illinois still lags other states in terms of growing its technology network.

Although 25,000 technology jobs were added in Illinois between 1990 and 1995, bringing the total to nearly 335,000, the figures pale in comparison with California's: 45,000 tech positions added in 1995 and another 50,000 in 1996—for a total of 1 million, according to state government figures.

Technology companies usually spring from a promising idea, but they are nurtured with cash. Particularly crucial is seed and start-up money—to develop the idea of the scientist or entrepreneur into a marketable product or to assemble a management team that can turn that idea into a profitable business.

Technology entrepreneurs "are hampered here," says Randy Storch, chairman and CEO of Chicago's Open Port Technology Inc., one of the area's rapidly growing software startups. "In California, venture capital firms are chasing companies to do these deals."

So, where are start-up firms getting the money?

Primarily, from four sources: angels, relatively small venture capital firms willing to do small but promising

deals, state government grants or investment funds and federal grants.

Says Thomas Thornton, executive director of the Illinois Coalition, a public/private cooperative charged with boosting technology businesses in the state: "You're most likely to get money from friends and family. You're next-most-likely to get it from an angel. You're not likely to get a venture capitalist to swoop down and help you out."

Industry observers estimate that, outside of entrepreneurs, their relatives and friends, the largest chunk of money—perhaps upwards of 80%—comes from angels willing to invest in high-risk propositions with the potential for high returns.

In the technology arena, angels tend to be people who have themselves built—and been enriched by—tech companies. In addition to their cash, they often offer fledgling

See MONEY on Page T6

Entrepreneur turned angel:

John Kaprow made \$40 million when he sold generic drugmaker ExphoMed Inc. Now, he's using that money to finance startups in Chicago and elsewhere.

JOHN R. BOEHM

MONEY MONEY MONEY

Cash is the lifeblood of any new technology company. While some maintain that money is always available to finance a truly top-notch proposal, experts generally agree that there is a gap in Illinois between the demand for capital and the ready supply of money for investment.

By MICHELE DONLEY

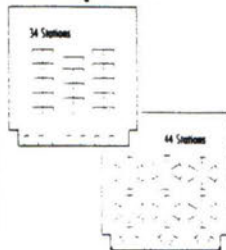
Computer programmer Joel May had an idea for a new product. Recalling his frustration when learning to play the guitar and cello, he saw a need for computer software that could guide beginners through basic music skills.

In 1992, he quit his job at Lisle-based Tellabs Inc. to launch Harmonic Vision Inc., developer of Music Ace software. But in the process, he and partner Ian de Hueck ran into a new frustration: It was difficult to get the cash to start and grow their new company.

The Harmonic Vision duo found what most eager technology entrepreneurs in Illinois find: Financing is scarce—



More
production from
less space.



business office interiors

1-888-309-3499

Call for a complete office furniture catalog or
visit our new suburban and Chicago showrooms.

Clusters, the newest option
in efficient space planning



The financing treasure hunt

MONEY from Page T5

firms invaluable expertise that springs from firsthand experience.

"I get in companies at an early stage, and that always necessitates mentoring and hand-holding," says Joseph Piscopo, who built one of Chicago's early high-tech businesses—Pansophic Systems Inc.—in the 1960s and now looks for other companies bound for big profits.

Angels back unproven ideas

"I want something where the payoff is huge if the effort succeeds. I'm looking for making three to five times my money in three to

five years," says Mr. Piscopo.

One of his current bets: Mr. Storch's Open Port Technology, creator of fax and Internet messaging software. Mr. Storch says his company has seen a tentfold increase in sales over the last four years, and he hopes to take it public in 1998.

Because angels invest their own money, they can back unproven ideas or management teams that venture capital firms shy away from.

"We're looking for ideas," says John Kapoor, president of Lake Forest's EJ Financial Enterprises Inc. "We believe that, with biotech, if you have a product, you have a company. It doesn't scare us if the scientist doesn't have a CEO or a management team. We can supply that until the idea is developed."

Mr. Kapoor made \$40 million in 1990 when he sold LyphoMed Inc., a company he'd grown into the nation's largest generic drug-maker. Now, he invests in small biotechnology, pharmaceutical and health care firms—10 at last count—that he believes could repeat that success.

Mr. Kapoor finds potential investments mostly through industry contacts, taking some right from the lab.

And he's making money. In the case of Introgen Therapeutics Inc., Mr. Kapoor invested \$1 million in 1993 in a physician's gene therapy idea for treating cancer. Today, Mr. Kapoor says the company is worth \$80 million, and his stake totals 15% to 20%. (However, this one isn't a win for Illinois, as Introgen is based in Texas.)

Matchups come down to luck

Heaven-sent though angels may seem, they are generally as hard to find as the winged kind.

"The problem is this match-making process," says Harmonic Vision's Mr. de Hueck, who has raised about \$1 million in several stages. "That's the sharp contrast that exists between (California's) Silicon Valley and the Chicago market. Out there, meetings and forums to link angels and entrepreneurs are everywhere. It's almost like Kiwanis."

That networking gap is bemoaned by many technology entrepreneurs in Illinois, where the matchup of companies and cash frequently comes down to luck. "It's often a random event—serendipity," says the Illinois Coalition's Mr. Thornton.

Illinois is just now beginning to facilitate matchmaking. Several groups, including the Illinois Coalition and the Chicago Software Assn., have held financial matchmaking fairs for tech start-ups.

The MIT Enterprise Forum, sponsored by alumni of the Massachusetts Institute of Technology, is the granddaddy of all local networking organizations. At monthly meetings for more than a dozen years, entrepreneurs have gotten advice and had business plans reviewed—and sometimes financed—by investors and expe-

See MONEY on Page T8

Now there's a company that lets you

QUIT GOOFING AROUND

with managing your telecommunications. A company that lets you

GET OFF THE PHONE

with all those sales reps and service people. That lets you

GET BACK TO WORK

because we handle all your communications for you. A company you should call

RIGHT NOW OR ELSE

you'll continue to spend more time managing your business communications
and less time managing your business.

Count on your very own USN account team to bring you premier local and long-distance service, paging,
voice mail, internet access and more. Along with first-class attention and a surprising new way to save.

Don't you have enough to do?



One phone company. All the answers.

www.usncomm.com

Call toll-free 1-888-USN-9500 today.

Too many good ideas chasing too little cash

MONEY from Page T6
rienced business people.

Chicago's Batterson Venture Partners, a group of angels who invest together, provides an on-line introduction service for financiers and entrepreneurs (www.vcapital.com). So does the U.S. Small Business Administration's Angel Capital Electronic Network, although Illinois is not yet part of it.

Tech not a money magnet

Harmonic Vision's Mr. de Hueck met his angel, Chicago investor Ronald Birchall, in 1995 at an introductory forum, the Early

Stage Investor Conference. Mr. Birchall, who sold his Naperville-based Palindrome Corp. software company in 1994 for \$69 million, made an initial \$50,000 investment in Harmonic Vision and several follow-up cash infusions totaling "in the low six figures," according to Mr. de Hueck.

Harmonic Vision also was fortunate to hook up with one of the few local venture capital firms that will invest in unproven tech companies.

While hot technology would seem to be a magnet for risk-and-reward-loving venture capitalists, most local venture money for

technology—91% in 1996, according to an Illinois Coalition report—goes to established companies in need of expansion financing.

Mr. de Hueck found funding through Evanston Business Investment Corp., a small venture capital firm that is unusual in its concentration on early-stage technology deals.

Harmonic Vision, now with 12 employees, recently became profitable, with sales this year expected to total just under \$1 million. And Mr. de Hueck predicts a 50%-to-100% jump in sales next year.

Fledgling firms often struggle to attract funds in part because the amounts of capital they need—while vital to them—are too small for most venture capital firms to bother with. The paucity of investors willing to put up \$100,000 to \$1 million constitutes a "capital chasm," according to a report by the SBA.

Less local financing

Venture capital investment in Illinois technology rose to \$161 million in 1996, up nearly 29% from 1995, according to a survey by New York-based accounting/consulting firm Price Waterhouse LLP. But most of that total went to established companies seeking \$1 million to \$20 million to finance growth.

Illinois also has less locally based venture money than other parts of the country.

Of all venture capital available from firms nationwide, nearly 25% is in California, 17% in New England and about 10% in New York. Illinois accounts for just 2% according to the Price Waterhouse survey—leaving local entrepreneurs the tough task of selling themselves to investors hundreds of miles away.

To some extent, tech entrepreneurs here are victims of the success of venture capital investing over the past decade. With many venture firms now investing the money of pension funds and other large and relatively conservative investors.

See **MONEY** on Page T10



Making music: Ian de Hueck financed software maker Harmonic Vision Inc. using a patchwork of sources. It's a familiar story line.

"If you're only going through the motions of productivity improvement, any consulting firm will do. If you're serious about achieving dramatic revenue and profit improvement, call Bricker."

— Deborah Bricker, Bricker & Associates, Inc.



Deborah Bricker, President
Bricker & Associates, Inc.

"For over 15 years, more than 200 middle-market and Fortune 500 companies have relied on Bricker to help them meet—and beat—the competition. Why Bricker? Because we're the productivity improvement specialists."

"At Bricker, each productivity initiative begins with a set of compelling objectives specifically designed to dramatically increase revenue while reducing costs. How do we do it? By targeting the right areas for improvement and by 'cutting fat while building muscle.'"

"Whereas most consulting firms are busy performing laborious analysis tasks and recommending incremental changes, Bricker is

committed to identifying radical, organizationwide improvements in speed, quality, and cost control. Using a holistic and collaborative approach, we help you craft simultaneous improvements to work flow, organization design, and the use of technology to produce the competitive advantage your organization needs.

"Even better, we don't just give you the answer, we help you implement it, too. And we do it at record-breaking speed so you can achieve the bottom-line results you're looking for—all without the excessive fees many consulting firms demand."

"Putting it all together, Bricker delivers value. Our clients tell us that our recommendations and fees translate into value that is nothing short of extraordinary. That may be exceptional at other firms, but at Bricker it's routine. Calling Bricker may be the most profitable move you've made in years."



BRICKER

Productivity for Profits

Work Flow Improvement • Technology Strategy • Organization Design

Call us for a complimentary, one-day consultation.

312.787.6777

To learn more about achieving dramatic results with Bricker, visit our Web site at <http://www.brickerinc.com>

When It's Not on the Shelf,
It's at onShore.

A robust and maintainable system architecture requires broad technical expertise and an understanding of business technology issues. onShore, Inc. provides technology business planning and project execution at the desktop, workgroup and enterprise level. Our technology solutions include fault-tolerant transactions systems, messaging, web servers, groupware, security, file/print servers, intranet/extranet/Internet design and development as well as making disparate systems talk to each other.

onShore
INC.

1407 West Chicago Ave.
Chicago, Illinois 60622
312.850.5200
www.onshore.com/info

Small Office Home Office Experts

Cherry and Maple Veneers or Laminate Components

1-800-427-1794 Complimentary Design

www.techline-chi.com

**techline
studio**Chicago
Evanston
Highland Park**Tech mantra: Show me the money**

MONEY from Page T8

vative institutions, managers are less able to take a chance on small or high-risk deals.

"We don't do much startup," says James E. Crawford III, general partner in Chicago's Frontenac Co., a local leader in technology investing. "Because of our size (Frontenac's newest fund has \$300 million under management), we need to have about \$10 million to \$20 million invested in each company."

State provides, for some

At Deerfield-based Marquette Venture Partners, a leader in medical and biotech investing, "We

look to invest in companies that will need \$3 million to \$5 million in the first three years and that ultimately can become publicly traded business," says co-founder James E. Daverman. "We're looking for businesses that eventually can be worth more than \$100 million, that we can own 15% to 20% of at the time they go public."

Though Mr. Daverman's firm does some start-up financing, he says, "Most of our initial investing is at least \$1 million."

A number of major Chicago-area technology companies have venture capital arms, but those, too, rarely offer money for local startups. Companies such as Ameritech Corp. and Motorola Inc. generally invest only in new technologies with the potential of boosting their core businesses.

"Our investments have to do with the strategic interest of our company," says Darrell Williams, director of venture capital for Ameritech Development Corp. "They are rarely at the seed stage. We do most of our investments with companies our business units are already working with or through venture firms we've partnered with before."

For a few new tech companies, the state of Illinois has been an important source of funds. Technology Challenge Grants have helped give life to Nanophase Technologies Corp. of Burr Ridge (\$430,000), Illinois Superconductor Corp. of Mount Prospect (\$177,000), Medichem Research Inc. of Lemont (\$50,000) and M-C Power Corp. of Burr Ridge (\$1.5 million).

The Technology Development Bridge, a state program new in 1996, provides early-stage investment funds, with the state receiving preferred stock in return. The money is provided to startups through the Illinois Development Finance Authority, a quasi-public agency, which sells bonds to fund investments.

Harmonic Vision was the first recipient of this new state funding—an investment of \$150,000 that it used to hire product developers.

Relatively miserly efforts

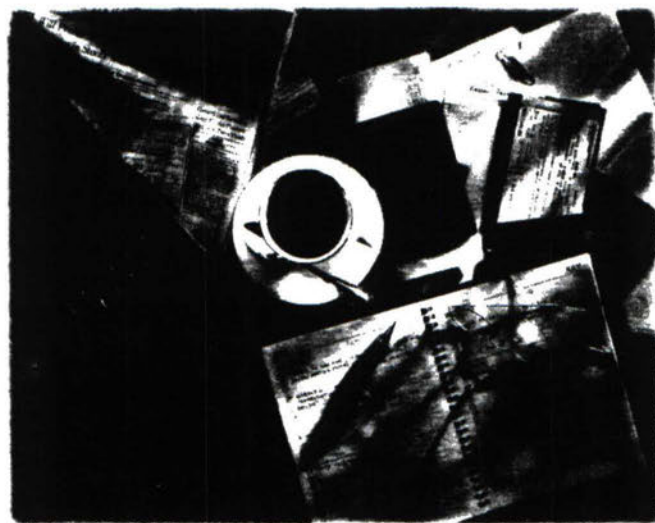
But Illinois' efforts at promoting technology are meager compared to those of other states.

While Ohio spent \$36 million this year on a range of programs to invest in or boost technology companies, Illinois budgeted \$800,000. That places the state 45th nationally in per-capita spending to foster technology, according to Mr. Thornton.

Meanwhile, industry observers say the climate is changing, albeit slowly.

"In Illinois 10 years ago, trying to find entrepreneurial business ventures was tough," recalls Marquette Partners' Mr. Daverman. "Today, there is infinitely more entrepreneurial activity, and it is broad-based. There is certainly a climate for entrepreneurship and successful role models."

All that's needed, those budding entrepreneurs say, is the money to turn ideas into companies.



FLY TO AMMAN THROUGH AMSTERDAM ON BUSINESS, FLY BACK WITH 20,000 BONUS MILES ON US.

TWA IS PROUD TO ANNOUNCE OUR EXPANDED SERVICE TO EUROPE AND THE MIDDLE EAST THROUGH OUR NEW PARTNERSHIP WITH ROYAL JORDANIAN AIRLINE. To celebrate, we'll give you 20,000 Frequent Flight Bonus miles when you fly a TWA code-shared flight to Amsterdam and then on to Amman. Just fly round trip between November 1, 1997 and January 31, 1998 on a purchased* first-class or business-class ticket and you'll earn 20,000 FFB* miles in addition to actual miles flown. That's enough for one free round-trip domestic ticket. For reservation information give us a call at 1-800-892-4141. Or visit us online at www.twa.com.

* May not be purchased with accumulated award miles.

ROYAL JORDANIAN 

WE WANT TO BE YOUR AIRLINE™

TWA

Zenith pioneer
Adm. Donald B.
MacMillan
with one of
the com-
pany's
first
portable
radios.



How did we get from there to here? Long before the Motorola cellular phone and the U.S. Robotics X2 modem, there was a string of technological breakthroughs born in Illinois. John Deere's steel-tipped plow, barbed wire, Octave Chanute's early flying machine, FM radio. Check out this history of local innovation.

By Kim Phillips-Fein

CHICAGO'S STORY

800: The oldest known arrowheads in Illinois are made by Native Americans.

1803: Chicago gets its first government building: Fort Dearborn, built in cutting-edge log cabin style.

1825: A corporation is chartered to build the Illinois and Michigan Canal, marking the first attempt to link Chicago to its Western hinterlands and spurring the city's first building boom.

1833: Architect Augustine Taylor invents the balloon frame while constructing St. Mary's Catholic Church. The balloon frame makes use of light, mass-produced wood and nails, and its popularity spurs rapid construction in the city.

1842: Chicago Hydraulic Co. inaugurates the city's modern water supply. The piping system expands so rapidly that it quickly becomes the largest in the world, and the first modern system to rival the hydraulic capacity of ancient Rome.



▲ Cyrus McCormick

1847: Cyrus McCormick opens his first Chicago factory producing the mechanical reaper, which revolutionizes farming. McCormick, a native of Ohio, moves to Chicago in order to have better access to agricultural markets.



▲ The Ferris Wheel is dismantled after its debut at the 1893 World's Columbian Exposition.

1848: John Deere invents the steel-tipped "plow that broke the prairie."

1848: The first 10 miles of the Galena & Chicago Union Railroad are laid—becoming the first rail connection between Chicago and the West.

1848: The first telegraph comes to Chicago the same year the Board of Trade is founded. The invention of the

◀ Chicago's modern water system was fit for man and beast. Here, a group of boys and a horse drink from a public fountain in 1887.

telegraph makes it possible to transmit price information over vast distances. Chicago's futures markets are born.

1848: The first steam-powered grain elevator is used in Chicago. Its transforms the city's capacity for storing and trading grain.

1848: Following a cholera epidemic that flared up largely because of inadequate drainage, the City Council passes an ordinance requiring that the grade levels of Chicago's streets be raised four to 14 feet. Generally considered one of the

city's great engineering triumphs.

1865: Chicago Rolling Mills, a North Side steel company, produces the nation's first rolled-steel rails.

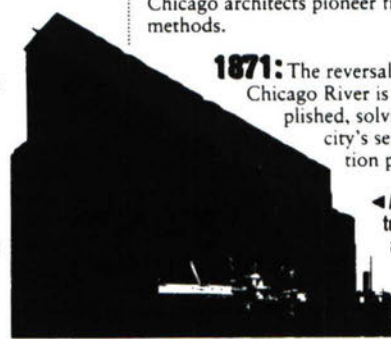
1870: Gray & Barton Co., which will later become Western Electric, moves to Chicago from Cleveland. Co-founder Elisha Gray is acknowledged to have independently invented the telephone, arriving at the U.S. Patent Office only hours after Alexander Graham Bell. He also invents an extremely rudimentary version of the fax machine.

1870: Hydraulic lift mechanism is designed by local inventor C. W. Baldwin, and passenger elevator technology comes to Chicago.

1871: In the wake of the Great Fire, Chicago architects pioneer fireproofing methods.

1871: The reversal of the Chicago River is accomplished, solving the city's serious pollution problems.

◀ A grain elevator in operation along the South Branch of the Chicago River near 16th Street.





▲ The South Works steel plant was an early center of Chicago industry.

1874: A DeKalb tinkerer invents barbed wire, ridding the prairies of their worst pests: runaway steer.

1877: Meatpacking magnate Gustavus Swift invents the refrigerated railway car when he realizes that it's easier to ship meat than livestock. The invention creates the first real national market in meat products, and enables the large Chicago companies that own most of the new refrigeration technology to dominate it.

1880: Original South Works steel plant is opened.

1887: Electric power generation begins in Chicago with Chicago Edison Co.



▲ The first modern skyscraper: the Home Insurance Building at La Salle and Adams.

1888: Dr. Wallace C. Abbott invents a method of precise measurement of medicine in pill form in his North Side apartment. Demand quickly overwhelms his medical practice, and in 1900, he opens Abbott Laboratories.

1892:

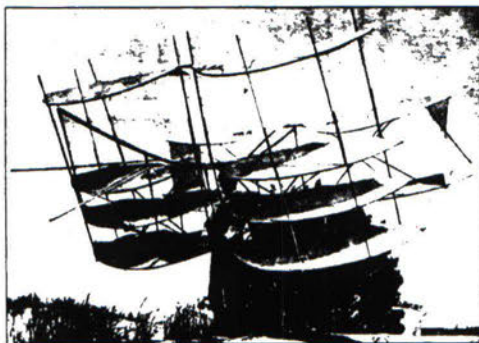
Chicago's William LeBaron Jenney builds the first modern skyscraper—the Home Insurance Building—at La Salle and Adams streets.

1892: Armour Institute founded. It later becomes Illinois Institute of Technology.

1893: The Ferris Wheel takes its first spin at . . .

1893: . . . the World's Columbian Exposition, which focuses the eyes of the world on Chicago as the American center of commerce, industry and innovation. Sixty thousand products are displayed at the fair from countries around the world. Swift & Co. and Deere & Co. have their own displays.

1894: Chicagoan Octave Chanute invents early flying machines. Later, he becomes a confidant and supporter of the Wright brothers.

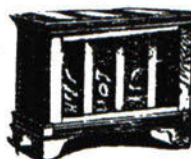


▲ Octave Chanute tests one of his gliders, around 1900.

1895: Fledgling Sears, Roebuck offers its first icebox "refrigerators" for sale through its catalog.

1897: University of Chicago's Yerkes Observatory opens in Williams Bay, Wis.

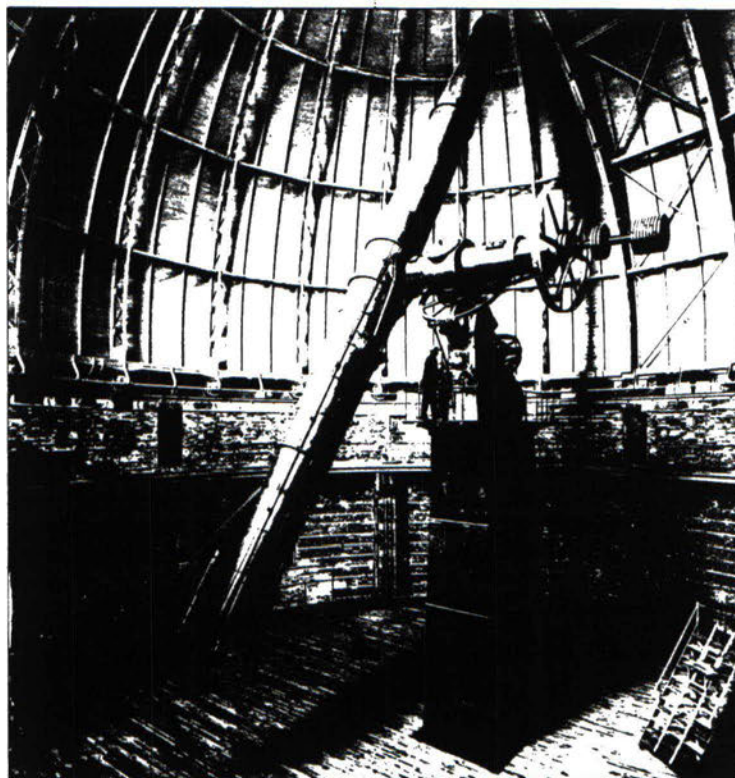
The observatory, which contains the world's largest refracting telescope, puts the infant university on the cutting edge of astrophysics.



▲ Sears' original icebox, priced up to \$7.50 in an 1895 catalog.

1900: Lee De Forest, known as the "Father of Radio" for his 1906 invention of the three-electrode vacuum tube, conducts his earliest experiments in radio at the Armour Institute.

1902: The first trunnion bascule drawbridge—the most efficient type and the model for later drawbridges—is built over the Chicago River at Clybourn Place (later renamed Cortland Street).



▲ The Yerkes Observatory in 1897 with the world's largest refracting telescope.

1898: The Schwinn bicycle factory opens. Chicago factories are producing about half of the nation's bicycles.

1899: The Woods Electric—Chicago's most popular early automobile—is developed and marketed.



▲ The Schwinn Roadster.

1907: Albert Michelson, a University of Chicago professor, becomes the first American to win the Nobel Prize—in physics. Since Michelson, 48 U of C professors and alumni have won Nobel prizes in the sciences.

1910: The South Works steel mill becomes one of only five steel plants in the country to use electrically powered furnaces.

1913: Robert Millikan at the University of Chicago determines the charge of the electron.

1913: University of Chicago researcher Maud Slye demonstrates that cancer is not transmitted through infection.

1915: J. L. Kraft begins producing processed cheese; a year later, he patents



▲ Lee De Forest at work on one of the first radio transmitters.

his methods. Chicago's food processing center is born.

1918: Two young radio tinkerers,

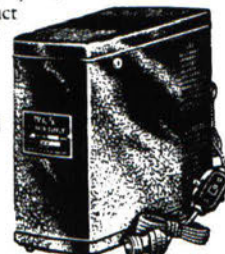
Ralph Mathews and Karl Hassel, set up a makeshift factory on a kitchen table in Chicago and begin to make radio equipment for other radio lovers. They name their little business Z-nith, after the call letters of their amateur radio station, 9ZN.



▲ The world's first portable radio. Zenith's 1924 asking price: \$200.

1923: Z-nith is discovered by a retired naval commander, who helps Hassel and Mathews turn their hobby into Zenith Radio Corp. The company develops and markets the world's first portable radio.

1928: Paul Galvin and his brother, Joseph, buy the bankrupt Stewart Storage Battery Co. and rename it Galvin Manufacturing Co. The company begins with five employees, and its first product is the battery eliminator, a device that enables battery-operated home radios to operate using household electric current. The device quickly becomes obsolete, but the company lives on—to say the least.



▲ The battery eliminator, the first product of Galvin Manufacturing Co. Brothers Paul, below left, and Joseph Galvin saw their company go on to bigger and better things. ▼



1929: Chicago Police Department sets out to put the mob-infested city on the cutting edge of crime-fighting by opening the country's first crime laboratory. The lab becomes a model for police departments nationwide.

1930: Cruising down the blacktop listening to rock 'n' roll is the classic image from the American buddy movie.

Continued on Page T14

Continued from Page T13

But Elvis wasn't even a glimmer in his daddy's eye when the first affordable automobile radio rolled off the assembly line at Galvin Manufacturing. The car radio's instant success inspires Paul Galvin to christen the new product line Motorola.

1931: Sears sells its first affordable electric refrigerator (at \$137.50), aptly named Coldspot.

1936: Hart Schaffner & Marx makes the first pair of men's pants with a zipper fly; most people are afraid to wear them at first.

1936-41: Northwestern University scientists collaborate with Universal Oil Products in Des Plaines to develop high-octane gasoline, using a process later used for aviation fuel.

◀ The Dodge Chicago Plant, one of Chicago's massive World War II factories.



1939: The invention of the Transfu-so-Vac blood-collection container at Baxter labs makes blood-banking possible for the first time.

1940: Zenith makes waves—radio waves, that is—by inventing the FM radio broadcast system.

1940: Researchers at Motorola's communications division develop the world's first two-way

hand-held radio system—the "handie-talkie"—for the U.S. Army Signal Corps, used with great success during World War II.

1941: Chicago becomes the nation's factory during the war, producing airplanes, ammunition and food to supply the armed forces fighting Hitler. And in typical Chicago fashion, a couple of records are set along the way: The world's largest wooden factory building, the Douglas Aircraft factory, is built in Park Ridge, and the Dodge Chicago plant, the largest manufacturing structure ever built, produces aircraft engines on South Cicero Avenue.

1941: Abbott Laboratories becomes one of the first five laboratories in the United States to commercially produce penicillin.



▲ Penicillin production at Abbott Laboratories.



▲ Motorola's "handie-talkie."



▲ Enrico Fermi, far left in first row, and his team of scientists at the University of Chicago.

1942: Working under the University of Chicago's Stagg Field, Enrico Fermi's team of scientists produces the world's first sustained nuclear chain reaction. They toast the success with cheap Chianti.

1944: The first use of an electroencephalogram in clinical applications takes place at Chicago's University of Illinois Medical Center.

1944: Marvin Camras, a 1940 graduate of the Armour Institute and later a professor at IIT, invents the first practical magnetic-tape recorder. He was an undergrad when he made his first recording machine, which he used to record his cousin's singing.

1946: University of Illinois faculty members attempt to build a computer that can play check-

ers. Although the machine is never completed, the attempt to build it inaugurates the school's long history of innovations in computer technology.

1946: Fermi's wartime laboratory, the Manhattan Engineering District's Metallurgical Laboratory, becomes the Argonne National Laboratory, to be operated by the University of Chicago.

1947: Agitators aren't too popular amid the opening salvos of the Cold War. But the folks at Sears aren't afraid of a little agitation: They market the first automatic agitator-type washer.



▲ R. Buckminster Fuller in 1959 at the Kaiser Dome in Moscow.

1948: R. Buckminster Fuller develops

a prototypical geodesic dome at the Illinois Institute of Technology.

Continued on Page T15

Been there?

Where's there in the information world? With the latest technology changing and improving everyday, it's hard to keep track. At **PARIAN**, we are always ahead of the curve. As a Microsoft Certified Solution Provider Partner, we're helping Fortune 500 companies get here... to a new level of profit, efficiency and competition.

Founded in 1990, Parian is a premier provider of Windows-based client-server and Internet consulting services. We provide custom business information solutions to a diverse client base, including many in the Fortune 500. Our principal services include:

- Custom Client-Server Systems
- Internet/Intranet Development
- Microsoft Office Integration Services
- OLAP Solutions
- Systems Engineering
- Messaging & Collaboration
- Network Architecture
- 32-Bit Migration

We'll take you where you need to be. Call our Business Development Manager to find out more.

312-551-7300

www.parian.com

P A R I A N
Extending the Potential of Windows

Microsoft Certified
Solution Provider
Partner

Parian Development Group, Inc., 303 West Madison Street, Suite 2075, Chicago, IL 60606

ACS

Alternate Computer Services, Inc. brings 17 years of application programming and systems integration experience to the table to provide unsurpassed service in the following areas:

• Systems Analysis & Programming
• Systems Design & Implementation
• Vertical Market Application Programming

To learn more about our company, services and products visit our web site at www.altcomser.com or contact us directly at:

Alternate Computer Services, Inc.
1150 Heather Court
Lake Zurich, IL 60047
800-500-2582
847-726-1992

Microsoft Certified
Solution Provider

IBM
Business Partner

COMPAQ

Continued from
Page T14

1949: The Sears washer is joined by the first automatic electric clothes dryer.

1952: The iLLIAC and ORDVAC computers are built at the University of Illinois at Urbana-Champaign. Each has greater memory and speed than any other computer.

1952: George Stephen invents the kettle-shaped covered grill, and makes the world safe for barbecue.

1952: Sara Lee makes its first frozen-food products, cheese-cake among them.

1954: The USS Nautilus, the world's first nuclear-powered submarine, is launched. The power plant is based on concepts and designs developed at Argonne National Laboratory.

1955: Motorola develops and begins to market the pager, to the delight of doctors and, eventually, hyper-social teen-agers everywhere.

1956: The first commercially built dialysis machine is produced by Baxter Laboratories.

1956: Zenith makes the first remote-controlled television set.



▲ The iLLIAC computer at the University of Illinois at Urbana-Champaign.

1958: The first computer-generated digital music—actually “composed” by the computer, according to rules entered by the programmer—is produced in the University of Illinois’ experimental music studio, using technology that later will be used in synthesizers.

1960: First trial of a computer-controlled telephone switching system, in Downstate Morris. The phones for the experiment are the first to contain tone ringers instead of mechanical bells, as all telephones eventually will.

1960: G. D. Searle & Co. produces the first oral contraceptive.



1962: Baxter produces the first disposable total-bypass blood oxygenator, making open-heart surgery possible.

1964: Motorola makes the world a little less black and white by introducing the first rectangular picture tube for color television.

1965: Motorola, RCA and Ford design and manufacture the first eight-track tape players for cars.

1966: Bell Laboratories opens its Naperville center for research and development.

An aerial view of the Fermi National Lab in 1974, with its 4-mile Tevatron accelerator ring. ▶



◀ At the computer-operated telephone switching station in Morris.

1969: Neil Armstrong's first words from the moon are conveyed to Earth via a transponder designed and manufactured by Motorola's government electronics division. (A few years later, the Lunar Roving Vehicle will use a Motorola FM radio receiver to provide a voice link between Earth and the moon.)

1972: The first plans are made to construct the Tevatron at Fermilab. An accelerator that uses superconductor technology to achieve an energy level of 1 trillion



▲ Motorola's Lunar Communications Relay Unit.

electron volts, the Tevatron will lead to the discovery of technology later applied to magnetic resonance imaging, widely used as a medical diagnostic tool.

1976: First all-digital telephone switching system developed by Illinois Bell. The first switch is installed in downtown Chicago.

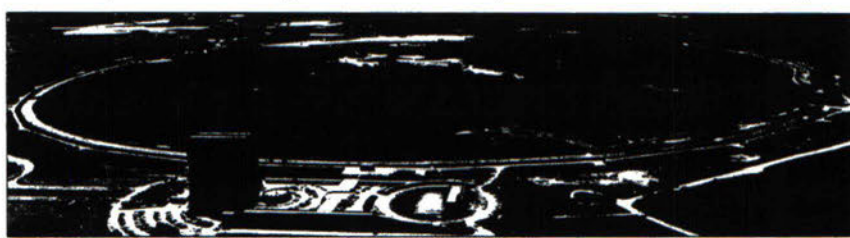
1977: Bottom quark is discovered at Fermilab.

1977: Illinois Bell operates world's first full-service commercial fiber optic service, which can be used for both telephone and video. Glass fiber cables are strung between Loop buildings to demonstrate the service.

1977: Quantumwell laser is developed at the University of Illinois at Urbana-Champaign by scientist Nick Holonyak. This small, compact laser is the principal component in compact disk players.

1978: U.S. Robotics produces the first commercial computer modem. It communicates at 300 bits per second and can be bought only through a mail-order catalog.

Continued on Page T1



Northwestern University

Master of INFORMATION TECHNOLOGY

Program for Working Professionals

Responding to the Future

Education and retraining for managing current and emerging information and telecommunications technologies.

Focused Education

Emphasis on technical aspects of information technologies while also providing skills to evaluate, manage, use and market them.

Executive Training Model

One full day of classes each week, two courses each quarter, the degree of Master of Information Technology at the end of the two-year course of instruction.

Call 847 491-5931 or check our web page:
<http://www.ecs.nwu.edu/ITP>



McCormick
School of Engineering and
Applied Science

May we suggest a more civilized response?



When hackers intercept, alter, steal or destroy your mission-critical data, they win. And you lose. Fight back with Milkyway's no-compromise security solution.

SecurIT FIREWALL is the only application-level firewall that eliminates vulnerabilities at the source. **SecurIT ACCESS** safeguards the confidentiality and integrity of electronic communications between private networks and remote users. And **SecurIT AUDIT** identifies common security loopholes in firewalls, public servers (WWW, FTP) and private networks, and recommends ways to secure them from remote access attacks.

Hackers may deserve a knuckle sandwich. But there's a better way. The Milkyway. If you're mad and you don't want to take it any more, order your free information kit now.

Call 1-800-208-0922 or visit us at www.milkyway.com.

MILKYWAY
NETWORKS

Brutally effective network security.

Milkyway Networks is a trademark of Milkyway Networks Corporation. Copyright 1997 Milkyway Networks Corporation. All rights reserved.

By JOANNE CLEAVER

Where are the women in Chicago's high-tech industries?

Women fill top executive posts in virtually every sector of corporate Chicago: consumer marketing, law firms, real estate and even the longtime male bastions of banking and manufacturing.

But take a look at the top ranks of chip makers, telecommunications firms and software companies and what you see looks more like a men's locker room than a '90s American corporation.

A couple of cases in point: Motorola Inc. has no women on its management board, and Tellabs Inc. has only one woman among its executive officers (its general counsel and secretary).

At newer—and arguably hipper—companies, the picture is not very different: Modem maker Westell Technologies Inc. has one woman officer (its human resources head); software firm Platinum Technology Inc. has no women executive officers.

The situation can be explained in part by the testosterone-drenched culture of the technology sector, but there's more to it than that.

Women account for 46% of the labor force, but hold only 22% of science jobs (including social sciences and teaching), according to the National Science Foundation (NSF), which conducts biennial surveys of women and minorities' penetration into science careers.

Plenty of women are entry- and mid-level computer programmers and analysts, and about 40% of management information staffs are female. There's no glaring shortage of women in top sales and marketing posts for high-tech startups and fast-growing firms.

But where are the women on the key product development side—those with the technical and management expertise to shape and deliver next-generation products and services?

"I have puzzled over this question for a long time. It disturbs me greatly," says Louise Rehling, executive vice-president of product development for SPSS Inc., a software development firm in Chicago, and one of the rare women in top technical positions.

"I've been in the industry for 15 years, and I keep expecting it to change," she continues. "After all, it's a field with a tremendous amount of growth, and the potential for money is tremendous. There's a huge shortage of software engineers. Everything is pointing toward it, yet..."

Yet only a tiny fraction of product development executives at local software companies are female, and even fewer major corporations have women in top information technology slots.

At SPSS, 22% of the software develop-

WHERE ARE THE WOMEN?



Great expectations:

Louise Rehling, an SPSS Inc. executive, is one of the rare women in a top technical post. "I've been in the industry for 15 years, and I keep expecting it to change," she says. But it hasn't yet.

The floodgates are wide open for women who want to enter high-growth technology professions, but only a small stream is going through. And the growth in the number of women entering the science fields is slowing.

ment staff is female, but only 8% of the engineers.

"When I look at that one critical category, it shocks me," says Ms. Rehling, 53.

Shocking it may be, but not surprising. Only 9% of engineers are women, according to NSF.

As recently as three years ago, subtle sexism did seem to discourage women from making inroads into the pocket-protector cliques or the boardrooms of entrepreneurial startups.

However, the explosion of new technologies has helped women in two key ways: The latest technological tools can be used by non-engineers to develop new products, thus making high-tech research and development much more accessible to non-engineers, and the myriad new companies—and even whole new industries, like the Inter-

net—that are springing up are creating a huge talent vacuum.

All of a sudden, gender has become a virtual non-issue—setting the stage, local women high-tech executives hope, for an influx of young women into their field.

"The business has grown to be so much more than just bits and bytes," says Robin Hoffman, 41, director of the global helpline support department of System Software Associates Inc. in Chicago.

"In the old days, people bought software and it was just the function—'Did it perform?' Now, there are all these warm and fuzzies (expected from customers) about 'What kind of support will you give me?' It's opened up a huge market for people who aren't geeks" who can explain the products to non-technical customers.

Yet, as Ms. Rehling laments, very few women are poised to step into senior vice-president or top executive positions who have taken the critical product development career track.

That's particularly true in Chicago, which has a thinner concentration of high-tech companies than California's Silicon Valley and Massachusetts' high-tech corridor.

Companies of all sorts have been claiming for years that there simply aren't enough women to fill the management pipelines that eventually lead to senior vice-president, chief operating officer and CEO roles. While that argument may be specious for most consumer and manufacturing companies, it's true enough when you're talking technology.

Mona Eliassen, founder and CEO of Eliassen Group, a Wakefield, Mass., high-tech staffing firm, estimates that while 40% of information technology professionals are women (including those in relatively non-technical positions such as technical writing), only 5% of senior managers in in-

See **WOMEN** on Page T22



Quality from the future! Savings for today!

- 2 Months Free Unlimited Local Airtime
- \$49 Digital Nokia 2160
- Cellular Phone-To-PhoneSM Service
Free local calls to Cellular One customers
- NonPrime For A Dime Calling
New extended airtime hours!



Quality is out of this world with the Digital EdgeSM from Cellular One. The Nokia 2160 is a pager and phone all-in-one, with caller ID, voice mail and text messaging for easier communicating with crystal-clear sound

quality. Plus, save up to 20% with new Digital Edge airtime rates. Come in and try the Digital Edge for yourself at any Continental location.

CONTINENTAL
COMMUNICATIONS

CELLULARONE
Authorized Sales and Service

15 convenient Chicagoland locations, call for more details.

1-800-650-0220

520 N. ORLEANS
312-828-0303

141 W. JACKSON
312-408-1999

2342 N. CLARK
773-529-0088

Visit our new location at Old Orchard Shopping Center,
coming soon.

Free Pager. Free Airtime For 2 Months.

Sign up for pager service now and get a FREE Motorola Renegade pager and two months free airtime.

1 year pre-paid airtime and \$20 activation fee required.



\$35 new line activation and two-year contract on eligible rate plans required. Free local airtime offer applies for two months of local airtime from date of activation, excluding taxes, fees, network surcharges and roaming fees. Monthly access charges and certain restrictions apply. Cellular Phone-to-PhoneSM service to land placed within the Cellular One-Chicago home coverage area, excluding calls to 411, 1-800, 1-800-4-A-MessageSM or Message OneSM. *10¢ a-minute rate. See your Cellular One agent for details. ©1997 Cellular One. All rights reserved. Service provided by Cellular One. Offer ends 11/30/97.

Gender gap plagues high-tech executive suites

WOMEN from Page T21

formation systems are female.

She and other women in high tech agree that the essential problem is that not many young women are choosing science careers in college. Even though 36% of all scientists are women, most of them are in the social sciences, such as psychology and sociology, and another large proportion become teachers, according to the NSF.

While the number of females going into science did increase slightly in the late 1980s, it has remained flat for most of this decade.

On the other hand, the U.S. Department of Labor projects a near-doubling of the number of systems analysts and computer engineers by 2005.

Male atmosphere

Simply put, the floodgates are wide open, but there's only a small stream of women going through.

And when female engineers do enter the workforce, says Ms. Eliassen, other complications arise. She's found that the working atmosphere in engineering and information technology has taken on male characteristics, which makes these disciplines much more difficult paths for

women to pursue than traditionally more collegial fields.

"It's really hard-core, high-stress, a lot of infighting, very competitive and aggressive. A lot of women just can't handle that,"

While the number of females going into science did increase slightly in the late 1980s, it has remained flat for most of this decade.

she argues.

In addition, Ms. Eliassen and others contend that the sheer volume of information that high-tech managers must master to stay current in their fields is another deterrent for women, as the extraordinary time demands clash with family schedules. And technically minded colleagues often cut their female counterparts little slack.

"Someone has to take care of the kids. Women who are ready for management are in their 30s

or 40s, and they (often) have kids," says Ms. Eliassen.

Many turn to consulting

She sees large numbers of women in information technology stepping outside the corporate world to consult. Whether they be able to jump back on a management track if they do return to the corporate arena remains to be seen. But in the meantime, they're not there when promotions are being handed out.

All of this explains why it's so hard for companies like Spyglass Inc. to find women to fill their executive ranks.

The Naperville-based maker of World Wide Web software has not a single woman in its executive ranks. "I don't think there's any real planned reason for it," says Gary Vilchick, executive vice-president and chief financial officer.

"When we do a thorough search and come up with the best candidates, they happen to have been male. It's the nature of the beast," he says. (He does note, though, that one of Spyglass' product development divisions is headed by a woman and that other women are rising in the company's ranks.)

See WOMEN on Page T24

INTRODUCING



**THE FUTURE OF
LOCAL
PHONE SERVICE.**

NETLINK[®]
ILLINOIS

COMING IN FIRST QUARTER 1998

630-613-2100

www.nextlink.net



Check out Lucent @ <http://www.lucent-illinois.com>

Does Your
LAN
Understand Your
BUSINESS?

AMERICAN
digital
americandigital.com

We put technology to work. For you.

1050 West Kinzie - Chicago, Illinois 60622

We think it should.

We're American Digital Corporation, and we specialize in making sure your company's technology works with your business, not against it. To find out more, call Michael Scoby, Nick Rizzio or Randy Chiosri today at **312.850.1100**.

© 1997 American Digital Corporation

The shortage of women in Chicago high-tech fields

WOMEN from Page T22

However, at agricultural biotech leader DeKalb Genetics Corp., which draws from the natural sciences as well as high tech, 40% of recruits—and, subsequently, its biotech engineers—are women, says CEO Bruce Bickner.

DeKalb's Catherine Mackey, vice-president of research and DeKalb's highest ranking woman, has been with the DeKalb-based company for nearly 20 years.

Meanwhile, high tech's lopsided ratios are beginning to change as women grab onto new opportunities offered by the latest generation of programming tools, an ever-increasing emphasis on user-friendly products and the financial and professional bonanzas possible at high-tech startups.

Already, high-tech recruiters say they're seeing just as many women as men join startups.

Analytical skills are key

Women also are quickly moving into high-tech positions that require a deft touch with people as well as machines.

Jody Wacker, newly appointed vice-president of sales at Apropos Technology Inc., a call-center software company in Oakbrook Terrace, says that working in high-tech sales requires logic skills more than an engineering

background.

A math major, she has had to compete with male engineers who sometimes doubted her ability to

The biggest door-opener for women in high-tech jobs may be the oldest business principle of all: supply and demand.

grasp the technical underpinnings of the products she represented. At the same time, techies respect individuals, regardless of gender, who can quickly size up and solve problems, she says.

Analytical, not actual programming, skills are emerging as the key prerequisites for top executive jobs, she maintains.

"When you're in marketing, you have to understand the product and how it works, and also answer to the bottom line. Being able to understand both puts you in a position to become CEO," says the 41-year-old Ms. Wacker.

Ms. Rehling of SPSS believes

that tomorrow's senior managers are being developed today in the new "user interface design" career, which blends an understanding of how customers use software with the ability to work with engineers to create easily understood designs.

Bypassing engineering

Women, she says, excel at this function. At SPSS, 40% of the interface designers (who create the screens and tools that customers will use) are women.

"It's very creative work," she says, "and detailed. Often, these are leaders of staff teams. This is a way into the software products business that's new, and that bypasses engineering."

But the biggest door-opener for women in high-tech jobs may be the oldest business principle of all: supply and demand.

Male executives are too smart—and too desperate—to hire talent to ignore the need for more-active efforts to recruit women.

"Women can move around to more friendly companies; growth is exploding," notes Bonnie Cywinski, 32, who runs the Downers Grove office of Livonia, Mich.-based software consultancy ZenaComp Inc. "Companies can't afford to have glass ceilings."

Mayor Daley's
**BUSINESS
EXPRESS**

(312) **744-7444**
CITY

Chicago Answers.



If you want to expand your business and you'd like to know what support the City can give you. Maybe you have a abandoned vehicle towed from the front of your business. If you don't know where to go for a permit or license. Business Express—we're your link to the City's services, loan programs and economic development incentives offered by the City of Chicago. We've handled over 12,000 requests from Chicago businesses. Call us and see what we can do for you!

Mayor Richard M. Daley, Mayor

Commissioner of Planning and Development, Christopher R. Hill, Commissioner

The TTY number for persons with impaired hearing is (312) 744-8399

Chicago's Most Influential Technology Players

They rule over multibillion-dollar businesses. They toil in lofts with small staffs, harnessing the power of digital energy—creating content for the Internet or hacking away at the next hit video game. They are taking basic scientific research and parlaying it into commercial uses. Then there are the money men—and women—who are providing the lifeblood of new technology: cash. Each of the 100 people featured in the following pages has his or her own story, and own place in the region's high-tech network. Some of the names you'll know, but the unfamiliar ones may surprise you—the former antitrust lawyer who heads a company on the cutting edge of agri-research, the techie who commands a \$500-million-a-year budget at the city's largest bank, an academic at the forefront of biotechnology. Perhaps most interesting are the connections linking many of the Tech 100. Read on to see who's shaping Chicago's new economy.

WRITERS: Rekha Balu, Jeff Borden, Joseph B. Cahill, Thomas A. Corfman, Judith Crown, Michael Fritz, Greg Hinz, Julie Johnsson, Margaret Littman, Paula Lyon, Anne Moore, Arsenio Oloroso Jr., Kim Phillips-Fein, Steven R. Strahler, Jennifer Waters **GRAPHICS:** Thomas J. Linden, Sean Nolan, Karen McGarr, Anna Weaver **PHOTOGRAPHERS:** Bridget Montgomery, Steve Leonard, John R. Boehm, Sarah Hoskins **EDITORS:** Carol E. Rosenthal, David Snyder, Lisa M. Keefe

ROBERT ARZBAECHER, 66

DIRECTOR
RITZKER INSTITUTE OF MEDICAL
ENGINEERING
ILLINOIS INSTITUTE OF
TECHNOLOGY
CHICAGO



"Good things sometimes happen at cocktail parties," Mr. Arzbaecher says, and indeed, such a gathering in Memphis 30 years ago was the start of his stellar career. A cardiologist—who eventually became his partner—challenged him to apply his electrical engineering know-how to research the human heart's intricate electrical circuitry. In the decades since, he has earned four patents for ground-breaking electrocardiography inventions, including the "pill electrode" which, when swallowed, allows doctors to monitor the heart from the esophagus with "no trauma, no risk," he says; further advances have enabled physicians to use the device for stress tests on patients who can't exercise. Mr. Arzbaecher's latest invention treats certain diseases with an intravenous pump that automatically delivers drugs when a patient's heart begins to fail, eliminating the guesswork involved when patients took the medication on their own. In 1990, he was elected a fellow of the American College of Cardiology—a rare honor for a non-physician.

Julie Johnsson

LEN BATTERSON, 53

CHAIRMAN, CEO
BATTERSON VENTURE PARTNERS
CHICAGO



In his venture capital career, Mr. Batterson has staked such local high-tech hopefuls as Illinois Superconductor Corp. and Nanophase Technologies Corp., as well as the predecessor firm to Virginia-based America Online Inc. Armed with a Harvard MBA, the former St. Louis trial lawyer and turnaround executive was recruited to run Allstate Corp.'s venerable venture capital arm in the mid-1980s, leaving in '89 to begin his own firm, Batterson Johnson & Wang. With those funds fully invested, he started his current firm with about 60 well-heeled individuals as investors, including other Tech 100s Casey Cowell, Paul Yovovich and Jonathan Zakin. Next move: a Web-based clearinghouse for investors and high-tech firms. "If it works," he says, "it will change the way venture capital is raised in this country."

Paul Merriam

RICHARD BENNETT, 47

SENIOR VICE-PRESIDENT
AUDIT BUREAU OF
VERIFICATION SERVICES INC.
SCHAUMBURG



Cut through the blather about commercial use of the Internet and a simple fact emerges: Advertisers aren't really sure who is receiving their messages or how often. It's a huge hurdle if the Web is to attract more than a sliver of the \$140 billion-plus spent annually on advertising in the U.S. Enter Mr. Bennett, who leads the search for the Holy Grail of on-line advertising—a common, verifiable system of measurement. Drawing on suggestions from both content providers and advertisers, he's designed a "gatekeeper" that collects, analyzes and verifies usage. "There were days of monstrous highs and very low lows," Mr. Bennett says of the development process. Though some for-profit companies are touting other ways to measure Web usage, Mr. Bennett's efforts for his firm, a subsidiary of the Audit Bureau of Circulations, have the backing of such multinationals as Detroit-based General Motors Corp. and Cincinnati's Procter & Gamble Co.

Jeff Borden

D. THEODORE BERGHORST, 50

CHAIRMAN, CEO
VECTOR SECURITIES
INTERNATIONAL INC.
DEERFIELD



A former co-head of Kidder Peabody & Co.'s life sciences/medical products corporate finance group, Mr. Berghorst satisfied the itch to run his own show in 1988 by teaming up with Kiddy colleagues James Foght and Peter Drake to found Vector, an investment banking boutique. Initially focusing on advising emerging health care and biotechnology companies, Vector broadened its focus to include large drugmakers, medical device companies and the managed health care industry. Its assignments have ranged from helping Swiss pharmaceutical company F. Hoffmann LaRoche Ltd. sell its microbiology unit to New Jersey-based Becton Dickinson & Co. to assisting Deerfield's Dade International Inc. in its purchase of Hoechst AG's Behring Diagnostics GmbH unit. On the corporate finance side, Mr. Berghorst and his team have raised more than \$2.5 billion as lead or co-manager of more than 100 public stock offerings. In addition, the firm's two later-stage equity funds manage more than \$200 million in assets.

Michael Fritz

ROBERT BERNARD, 36

CHAIRMAN, CEO
WHITTMAN-HART INC.
CHICAGO



An artist at heart, Mr. Bernard brings the same intensity to his self-taught avocations of architecture and interior design as he does to technology. The high-tech consultancy he founded at age 22 saw profits surge almost 400% last year, to \$5.5 million, and revenues vaulted 76% to \$87.5 million, in a niche providing systems integration services to middle-market companies. Clients include Chicago's arcade game maker WMS Industries Inc. and Walgreen Co. Sleeping only four hours a night, Mr. Bernard also designs homes for family and friends (and has launched a speculative home development business in New Buffalo, Mich.), the interiors for Whittman-Hart's offices and sets for Chicago theater productions. He's also a 50% partner in William Reid Inc., a Dallas-based maker of upscale, fashion-forward men's clothing, and is a partner in Hinsdale-based Fortress Inc., an emerging software company. Says Mr. Bernard, "When I get involved in things, I have a tendency to get involved in a very committed way."

Jennifer Waters

BRUCE P. BICKNER, 54

CHAIRMAN, CEO
DEKALB GENETICS CORP.
DEKALB



The Sherman Act was Bruce Bickner's unlikely steppingstone to DeKalb Genetics, biotech pioneer and the world's No. 2 marketer of

hybrid seed corn. Mr. Bickner left a booming antitrust practice at Sidley & Austin in 1975 when the Roberts family, which founded DeKalb, recruited him to learn—and ultimately run—its agricultural powerhouse. "Something in me wanted to stretch, to see what I could do," he says of the abrupt career switch. Since taking DeKalb's reins in 1988, Mr. Bickner has returned the \$387-million company to its agricultural roots: breeding seed and genetically engineering disease- and bug-resistant crops. DeKalb's earnings have doubled each of the past two years, thanks to genetic engineering breakthroughs for corn and soybeans. John McCarter, a friend since 1973, credits this winning approach to Mr. Bickner's days as an antitrust litigator. "He is a very thoughtful strategist," says Mr. McCarter, president of Chicago's Field Museum. "He is a careful and thorough communicator of complex ideas."

Julie Johnsson

MICHAEL J. BIRCK, 59

CO-FOUNDER, PRESIDENT, CEO
TELLABS INC.
LISLE



This impetuous, hard-charging entrepreneur harnessed a Hoosier-childhood curiosity about how things work to co-found Lisle-based Tellabs Inc. in 1975, building a better mousetrap for moving data signals through telephone lines. Its 1996 revenues were \$869 million. His tendency to jump into projects before considering possible obstacles has led Tellabs through some rough times, but he's hired more-calculating executives to work for him. Mr. Birck serves on such disparate corporate

boards as those of Lisle-based computer cable maker Molex Inc., Maryland-based U.S. Fidelity Guaranty Insurance Co. and fastener and accessories maker Illinois Tool Works Inc. in Glenview. He's also a staunch education supporter, heading the Illinois Mathematics and Science Academy's fund for the advancement of education and serving as a director of Purdue University's research foundation.

Michael Fritz

MICHAEL D. BLAIR, 52

CHAIRMAN, CEO
CYBORG SYSTEMS INC.
CHICAGO



Mr. Blair is the bionic man for the "people" side of business. His privately held company has grown into the world's fourth-largest seller of human resource soft-

ware, with 1997 revenues of \$65 million. A driving force in the 1992 founding of the Chicago Software Assn., Mr. Blair is just as proud of his employees' involvement in Habitat for Humanity and Chicago's Off the Street Club. A math and science major at the University of Missouri, the Kansas City, Mo., native came to Chicago after his 1967 graduation to work in data processing for International Harvester Co. (now Navistar International Corp.). In his first job, Mr. Blair was assigned to a team designing a piecework payroll system for a mainframe. He left Harvester in 1969 to be a computer consultant, specializing in personnel issues, and co-founded Cyborg in 1974. International sales account for about 30% of the firm's total revenues. A new version of its software, due in 1999, may be followed by an initial public offering to raise capital for expansion into Japan.

Thomas A. Corfman

PARTNERS

JAMES E. COWIE, 42
PAUL D. CARBERY, 38
JAMES E. CRAWFORD III, 51
GENERAL PARTNERS
FRONTENAC CO.
CHICAGO

The technology troika behind the venture capital firm established its early success as sole institutional investor—in 1989—in database software maker Platinum Technology Inc., then guided its initial and secondary public stock offerings. The three, who say there's no clear division of labor between them, direct about one-third of the firm's available funds toward information technology and telecommunications startups, with the latter being their focus most recently. Their newest fund has about \$100 million to invest in technology. Senior technology specialist Mr. Cowie joined Frontenac in 1988 after stints with investment bankers Merrill Lynch & Co. and A. G. Becker & Co.; he was an active outside director of Skokie's U.S. Robotics Corp. and sits on the board of its new parent, 3Com Corp. Mr. Carbery recently



Left to right: James E. Cowie
James E. Crawford III
Paul D. Carbery

left the board of Whittman-Hart Inc., the Frontenac-backed local network systems developer and consultant. Mr. Crawford, an electrical engineer by training, did a stint as a McKinsey & Co. strategist and as a venture capitalist with William Blair & Co. LLC before joining Frontenac to focus on information and medical technology.

Michael Fritz

IMAGINE

WHAT WE CAN DO FOR YOU.

WE'VE
GROWN 30%
ANNUALLY
FOR THE
PAST FOUR
YEARS.

Management Consulting • Software Quality Management
Legacy Systems Support • Client/Server Development
Network Integration • Technical Communications
Year 2000 Compliance

Business growth is the thing we *understand* best.
Information technology is the thing we *do* best.
This puts Interim Technology, The Consulting Group, in
the best possible position to support your company's needs.

We have developed and supported applications that move billions of
dollars for major international banks and brokerage houses.
Pharmaceutical companies rely on us to ensure that manufacturing
and packaging applications are in accordance with FDA regulations.
Our Fortune 1000 clients are the very firms defining the
information technology industry today.

Our *practice* approach for delivering services encompasses a
comprehensive range of IT solutions for business. Our proprietary
methodologies, tools, and quality process support these practices.

If your company needs to become more efficient, more productive,
more profitable in order to grow, Interim Technology, The Consulting
Group, can make that happen. Call us at 630/574-3030.

Interim.
TECHNOLOGY
The Consulting GROUP

your choice:



☐ A. Pay our competitors to do this.



☐ B. Hire us to do this.

Correct Answer: B. Revere works in tandem with your staff
to ensure the transfer of skills and knowledge.

The most successful IT projects come from a strong partnership
based on trust. Revere believes that co-management and
knowledge transfer are crucial elements of that partnership.
This is not just a slogan, it's how we approach every aspect
of our business.

At The Revere Group®, we take pride in being different than
other technology consulting firms. It shows in our enduring
client relationships, the caliber and enthusiasm of our people,
and in the **high-value business solutions** we deliver. In
short, this is how we've earned the lasting trust of our clients.
We'd like to do the same for you. Contact **Greg Buseman**,
Director of Business Development, to learn more.



The Revere Group

Chicago • Milwaukee • Charlotte
1.888.4.REVERE
www.reveregroup.com

PARTNERS



Mark Gordon, left
Scott Glickson

MARK GORDON, 46
SCOTT GLICKSON, 47
MANAGING PARTNERS
GORDON & GLICKSON P.C.
CHICAGO

A decade ago, when much of Silicon Prairie was
still a cornfield, Messrs. Gordon and Glickson
began billing their firm as an info tech-law bou-
tique, advising on any issue from licensing to
privacy rights. Though not the first in the coun-
try to so specialize, they quickly snared such clients as Beat-
rice Foods—for the not-so-titillating work of systems inte-
gration—as well as young entrepreneurs, including Randy
Storch of Open Port Technology Inc. Their client list now
boasts Ameritech Cellular Inc., McDonald's Corp. and South
African utility Eskom. Heavy-duty marketing—they call it
“client development”—includes appearances at more than
30 conferences a year and a couple-dozen law journal arti-
cles on information technology annually. “We did the brand-
ing (of our firm),” Mr. Gordon says. Their challenge is to re-
tain clients and develop new ones as part of its fast-growing
high-tech industrial clientele outgrows the boutique's capa-
bilities.

Rekha Balu



**If web evolution
isn't in your
marketing plan
please give this ad
to your
competition.**

Your business evolves, so should your web site.
And to keep it fresh and interactive, you need communication experts
to help you plan and implement for the long term.

If you don't call us, someone will.

www.PiperStudiosInc.com

Your Source for Integrated Communication Solutions

call: 312.454.0259 info@piperstudiosinc.com

ELIZABETH BOATMAN, 37
COMMISSIONER
CHICAGO DEPARTMENT OF
MANAGEMENT INFORMATION
SYSTEMS
CHICAGO



She calls other city departments "clients" and says her goal is to "focus on our core business." Such jargon is rare in government, but then, few officials do what

Ms. Boatman did in October: move to privatize half of her department. As Chicago's new chief information officer, Ms. Boatman says she'd concluded that city government would be unable to catch up with the latest technology on its own. Hiring outside experts will allow the city to handle everything from accepting building permits on-line to enabling residents to pay water bills via the Internet, she says. A former executive with IBM Corp. and Chicago's Blackwell Consulting Services, Ms. Boatman has taken a few shots for her privatization crusade. Her husband had to quit his job because he worked for a city contractor, and the City Hall grapevine has aimed a few arrows in her direction. But it's worth it, she concludes. "Your impact is so strong in the public sector."

Greg Hinz

DEBORAH A. BRICKER, 45
PRESIDENT
BRICKER & ASSOCIATES INC.
CHICAGO



Deborah Bricker doesn't design software, manufacture computer chips or sell any high-tech product. What her firm does do is help

clients like CNA Financial Corp. buy such goods—a cool \$250 million to \$300 million worth just in the past year. The 100-employee productivity consulting firm helps other companies boost profits by examining how they do their work, and then recommending the required management structure and information systems. Most clients spend an average of \$35 million on technical support after her review, says Ms. Bricker, who started out in business as a computer saleswoman. She finds time to serve on the boards of both the Goodman Theatre and Hubbard Street Dance Company, but says work is her love: "What I do really makes a difference for clients."

Greg Hinz

DUANE L. BURNHAM, 55
CHAIRMAN, CEO
ABBOTT LABORATORIES
NORTH CHICAGO



An accountant by profession, Mr. Burnham has a reputation as an ultra-conservative manager. But since becoming chairman in

1990, he's combined a prudent approach to cash flow management with aggressive investment in scientific research to make low-key North Chicago-based Abbott—primarily a maker of laboratory diagnostics systems—into a major drug power. A signal pharmaceutical accomplishment during Mr. Burnham's tenure was Abbott's 1996 introduction of Norvir, which stops the growth of the HIV virus. Abbott's first blockbuster drug, it's potentially worth billions. Mr. Burnham also has led growth through acquisitions, a strategy the \$11-

billion company had never pursued in a big way. In May, it closed the \$876-million purchase of Medisense Inc., a Massachusetts-based blood-glucose testing company.

Arsenio Oloroso Jr.

MICHAEL CAMPBELL, 36
FOUNDER, CEO
CAMPBELL SOFTWARE INC.
CHICAGO



The firm is poised to be one of the area's next breakthrough companies. Mr. Campbell applied mathematical optimization principles to retail

staffing, creating software that maximizes scheduling efficiency across entire store chains. Such big-name retailers as Dayton Hudson Corp., Gap Inc. and Walgreen Co. are snapping up the company's retail labor-scheduling software, which cuts costs as much as 12%. An aeronautical and astronautical engineering graduate of Purdue University, Mr. Campbell got his big idea in the late 1980s watching his wife, then a store manager for Carson Pirie Scott & Co., struggle with schedules. Campbell sales have more than tripled since 1995, to a projected \$20 million this year, and the 8-year-old company employs 135 people in Chicago, London, Sydney and Melbourne. Mr. Campbell also has attracted \$7 million in expansion financing from such local luminaries as Platinum Technology Inc. CEO Andrew Filipowski and venture capital firms Frontenac Co. and Marquette Venture Partners.

Joseph B. Cahill

LEROY T. CARLSON JR., 51
PRESIDENT, CEO
TELEPHONE & DATA SYSTEMS INC.
CHICAGO



Mr. Carlson—Harvard University cum laude, Harvard Business School with distinction—found his wife in typically analytical fashion: He scoured

Chicago-area Harvard alums for recommendations, did the research and finally married another Harvard cum laude in 1983. "I called the targets," he says. His less romantic targets are rural telephone companies; across the country TDS has snapped up scads (and their subsidies) to generate economies of scale. TDS, a company founded by Mr. Carlson's father in 1969, has glitzier operations: three publicly traded subsidiaries (of which Mr. Carlson the younger is chairman), including U.S. Cellular Corp., the nation's eighth-largest wireless firm. TDS' stock nevertheless has been rattled this year by changes in the industry. "People are not yet fully confident about how companies will look after competition is introduced," he notes. "But people are focused on the competitive part, instead of the growth potential. There's a tremendous amount of upside." His "very much full-time" 81-year-old father is still chairman. Young Mr. Carlson acknowledges, "We share responsibility here."

Steven R. Strahler

ELLEN CARNAHAN, 42
MANAGING DIRECTOR
WILLIAM BLAIR CAPITAL
PARTNERS LLC
CHICAGO



Ms. Carnahan wanted to be present at the high-tech revolution. A Golden Domer trained as an accountant at Price Waterhouse, Ms.

Carnahan earned a master's degree in econometrics at the University of Chicago and veered into technology because she saw the opportunities growing out of cataclysmic change. Starting at statistical software developer SPSS Inc. in Chicago, she rose to vice-president of marketing and product planning before joining Blair in 1988. Colleagues say what separates Ms. Carnahan from other venture capitalists is her operating experience in the software business. She is the firm's top technology investor, managing \$55 million earmarked for high-tech deals from the firm's \$182-million venture capital fund. In two years, she's put \$30 million into six technology saplings, including local software makers Silvon Software Inc. in Westmont and Apropos Technologies Inc. in Oak-

brook Terrace.

Joseph B. Cahill

PATRICK E. CHARBONNEAU, 40
VICE-PRESIDENT OF ENGINEERING
ENGINE AND FOUNDRY DIVISION
NAVISTAR INTERNATIONAL CORP.
MELROSE PARK



Mr. Charbonneau oversees Navistar's proprietary diesel engine technology that produces a quieter and more fuel-efficient engine and has helped propel

the fortunes of Navistar's medium-sized truck business. A native of Gary whose father and grandfather worked in the steel mills, he took summer jobs in the mill, but decided to head for the less-gritty technical arena. In 1976, armed with a degree in mechanical engineering from the University of Dayton (he later added an MBA from the Illinois Institute of Technology), he joined what was then International Harvester Co. as a design engineer and survived the bad times and reorganizations. The engine design that Mr. Charbonneau oversees uses an electronic system that increases fuel economy and performance by injecting the precise amount of fuel it needs at any given moment—a development he compares to the leap from a typewriter to a personal computer. Navistar's growing engine production has boosted corporate profits and spurred the company's marketshare in mid-sized trucks to 38% from 25% at the start of the decade.

Judith Crown

THOMAS L. CHURCHWELL, 55
CEO
ARCH DEVELOPMENT CORP.
CHICAGO



If Chicago ever duplicates the success of California's Silicon Valley and Boston's Route 128 in commercializing university scientists' research, Mr.

Churchwell will be a main reason. As head of Arch, the joint commercialization unit of the University of Chicago and Argonne National Laboratory, he has helped give birth to such rising startups as Illinois Superconductor Corp. and Nanophase Technologies Corp., and dozens of others. Mr. Churchwell's own fling as an entrepreneur was a flop: He briefly left Arch to develop and sell genetically engineered tomatoes, which tasted great but were so fragile that "we shipped tons of tomato soup," he jokes. But there's still a place for See CHURCHWELL on Page T34

PARTNERS

CHRISTOPHER B. GALVIN, 47
CEO

ROBERT W. GALVIN, 75
CHAIRMAN, EXECUTIVE COMMITTEE
MOTOROLA INC.
SCHAUMBURG



Christopher B. Galvin



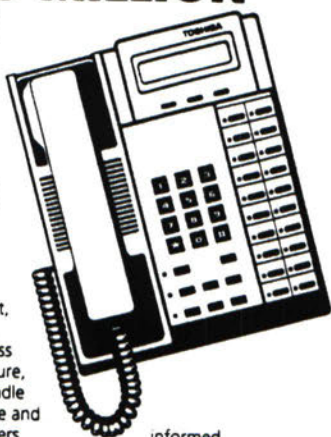
Robert W. Galvin

The Galvin name is synonymous with the electronics giant. Second-generation heir Robert—top officer from 1959 to 1990—transformed the maker of two-way radios into a \$30-billion global manufacturer of cell phones, pagers and semiconductors. Now, son Chris is charged with reinventing the company, which has stalled in several key businesses. The Galvins' influence extends well beyond the family's 3% equity stake—the result of Bob's considerable political skills, a friendly board of directors and much goodwill accumulated during his years of delivering strong financial results. Chris climbed the Motorola ladder as if following a script, starting 16 years ago as a salesman of two-way radios to

small businesses and reaching the CEO's spot earlier this year. Observers say he scored particular success in streamlining Motorola's production of pagers, but also is a master of the one-on-one sales pitch. Chris hopes that Motorola's historic strategy of investing in new technologies and being first in the market will pay off again, this time for such new products as satellite telephone systems and video screens.

Judith Crown

OVER TWO MILLION BUSINESS PEOPLE CALL ON TOSHIBA BUSINESS PHONES.



That's a number that speaks volumes about our cost-efficient, easy-to-use Strata® telephones. Designed to fit into your business plans today and far into the future, Strata is fully expandable to handle even high call volumes with ease and efficiency. LCD displays keep users informed, while user-programmable function keys automate even complex features. Call today for a detailed Strata demonstration. Two million voices can't be wrong.



(630) 887-1800

CHURCHWELL from Page T32 good ideas, he insists. "You don't have to put that much money to work to get some of these new technologies into the market."

Greg Hinz

RICHARD CITTA, 53
MANAGER OF ELECTRONICS
SYSTEMS RESEARCH
AND DEVELOPMENT
ZENITH ELECTRONICS CORP.
GLENVIEW



The days of Thomas Edison, when great inventors spawned great inventions, are over. Today's advanced technology takes teams of developers.

That's especially true of high-definition television (HDTV), which melded the ideas of several firms into one broadcasting standard. But if there's anyone who might be considered the father of HDTV, it's Zenith's Richard Citta. Among 75 patents to his name, he came up

with two key HDTV breakthroughs: a way to use channels adjacent to conventional TV frequencies without creating interference, and a method to digitally compress the stream of data that produces HDTV's ultra-sharp pictures and sound. "Those two ideas are what have made this all possible," says Bob Wierather, director of TV products at Quincy-based Harris Corp. "Rich is an engineer's engineer."

Paul Merriam

DOUGLAS P. COLBETH, 42
PRESIDENT, CEO
SPYGLASS INC.
NAPERVILLE



With a stunt-pilot mother whose mantra was "nothing ventured, nothing gained," Mr. Colbeth grew up entrepreneurially driven on Long Island. Charging 25 cents to let himself be pelted with water-filled balloons in his backyard "was the highest-margin business I've ever been in," he says. Joining Spyglass in 1991, Mr. Colbeth led the University of Illinois-bred supplier of arcane scientific software to the Internet's

frontier through commercialization of Mosaic, the first Web browser technology. Margins have shrunk since Microsoft stopped buying Mosaic—and Spyglass' Web-related revenues plunged 78% during the quarter ended June 30. A more mundane—and potentially more profitable—strategy: supplying Web-related technology that enhances bill-paying and marketing capabilities at, say, the gas pump. It's a gamble, but in this industry, it's definitely change or die. Says analyst Abhishek Gami of Nesbitt Burns Securities Inc., "The Web industry is full of a lot of people who are dreamers. He's not chasing fairy tales."

Steven R. Strahler

ROGER COVEY, 42
CHAIRMAN, CEO
SYSTEM SOFTWARE
ASSOCIATES INC.
CHICAGO



In 1991, Mr. Covey left the company he'd founded 10 years earlier to begin a three-year sabbatical to study the Tang dynasty for an advanced degree in art history from the University of Chicago. See COVEY on Page T36

Illinois Institute of Technology Luncheon

honoring

Crain's Chicago Business

Technology 100

Casey Cowell, Vice Chairman 3Com Corporation
Luncheon Committee Chairman

Featured speaker:

Eric Benhamou, Chairman and CEO
3Com Corporation

Date:

Friday, November 14, 1997

Time:

Reception: 11:30 a.m.
Luncheon: Noon

Place:

Chicago Hilton and Towers
Grand Ballroom
720 South Michigan Avenue

\$75 per person
\$750 per table of ten

For reservations call:

312.485.4448

Celebrating

Chicago's top

technology

leaders and

entrepreneurs

WORKING SMARTER... NOT HARDER

to Create, Preserve and Protect Wealth

IT STARTED OUT AS A DREAM.

You've worked hard to make it a reality. Yet maintaining a business today, with an eye toward its future and yours, can be a daunting challenge, unless you plan.

Smith Barney is pleased to invite you to a continental breakfast symposium that will outline some of the key issues when seeking to create, preserve and protect wealth.

Featuring

Jay Nuessel

Regional Director of Corporate Retirement Services, Smith Barney Inc.



Tuesday, November 11, 1997
7:30 a.m. to 9:15 a.m.

Arlington Trackside

2000 W. Euclid Avenue / Arlington Heights, Illinois

R.S.V.P. to Jon Hershman at Smith Barney,
847-382-6600 by November 7, 1997

SMITH BARNEY

© Smith Barney Inc. Member SIPC

COVEY from Page T34 go. Even there, however, he found he was unable to completely leave SSA behind, spending some of his time opening SSA offices in major Chinese cities. The degree completed, he returned to the company, which specializes in software that automates virtually all aspects of business, from plant production to financial planning. He had his work cut out for him: In fiscal 1996, the company posted a \$32.8-million loss—after fiscal 1995's 160% leap to \$26.6 million in income—and revenues fell 9% to \$340.8 million. Mr. Covey ordered up a two-year overhaul of SSA's business software. Whereas the programs had been written to work on IBM mainframes, he made sure they worked on client-server systems. SSA stock jumped 21% in August when the company predicted that third-quarter revenues would be 59% ahead of the year-earlier's \$114.7 million. Says Mr. Covey: "Frankly, we bet the company last year, and we won."

Jennifer Waters

CASEY G. COWELL, 44
VICE-CHAIRMAN
3COM CORP.
SKOKIE



Mr. Cowell put Chicago on the high-tech map. From a Lincoln Park walk-up, he built U.S. Robotics Corp. into a \$2-billion modem maker

that dominated the market. Then, he sold it to 3Com Corp. of Santa Clara, Calif., in a \$7-billion deal last spring. But Mr. Cowell is still here, investing his millions locally in such tech upstarts as Open Port Technology Inc. of Chicago and Burr Ridge-based Nanophase Technologies Corp. His very presence strengthens the fabric of the local high-tech community. Entrepreneurs such as Open Port's Randy Storch turn to him for

advice, venture capital firms from around the country—including Battery Ventures in New York and Chicago's Frontenac Co.—have followed his lead in financing new high-tech firms here and, as a director of such local tech firms as May & Speh Inc. and such organizations as the Illinois Coalition, Mr. Cowell shows his commitment to keeping Chicago in the technology race.

Joseph B. Cahill

ROBERT CROSS, 60

CEO
NANOPHASE TECHNOLOGIES CORP.
BURR RIDGE



Financial backers of this spinoff of Argonne National Laboratory recruited Mr. Cross—a lawyer by training—from his own computer security

firm in late 1992, hoping to tap his expertise in developing business plans and his connections in the venture capital field. It worked: Sales of \$4 million this year are expected to increase fourfold in 1998. The company, which commercializes technology for high-performance metals and materials, was launched in 1989 by Argonne scientists who found that manipulating a metal's molecular structure could produce ball bearings that never wear out, more-conductive copper and faster circuitry. The company's ultrafine powders are used in sunscreens, ceramic parts and abrasives for polishing semiconductors. One of Mr. Cross' earliest jobs was as general counsel at Ross Perot's Electronic Data Systems Corp. These days, Mr. Cross can often be found at the office at 5 a.m. juggling the startup's initiatives, which include a second stab at a public offering.

Judith Croun

JAMES E. DAVERMAN, 48

FOUNDER, MANAGING GENERAL
PARTNER
MARQUETTE VENTURE PARTNERS
DEERFIELD



Mr. Davenport's investments are driving the growth of biotechnology firms in the Chicago area. With new medical devices often taking a decade to clear regulatory hurdles, biotech is not the most attractive target for venture capitalists—

See DAVERMAN on Page T38

PARTNERS

MICHAEL HAKIMI, 24

CO-FOUNDER, CHIEF FINANCIAL OFFICER

JOSHUA SCHNEIDER, 24

CO-FOUNDER, VICE-PRESIDENT OF RESEARCH
AND DEVELOPMENT
AMERICAN INFORMATION
SYSTEMS INC.
CHICAGO



Joshua Schneider, left, and Michael Hakimi

Friends since the age of 9, when they co-wrote a computer program, Messrs. Hakimi and Schneider both were finance majors at the University of Illinois at Urbana-Champaign with a keen eye for a niche market. In 1994, with \$25,000 in seed capital, they launched AIS to provide Internet access to local companies. AIS, which expects revenues of \$5 million to \$10 million this year, now provides Internet access and hosts Web sites for 8,000 companies, including Sara Lee Corp. and CRAIN'S CHICAGO BUSINESS. Recently, AIS' niche has attracted some big players—including AT&T Corp.—but the firm shored up its position in the region by helping Chicago's Ameritech Corp. launch Internet access for residential phone customers. Earlier this

year, Mr. Hakimi stepped down from the CEO job to allow someone more experienced to guide the company. "I have to put my ego aside," he says. Mr. Schneider notes that their work life today is an extension of their youthful computer experiments. "It's a little strange," he says.

Rekha Balu

SOMETIMES YOU CAN'T PUSH A CLICHÉ FAR ENOUGH.

From the Silicon Prairie to the Silicon Shores of Lake Michigan, Illinois is not just boasting technology like every other region of the world. We've got the numbers to prove it. And it's more than silicon.

The NORTHWESTERN UNIVERSITY EVANSTON RESEARCH PARK

The Evanston Business & Technology Center
winner of the

1997 RANDALL M. WHALEY BUSINESS INCUBATOR OF THE YEAR

The National Business Incubation Association (NBIA) Incubator of the Year Award is sponsored by the professional services firm Coopers & Lybrand L.L.P. The Evanston Business & Technology Center (EBTC) was the unanimous winner selected from the top nine incubators nominated from more than 500 North American NBIA member incubators.

Since its inception in 1986, The EBTC has assisted more than 150 new businesses and generated over 2000 jobs in information technology, artificial intelligence, robotics, medical technology, pharmaceutical, and materials sciences. Together these companies reflect a total estimated capitalization of more than \$500,000,000.

Companies that have been grown and nurtured in the EBTC include Peapod, Whitewater, Illinois Superconductor, ReCor, Pattern Recognition Systems, Metabolic Technologies, Immtech, Spectrix, Plextel (Spark Services), Marketing Information Systems, ED Corboy, Vena Tech, Celsis International, Brella Productions, IDEO, Ezec, Harmonic Vision

For a complete list of companies and more information on the EBTC:



THE NORTHWESTERN UNIVERSITY/EVANSTON RESEARCH PARK
1840 Oak Avenue, Evanston, Illinois 60201 • 847-475-7170 • <http://researchpark.com>

We'll get you the world.

Hi Hardie Interactive

A communication company that uses technology
to help our customers tell their story

1-800-556-4412 • 1-312-421-4400

www.hardieint.com

PARTNERS

BRYAN KENNEDY, 42
MICHAEL SANTER, 32

PARTNERS
 PLATINUM VENTURE PARTNERS
 OAKBROOK TERRACE

It took Mr. Kennedy 10 years of night school to finish college. Mr. Santer didn't go to half his graduate business school classes at Northwestern—he was in Europe working as a disk jockey. But by the time Mr. Kennedy joined Platinum Venture Partners two years ago, he already had founded and financed technology startups while at Marquette Venture Partners (and earned a Harvard MBA). Mr. Santer, who had started an information technology consulting firm as an undergraduate, had helped launch Platinum Venture in 1992. The brainchild of Platinum Technology Inc. Chairman Andrew J. "Flip" Filipowski, Platinum Venture is Silicon Prairie's money machine. Another twist for Platinum Venture: Its base of investors is almost exclusively active CEOs (current count nearly 200). "Ninety percent of the companies we invest in have been brought to us by our investors," Mr. Kennedy says. Adds Mr. Santer: "We've got a lot of people out there hustling



Michael Santer, left, and Bryan Kennedy

with us." Platinum has raised about \$75 million, hitting home runs with Whittman-Hart Inc. and D-Vision Systems Inc., which produces video-editing software. D-Vision's sale last June more than tripled Platinum Venture's original \$2-million stake. "You need local money," says D-Vision CEO Paul Reilly. "Who's going to come to the Midwest, especially in the winter?"

Steven R. Strahler

DAVERMAN from Page T36 even though, once federal approval is granted, it is a significant barrier to competition. Mr. Daverman's funding is "absolutely critical" to the industry locally, says Illinois Coalition President Thomas Thornton. At Marquette, which he co-founded in 1987, Mr. Daverman bets the firm's \$225 million in investment funds on information systems as well as health care. Both sectors "live off technology, have unmet market needs and represent places where small businesses can grow rapidly," he says. Companies backed by Mr. Daverman include Palindrome Corp., a local software startup, and Endocardial Solutions Inc., a Minneapolis firm with promising cardiac technology set to hit the market next year, pending federal approval. Mr. Daverman has garnered a healthy 30% internal rate of return during his 18-year career in venture capital.

Julie Johnsson

EDWARD DENISON, 50
 EXECUTIVE DIRECTOR
 CHICAGO SOFTWARE ASSN.
 PALATINE



After 25 years selling computer hardware, he's now selling software—the association. Downsizing at mini-computer manufacturer Prime Computer Inc., where Mr.

Denison was Chicago-based director of marketing, left him with a severance package and a question: What's next? He opted for non-profit management, getting a master's degree at DePaul University School of Public Service. He's been head of this trade group for local information technology professionals since 1994. The 5-year-old association has 450 member firms and an annual operating budget of \$500,000. Its annual Early Stage Investor Conference brings together start-up firms, mentors and venture capitalists. At the '95 conference, Evanston-based Harmonic Vision Inc., which makes music education software, hooked up with Ron Birchall, founder of Palindrome Corp., now a Harmonic investor and director. And Mr. Denison played a key role in lobbying the city of Chicago to create an incubator district for software companies.

Thomas A. Corfman

KARL DENNINGER, 34
 PRESIDENT
 MACRO COMPUTER SOLUTIONS
 INC. (MCSNet)
 CHICAGO



An Internet service provider (ISP) who doesn't believe the Internet should be a market-driven free-for-all. And that's just one of Mr. Denninger's famously strong

opinions about everything from the best modems to child porno-

graphy on the Web. He dropped out of Western Michigan University after two years, and went from software sales to co-founder of a network systems integration firm in 1987; by 1993, it had evolved into MCSNet, one of the first and largest ISPs based in the area. Customers rave: "I can't even remember when we've had a downtime," says Chris Smith, a Chicago Title & Trust Insurance Co. software engineer. Those who have gone keyboard-to-keyboard with Mr. Denninger in Internet "flame wars"—exchanges of scathing e-mail messages—are less enamored. His policy of preventing access to user groups he considers illegal, such as those featuring sexually explicit pictures (most of which, he believes, have been scanned without permission and therefore violate copyright laws) and pirated software files anti-censorship purists. Says an unimpressed Mr. Denninger, "We take a great deal of heat for not being quiet. That means (the other ISPs) can't stick their heads in the sand."

Paul Merriam

JOHN DEWAN, 43
 PRESIDENT
 SPORTS TEAM ANALYSIS
 & TRACKING SYSTEMS INC.
 SKOKIE



Running a company more easily remembered as Stats Inc., Mr. Dewan is the patron saint of electronic sports statistics. A former insurance actuary who found a way to

combine a love of data with a passion for sports, he assembled a team in the mid-'80s that revolutionized the collection and transmission of statistical minutiae from stadiums and arenas nationwide. Stats products are behind box scores in the newspaper, updates on ESPN and pagers delivering real-time results. The \$10-million company also operates one of America Online's most popular sites. "They bend over backward to find obscure statistics for us," says *Chicago Sun-Times* Sports Editor Bill Adee. Mr. Dewan, the first student to graduate from Loyola University with a mathematics and computer sciences major in 1976, makes use of his own product, competing in 10 rotisserie leagues.

Jeff Borden

DEAN E. EASTMAN, 57
 DIRECTOR
 ARGONNE NATIONAL
 LABORATORY
 ARGONNE



Dean Eastman's golf game can wait. While technically retired from IBM Corp., where he was instrumental in Big Blue's strategic shift from main-

See EASTMAN on Page T39

**We're
 privately owned...
 just like you.**

There's nothing quite like starting a business from scratch and building it into a success. We know. We've done it.

Manufacturers Bank is a privately held, locally owned and operated bank that's been helping Chicago businesses achieve their corporate goals for over 63 years. We offer the benefit of local market expertise, as well as personal experience in sustaining and enhancing shareholder value. And we have a long list of responsive financial products and services that can be tailored to your operation's specific needs.

Just like you, we're staffed by results-oriented Chicago entrepreneurs. Our intent is to do all we can to help your company succeed. Call Jim Houston at 773/292-5403 or Jim Mann at 773/292-6289 today.



**Manufacturers
 BANK**

1200 N. Ashland Avenue
 Chicago, Illinois 60622
 773/278-4040

17130 Torrence Avenue
 Lansing, Illinois 60438
 708/474-1010

10200 S. Ewing Avenue
 Chicago, Illinois 60617
 773/768-0502

16255 S. Harlem Avenue
 Tinley Park, Illinois 60477
 708/532-7200

3232 W. Peterson
 Chicago, Illinois 60659
 773/583-6300

3030 E. 92nd Street
 Chicago, Illinois 60617
 773/768-1900

901 E. Sibley Boulevard
 South Holland, Illinois 60473
 708/596-5000

Member FDIC

© 1997 Manufacturers Bank

EASTMAN from Page T38 frames to PCs, Mr. Eastman now is responsible for procuring \$450 million in annual federal funding for the lab, and for consolidating 200-plus research programs into 20 or so business lines. Turning ocean liners around in canals is old hat for Mr. Eastman. He was head of IBM's research operations in 1991, when IBM suffered declining sales and a plunging stock price. "I saw this coming and started transforming (the company's research units) away from mainframes and into the new stuff," he says, and later was asked to do the same for the corporation as a whole. He retired from IBM in 1996, after 33 years.

Julie Johnson

THANASIS "TOM" ECONOMOU, 60

SENIOR RESEARCH ASSOCIATE
ENRICO FERMI INSTITUTE
UNIVERSITY OF CHICAGO
CHICAGO



Mr. Economou this summer missed his annual trip back to his native Greece. But the Chicago physicist didn't mind because he instead spent that

time watching his baby travel a lot farther: to Mars. His "baby," the alpha proton X-ray spectrometer, is the device used to analyze the chemical composition of Martian rocks on the Pathfinder space mission. The spectrometer hasn't found evidence of life—that possibility will be explored further in later missions—but it did unearth a few surprises, he says. The makeup of Martian soil appears to be fairly even from one section of the planet to another, and an abundance of silicon suggests strong geologic activity. Coming up is another mission in which a similar Economou device will help determine what's in the rings of Saturn. Mr. Economou, who migrated to America in 1964 in search of an exciting life, sighs that he's "too old" to go into space himself. "But I have a grandson," he adds. "He says he'll do just that."

Greg Hinz

WILLIAM H. ELLIOTT, 55
CHIEF INFORMATION AND
TECHNOLOGY OFFICER
FIRST CHICAGO NBD CORP.



Bill Elliott wasn't a heavily recruited Ivy League grad who joined the city's biggest bank as part of its First Chicago scholar program. The Long Island native enlisted

in the Navy and put himself through Western Maryland College. He didn't even arrive in the

Chicago area until last fall, after 23 years at AT&T Corp. And arrive he has: He's going to spend more money than everybody else at the bank combined over the next two to three years, the company says—more than \$500 million annually—all for cutting-edge technology intended to boost competitiveness in a rapidly consolidating industry. His investments may mean the difference between First NBD acquiring other banks or being swallowed by them, and Mr. Elliott acknowledges that deal-makers are circling. "It really needs to be the right combination," he says. "We just haven't seen that kind of deal yet."

Steven R. Strahler

Who will you trust?

TASC, now providing innovative IT solutions for Chicago

TASC, a \$400 million company, has been trusted by business and government leaders for over 30 years.

Uncompromising Solutions for:

Networking

- ◆ Strategic Planning
- ◆ Infrastructure Design
- ◆ Enterprise Management

Information Security

- ◆ Vulnerability Assessment
- ◆ Policy Development
- ◆ Firewall Implementation

Electronic Messaging

- ◆ Architecture Development
- ◆ Secure E-mail
- ◆ MS Exchange/Lotus Notes

Call TASC at 847-562-1541

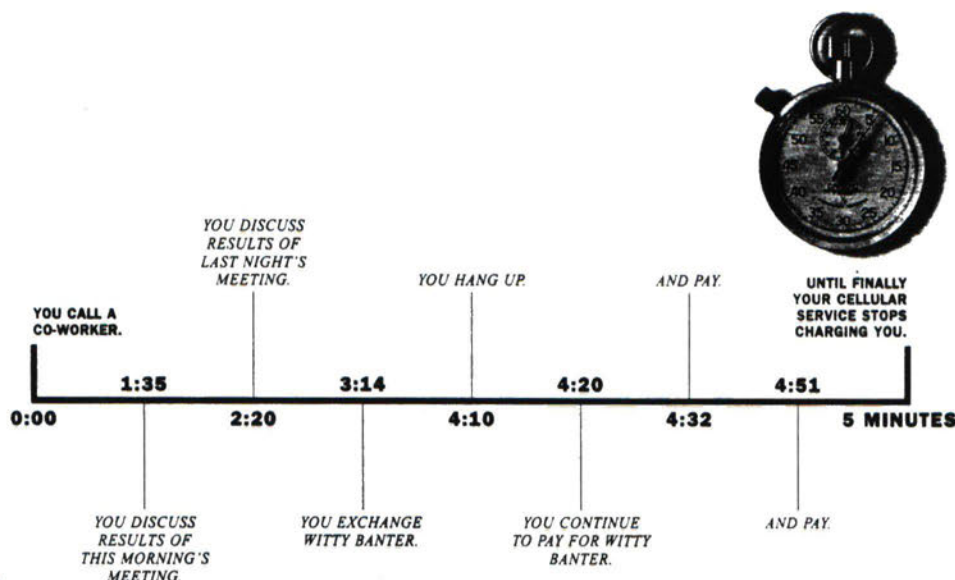
3175 Commercial Avenue, Suite 203, Northbrook, IL 60062

Or contact H. Kent Smith, at hksmith@tasc.com

<http://www.tasc.com>



A PRIMARK Company



You talked for four minutes and 10 seconds but paid for five full minutes. Mistake? Not at all. It's called rounding up to the minute and it's a common practice in the cellular industry. And while a few seconds may not sound like much, multiply it by a few hundred calls a month across all the users in your company and it adds up to a pretty hefty number. At Nextel® we don't believe it's fair to round all calls up to the next minute. Instead, after the first minute, our timer stops at the next second. You may also want to know that we don't charge you for roaming either. Our national, all-digital network lets you take your home market rate with you wherever you go. Add that to our reliable Motorola® phones, and digital features that include voice mail, text **NEXTEL** messaging and numeric paging, and you may not want to waste another second. Call Nextel today.



750 Free
Digital Cellular Minutes

When you sign up with
Nextel® before
November 30th, 1997.

Use within 75 days. Certain restrictions apply.

GET SMART. GET NEXTEL.™ CALL 1.800.NEXTEL9

©1997 Nextel Communications. All rights reserved. Nextel, the Nextel logo, Nextel Over Connect and Get Smart. Get Nextel, are trademarks and/or service marks of Nextel Communications, Inc. ® Motorola is a registered trademark of Motorola, Inc. www.nextel.com



Information technology*is progressing faster and faster***Don't let it pass you by.**

Northwestern University offers a two-year master's degree program for managers whose effective use of information technology is critical to organizational performance. The full-day classes meet on alternating Fridays and Saturdays for 30 weeks a year. For details about the program, come to our open house. Call to reserve a place.

Communication Systems Program Open House

Thursday, December 4, 7 p.m.
Norris University Center, Room 2G
1999 South Campus Drive
Evanston campus, Northwestern University
Phone 847/491-3848
E-mail: comsystems@nwu.edu
WWW: <http://www.nwu.edu/mscs>

FLOYD L. ENGLISH, 63
CHAIRMAN, PRESIDENT, CEO
ANDREW CORP.
ORLAND PARK



This year hasn't been fun for Mr. English. Andrew's stock price fell a stinging 17% in July, when the company reported higher third-quarter sales but

a 5% decline in orders for telecommunications equipment and a \$22.4-million pretax charge for restructuring the European wireless business and for discontinuing the network products business. But Mr. English has been in bigger skirmishes, having served an Army stint at the end of the Korean War, followed by officer training school. He left the Army to return to college, earning both master's and doctoral degrees in physics from Arizona State University. After jobs at Sandia Laboratories in Albuquerque, N.M., and Collins Radio Co. in

Newport Beach, Calif., in 1975, he helped found Darcom Inc., a data telemetry company in Albuquerque. It later merged with another company, and in 1980, he joined Andrew—then an \$89-million maker of cabling and antennas—as an engineer and vice-president of corporate development. Two years later, he was named president. Since then, the company has expanded into radar and navigation systems and equipment for the wireless and broadcast markets, and last year—when it rang up sales of \$794 million—supplied antennas and transmission lines for the first high-definition TV broadcast in the U.S.

Jennifer Waters

ANDREW "FLIP" FILIPOWSKI, 46
CHAIRMAN, CEO
PLATINUM TECHNOLOGY INC.
OAKBROOK TERRACE



You might call Mr. Filipowski a man with a habit. "Fighting back that fear and stretching yourself—that's what I'm addicted to," he once told an

interviewer. It's been a useful trait. Born to immigrant parents on the Near Northwest Side—"I didn't speak anything except Polish until I got to school"—he founded his own software firm in Chicago, DBMS Inc., only to be escorted from headquarters by armed guards one day in 1987 after losing control of the company in a hostile takeover. At Platinum, Mr. Filipowski used acquisitions and internal development to build a firm specializ-

ing in database management for mainframe computers, only to have to rebuild as customers switched to computer networks. The process of designing his own products for client-server technology finally appears on track, and, with the recent acquisition of Skokie's U.S. Robotics Corp. by California-based 3Com Corp., Platinum is the state's largest information technology company.

Greg Hinz

DENNIS E. FOSTER, 56
PRESIDENT, CEO
360° COMMUNICATIONS CO.
CHICAGO



Mr. Foster might be better placed on a Marketing 100 list. Forget leading-edge technology, he says: Strong marketing and distribution networks are

more important in 360° Communications' highly competitive cellular markets. Mr. Foster's customer-centric philosophy is implied in his company's new name—and embodied in its strategy since its spinoff from Sprint Corp. last year. "No matter how large or small the community, we're offering face-to-face service" in more than 100 markets in the Southeast, Midwest and West, Mr. Foster says. He joined Sprint in 1992, heading the Kansas company's cellular and wireless division from 1993 through its metamorphosis into 360° last year. Mr. Foster's next challenge: staving off bids for his \$1.1-billion company in the rapidly consolidating industry.

Julie Johnson

You can have it on a string.

Maximize your computer investment.

IIS technological solutions empower you: More information—data, text, images—when you need it, the way you need it, wherever you are.

Save time, save money. From your PC, LAN, WAN, website, intranet, or internet: IIS puts more information to work for you, delivering seamless integration of imaging, database design, management, and conversion solutions.

Experience the ease of use IIS will bring to every part of your organization. To learn more, call an IIS sales consultant today. Visit <http://www.iis-intellect.com> to download a demonstration of IIS Intellect™ 95, or request a demonstration disk when talking with your IIS sales consultant.



INTEGRATED INFORMATION SERVICES, LLC.™

The future belongs to those who know.

317-581-7600 • 800-547-8673
FAX 317-581-7620 • www.iis-intellect.com

Microsoft®
SOLUTION PROVIDER
Partner

© 1997 Integrated Information Services, LLC.
Integrated Information Services, LLC. is a registered Microsoft® Solution Provider Partner.
IIS Intellect™ 95 is a registered trademark of Integrated Information Services, LLC.



Need a Place to Park Your Business Aircraft?

A Rare Opportunity.

Exclusive hanger space available at the desirable northwest corner of Palwaukee Airport. Ideal for corporate flight departments. Includes a 3,000 square foot office and waiting lounge with kitchen, shower and shop. An adjoining 10,500 square foot



hanger area is capable of storing several airplanes including the largest corporate aircraft in operation today.

Flying is a Business Tool™

Contact Mike Pryor at 847.537.1200
PRIESTERAVIATION

GIAN M. FULGONI, 49

CEO

INFORMATION RESOURCES INC.
CHICAGO

Back in 1980, an upstart data service put 120 scanners in a dozen grocery stores and revolutionized the market research industry. Since

then, Mr. Fulgoni—who joined IRI a year later and was named CEO in 1985—has pushed revenues to \$500 million and established a presence in Europe, all the while battling costly price wars and challenging the trade practices of archrival A. C. Nielsen Co. (Nimble financial moves such as the \$100-million sale of its on-line analytical processing technology and a \$35-million lease-buy-back of its West Loop headquarters have kept IRI liquid.) These days, IRI culls and analyzes sales data from 23,000 supermarkets, mass merchants and drugstores nationwide; next year, information will come from 35,000 sites. Of technology, Mr. Fulgoni notes: "In 1986, someone on staff said we had to go from 300 stores to 1,100 and I said, 'Impossible, don't even think about it.' But with the growth of computer power, we scale it up at 5,000(-store) increments and don't even blink."

Anne Moore

SCOTT GARRETT, 47

CEO

DADE BEHRING INC.
DEERFIELD

Mr. Garrett left Baxter International Inc.—one of the world's largest medical products companies, where he was chief of the laboratory diag-

nostics unit—to head up the business after Baxter sold it to private investors for \$415 million in 1994. The 20-year health care industry veteran took the reins of a \$700-million business producing equipment to count blood cells, test for human biochemical reactions and identify diseases through genetically engineered proteins. Now, after Dade's recently completed merger with Germany-based Behring Diagnostics, he heads a \$1.5-billion company that ranks third among diagnostics companies worldwide. Mr. Garrett's primary goal is not to re-define state-of-the-art technology in his field—he expects to spend relatively little money on research—but to get even bigger through an aggressive program of acquisitions.

Arsenio Oloroso Jr.

ANATOLE V. GERSHMAN, 48DIRECTOR OF RESEARCH
ANDERSEN CONSULTING LLP
NORTHBROOK

Former Muscovite Mr. Gershman came to the U.S. in the 1970s, earning his doctorate in computer science at Yale University in 1979. Since then, he's

been living in the future. As Andersen Consulting's most senior scientist, he's headed the development of experimental tech-

See GERSHMAN on Page T42

It's not who has the biggest technology

It's how you use it.

Software Developers
Systems Engineers
Database Administrators
Programmer/Analysts
Project Managers
Technical Analysts

PARALLEL



PARTNERS

Data Modelers
Network Administrators
UNIX Administrators
Business Analysts
Mainframe Programmers
Quality Assurance

the IS staffing specialists

20 N. Wacker Drive, Ste., 2225, Chicago, IL 60606
312-251-1865 FAX 312-251-1868

Chicago

Your Business Address

Retailers, manufacturers and corporations alike have discovered that Chicago has all the ingredients they need for success. In fact, more businesses are locating their companies to Chicago than to any other city in the nation.

Why? Because of Chicago's advantages—a pro-business attitude, a highly skilled and diverse labor force (with 7 million people in the metropolitan area), 3.3 million square feet of convention space, fast-paced trading floors and the nation's shipping center.



We also have a high quality of life, which plays a key role today in where businesses relocate. Our residents enjoy more than 29 miles of lakefront; a premier public transportation system; top notch schools; and world class architecture, museums, restaurants and music.

The Department of Planning and Development is eager to show you Chicago's advantages. We have the programs and information you need to keep your business and the city thriving and growing.

Call *Business Express* for access to all city services
and information 312/744-CITY

Facts about Chicago

in 1995
or expanded

opened

over
38,857 trade shows and
conventions in 1995

Chicago's 1995
topped

Chicago has

more than
attended the city's cultural and
neighborhood festivals in 1995

are
headquartered in Chicago

more than
in the city;
over 30 have consulates

Chicago offers



The City of Chicago
Richard M. Daley, Mayor

Chicago Fact Book:
<http://www.ci.chi.il.us/wm/dpd>

Christopher R. Hill, Commissioner
Department of Planning & Development

GERSHMAN from Page T41
nologies such as BargainFinder, an automated on-line shopper for Internet bargain hunters; Avalanche, a dashboard-mounted wireless computer system for automobiles, and Prairie, a software prototype supporting the creation of virtual enterprises that eradicate geographic boundaries. Once perfected, these and other cutting-edge technologies developed at Andersen's Center for Strategic Technology Research eventually may find their way into the business mainstream through big corporate clients of Andersen, the world's largest computer and strategic consultancy.

Arsenio Oloroso Jr.

RICHARD GERSHON, 38
PRESIDENT, CEO
COMPUTER ADAPTIVE
TECHNOLOGIES INC.
CHICAGO



All Mr. Gershon did in high school, he says, was computers, and all he did while at Northwestern University was psychology. Putting those together

with a second college degree in education, Mr. Gershon's CAT plans to revolutionize the way schools and businesses test for ability. CAT, he says, is a leader in development of the software and the hardware to design, administer and measure the results of tests given to students or job applicants, for example. By consolidating all aspects of such testing, CAT can customize to an

unprecedented degree. "Tests can be individualized to the student, and results are available immediately," Mr. Gershon says. Clients range from the Minneapolis public schools to the Lotus division of IBM Corp., where CAT provides multilingual software and technical support. Business is growing so fast that the company's staff this summer tripled, to 45. "And we're just touching the very tip of the iceberg."

Greg Hinz

NICHOLAS T. GIHL, 40
PRESIDENT
TOTAL CONTROL
PRODUCTS INC.
MELROSE PARK



Mr. Gihl was 24 when an acquaintance asked him if he wanted to help found a company. "Every engineer's dream is to start his own business," says Mr. Gihl,

whose 400-employee, \$40-million Total Control makes computer technology used by manufacturers to automate production processes. While the company's main product now is operator interface technology for industrial use—text screens like those on automated teller machines or "the screen on the Xerox machine that tells you where the paper is jammed"—Total Control, anticipating a revolution in automation, has bigger things in mind. Mr. Gihl plans to design software systems for new types of industrial computers that he believes eventually will supplant proprietary systems. It's a busi-

ness with plenty of growth promise. Mr. Gihl says his potential customer base is "the Fortune 500." He may be an executive now, but Mr. Gihl—who earned a bachelor's degree in engineering from Purdue University—is still at heart an engineer who finds working with manufacturers educational: "I really like seeing how all these different things that we just take for granted are made."

Kim Phillips-Fein

S. CHRISTOPHER GLADWIN, 33
PRESIDENT, CEO
CRUISE TECHNOLOGIES INC.
ARLINGTON HEIGHTS



Cruise Technologies Inc. was one of just two local firms selected for *Computerworld's* first annual list of 100 hot emerging companies. "We proved you don't

have to be in Silicon Valley to be hot and interesting," says Mr. Gladwin, principal inventor, president and CEO of the Arlington Heights firm, which was spun off from Zenith Data Systems in February 1997, after the computer maker was acquired by Packard Bell NEC Corp. The MIT-trained engineer led the spinoff with \$12 million in venture capital, 20 employees and a breakthrough technology: a wireless system that allows low-powered, Etch-A-Sketch-sized terminals to connect with a powerful computer network. Motorola Inc. and two other computer makers quickly licensed the tech-

nology, which is covered by 27 patents pending. Within a few months, the workforce doubled and revenues hit about \$5 million. "A good, reasonable assumption," says Mr. Gladwin, is that sales "will double every year for quite some time."

Paul Merriam

EUGENE GOLDWASSER, 75
CHAIRMAN
BIOCHEMISTRY AND MOLECULAR
BIOLOGY DEPARTMENT
UNIVERSITY OF CHICAGO
CHICAGO



Mr. Goldwasser credits his love for science to his brother, Alan, who studied chemistry as a youth, and to Sinclair Lewis' "Arrow-smith," a 1925

novel about a man who worked on viruses; the book introduced him to the "romance of being a scientist" when he was 12. These days, Mr. Goldwasser prefers Charles Dickens, Thomas Pynchon and Richard Powers, but he still harbors a passion for science that has unlocked some of the secrets to producing essential red blood cells. In the 1950s, he isolated a hormone found to be a key builder of red blood cells, making possible commercial drugs that stimulate red cell growth as treatment for anemia related to kidney failure. He was instrumental in helping Amgen Inc. in Thousand Oaks, Calif., create epogen, a synthetic hormone that stimulates red cell growth. Approved by the U.S. Food and Drug Administration in 1989, the hormone last year had \$1.1 billion in sales, and Mr. Goldwasser is a member of Amgen's board.

Jennifer Waters

HARRY N. GOTTLIEB, 32
PRESIDENT, CREATIVE LEADER
JELLYVISION
CHICAGO



A film-maker by trade, Mr. Gottlieb parlayed his creativity and a belief that interactivity can rival the popularity of television into a partnership with

California software powerhouse Berkeley Systems. Berkeley—best known for the flying toaster screen-saver—is the technical engine behind "You Don't Know Jack," Mr. Gottlieb's widely popular and irreverent CD-ROM game show. Jellyvision's stable of 30 writers comes up with comedic puns, trivia questions and TV-like pacing; Berkeley makes it all work on the CD-ROM and on-line, where a free version of the game is played by more than 200,000 people monthly. In addition, "YDKJ" fans watch TV-like commercials—

full-screen moving ads—from mainstream advertisers such as 20th Century Fox and Cuervo tequila, whose advertising pays to the game show to run on-line: jukebox-like television. "Just like TV" is a mantra of Mr. Gottlieb, who founded Jellyvision's predecessor (Learn Television) his first year out of Brown University. Future projects under consideration: interactive financial and career-planning programs so personalized, they seem to be talking to you alone—just like "YDKJ."

Margaret Littman

STUART JOHNSTONE, 39
PRESIDENT, CEO
VOSA LLC
CHICAGO



When you're on the cutting edge of Internet technology, you're dealing with NASA one day, the Rolling Stones the next. So it goes for Stuart Johnstone, presi-

dent and CEO of a company founded last year to market software developed by the University of Illinois at Urbana-Champaign. Vosaic provides video-compression technology that allows live-video transmission on the Internet of the Mars Pathfinder mission, the Indianapolis 500 or rock concerts. The son of a former vice-president of pet foods at Quaker Oats Co., Mr. Johnstone ran a family-owned sailboat business in Rhode Island before starting to invest in high-tech firms, which eventually led him to create Vosaic. With five broad-based patents pending, Vosaic's edge over competitors is that no special software needs to be downloaded first. "It's click-and-play technology," he says. "As close as you can get to radio or TV."

Paul Merriam

V. CRAIG JORDAN, 50
DIRECTOR OF BREAST CANCER
RESEARCH
NORTHWESTERN UNIVERSITY
CHICAGO



For his development of the leading treatment for breast cancer, tamoxifen, he's been placed in the company of Marie Curie, Louis Pasteur, Joseph Lister

and more than a dozen Nobel laureates as a recipient of the Cameron Prize awarded by the faculty of medicine at Scotland's University of Edinburgh. The University of Leeds Ph.D. received the honor in 1993 for his pioneering work with the compound that prevents tumor growth in the breast. Northwestern recruited him in 1993, and at Lurie Center, Mr. Jordan plays a key part in ongoing worldwide clinical trials. Be-

See JORDAN on Page T43

PARTNERS

MARK LOFFREDO, 37
SENIOR HARDWARE DESIGNER
EUGENE JARVIS, 42
PROGRAMMER/DESIGNER
EDWARD BOON, 33
PROGRAMMER/DESIGNER
MIDWAY GAMES INC.
CHICAGO



Edward Boon, left, and Mark Loffredo

One of the most influential troikas in the fast-growing video game industry, Messrs. Loffredo, Jarvis and Boon have grabbed the attention of—and gazillions of quarters from—fans of Defender, Narc, Cruis'n USA, NBA Jam and, most famous, Mortal Kombat. "The groundwork these guys have laid has been critical to the growth of the industry," says Joe Funk, editorial director of Lombard-based *Electronic Gaming Monthly* and several other game-oriented publications. In 1980, Mr. Jarvis' Defender was the first scrolling video game—taking the field beyond Pong and Space Invaders with their fixed backgrounds—and in 1988, his Narc was the first to digitize the movements of live-action actors. He continues to push the limits of three-dimensional effects in newer games. Mr. Loffredo developed a microchip that melds hardware and software, the newest version of which processes 1.2 million random pieces of

data per second—the difference between Donkey Kong-like action and NBA Jam. And Mr. Boon forever changed fighting games with hyperviolent Mortal Kombat, creating a franchise that has produced three sequels and a movie, not to mention a flurry of controversy about exposing children to such brutality. The scourge of parents nationwide, their technological advances help spur the sales of ever-more-sophisticated, and ever-more-expensive, video game systems for home use.

Jeff Borden

JORDAN from Page T42
sides seeing what else tamoxifen can do to fight breast cancer, he's pursuing other uses for the compound, which has shown promise in preventing and treating osteoporosis.

Arsenio Oloroso Jr.

EDWARD L. KAPLAN, 55
CHAIRMAN, CEO
ZEBRA TECHNOLOGIES CORP.
VERNON HILLS



At 27, Mr. Kaplan founded the predecessor to Zebra, Data Specialties Inc., and has since guided the company to a worldwide leadership position in the bar-coding market.

The vertically integrated firm provides bar coding not just for scanning your purchases at the checkout counter, but for labeling all types of inventory on paper, metal and plastic. Zebra also offers the software for creating labels, the labels themselves, printers and ribbons. Recent innovations include a tear-resistant, snow- and water-proof ski-lift pass for Steamboat Springs, Colo., and labels that will help Steven Spielberg's Survivors of the Shoah Visual History Foundation catalog Holocaust survivors' video testimonies worldwide. New products expected out by yearend will help Mr. Kaplan—who owns an estimated \$50-million share of the now-public Zebra—face the challenge of building marketshare in the low-end printer sector. Growth will have to come organically, since a merger with competitor Eltron International Inc. of Simi Valley, Calif., fell through late last year.

Margaret Littman

JOHN N. KAPOOR, 54
PRESIDENT
EJ FINANCIAL ENTERPRISES INC.
LAKE FOREST



Mr. Kapoor had no idea he'd eventually be one of Chicago's most visible biopharmaceutical investors when he was sterilizing medicine bottles in 1978 at LyphoMed

Inc., then a money-losing unit of Chicago packaging giant Stone Container Corp. But three years later, the University of Bombay-trained pharmacist bought LyphoMed for \$2 million, managed it into the nation's largest generic drugmaker and sold it in 1990 for nearly \$1 billion to Japan's Fujisawa Pharmaceutical Co. Ltd. He personally reaped \$40 million from the sale, and, through EJ Financial, has seeded a dozen pharmaceutical startups—among them, Lake Forest-based Oncomed Inc., which is working on a novel drug delivery system for cancer drugs. Mr. Kapoor's goal is to combine the most promising half-dozen companies he chairs to form a larger firm specializing in cancer

treatments.

Arsenio Oloroso Jr.

MARK KOEHLER, 35
DIRECTOR OF ELECTRONIC
DISTRIBUTION
UNITED AIRLINES
ELK GROVE VILLAGE



Mr. Koehler may be piloting the airline's reservation system into the next century, but he'd tell anyone that the customer is really behind the controls.

See KOEHLER on Page T44

Change your view



CAVCOMM CORPORATION

introduces the Pioneer Color Plasma Display... **40 inches diagonal** and only **4 inches deep**. The PDP-V400 is computer and video ready for today's standards while forward compatible with DVD and other emerging high-resolution television formats.

We are ready to meet your professional audio/visual needs with our convenient downtown location.

Call us today.

CAVCOMM CORPORATION

Sales • Service • Rental

775 W. Jackson Blvd., Chicago, IL 60661 Phone: 312.466.1100

Y E A R A N N I V E R S A R Y

Transform *your*
VISION into
Practice

In 1992, Blackwell Consulting Services opened its doors with four employees and a commitment to providing quality information systems consulting to Chicago's business community.

Five years later, Blackwell Consulting has grown to an organization of more than 100 and has built a distinguished client base that includes leaders in the manufacturing, pharmaceutical, insurance and environmental services industries.

Our growth and success is grounded in our ability to provide the leadership, expertise and resources needed to implement technical and business solutions.

We would like to thank our clients for their continued support and extend an invitation to prospective clients to allow Blackwell Consulting Services to assist you in shaping the success and growth of your company.

Information Technology Expertise

Application Development
and Groupware
Network Systems Integration
Management Consulting
Internet/Intranet Development

BLACKWELL
consulting services

Illinois Institute of Technology Luncheon

honoring

Crain's Chicago Business

Technology 100

Casey Cowell, Vice Chairman 3Com Corporation Luncheon Committee Chairman

Featured speaker:
Eric Benhamou, Chairman and CEO
3Com Corporation

Date:
Friday, November 14, 1997

Time:
Reception: 11:30 a.m.
Luncheon: Noon

Place:
Chicago Hilton and Towers
Grand Ballroom
720 South Michigan Avenue

\$75 per person
\$750 per table of ten

For reservations call:
312.485.4448

Celebrating

Chicago's top

technology

leaders and

entrepreneurs

Chicago Technology Park... where entrepreneur scientists start and grow their business.

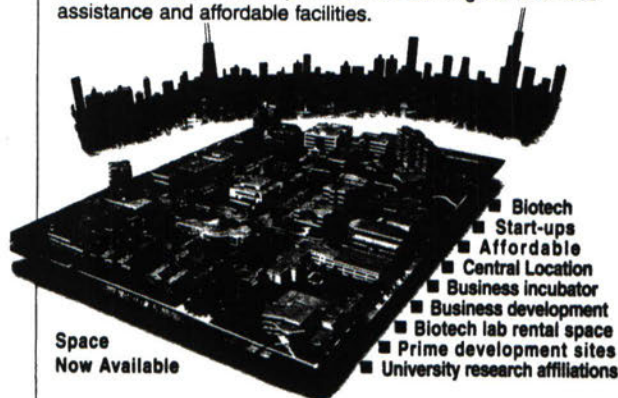
Since the Research Center first opened its doors a decade ago, over 50 start-up companies have generated hundreds of new high tech products, a thousand new jobs and over \$100 million in biomedical research and commercial business revenue.

Today, the Research Center remains true to its original mission. Biotech and Infotech entrepreneurs continue to select the Research Center as an excellent location to start and grow their companies.



Ideas are growing and thriving at the Chicago Tech Park. The research environment and campus setting are ideal to nurture the development and growth of emerging research and technology from start-ups to established firms.

If you are considering starting or expanding your technology based company, we can provide a broad range of business assistance and affordable facilities.



Space
Now Available

- Biotech
- Start-ups
- Affordable
- Central Location
- Business incubator
- Business development
- Biotech lab rental space
- Prime development sites
- University research affiliations

CTP Research Center
2201 W. Campbell Park Drive
312-829-7252 or 312-633-3434
E-mail: ctp@imdc.org

For leasing information contact:
Dean Topping, DT&Co., Leasing Agent
David O. Livingston, CTPC President
Special Tour & Briefing by appointment

THE TECH PARK 25 Growth Companies

Research Center Company Roster

Akure, Inc.
Bacus Laboratories Inc.
BioChem Analysis
Crystal Vision, Inc.
DNA & Immunogenetics
Fermalogic
Fibrogenex
Hi-Tek Environmental, Inc.
Influx
Isogenetics, Inc.
Litholink, Inc.
Kenwood Laboratories, Inc.
Munin Corporation
NephRx Corporation
Organic Display Technology
Pathology Assoc. Int'l.
SANDS Analytical Labs, Inc.
Satco, Inc.
Siam Chemical, Inc.
Steroids
SynChem, Inc.
ThermoGen, Inc.
TheraTest, Inc.
Bioscan Systems, Inc.
...watch us grow!

CTP

Chicago
Technology Park
& Research Center

Where Science Meets Business

KOEHLER from Page T43

Mr. Koehler first applied computers to ticketing in 1994, when he introduced electronic ticketing at United. More recently, he's guided the development and marketing of United Connection, a trailblazing computer software program released in November 1995 that enables customers to ticket their own airplane reservations. The database, identical to one used by travel agents, contains flight information for 500 airlines and can be accessed via modem. "The response has been phenomenal," says Mr. Koehler. At the beginning of 1997, United Connection was racking up monthly reservation volume of \$5 million. By September, monthly volume topped \$11 million—impressive growth, but still a minuscule share of the total market, as only about one-half of 1% of all airlines' total domestic ticket sales are made on-line. It's fitting that the self-described "computer nut" wound up at an airline. Mr. Koehler, who holds a bachelor's degree in finance and an MBA from Northern Illinois University, learned to fly when he was 13 and now teaches flying. "I always wanted to work at an airline," he says. "It just made more sense to do it on the business side."

Kim Phillips-Fein

MICHAEL P. KRASNY, 44

CHAIRMAN, CEO
CDW COMPUTER CENTERS INC.
VERNON HILLS



Let big computer retailers like CompUSA and Circuit City battle for individual customers in oversized stores. Mr. Krasny's mail-order company aims for the experienced buyer or the small business looking to avoid retail hassles, and has 15% of the mail-order market less than

15 years after its founding. (CDW has two retail stores, but they account for less than 10% of sales.) Last year, CDW reported a 48% increase in sales, to \$928 million; other companies recently have jumped on the direct-sales bandwagon. Mr. Krasny doesn't hide his pride (or pomposity, depending on whom you ask). He promises CDW will be "the best-run company in the world," thanks to 5-year-old CDW University, through which he trains employees. Though Wall Street respects his firm, employees have hinted that his style borders on micro-managing. And the company faces an uphill battle to retain its profit margins as computer prices dip below the \$1,000 mark.

Rekha Balu

TIM KRAUSKOPF, 34
CO-FOUNDER, DIRECTOR
SPYGLASS INC.
NAPERVILLE



What can the professors at J. L. Kellogg Graduate School of Management teach Mr. Krauskopf, who's enrolled in the executive management program?

Few can boast the sort of business success he already has had. Eager to market software he developed while at the University of Illinois' National Center for Supercomputing Applications—the programs helped make complex scientific research more user-friendly—Mr. Krauskopf and his colleagues struck out in 1990 with \$250,000 in savings, stock options and a loan from Apple Computer Inc. and an angel investor (whom he declines to identify). They plucked the company's moniker from a street name in a Louisiana phone book. "We really were the naive start-up kinds," he says. But the scientists got savvy, eventually bringing in a CEO and, in 1994

See KRAUSKOPF on Page T45

It's changing the way business ticks...

Interested?

We can help you use the Web to stay ahead of the competition!

For complete, creative and reliable Internet services, contact us.

QUICKSILVER
ASSOC INC

www.quicksilvernow.com
312-943-7622 E-mail: experts@quicksilvernow.com

KRAUSKOPF from Page T44 the same month that Netscape's Web navigator was launched—acquiring the license for the Mosaic Internet explorer. Mr. Krauskopf traveled cross-country to recruit new customers, such as Microsoft Corp., and helped shop the \$10-million company's public offering in 1995. With some of the entrepreneurial challenges met, Mr. Krauskopf decided to leave last April. So, why Kellogg? "To decide if I want to be a CEO," he says.

Rekha Balu

FRED A. KREHBIEL, 56

CHAIRMAN, CEO
MOLEX INC.
LISLE



When Mr. Krehbiel joined the family business in the mid-'60s, one of his first tasks was to help open a plant in Japan, which was just beginning to make

an industrial move. Obviously, Japan has changed, and so have Mr. Krehbiel and his company. The onetime toy manufacturer founded by Mr. Krehbiel's grandfather today is one of the world's leading builders of plastic connectors used in millions of high-tech machines. Much of Molex's rapid growth is attributable to its push into international markets, led by Mr. Krehbiel; in fiscal 1997, 67% of Molex's products were made and sold outside the U.S. Though the firm's headquarters is here—where Mr. Krehbiel works from an open corner cubicle—the firm is known less as an exporter than as a true multinational: Molex products are made in 47 facilities in 21 countries on six continents.

Greg Hinz

DAVID KRONFELD, 49

MANAGING PARTNER
JK&B CAPITAL
CHICAGO



Mr. Kronfeld is a high-tech angel with some very large wings. His \$110-million venture capital pool, targeting emerging technology companies, is backed

by, among others, Computer Associates International Inc. founder Charles Wang, George Soros and William Farley. With his source of funds already secure, Mr. Kronfeld employs tech industry veterans to evaluate deals and advise the firms JK&B bankrolls—unlike most other venture capitalists, which like to hire rainmakers. JK&B's only local big bet—out of 10 deals—is on 21st Century Cable TV Inc., a startup building a fiber optic network in Chicago's lucrative lake-front neighborhoods.

Joseph B. Cahill

RONALD LACHMAN, 40

INVESTOR, CHAIRMAN
INTERNET DYNAMICS INC.
LOMBARD



Mr. Lachman knows the value of a good technical idea. In 1989, he sold the networking software company he founded to Eastman Kodak Co. for \$20 million.

Three years later, he bought back part of the business for \$5 million, then sold it again in 1994 to Legent Corp. (now part of Legent Corp.).
See LACHMAN on Page T46



One of the largest and fastest growing I/T Solution Providers in the Midwest
3315 Algonquin Rd., Ste 500, Rolling Meadows, IL 60008
Tel.: (800) NRC 2448, (847) 797 5800



**hp HEWLETT
PACKARD**

**Your work deserves
a perfect finish.**

For crisp output people will applaud, turn to BT Office Products International for all your HP supplies and accessories. HP's complete line of printing supplies and accessories is designed, formulated and tested to work perfectly with your HP printer.

For a standing ovation every time, use only HP supplies and accessories with your HP printer. Available from BT Office Products International.

Call BT Office Products International
today 1-888-862-8674.

**BT Office Products
International**



HP Printing Supplies
Always Clear. Always Sharp.

LACHMAN from Page T45 of Computer Associates International Inc.) for \$25 million. Fortified by his double cash-out, Mr. Lachman has become part of an emerging cadre of technology entrepreneurs who have grown businesses here, reaped their financial harvest and are seeding the next generation of high-tech companies. Offering not only capital but his expertise in turning a brainstorm into a commercial product, Mr. Lachman estimates he has invested in "16 or 17" networking software startups, two of which are local: He's chairman of Internet Dynamics Inc. in Lombard, a developer of intranet security software, and is a major shareholder of White Barn Webworks, a Chicago-based network consulting and systems integration firm.

Joseph B. Cahill

STEVEN LAZARUS, 66

MANAGING DIRECTOR
ARCH VENTURE PARTNERS L.P.
CHICAGO



To the Mafia of high-tech firms spawned over the last decade by research at the University of Chicago and Argonne National Laboratory, Mr. Lazarus is the

Godfather. A former Navy captain and Baxter International Inc. executive, he was recruited in 1986 to be the first president and CEO of Arch Development Corp., a non-profit joint venture to commercialize research from the lab and university. While there, he raised \$9 million to provide start-up capital for 12 firms, including Illinois Superconductor Corp. and Nanophase Technologies Corp. Mr. Lazarus took the helm of Arch Venture Partners when the university spun it off in 1994 (the two Arch organizations are no longer formally related). By mid-1996, he had raised another \$33 million and invested in 24 more firms, while also serving as vice-chairman of Northwestern Healthcare Network. Now searching for commercial ideas at more than two dozen research institutions nationwide, Mr. Lazarus recently raised another \$109 million for investments in new technology. "No one walks the halls of universities as much as we do," he says.

Paul Merriam

LEON LEDERMAN, 75

PRITZKER PROFESSOR OF SCIENCE
ILLINOIS INSTITUTE
OF TECHNOLOGY
CHICAGO



As the former director of Fermi National Accelerator Laboratory and discoverer of the bottom quark, the muon neutrino and other subatomic particles,

Mr. Lederman long ago made his mark as a giant of modern

physics. His discoveries earned him and a co-researcher the 1988 Nobel Prize in physics. But instead of living on those triumphs, he's been inspired to do something else: educate the rest of us. At IIT, where he's worked since 1992, Mr. Lederman teaches introductory physics. He's a founding trustee of the Illinois Math and Science Academy and a national leader of efforts to improve the training of primary and secondary-school science teachers. The current system is so bad that students are left "bewildered, bored, and demoralized"—and the country more interested in alien abduction than basic research, he cautions. "Even if he is a genius," Mr. Lederman once wrote, "a person who doesn't know science is not a citizen of the 20th century."

Greg Hinz

DAVID LIVINGSTON, 56

EXECUTIVE DIRECTOR
ILLINOIS MEDICAL
CENTER DISTRICT
CHICAGO



Other officials have bigger budgets, but no one has more say over the future of the city's medical and biotech heart than David Livingston, executive director of the Illinois Medical Center District and president of its Chicago Technology Park. In the first post, Mr. Livingston controls zoning and mediates disputes on the 560-acre West Side site that's home to Cook County Hospital, Rush-Presbyterian-St. Luke's Medical Center, University of Illinois at Chicago Medical Center and other facilities. Insiders say he's diplomatic, but usually gets what he wants. At the technology park, he runs an incubator that's helped hatch at least 16 biotech companies. That requires political skill, but Mr. Livingston comes

from a line of pols: His father, Park, was a longtime University of Illinois trustee. His twin goals: Complete a four-year, 130-acre expansion of the district that could create 10,000 jobs, and keep those young start-up companies in town when they hit adulthood. "What silicon did this century," he says, "biotech will do in the next."

Greg Hinz

ALICIA LOFFLER, 39

DIRECTOR
CENTER FOR BIOTECHNOLOGY
NORTHWESTERN UNIVERSITY
EVANSTON



The regional biotechnology community gravitates to her annual summer conferences, she has developed a fund to promote entrepreneurial activities in biotech and she's a national spokeswoman on ethical issues in the industry, such as the proper uses of cloning. It's all a far cry from Ms. Loffler's native Argentina, which she fled with her husband at the age of 19; half of her high school class "disappeared" during the so-called "dirty war."

She landed first at the University of Minnesota in Minneapolis and hurried through her undergraduate program—she was cold, she says—in two years. A decade later, she had a doctorate from the University of Massachusetts at Amherst, two children, U.S. citizenship and a part-time job at NU's newly created Center for Biotechnology, which provides business and investment training and resources for scientist-entrepreneurs. By 1995, she was its director. She also is a member of the state's Biotechnology Advisory Council. Ms. Loffler is quick to point out that she's a teacher, not a techie: "I feel very responsible for teaching these kids how to deal with (biotech's) ethical impli-

cations. That is the major objective of all of my teaching."

Jennifer Waters

VERNON R. LOUCKS JR., 63

CHAIRMAN
BAXTER INTERNATIONAL INC.
DEERFIELD



Since the 1996 spinoff of the company's low-margin hospital supplies unit, Mr. Loucks has shifted Baxter's image to one of a biotechnology and high-tech medical

equipment powerhouse. A deliberate executive, Mr. Loucks has made some well-thought-out decisions that have been real clunkers, but he looks to be on track now. After a decade of lagging performance, he's pushing aggressively into international markets, and the \$5.5-billion company is in a hot race to market the first human blood substitute. Other Loucks-led experimental initiatives include xenotransplantation, the genetic adaptation of animal organs for transplantation into humans. Mr. Loucks has paired the company's scientific strategies with acquisitions, including the recent \$700-million purchase of Swiss transfusion medicine company Immuno International AG.

Arsenio Oloroso Jr.

ROSS MANIRE, 45

SENIOR VICE-PRESIDENT
CARRIER SYSTEMS BUSINESS UNIT
3COM CORP.
MOUNT PROSPECT



No dreamy researcher, Mr. Manire. Trained as an accountant at Ernst & Young, he joined U.S. Robotics Inc. in 1992 as chief financial officer after

a stint at buyout group Ridge Capital Corp. By 1995, he was senior vice-president and general manager of the network systems division. Under Mr. Manire's direction, U.S. Robotics, already a successful supplier of modems for individual PCs, rolled out multiple-modem systems for such customers as America Online Inc. and AT&T Corp.—controlling both ends of the transmission. Revenues for the product line grew to \$400 million in 1996. After 3Com's acquisition of U.S. Robotics, his title changed, but he oversees the same product portfolio and has a mandate to meld the technology into 3Com's computer networking systems.

Joseph B. Cahill

PETER I. MASON, 45

PRESIDENT, CEO
MAY & SPEH INC.
DOWNERS GROVE



When the direct-marketing and computer service firm thought about hiring a new CEO, the board turned to its lawyer—not for advice but for a

job application. Mr. Mason had represented the company since 1993. He became president in May, and CEO on Oct. 1. In 1983, he'd helped found Freeborn & Peters, a Chicago corporate law firm. Targeting high-tech clients wasn't part of its original plan, but one month after opening, Mr. Mason signed U.S. Robotics Corp., when its annual revenues were \$7 million. As U.S. Robotics grew, so grew the law firm, and Mr. Mason was its managing director for the last decade. But with the Skokie-based modem maker's merger with Santa Clara, Calif.-based 3Com Corp., Mr. Mason lost a big client. As CEO, Mr. Mason doesn't plan any drastic changes at May & Speh, where 1997 revenues reached \$90 million, three times the 1992 figure.

Thomas A. Corfman

JOHN MCCARTNEY, 45

PRESIDENT
CLIENT ACCESS PRODUCTS
BUSINESS UNIT
3COM CORP.
SKOKIE



Sometimes, a corporate takeover is the best thing that can happen to an executive. After a decade as the top lieutenant to U.S. Robotics Corp. founder Casey

Cowell, Mr. McCartney has emerged as the top executive of the modem business under its new owner. In his new job, he is in charge of the lines that generated about 80% of U.S. Robotics' revenue.

See MCCARTNEY on Page T47

PARTNERS

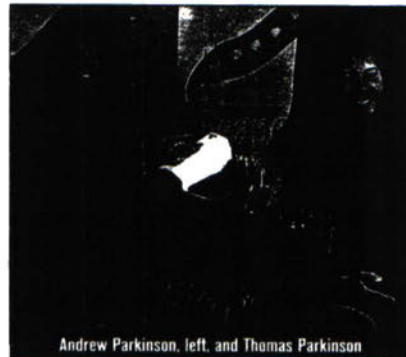
ANDREW PARKINSON, 39

CEO, CO-FOUNDER

THOMAS PARKINSON, 37

EXECUTIVE VICE-PRESIDENT, CO-FOUNDER
PEAPOD INC.
SKOKIE

The Parkinson brothers had a hunch that a lot of people hate to go grocery shopping. Combining their fascination with software databases and experience at Kraft Foods Inc. and Procter & Gamble Co., they created on-line shopping service Peapod, charging a subscriber fee and delivery charge for the convenience of bringing clients' groceries to the door. Jewel Food Stores has been their partner since 1990, and the service has expanded from Chicago to eight cities coast-to-coast. The brothers were close growing up on Long Island, and always wanted to go into business together; the one they created reached nearly \$30 million in sales last year and was ranked by *Inc.* as one of the



Andrew Parkinson, left, and Thomas Parkinson

nation's fastest-growing companies. Peapod went public in June, selling 4 million shares—a 25% stake—and raising \$64 million earmarked for growth. However, the stock wasn't one of those headline-grabbing high-fliers and has lost some value since the offering.

Judith Crown

McARTNEY from Page T46
\$2 billion in 1996 sales. This latest move caps a rise that began when he joined fledgling U.S. Robotics in 1984 as chief financial officer. From 1990 to 1995, the Wharton School graduate ran international operations, building overseas revenues from \$6.6 million to \$176 million and earning a promotion to president and chief operating officer in 1996. His ascendancy was apparent this summer, when he shared the stage with Gov. Jim Edgar to announce the incentive package that persuaded California's 3Com to move ahead with a U.S. Robotics plan to build a new office campus in Rolling Meadows.

Joseph B. Cahill

body knows whether the bets he's making will be the right ones in the 21st century. In the past year, Ameritech has launched a digital cell phone system, started building fiber optic networks to offer cable TV in several towns, entered a partnership with IBM Corp. to manage corporate communications systems and become an Internet service provider. But mushrooming Internet traffic has overwhelmed Ameritech switches—requiring expensive upgrades—and rivals are attacking the market with new wireless technologies and fiber optic networks of their own.

Joseph B. Cahill

JOHN PEOPLES JR., 64

DIRECTOR
FERMI NATIONAL ACCELERATOR
LABORATORY
BATAVIA



He's helped Fermilab grow from a muddy hole surrounded by cornfields to a world leader in high-energy physics research. Mr. Peoples joined Fermilab's staff in 1973—when, he says, "you could probably sit on Route 88 for a while and not get
See PEOPLES on Page T48

Corporate Web Sites
and ideas that fly

We can make your web site take flight with creativity and innovation. In an age of information, bright ideas are the foundation for success.

Contact Ergo Marketing Communications (630) 690-7400 www.ergolink.com

JACK NOONAN, 50

PRESIDENT, CEO
SPSS INC.
CHICAGO



Statistics may lie, but a threefold increase in revenues doesn't. The statistical software company is the worldwide leader in its field, with 1997 revenues expected to reach \$100 million. When Mr. Noonan was named to his post in 1992, SPSS had a single product and annual revenues of \$28 million. It now offers more than 30 products, thanks to internal development and acquisitions. And SPSS has converted its software into nine foreign languages; with sales offices in 23 countries, half of SPSS' 1997 revenues will come from outside the United States. The genial Mr. Noonan works with the same six-member executive team that was in place when he was hired. An engineer, he oversaw product development at Los Angeles-based Candle Corp. and was president and CEO of Bellevue, Wash.-based Microrim Corp. before moving to the Chicago area.

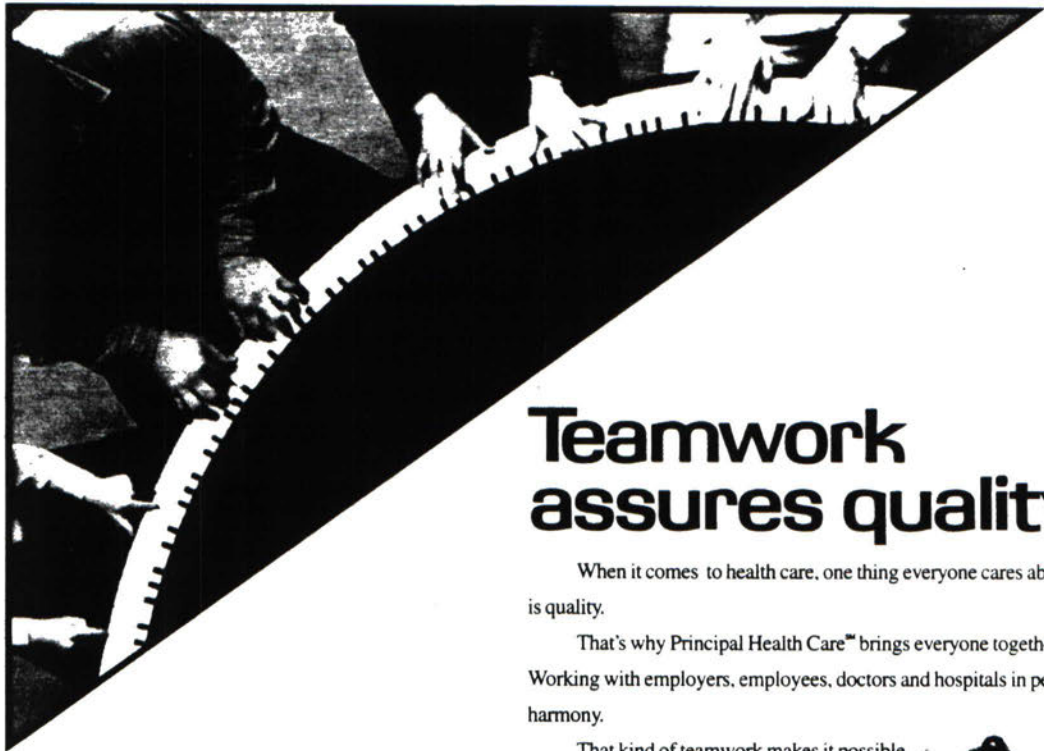
Thomas A. Corfman

RICHARD C. NOTEBAERT, 50

CHAIRMAN, CEO
AMERITECH CORP.
CHICAGO



Alexander Graham Bell never imagined the computerized, digitized, satellite-linked network of fiber optic lines and software that the telecommunications industry has become. While Mr. Notebaert is moving more slowly toward technology's leading edge than other regional telecom providers, the 28-year Ameritech veteran—in the midst of industry upheaval—has made steady earnings growth his top priority at the formerly regulated utility. No-



Teamwork assures quality.

When it comes to health care, one thing everyone cares about is quality.

That's why Principal Health Care™ brings everyone together. Working with employers, employees, doctors and hospitals in perfect harmony.

That kind of teamwork makes it possible for employees to go to a doctor they trust, to a hospital they know and get the quality care they need. From prenatal and emergency care to check-ups and immunizations.

And with everybody pulling together, there's less hassle, less paperwork and less red tape.

If you agree that's the way health care should work, then it's time to team up with Principal Health Care.

Call 1-800-888-2310 or your broker today. And look for us at <http://www.principal.com> on the Internet.

What health care is meant to be.™

Principal

**Health
Care**

A Member of the Principal
Financial Group

We are pleased to announce the final closing of

Apex Investment Fund III, L.P.

\$58,800,000

and

Apex Strategic Partners, LLC

\$3,000,000

Formed to make private equity investments in start-up to early stage telecommunications, information technology and software companies with additional focus in the areas of consumer products/ specialty retail and industrial productivity.

General Partners:

James A. Johnson George M. Middlemas Frederick W. W. Bolander
First Analysis Corporation

Apex Investment Partners

233 South Wacker Drive, Suite 9500
Chicago, IL 60606
Tel: 312/258-0320 Fax: 312/258-0592
apex@apexvc.com

September 1997

This announcement appears as a matter of record only.

Buy a projector.

Get free presentation training.



At Midwest Visual, we believe that selling you the perfect presentation tool isn't enough to make you a perfect presenter. That's why we offer free presentation sessions when you purchase one of our projectors. Like the Sharp XG-NV1U.

With the XG-NV1U, you're investing in a portable presentation powerhouse that produces crisp SVGA (832 x 624) resolution, puts out 400 ANSI lumens of brightness, and weighs only 16 lbs.

And when you purchase it from Midwest Visual, you get presentation training for you and your organization, absolutely free. We offer free training sessions on:

- The latest presentation techniques
- PowerPoint software tips
- How to make effective presentations that grab and hold your audiences' attention

So when you're considering which company to buy your presentation tools from, consider Midwest Visual. Because we do more than just give you the best products. We also give you the best services.



For more information on Midwest Visual's free presentation training call Brad Gude at 888.268.8337.

PARTNERS



John Patience, left
Jack W. Schuler

JOHN PATIENCE, 49 JACK W. SCHULER, 57

PARTNERS
CRABTREE PARTNERS LLC
DEERFIELD

At 2-year-old Crabtree, Messrs. Patience and Schuler don't hassle with raising funds for venture capital investment—they just invest their own. Both are highly respected 20-year-veterans of the health care industry. Mr. Patience earned his MBA at Wharton and in the 1970s started advising health care clients of silk-stocking consultancy McKinsey & Co. In the late 1980s, he helped found Marquette Venture Partners in Deerfield. Mr. Schuler made his mark in the '70s building Abbott Laboratories' market-leading laboratory diagnostics business; by 1987, he was president of the North Chicago-based corporation. But both were seeking more control over their futures, and struck out on their own. Because Crabtree uses the partners' personal funds, they're not saying how much they've invested in the handful of companies in their portfolio. At least one of their investments has done nicely: Deerfield-based Stericycle Inc. is the second-largest medical waste treatment company in the nation, and it went public last year, raising \$28.9 million.

Arsenio Oloroso Jr.

PEOPLES from Page T47 run over." He put Fermilab on the map over the next two decades with another sort of head-on collision: between protons and antiprotons. Breakthroughs developed by Mr. Peoples during the 1980s converted Fermilab's proton accelerator into a high-energy collider, able to probe quarks and other mysteries of matter. The U.S. Department of Energy tapped Mr. Peoples to help the glitch-plagued Superconducting Super Collider (SSC) in Texas close up shop in 1993-94. With its demise, ironically, Fermilab's technology gained the mantle of the "world's most powerful collider." To keep Fermilab in the lead, Mr. Peoples has plans for a machine even larger than the SSC to come on-line in 25 years. Widely respected as one of physics' elder statesmen, Mr. Peoples has the fund-raising prowess to pull off such a scheme, says Thomas Thornton, president of the Illinois Coalition. Thanks to his lobbying, Fermilab already brings \$250 million in federal funds to Illinois.

Julie Johnson

JOSEPH A. PISCOPO, 53

VENTURE CAPITALIST
OAK BROOK



Mr. Piscopo (pronounced *pis-CO-po*) was a Midwest pioneer in creating software for Everman. Remember when computer users had to write their own code to make the machines

See PISCOPO on Page T4

GORDON & GLICKSON P.C.

October 1997

is proud to have acted as counsel to Open Port Technology, Inc. in connection with the transaction set forth below.



Licensing Agreement
with

UUNET Technologies, Inc.

relating to
UUFAXSM, a Fax-over-the-Internet service

444 North Michigan Avenue
Suite 3600
Chicago, IL 60611-3903
312 321-1700

2555 M Street, N.W.
Suite 302
Washington, D.C. 20037-1302
202 861-2900

600 South Second Street
Suite 100
Springfield, IL 62704-2542
217 789-1040

www.ggtech.com

PISCOPO from Page T48
work? At age 24, the former Montgomery Ward & Co. programmer started Pansophic Systems Inc. to produce user-friendly software with \$150,000 in family-and-friends' seed capital. Now "retired" for 10 years, he is a crucial "angel" for Chicago-area technology firms, investing as much as \$1 million at a crack. An initial \$700,000 stake in Indianapolis-based Software Artistry Inc. (where he's chairman) now is worth more than \$7 million. He's also a major holder of Chicago-based Open Port Technology Inc. With plenty of time for golf, Mr. Piscopo can't pass up an opportunity there, either. He owns about 10% of an IPO-in-waiting, Hoffman Estates-based Natural Golf Inc., a maker of clubs designed to accommodate beginning players. "He's the consummate director," says Natural Golf CEO and Pansophic alum Larry Olson. "He always does his homework. You don't put anything past Joe."

Steven R. Strahler

RICHARD A. RECK, 48

PARTNER
INFORMATION, COMMUNICATIONS
AND ENTERTAINMENT
PRACTICE
KPMG PEAT MARWICK LLP
CHICAGO



He was high-tech when prairie high-tech wasn't cool. He began to focus on software companies in 1982; his clients now include some of the area's oldest and biggest

software firms, such as Chicago-based SPSS Inc. and Platinum Technology Inc. A behind-the-scenes operator, Mr. Reck still keeps an eye open for startups to pitch for business, such as Woodridge-based Repository Technologies Inc., which makes software that helps software companies manage product development problems. Early on, he decided that trade groups and awards would help his practice by building the high-tech industry, not to mention his network of contacts in it. His firm's annual Illinois High Tech Awards, begun in 1984, were the first to highlight local computer entrepreneurs. He has played a key role in forming groups such as the Chicago Software Assn.

Thomas A. Corfman

ALEX SARELAS, 49

PRESIDENT, CHIEF OPERATING
OFFICER
WEBLEY SYSTEMS INC.
CHICAGO



An architect of First National Bank of Chicago's first ATM system in the 1970s, Mr. Sarelas was on the cutting edge of

one electronic revolution. "I feel like a grandfather," he says. Now, he's thinking afresh. Webley—the nickname of a British officer's trusty sidearm—aims, with its veddy British-accented voice-mail services, to be the information age version of a personal butler. The company's "virtual mailbox" is always on call to screen calls or read your e-mail over the phone. Start-up Webley has fewer than 1,000 customers, though Mr. Sarelas projects 30,000 by next summer paying about \$100 a month. One prospective (and skeptical) investor is Bruce

Burchfield, who was Mr. Sarelas' boss—"as much as you can manage Al"—at a predecessor of Intuit Services Corp. that provided support for on-line banking and bill-paying services. Mr. Sarelas knows the risks. A management shake-up last year ended his tenure as Intuit's director of technology. Webley itself could disappear within a year—bought, perhaps, by a phone company, he says. The nomad life is not threatening: "I'll go on to another project. At this level, it's extremely profitable."

Steven R. Strahler

Good Chairs are a Great Investment.

Girsberger

Best quality - Best Value

Don't buy another chair
until you compare



For all the reasons why, call or visit our showroom.

ADZ Associates, Inc. Merchandise Mart 306 Chicago, IL 60654 312/670-8800

Some Addresses In Chicago Just Went Up In Value.

ERS Site Management
333 Pierce Road, Itasca

The John Buck Company
300 South Wacker Drive
Sears Tower

Marc Realty
205 West Randolph Street

Greystone
155 North Wacker Drive
318 West Randolph Street

LaSalle-Wacker Building
221 North LaSalle Street

Wirtz Realty Company
333 North Michigan Avenue

What do these addresses have in common? Smart property management. Quite simply, the managers of these buildings responded to the demands of their tenants. How? They let WinStar bring them high-speed telecommunications technology rather than waiting years for the old local phone company to get around to it. A move that increased the value of their real estate immediately. Without costing them a cent. Or the costly disruption of tearing up streets and sidewalks to install a fiber-optic cable connection.

And now WinStar's Wireless Fiber™ technology is available to you. For free. Technology that will help you attract better tenants and keep current ones. Technology that gives you a competitive edge that will help boost your bottom line.

Don't let other property owners and managers outsmart you. Call today to add WinStar's Wireless Fiber technology to your building. And watch your address go up in prestige and value.

WINSTAR®

Call us today at 1-888-322-2525



The BULL Stops Here!

...the official Internet provider of the Chicago Bulls.

"ANET's staff has been responsive to our needs...met all our expectations. They have made our ISP selection very easy."

- Joe Inzerillo
Technical Director/United Center

ANET is now ranked as one of the "top 10" Internet Service providers in the country by CNET!

ANET can give you Internet access you can really "access".

- ▲ Designing and hosting your web site
- ▲ Supplying virtual private dial up networking (VPDN)
- ▲ Maximize your connection minimizing your cost.

Get unlimited access and grow your business with:

- ▲ Complete Internet Services and Support
- ▲ No Busy Policy (low customer to phone line ratio)
- ▲ Technical Support 7 days a week
- ▲ Dial up access for only \$19.95 per month -- First month free!
- ▲ Full T1's from \$899 per month!
- ▲ WEB Hosting from \$60 per month!

The connection...



...when **ANET** connects.

call now!

888-799-2638

630.637.0844 www.anet-chi.com CHICAGO • DALLAS • FORT WORTH • ST. LOUIS

EVA® Midwest



Stern Stewart & Co., the company that invented Economic Value Added (EVA®), has opened a Chicago office to offer mid-western, middle-market companies a comprehensive EVA financial advisory service. EVA is an integrated framework for business and financial management and incentive compensation which motivates managers to maximize company profitability and increase shareholder value. FORTUNE magazine calls Stern Stewart's EVA "the real key to creating wealth."

Bill Williams, a former Chief Financial Officer of both Steelcase, Inc. and Allied Signal's Engineered Materials Sector has recently joined Stern Stewart to lead the middle-market practice in Chicago. Current midwestern clients include Herman Miller, Knap & Vogt, the Manitowoc Company, Material Sciences and SPX.

To reach EVA Midwest, write or call: Bill Williams, Senior Vice President, Stern Stewart & Co., 20 South Clark Street, Chicago, IL 60603 Tel: 312.372.5333.



Stern Stewart & Co.
THE EVA COMPANY®
www.sternstewart.com

© All rights reserved for Stern Stewart & Co. EVA® is a registered trademark of Stern Stewart & Co.

JEFF R. SCHERB, 40
SENIOR VICE-PRESIDENT,
CHIEF TECHNOLOGY OFFICER
TRIBUNE CO.
CHICAGO



No one wields more control over Tribune Co.'s efforts to move gracefully into new technologies than Mr. Scherb, who jokes that his real title should be

"agent of change." His job is all-encompassing: changing existing products, such as developing ways to deliver newspapers to tighter circulation zones; updating internal technical systems for departments such as accounting and human services, and molding a corporate culture that embraces new technologies. "The most important thing I can do is prepare the company to execute technical ideas," explains Mr. Scherb, who joined Tribune in 1996 after stints with Cullinet Software Inc., Commodore Computers Inc., Turner Broadcasting Systems and Dun & Bradstreet Corp. An interest in technology might be genetic: His father and grandfather were engineers at Western Electric Co. He unwinds by writing computer code and maintains a Web site devoted to his other love, model railroading.

Jeff Borden

GARY SEAMANS, 49
CHAIRMAN, CEO
WESTELL TECHNOLOGIES INC.
AURORA



When Mr. Seamans took the corner office at Westell, the company was in debt and 114 employees were working four-day weeks due to lagging de-

mand. In the decade since the former AT&T Corp. and MCI Communications Corp. executive arrived, Westell has emerged as the acknowledged leader of systems used to send high-speed data over telephone lines. While revenues and the stock price are still volatile, Westell now has 800 employees and a new, 185,000-square-foot facility in Aurora, and is poised for profitability as early as 1999. The overhaul positions the company to provide faster service through both copper analog phone lines and state-of-the-art digital technology—offering the speed that businesses want but are still wary of paying high prices for. An acquisition this fall of San Jose, Calif.-based modem maker Amati Communications Corp. is the first step in Mr. Seamans' plan to make Westell the low-cost provider and standard-setter for such systems.

Margaret Littman

EDWARD M. SCHRECK, 48
MANAGING PARTNER
TECHNOLOGY
ANDERSEN CONSULTING LLP
NORTHBROOK



In one way or another, Mr. Schreck is waist-deep in the technology enterprises of thousands of companies worldwide. He's also in the forefront of

an accelerating evolution aimed at making computers ubiquitous in every area of commerce. A 22-year veteran of the world's largest technology consulting firm, the University of Michigan MBA leads a far-flung organization of 400 Andersen experts giving high-tech advice to clients and installing systems in areas ranging from manufacturing to distribution to customer relations. As Andersen's most senior technology partner, he's also played a key role in the recent process re-engineering and change management trends, which heavily depend on the deployment of more computer brain power. His in-house empire stretches from Andersen's Center for Strategic Technology Research in north suburban Northbrook westward and eastward to demonstration centers in Palo Alto, Calif., and Sophia Antipolis, France.

Arsenio Oloroso Jr.

DAVID SEMMEL, 40
PARTNER
PANGIA L.P.
CHICAGO



Along with Roger Covey, Mr. Semmel co-founded business planning, software development System Software Associates Inc. in 1981 around the dining room table

at Mr. Covey's mother's house. He left after the 1987 initial public offering to launch a family venture capital fund, whose investments included Massachusetts-based Desktop Data Inc., now the leading news and information provider to corporate computer networks. Four years ago, Mr. Semmel teamed up with Boston composer/money manager Peter Homans to form Pangia (geologists' term for the earth's original supercontinent), now the largest local hedge fund focusing on technology stocks. "He taught me about Wall Street, and I taught him about the technology business," says Mr. Semmel. The firm's bottom-up research approach on some 300 technology companies helped it earn a compound annual 19.7% for the three years ended last December, while maintaining half the price volatility of the S&P 500 Index and no correlation.

See SEMMEL on Page T5

SEMME from Page T50
lation to the broad stock market. Mr. Semmel recently launched venture capital fund PanCap Technology Partners L.P. with local techheads Lee Rosenberg and Mark Achler.

Michael Fritz

MICHAEL SILVER, 42

GENERAL MANAGER
TRIBUNE INTERACTIVE INC.
CHICAGO



Hired by Tribune Co. in 1985 to develop kiosks offering tourism information, Mr. Silver now is the grand poohbah of the company's Web sites, overseeing

more than 20 electronic locales and a staff of more than 200. "It's like being in radio in the early 1920s or TV in the late 1940s, when they weren't fully formed," he exclaims. Mr. Silver shapes Web sites at Tribune-owned properties across the country while looking for ways to use information those businesses generate. It might mean taking a story about the E coli bacteria in the *Chicago Tribune* and incorporating it into the Web site of a TV station in Atlanta, where an anchor can refer viewers for more information, or taking video from a crime scene in New York and putting it on the Trib Web site. Yet the fluidity of the Web—where technology changes on a weekly basis—is a constant frustration to Mr. Silver, who has a master's degree in journalism from Columbia University and an MBA from Stanford University. "You can't run screaming from the room," he says. "It's not allowed. You just have to deal with it."

Jeff Borden

TOM SIMONDS, 27

PRESIDENT
INTERACCESS CO.
CHICAGO



Mr. Simonds protests, "It's not my personality to go to something new," but he jumped into the newest burgeoning industry: Internet access. Armed with

a loan from his father and a history degree from Yale University—and an aversion to following his friends into law school—he bought the same equipment he had seen Internet service providers use in other cities and built his service. From there, he marketed to recent college graduates, a segment few other providers had targeted. He says reading *Inc.* magazine was an important part of his business preparation, and it worked: InterAccess Co. has 17,000 dial-up customers and hosts 1,000 commercial Web sites. It also tallied \$7.5 million in operating revenues last year. "We thought we'd be much smaller," he says, matter-of-factly. The competition isn't small, ranging from 100

other local providers to Virginia-based America Online Inc., but, Mr. Simonds says, "I generally stick things out."

Rekha Balu

JACK SLEVIN, 61

CHAIRMAN, PRESIDENT, CEO
COMDISCO INC.
ROSEMONT



Mr. Slevin joined Comdisco 18 years ago, after a chance encounter with Kenneth Pontikes, the company's late founder and his neighbor.

Mr. Slevin, a chemical engineer, was grumbling about an impending East Coast transfer when Mr. Pontikes offered him a job on the spot. "Opportunities just come up in the strangest places," says Mr. Slevin. He learned Comdisco's computer broker and leasing business from his friend, watching the company's sales mushroom from \$25 million in 1979 to nearly \$3 billion in 1997. He took Comdisco's helm after Mr. Pontikes' death in 1994. Since then, Mr. Slevin has steered the information services firm toward distributed systems: PCs, workstations and networks. IBM mainframes, Comdisco's largest

See SLEVIN on Page T52

MAINTAIN A CLIENT'S LOYALTY FOR LIFE.

What if... a client felt comfortable enough to show up to your Thanksgiving Day dinner... unannounced?



THE SALES PRESENTATION ASSISTANT FAMILY
OF MOBILIZED SALES SOLUTIONS.

SPA Technologies, LLC 630 529 0199 WWW.SPATECH.COM

to be is to do.
Sartre

to do is to be.
Camus

do be do be do.
Sinatra

closer look creative.

What you do — and how you do it — is what counts.

We do: interactive web and multimedia solutions, film, video and print.

And we do it for: healthcare and technology companies, consulting firms and others in the Fortune 500.

For more information or a presentation of our work, call Kim Shambrook at 312.640.3801. Or visit us at: www.closerlook.com

**CLOSER
LOOK**

CLOSER LOOK CREATIVE, INC.

Thinking, Creating, Implementing Communications Solutions...right here in our kinda town.

SLEVIN from Page T51
profit center at decade's beginning, now account for less than 5% of revenues. This shift mirrors businesses' growing demand for flexible information technology. "I don't believe in building a field of dreams and hoping they will come," Mr. Slevin says. "You have to listen very closely to customers."

Julie Johnsson

LARRY SMARR, 49

DIRECTOR

NATIONAL CENTER FOR SUPER-COMPUTING APPLICATIONS
UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN



When the history of the Internet is written, an early chapter or two will be all about Larry Smarr and the NCSA. As a U of I astrophysicist in the early

1980s, Mr. Smarr needed faster computers for research on black holes and other complex interstellar phenomena—the kind of computing power then found mainly in federal weapons labs. He lobbied Congress to create four super-computer centers around the country linked by a high-speed network, which evolved into the Internet. Director of NCSA since its founding in 1985, Mr. Smarr created a home for some of the nation's best computer minds, which led to the creation of some of the Internet's

most widely used features—including Mosaic, the first program that made it easy to call up images and text from anywhere in the world. One of two centers to survive recent cuts, NCSA now has 40 universities and corporations as partners to share research capabilities. It's said that Mr. Smarr is a great visionary. What he says is, "It's easier to predict the future if you're allowed to create it."

Paul Merriam

RANDY S. STORCH, 38

CHAIRMAN, CEO
OPEN PORT TECHNOLOGY INC.
CHICAGO



From airline flights to faxes, Mr. Storch knows how to schedule things. Open Port, which the truck driver's son founded in 1992, makes soft-

ware that saves large companies money by storing outgoing faxes and sending them later along the cheapest path. He's an enthusiastic salesman who's won over top clients, such as Motorola Inc., and impressive investors, such as Frontenac Co. After graduating from the University of Wisconsin, where he majored in advertising, he went to work selling flight schedule data tapes to airline reservation systems. In four years, he racked up 765,000 miles flying

to meet customers, which included Philippines Airlines. In 1985, with a \$75,000 investment, he founded a company that made airline reservation software, selling it two years later for \$10 million to Texas Air. Though he remained with the airline for four years, he left to look for opportunities in health care or telecommunications, and in 1991 landed with Ameritech Corp., helping develop its fax service. That gave him the idea for Open Port. Next on his schedule: taking his company public, probably sometime next year.

Thomas A. Corfme

PARTNERS

ALLEN SUTKER, 36

CHAIRMAN, PRESIDENT

MARK POLINSKY, 36

CEO
VISIONTEK
GURNEE



Allen Sutker, left, and Mark Polinsky

At first, it was easy. Messrs. Sutker and Polinsky, childhood pals from Skokie, in 1988 found a ready market brokering electronic chips for PC memory upgrades. Prices were going up and the duo's company, then called Desktop Sales Inc., made big profits selling to corporate customers. Soon after, they started designing and making their own products and sold them through distributors and national resellers. In 1994, the firm moved to a 60,000-square-foot plant in north suburban Gurnee and changed its name to VisionTek. So much for prosperity. Last year, sales dropped more than 43% from the year earlier, to \$156 million. VisionTek, while among the 10 largest companies in its niche, is much smaller than the industry leaders in a market where the price competition

is brutal and volume is the key. When Messrs. Polinsky and Sutker—the latter is the son of Cook County Commissioner Calvin Sutker—aren't shooting hoops at the company's gym, they are scrambling to diversify into other areas, such as upgrades for microprocessors.

Judith Crown

THOMAS THORNTON, 32

PRESIDENT
ILLINOIS COALITION
CHICAGO



Mr. Thornton has no inventions or hot software to his name. But since January 1994 he's played a more fundamental role as head of a state-subsidized group of high-tech boosters from the top ranks of business, government, labor and academia—ranging from Motorola Inc. CEO Christopher Galvin to Illinois State AFL-CIO President Donald Johnson. His office is considered an epicenter of high-tech networking here. He knows everyone. Under Mr. Thornton's leadership, the coalition—which was

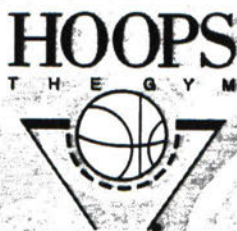
See THORNTON on Page T5

PLAY WITH



**ONLY HOOPS...
ONLY GROUPS**

RESERVATIONS
24 HOURS A DAY 7 DAYS A WEEK



TWO CONVENIENT DOWNTOWN LOCATIONS

1380 W. RANDOLPH ST. ■ 1001 W. WASHINGTON BLVD.
CHICAGO

312.850.4667

IDEAL FOR SPECIAL EVENTS

**PEORIA'S AWARD
WINNING
HOTEL
REWARDS YOU.**
With a Free Breakfast Buffet!



Join the Executive Club and enjoy perks like **FREE** hot breakfast buffet, **FREE** evening cocktails, **FREE** coffee and a newspaper delivered with your wake-up call and business perks like **FREE** faxes, local phone calls, covered parking, and shuttle. Best of all, membership is **FREE** and easy—just call 1-800-447-1676.



HOTEL PIER MARQUETTE

Located in the Center of Downtown Peoria's Business District
501 Main Street • Peoria Illinois 61602 • 1-800-447-1676

THORNTON from Page T52 formed in 1989 to boost the state's technology sector after Illinois lost the \$11.8-billion Superconducting Super Collider project to Texas—has written a high-tech job-creation strategy for the state (including a \$5-million state fund to assist early-stage technology firms) and set priorities for Illinois lawmakers that helped bring in more than \$700 million for the state's federal labs last year.

Paul Merriam

HOWARD TULLMAN, 52
CEO
JAMTV
CHICAGO



With longtime friend Jerry Mickelson, founder of Jam Productions Ltd., Mr. Tullman created a way to bring the concert experience to the

home computer. His on-line music network simulcasts live concerts on the Web and sells CDs, T-shirts and other related garb. Insiders say faith in Mr. Tullman's tech know-how is the only reason New York's Goldman Sachs & Co. and California-based Intel Corp. backed the venture—with a big enough investment for JamTV to go first-class all the way, although neither Mr. Tullman nor Goldman will discuss the amount. In the first six months of operation ended Sept. 30, JamTV broadcast more than 100 concerts, distributed more than 500,000 CDs and lured big-name advertisers—Nabisco Biscuit Co. and PepsiCo Inc., for example—to sponsor events. Mr. Tullman expects to be in the black by 1998. A former attorney, Mr. Tullman also runs Imagination Pilots Entertainment, a local publisher of educational and entertainment CD-ROMs, and manages the Merchandise Mart's giant Web site.

Margaret Littman

DALE WALSH, 61
VICE-PRESIDENT OF
ADVANCED DEVELOPMENT
PERSONAL COMMUNICATIONS
DIVISION
3COM CORP.
SKOKIE



Faster, more versatile technology carried U.S. Robotics Corp. from obscurity to domination in the modem business—and Mr. Walsh was the company's techno-

logical brains. Under his leadership, it wrote its own modem software while rivals relied on standardized programs from semiconductor suppliers such as

Rockwell International Corp. U.S. Robotics was able to set the pace in the race for ever-faster transmission speeds and make modems fluent in every transmission language, not just the one favored by a chip supplier. Mr. Walsh also led the development teams that put the company's 56-kilobits-per-second modems on store shelves first, a lead the company has turned into a dominant share of that market. After California's 3Com Corp. acquired U.S. Robotics, Mr. Walsh agreed to keep running the modem development team. His challenge now is to fold new services, such as video and voice, into the modems' lexicon, while pushing the devices to

ever-faster speeds.

Joseph B. Cahill

BRIAN WEBBER, 33
VICE-PRESIDENT
DONALDSON LUFKIN & JENRETTE
SECURITIES CORP.
CHICAGO



Mr. Webber gets a charge out of tapping the stock market. So do his clients. Last year, Mr. Webber and his colleagues at DLJ's 19-person technology invest-

See **WEBBER** on Page T54

Do You Have e-Mail Envy?

Are you a small to midsize company, that does not have e-mail, a website or Internet access?

Area Codes	Served
312, 847	
773, 630	
708, 815	

Met Net provides customized solutions, from e-commerce to e-mail, we can help you gain a competitive advantage by using technology efficiently.

Met-Net

Solutions To Fit Your Business

708.747.0600

www.met-net.com

We want to make just One Point.



One Source is all you need for local phone service, long distance, cable TV, internet access and more.

Introducing OnePoint Communications.

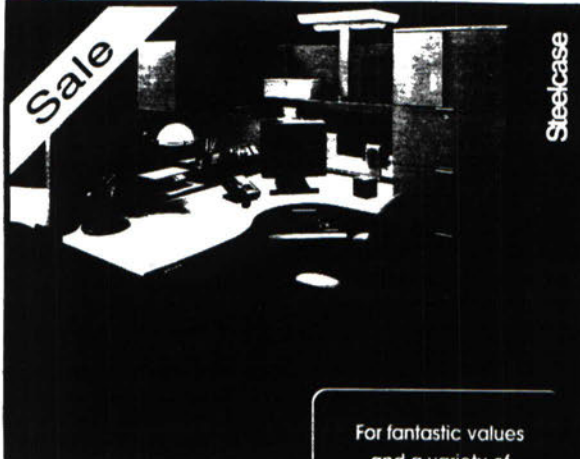
Now you can give your apartment and condominium residents the ultimate in simplicity. One single source for all their entertainment and telecommunication needs. They'll enjoy an average savings of up to 35% on our extensive line of bundled services. Local and long distance phone service. Customized cable programming. Direct broadcast satellite. Cellular service. High-speed internet access. All with superior customer service. There's only one bill to pay. One call to make. And for you, flexible revenue-sharing plans that are among the best in the business. Have we made our point?



One Source. Many Connections.

Call 1-847-374-3700 before you sign your next cable TV or telephone contract.

Sale



Steelcase

Context from Steelcase and Cotey Workplace Environments is the solution to today's changes and tomorrow's opportunities.

Call us at **800-490-4606** to make Context a part of your future.

For fantastic values and a variety of Steelcase products visit our sales floor without leaving your chair at WWW.COTEYWE.COM.

COTEY
WORKPLACE ENVIRONMENTS

WEBBER from Page T53
ing banking group helped take Chicago computer systems developer and consultant Whittman-Hart Inc. public in a \$50-million offering. Three months later, the same group helped raise \$66 million in a secondary stock sale for the firm. Another major triumph: The locally based DLJ unit out-hustled San Francisco tech banker Hambrecht & Quist Inc. as the lead banker for Platinum Technology Inc.'s corporate finance business. From there, it assisted the Oakbrook Terrace-based software developer with a string of crucial acquisitions of leading specialty software products. "We've done more in technology than any other bank (in Chicago)," claims Mr. Weber, who is not one to shy away from asserting his firm's prowess. "We are committed to doing technology in our backyard." Mr. Webber and his colleagues also put their own money on the line, investing in local venture capital funds, such as Platinum Venture Partners Inc., and local technology startups.

Michael Fritz

STEPHEN WOLFRAM, 38
PRESIDENT, CEO
WOLFRAM RESEARCH INC.
CHAMPAIGN



Convinced that mathematics shouldn't be left to the mathematicians, Mr. Wolfram created Mathematica, a mind-blowingly high-powered number-crunching program. "Mathematica is a huge piece of very fine technology that has the fundamental ability to improve the use of mathematics in any field of endeavor," says John Moussouris, CEO of MicroUnity Systems Engineering Inc. in Sunnyvale, Calif., a customer and friend of Mr. Wolfram's from Oxford University. A child prodigy who wrote papers on quantum field theories while a teen in England, Mr. Wolfram earned a doctorate in physics from Cal Tech (in one year), won a John D. and Catherine T. MacArthur Foundation "genius" grant at 21 and launched his own company in 1986. "I know a very few people who have extreme intelligence, and a very few people who have tremendous common sense," Mr. Moussouris says. "Stephen has both." He also wears his reputation for prickliness like a mantle;

even friends say he doesn't suffer tools, gladly or otherwise.

Jeff Bord

PAUL YOVOVICH, 44
PRIVATE INVESTOR,
CORPORATE DIRECTOR
CHICAGO



Mr. Yovovich is former Dean Winter investment banker who earned his management stripes in the early '90s as president of Chicago-based Centel Corp.'s Central Telephone Co. and then as president and chief operating officer of Chicago's Advance Ross Corp. until its 1996 sale to CUC International Inc. Today, Mr. Yovovich is an active and trusted director/investor with University of Chicago-based Casey Cowell in computer network equipment maker 3Com Corp. and Downers Grove-based database marketing firm May & Speh Inc. He also serves on the board of Comarco Inc., a California-based wireless technology services/facilities manager. Mr. Yovovich's technology-related investments include Deerfield-based telemarketing outsourcer Apac TeleServices Inc., local wireless

See YOVOVICH on Page T5

technology. services. results.

Stradivarius?



CIC
Systems

www.cicsystems.com

Do your computer systems look more like a masterpiece or a mishap? CIC Systems is a nationally renowned provider of computer related solutions designed around Hewlett-Packard products. With a long history of serving the Chicagoland area, CIC can offer industry leading equipment like the high performance HP NetServer Storage System to which supports up to six hot-swappable disk modules in a single system cabinet. CIC Systems has the knowledge and experience to turn your network from a technology nightmare into a technology symphony. We specialize in bringing

music to your ears!

Call the CIC Systems office closest to you
Chicago 888.260.6838 • Milwaukee 414.798.1926

GOLDCOAST
computer solutions, inc.
we have the solution!



Consultation • Implementation • Integration

Goldcoast is a uniquely qualified
Technological and Network Consulting Corporation
providing specialty in the following fields:

NETWORKING (LAN AND WAN)

INTERNET/INTRANET SERVICES

APPLICATION DEVELOPMENT

SERVICE AND SUPPORT

GOLDCOAST also offers the following in-house and on-site
MS Office '97 Suite Applications training courses:
• MS PowerPoint '97 • MS Publisher '97
• MS Word '97 • MS Excel '97
Call today for schedules and availability!

(312) 466-1626

216 N. Jefferson, Suite 200 Chicago, IL 60661
<http://www.gccsinc.com>

YOVOVICH from Page T54
communications provider Omni-
point Corp. and competitive lo-
cal telephone service provider Fo-
cal Communications.

Michael Fritz

JONATHAN N. ZAKIN, 48
PRESIDENT
SEAVIEW HOLDINGS LLC
CHICAGO



A chief architect of
the strategies that
built Skokie-based
U.S. Robotics Corp.,
he's now finding out
if there's life after
the big deal: the
company's merger
with Santa Clara,

Calif.-based 3Com Corp. The No. 3
executive at U.S. Robotics, Mr. Za-
kin showed he could see beyond the
horizon with such deals as the 1994
acquisition of Megahertz Inc. and
the 1995 purchase of Palm Comput-
ing Inc. A Harvard MBA, Mr. Za-
kin joined U.S. Robotics in 1987,
became a board member in 1988
and left after the merger with money
to invest. He's on the lookout for
high-tech startups, but doesn't want
to be a passive stockholder. He re-
cently invested in Burr Ridge-based
Nanophase Technologies Corp., a
materials processing company, and
is advising Chicago-based Vosaic
LLC, which is developing Internet

video software.

Thomas A. Corfman

ALEX ZOGHLIN, 27

FOUNDER, CHIEF TECHNOLOGY
OFFICER
NEOGLYPHICS MEDIA CORP.
CHICAGO

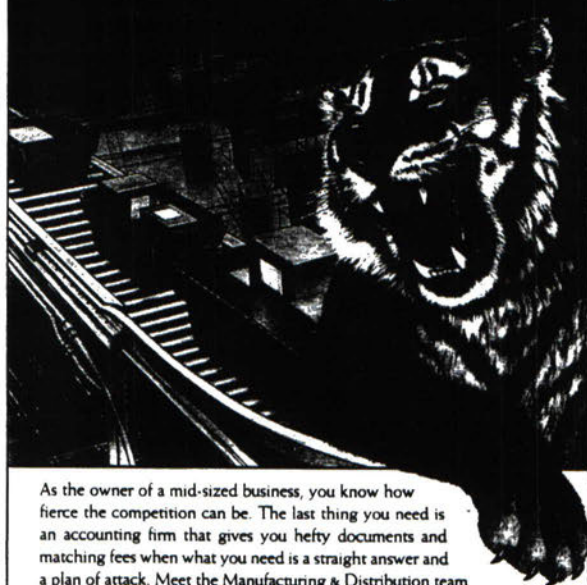


Although his 2-year-
old firm is technical-
ly only in toddler
stage, *Fortune* maga-
zine recently recog-
nized Neoglyphics as
one of the country's
"coolest companies."

Having grown from
a handful of programmers to 175
employees, the Bucktown firm is one
of the nation's leading creators of on-
line applications, including Web sites
and e-commerce systems. The firm's
blue-chip client roster includes local
giants Sears, Roebuck and Co. and
Ameritech Corp. and New York's
Citibank, for which Neoglyphics cre-
ated an on-line banking system. Neo-
glyphics also built the popular Web
travel site Travelocity. Mr. Zoghlin
brings to his business an intense drive
for accomplishment—he's a scuba di-
vermaster, licensed pilot and tae kwon
do black belt. Last year, he made
more than 30 speaking appearances
and is working on developing a new
generation of programming lan-
guages and expanding his company
to Detroit, Atlanta and New York.

Paula Lyon

Put Some Bite into Your Manufacturing & Distribution Accounting



As the owner of a mid-sized business, you know how
fierce the competition can be. The last thing you need is
an accounting firm that gives you hefty documents and
matching fees when what you need is a straight answer and
a plan of attack. Meet the Manufacturing & Distribution team
at GSS&C. You'll get fresh ideas and practical solutions — born of
experience — that will keep your profits strong and your competitors...
clawless. Find out what ferocious accounting can mean to your business —
call GSS&C today.

Gleeson, Sklar, Sawyers & Cumpata LLP

Certified Public Accountants and Management Consultants

PUT A TIGER ON YOUR TEAM

CHICAGO: 312.214.3170 ELGIN: 847.697.6161 SKOKIE: 847.673.4500
<http://www.gsscillp.com>

Taming Technology



At Greenbrier & Russel, we're the recognized experts at mastering the
newest technologies. Often before anyone else. Which means we can help
your staff quickly and easily take advantage of the latest innovations
technology has to offer. Our areas of expertise include:

- Client/server
- Internet/intranet
- Java
- Database administration
- Network communications
- IBM mainframe and midrange
- Unix/C++/C

Further, our highly trained, certified consultants specialize in catering to
the exact needs of such industries as banking, financial services, insurance,
manufacturing, distribution, retail and telecommunications.

To find out more about our award-winning consulting services, please visit
our web site at www.gr.com or call us at 800.453.0347.



GREENBRIER & RUSSEL

OUT with the OLD

IN with the NEW.



PAY ABSOLUTELY NOTHING FOR THE FIRST SIX MONTHS

Lucent Technologies
Business Communications

Call for a free on-site communications analysis.

Toll Free (800) 538-7967

<http://www.lucent-illinois.com>
email: pslowik@lucent.com

Trade in your old phone system and receive a generous credit towards
a new Lucent Technologies Phone System. For the only time this year,
you'll pay absolutely nothing for the first six months when you lease
your equipment through AT&T Credit.* Then enjoy a state-of-the-art
phone system that's designed to serve your current needs and grow
with your business. We stand behind all our products with guaran-
teed 24-hour service and support, a money-back guarantee and a
free, one-year warranty.

*This trade-in offer cannot be combined with any other equipment offer, and only applies to non-AT&T
phone systems. Subject to credit approval. Offer applicable to a 60 month F.M.V. True Lease.

A guide to tech-oriented venture capital firms

Where do you go if you have a promising high-tech venture but need cash? The Illinois Coalition, a Chicago-based group that promotes technology development statewide, has compiled a directory of local investment firms that back tech ventures. The listing was developed under a contract with the Illinois Department of Commerce and Community Affairs. Though the following is by no means a comprehensive list of investment options, it's a solid start.

Alpha Capital Partners Ltd.
122 S. Michigan Ave., Suite 1700
Chicago, Ill. 60603
Phone: (312) 322-9800
Fax: (312) 322-9808
Contact: William J. Oberholtzer, vice-president
E-mail: 103161.3650@compuserve
Year founded: 1984
Investment capital under management: \$40 million
Source of funding: Pension funds, institutional holding companies, individuals
Maturity of company desired: Early, expansion or mature; investment size typically ranges from \$500,000 to \$2 million; Alpha Capital will be lead or co-lead investor in many instances.
Technology sectors: Wide variety
Description: Provides equity financing for promising growth businesses and buy-outs or recapitalizations of established companies, mainly in the Midwest.
Web site: <http://www.cilnet.com/alpha/index.html>

Ameritech Development Corp.
30 S. Wacker Drive, 37th floor
Chicago, Ill. 60606
Phone: (312) 750-5083
Fax: (312) 609-0244
Contact: Darrell A. Williams
E-mail: darrell.a.williams@ameritech.com
Year founded: 1984
Source of funding: Ameritech Corp.
Maturity of company desired: First- or second-stage financing in companies that are no more than 12 months

from bringing a product to market. ADC seeks to invest from \$500,000 to \$2 million in U.S.-based companies with experienced, high-quality management teams.
Technology sectors: Communications, content and media ventures
Partners: Robert A. Schriesheim, managing director; Craig Lee, director; Charles Ross, director; Greg Smitherman, director; Darrell A. Williams, director; Michael Pickard, director
Description: A subsidiary of Ameritech Corp., ADC typically seeks to be part of a high-quality, multi-investor group consisting of professional venture capital firms or strategic investors with three-to-five-year investment horizons.
Web site: <http://www.ameritech.com/products/venture>

Apex Investment Partners
233 S. Wacker Drive, Suite 9500
Chicago, Ill. 60606
Phone: (312) 258-0320
Fax: (312) 258-0592
Contact: Jim Johnson
E-mail: jjohnson@apexvc.com
Year founded: 1987
Investment capital under management: \$120 million
Source of funding: Pension funds, institutions
Maturity of company desired: Startup, first and second stage
Technology sectors: Telecommunications, information technology, software, environmental, industrial pro-

ductivity, consumer products, retail
Partners: First Analysis Corp.
Description: Invests in early-stage, high growth companies.

Arch Venture Partners L.P.
8735 W. Higgins Road, Suite 235
Chicago, Ill. 60631
Phone: (773) 380-6600
Fax: (773) 380-6606
Contact: Steven Lazarus, CEO
Year founded: 1993
Investment capital under management: \$69.3 million in two funds
Source of funding: Major corporations (3M Corp., Allstate Insurance Co., Dow Chemical Co.), pension funds, endowment funds (University of Chicago Endowment Fund), financial institutions, private investors
Maturity of company desired: Seed and early stage
Technology sectors: Wide variety, including specialty materials and chemical, biotechnology, medical products, communication, information technology

Partners: Managing Directors Steven Lazarus, Keith Crandell, Robert Nelsen, Clinton Bybee
Description: Invests primarily in companies it co-founds with leading scientists and entrepreneurs, concentrating on bringing to market technological innovations developed at U.S. academic research institutions. When AVP is satisfied that a company offers exceptional growth potential and addresses a demonstrable market need, it assembles additional outside capital.
Web site: <http://www.archventure.com>

Batterson Venture Partners LLC
303 W. Madison St., Suite 1110
Chicago, Ill. 60606
Phone: (312) 269-0300
Fax: (312) 269-0021
Contact: Len Batterson

E-mail: bvp@vcapital.com
Year founded: 1995
Source of funding: High-net-worth individuals and institutions
Maturity of company desired: Early stage
Technology sectors: High-tech, including electronics, software, telecommunications, advanced materials, biotech and other medical applications
Partners: Len Batterson, chairman and CEO; Peter Fuss, executive vice-president of technology. Additional advisory directors include Melvin L. Katten, senior partner at Katten Muchin & Zavis; James V. Kimsey, chairman emeritus and founder, America Online Inc.; Ross Manire, senior vice-president and general manager of the Carrier Systems division at 3Com Corp.
Web site: <http://www.vcapital.com>

William Blair Capital Partners LLC
2227 W. Adams St., Suite 3400
Chicago, Ill. 60606
Phone: (312) 364-8250
Fax: (312) 236-1042
Contact: Ellen Carnahan
E-mail: wmb@wmlair.com
Year founded: 1935
Investment capital under management: \$182 million
Source of funding: Private
Maturity of company desired: Early, expansion and later-stage growth investments
Technology sectors: Information technology, consumer products and services, health care services, distribution and business services, specialty retailing
Partners: Edgar D. Jannotta, senior managing director; Ellen Carnahan, managing director; David G. Chandler, managing director; James M. Denny, managing director; Ian M. Larkin, vice-president
Description: Private equity fund seeking to invest in growth financing, leveraged buyouts and recapitalizations of

well-managed growth companies. Investments typically range between \$5 million and \$20 million, but may be as small as \$2 million for early-stage info tech companies.
Web site: <http://www.wmlair.com/depart/equity/equity.html>

Capital Strategy Management Co.
233 S. Wacker Drive
Chicago, Ill. 60606-0334
Phone: (312) 444-1170
Contact: Eric E. von Bauer, president
Year founded: 1982
Investment capital under management: Open
Source of funding: Institutions, pension funds, corporations, private
Maturity of company desired: Startup, first round, second round
Technology sectors: Telecommunications, computer-related, health care and biotechnology equipment, industrial and consumer medium- and high-technology products, services directly related to high technology
Partners: 15-plus principals with experience across technology sectors
Description: Provides venture capital financing and advisory assistance to both high- and medium-technology firms in most industries, and preferably in the Upper Midwest. Capital provided can range from \$100,000 to more than \$10 million and can include both equity and debt needs.

Camdisco Ventures
6111 N. River Road
Rosemont, Ill. 60018-5158
Phone: (847) 698-3000
Fax: (847) 518-5465
Contact: James P. Labe, managing director; Jill C. Hanses, senior investment associate
Year founded: 1987
Investment capital under management: \$515 million
Type of capital provided: Venture lease,

Accounting for the Future

Platinum® for Windows is the world-class solution you need to expand your business in today's global marketplace.

- Industry experts name Platinum for Windows the top-rated Windows® accounting solution for its reliability, ease of use, flexible customization, powerful report writing, advanced feature set and multinational capabilities.
- Find out how Platinum for Windows can give you better access to vital business information, increase your staff's efficiency and make your business more competitive.

Join Us for Platinum Software Corporation's FREE Seminar:
Accounting for the Year 2000 and Beyond
Tuesday, Nov 11, 1:00 PM - 4:00 PM at:
Chicago Airport Marriott
8535 W. Higgins Rd.
Chicago IL 60631

Reserve your seat today! Call 1-888-PFW-7649 or register online under "What's New" at www.platsoft.com.
Space is limited.

PLATINUM
SOFTWARE CORPORATION

Comprehensive

Client/Server

Accounting

Made Simple

When the dust settles,

we'll still be standing guard

Wells Fargo Guard Services

A Tradition Of Excellence

(312) 715-1550

Call Derek Evans

debt and direct equity investments (preferred minimum, \$250,000; preferred maximum, \$3 million)
Maturity of company desired: Seed, startup, first stage, second stage, mezzanine
Technology sectors: Biotechnology, communications, computer-related, electronics, information services/products, manufacturing/processing, medical/health, retailing, service industries, software
Partners: James P. Labe, managing director; Jill C. Hanses, senior investment associate
Description: The venture capital subsidiary of Comdisco Inc., Comdisco Ventures makes venture lease, debt and direct-equity investments in venture capital-backed companies. It primarily provides equipment financing to venture capital-backed startups, with the right to acquire small ownership positions. Venture leasing deals comprise the majority of investments. Debt investments including receivables/inventory financing and expansion/sub-debt are aggressively sought. Equity investments often coincide with an initial venture lease or another debt product.
Web site: <http://www.comdisco.com>

Crabtree Partners LLC

1419 Lake-Cook Road, Suite 410
 Deerfield, Ill. 60015
Phone: (847) 374-5115
Fax: (847) 945-6069
Contact: John Patience
E-mail: JP29CEP@aol.com
Year founded: 1995

Investment capital under management: \$15 million
Source of funding: Managing partner and co-investor
Maturity of company desired: Startup, second round, third round
Technology sectors: Biotechnology, health care, medical instruments and devices, pharmaceuticals
Partners: Jack Schuler, medical devices and diagnostics; John Patience, biotechnology, pharmaceutical and diagnostics
Description: Focuses on the health care industry.

Dresner Capital Resources Inc.

29 S. La Salle St., Suite 310
 Chicago, Ill. 60603
Phone: (312) 726-3600
Fax: (312) 726-7448
Contact: Steven M. Dresner, president; John Riddle, vice-president

E-mail: jriddle42@aol.com
Year founded: 1991
Source of funding: Private
Maturity of company desired: Early growth, late
Technology sectors: All
Description: Dresner Capital, affiliated with Dresner Investments, is a merchant bank that invests in emerging-growth and later-stage companies in a variety of industries.

Evanston Business Investment Corp.

1840 Oak Ave.
 Evanston, Ill. 60201
Phone: (847) 866-1840
Fax: (847) 866-1808
Contact: Thomas E. Parkinson
E-mail: t-parkinson@nwu.edu
Year founded: 1986
Investment capital under management: \$2.2 million
Source of funding: Northwestern University is lead investor
Maturity of company desired: Seed, startup, first round
Technology sectors: Communications, electronics and instrumentation, environmental, hardware and peripherals, health care, semiconductors/equipment, medical instruments and devices, software, information technology
Description: Early-stage venture capital fund founded by Northwestern University and other Evanston-based corporations and institutions; invests in Chicago-area firms only
Web site: <http://www.ebic.com>

First Analysis Venture Capital

233 S. Wacker Drive, Suite 9500
 Chicago, Ill. 60606
Phone: (312) 258-1400
Fax: (312) 258-0334
Contact: Bret Maxwell
Year founded: 1985
Investment capital under management: \$300 million
Source of funding: Institutional investors
Maturity of company desired: Startup, expansion and growth buyouts
Technology sectors: Telecommunications and information services
Partners: Bret Maxwell, partner; Mark Kouloger, partner; Mark Terbeek, partner; Alex Kim, associate
Description: Pursues early-stage investments in telecommunications, information technology and software primarily through its affiliation with Apex Investment Partners.

Web site: <http://www.taecv.com>

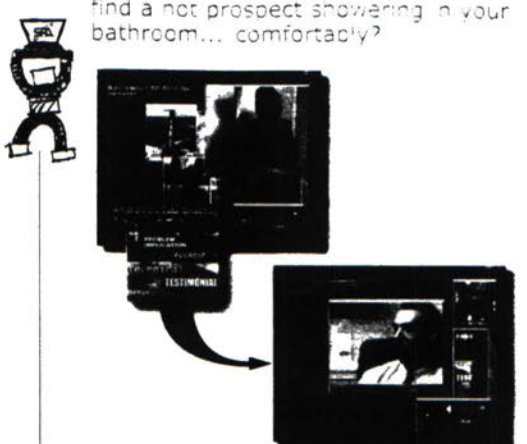
Frontenac Co.

135 S. La Salle St., Suite 3800
 Chicago, Ill. 60603
Phone: (312) 368-0044
Fax: (312) 368-9520
Contact: Pat Blandford
E-mail: pblandford@frontenac.com
Year founded: 1971
Investment capital under management: \$500 million
Source of funding: Endowments, pension funds, foundations and family trusts, other institutional investors
Maturity of company desired: Provides growth and expansion equity capital, typically not start-up or early stage capital; also provides capital for change of ownership and buyouts
Technology sectors: Information technology—consulting and integration services, outsourcing services, enterprise software; telecommunications
Investment team: Paul D. Carbery, James E. Cowie, James E. Crawford III, Patrick M. Blandford, Robert D. Daley
Description: Private investment partnership providing equity capital and strategic counsel to support internal growth and acquisition in privately owned companies

Golder Thoma Cressy Rauner Inc.

233 S. Wacker Drive
 6100 Sears Tower
 Chicago, Ill. 60606-6402
Continued on Page T58

What if... one morning you awoke to find a not prospect showering in your bathroom... comfortably?

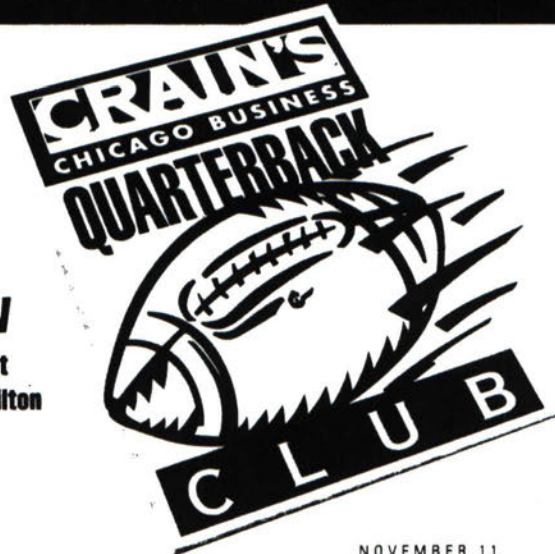


THE SALES PRESENTATION ASSISTANT FAMILY OF MOBILIZED SALES SOLUTIONS.

Client relationship enabling technology for the twenty-first century.

SPA
 SPA Technologies, LLC 630 529 0199 WWW.SPATECH.COM

The Quarterback Club has a new formation.



Tomorrow

November 4, Noon at
 The Palmer House Hilton
 (EMPIRE ROOM)



Jeff Jaeger



Steve Stenstrom



Todd Sauerbrun

Crain's Quarterback Club is the original luncheon series featuring Bears players since 1981.

NOVEMBER 11

Erik Kramer
Anthony Marshall
 Celebrity Guest Host: Emory Moorehead

NOVEMBER 18

Barry Minter
Todd Burger

NOVEMBER 25

TV Sportscasters
 Tim Weigel, Channel 2
 Jon Kelley, Channel 5
 Mark Giangreco, Channel 7

Reservations:

Call Merton G. Silbar
 Public Relations at
 847-729-7333. Cocktails
 and autographs at
 11:30 am; lunch at noon.

Cost: \$37.50 includes
 lunch, tax and tip. Limited
 seats are still available.

Building a Successful Partnership

Interactive Business Systems, Inc. is an international consulting leader with 13 offices in the U.S. and one in the United Kingdom. We learned long ago that in order to be successful you need to form partnerships. We partner with our Fortune 500 clients to provide them with the most innovative I.T. solutions.

Our areas of expertise include, but are not limited to, the following:

- MAINFRAME, MIDRANGE AND CLIENT SERVER CONSULTING
- YEAR 2000 COMPLIANCE
- SMALL BUSINESS SOLUTIONS
- ENTERPRISE NETWORKING

Build your future with a company committed to partnership
 For more information, please contact:



Interactive Business Systems, Inc.

2625 Butterfield Road, Suite 114W, Oak Brook, IL 60523
Phone: (630) 571-9100 or (800) 555-IBS • **Fax:** (630) 571-9110
E-mail: chicago@ibs.com • Visit our web site: www.ibs.com

(EOE M F D V)

Chicago, Cincinnati, Cleveland/Akron, Columbus, Dallas,
 Denver, Milwaukee, Atlanta, Detroit, San Francisco,
 Tampa, Madison, Minneapolis, London

Organized by Merton G. Silbar Public Relations Ltd.


 17 E MONROE

RADIO PARTNER



CO-SPONSORED BY



PRESENTED BY:



CO-SPONSORED BY



MCSE Microsoft Certified
Systems Engineer
CERTIFICATE
Training Program

Advance your career with hands-on IT skills today's employers demand. Call today for a free career consultation and find out how MCSE or Dual CNE/NT training can give you a competitive edge, or ask about our other advanced Certificate Programs.

Classes now forming! Chicago and Schaumburg Campuses
CALL TOLL FREE **888/655-TECH**

Microsoft
SOLUTION PROVIDER

Advantec
INSTITUTE

Continued from Page T57

Phone: (312) 382-2200
Fax: (312) 382-2201
Contact: Carl D. Thoma
E-mail: cthoma@gtcr.com
Year founded: 1980
Investment capital under management: \$647 million
Source of funding: State and corporate pension funds, venture capital subsidiary of corporation foundations, individuals
Maturity of company desired: Second round, third round, buyout
Technology sectors: Communications, electronics and instrumentation, health care, consumer services, manufacturing, semiconductors/equipment
Partners: Bryan C. Cressey, David A. Donini, Donald J. Edwards, Lee M. Mitchell, Joseph P. Nolan, Bruce V. Rauner, Carl D. Thoma
Description: Venture capital fund managing private equity funds
Web site: <http://www.gtcr.com>

High Street Capital LLC
311 S. Wacker Drive, Suite 4550
Chicago, Ill. 60606
Phone: (312) 441-8429
Fax: (312) 697-4994
Contact: Joe Katcha
E-mail: jkatcha@highstr.com
Year founded: 1997
Investment capital under management: \$20 million
Source of funding: Private high-net-

worth individuals
Maturity of company desired: Companies in the lower-middle market with sales under \$75 million
Technology sectors: All
Description: Private equity fund providing growth capital and equity financing to enable solid managers to acquire or expand their business or business idea; has a longer investment horizon than most venture capital firms and is focused on lower-middle-market opportunities in the Midwest. Average investments expected to range between \$2 million and \$4 million.

IEG Venture Partners
70 W. Madison St., Suite 1400
Chicago, Ill. 60602
Phone: (312) 644-0890
Fax: (312) 454-0369
Contact: Frank Blair, president
E-mail: frankblair@aol.com
Year founded: 1983
Investment capital under management: \$3.5 million
Source of funding: Private
Maturity of company desired: Seed, startup, first- and second-stage investments. Minimum investment of \$100,000; preferred investment, \$250,000 to \$500,000
Technology sectors: All
Description: Invests in technology-based startups; prefers role as deal originator, but will also invest in deals created by others.

JK&B Capital
205 N. Michigan Ave., Suite 808
Chicago, Ill. 60601
Phone: (312) 946-1200
Fax: (312) 946-1103
Contact: George Spence
Year founded: 1996
Investment capital under management: \$85 million
Source of funding: Institutional
Maturity of company desired: Startup, second round, third round, buyout
Technology sectors: Communications, electronics and instrumentation, hardware and peripherals, semiconductors/equipment, software, information
Partners: David Kronfeld, telecommunications and software; George Spender, financial services
Description: A new venture capital firm focused on growth businesses, with a specific focus on software, telecommunications, information services and financial services; minimum investment of \$12 million

KB Partners LLC
500 Skokie Blvd., Suite 446
Northbrook, Ill. 60062
Phone: (847) 714-0444

Fax: (847) 714-0445
Contact: Keith Bank, managing partner
E-mail: keith@kbpartners.com
Year founded: 1996
Source of funding: High-net-worth individuals, investment companies and institutions
Maturity of company desired: Startup, early and acquisition stage
Technology sectors: Analytical instrumentation, chemicals, computer software and hardware, consumer products (manufacturing and retail), engineering/technology, gas detection, metals, on-line process controls
Partners: Keith Bank and Byron Denenberg
Description: Targets equity investment in the \$500,000-to-\$5-million range
Web site: <http://www.kbpartners.com>

Linc Capital Partners
303 E. Wacker Drive, Suite 1000
Chicago, Ill. 60601
Phone: (312) 946-1000
Fax: (312) 938-4290
Contact: Mark K. Zimmerman, vice-president
Year founded: 1975
Investment capital under management: \$100 million
Maturity of company desired: Revenue stage
Technology sectors: Health care, information technology
Description: Venture leasing firm

Marquette Venture Partners
520 Lake-Cook Road, Suite 450
Deerfield, Ill. 60015
Phone: (847) 940-1700
Fax: (847) 940-1724
Contact: Lloyd Ruth
E-mail: cruth@marquetteventure.com
Year founded: 1987
Investment capital under management: \$190 million
Source of funding: Major insurance companies, public- and private-sector pension funds, bank holding companies, high-net-worth individuals
Maturity of company desired: Seed, startup, second round
Technology sectors: Biotechnology, communication, electronics and instrumentation, health care, medical instruments and devices, pharmaceutical, semiconductors/equipment
Partners: Jim Davenport, health care; Andrew Morley, Chip Ruth, information technology, consumer retail

Motorola New Enterprises
1303 E. Algonquin Road
Schaumburg, Ill. 60196-1065
Phone: (847) 538-6986
Fax: (847) 576-7185
Contact: James Burke, business development manager
E-mail: new-enterprises@motor.com

HAMPTON WADDLE KOZLOWSKI KAPLAN EANET



Radio 720 Sports

We'll search the world to find
you the perfect mate.

We know how it is. Your career is demanding. And in turn, you demand that your free time be quality time. In between, you just don't have much opportunity to search for a soul mate. Selective Search can help. We're professional matchmakers who specialize in conducting quality searches on a local, regional or international level. And we offer a degree of personal attention that you won't find anywhere else. Let Selective Search help you find your first mate. Contact Paige Greytak at 773.871.7718.



Selective Search. The Executive Matchmaker.

Year founded: 1982
Source of funding: Motorola Inc.
Type of capital provided: Seed/startup, early stage, joint venture, acquisition
Maturity of company desired: Startup, early stage or joint venture with a significant market opportunity or complementary technology
Technology sectors: Communications, information appliances, sensing and monitoring, renewable energy, personal environment, bio-automation, learning and training
Description: Evaluates new business opportunities, funds new ventures and helps build these companies into larger, growing, profitable businesses—to complement strategies that Motorola is pursuing, particularly ones that will extend or leverage its core business in communications, computing, control and components. It considers, and sometimes prefers, syndicated investments.
Web site: <http://www.mot.com/MNE/>

New World Equities Inc.
 1603 Orrington Ave., Suite 1070
 Evanston, Ill. 60201
Phone: (847) 328-0300
Fax: (847) 328-8297
Contact: Chris Girgenti, senior managing partner
E-mail: chris@nwequities.com
Year founded: 1996
Investment capital under management: \$20 million
Source of funding: Private
Maturity of company desired: Early to first stage; bridge financing
Technology sectors: Telecommunications, software, Internet
Partners: Chris Girgenti, senior managing partner; J. B. Pritzker, president
Description: Strives to assist early-to-first-stage technology companies with direct capital investments of \$500,000 to \$2 million, and to assist smaller middle-market organizations with financial advisory expertise, including preparation of business and financial plans, private capital formation, valuation analyses and buy-side and sell-side M&A.

Platinum Venture Partners Inc.
 1815 S. Meyers Road, 10th floor
 Oakbrook Terrace, Ill. 60181
Phone: (630) 620-5000
Fax: (630) 691-0710

Contact: Michael Santer
E-mail: santer@platinum.com
Year founded: 1992
Source of funding: Entrepreneurs, CEOs and presidents
Maturity of company desired: Startup, second round, third round, buyout
Technology sectors: Software and information technology
Partners: Michael Santer, Bryan Kennedy, Andrew Filipowski
Description: Makes venture capital equity investments in early-stage companies in information technology, entertainment and educational software and consumer retail concepts—in all geographic regions of the country, with a primary focus on the Midwest.
Web site: <http://www.platinum.com/pvp.html>

Third Coast Capital
 900 N. Franklin St., Suite 700
 Chicago, Ill. 60610
Phone: (312) 337-3303
Fax: (312) 337-2567
Contact: Mike Lamb, director of follow-through
E-mail: mpl@thirdcoastcapital.com
Year founded: 1996
Investment capital under management: \$66 million
Maturity of company desired: Emerging growth, private
Technology sectors: Communications, software, Internet
Description: Provides asset-based financing to emerging growth companies; through lease lines of credit and other financing solutions, it can fund up to 100% of clients' key operating assets.
Web site: <http://www.thirdcoastcapital.com>

Tribune Ventures
 435 N. Michigan Ave., Suite 600
 Chicago, Ill. 60611
Phone: (312) 222-3660
Fax: (312) 321-0688
Contact: Donn Davis, president
Year founded: 1992
Source of funding: Tribune Co.
Maturity of company desired: Will consider start-up and first-round financing, but generally will seek investments in the second and expansion rounds of private financing; dollar investment target is in the \$2-million-to-\$20-million range.
Technology sectors: Information, education, entertainment

Partners: Donn Davis, David Kniffin
Description: The venture investment arm of Tribune Co., Tribune Ventures invests in opportunities only where Tribune can make a unique contribution to the company's success and the company has the potential to enhance growth of Tribune's existing businesses or introduce Tribune into significant new information or entertainment businesses.
Web site: <http://www.tribune.com/ventures>

Vector Fund Management L.P.
 1751 Lake-Cook Road, Suite 350
 Deerfield, Ill. 60015
Phone: (847) 940-1970
Fax: (847) 374-3899
Contact: Sandra Panem, president; K. Flynn McDonald, vice-president
Year founded: 1994
Investment capital under management: \$51.1 million
Source of funding: Private
Maturity of company desired: Mezzanine, later stage
Technology sectors: Health care, life science
Partners: Sandra Panem, president; K. Flynn McDonald, vice-president; Timothy McGee, senior analyst
Description: Firm's Vector Later-Stage Equity Fund seeks to generate superior long-term capital appreciation through equity and equity-like investments in later-stage private and public companies in the life science and health care industries.

Eagle Brook Club

Discover Your New Golf Course

Introducing our new Corporate Membership, which includes . . .

- New corporate rates allowing the company or individual to assume payment responsibility
- A beautiful and highly regarded 18-hole championship golf course
- A luxurious, newly opened 40,000 square foot clubhouse
- A new Member Advantage Plan featuring complimentary guest fees at over 220 courses nationwide, no assessment guarantee, and much more

Call Today! . . . Introductory Pricing Is Available On The First Five Corporate Memberships!

For more information, call The Membership Office at:
 (630) 208-4653

2288 Fargo Boulevard • Geneva, IL 60134

WHY PAY FOR PLANE TICKETS WHEN YOU CAN GET THE BEST POSSIBLE EDUCATION RIGHT HERE?

Why settle for expensive travel and lodging costs when you can educate your staff right where you work and live? With more than 20 colleges and technical schools within a 50-mile radius, St. Joseph County, Indiana, is the ideal place for saving money on your staff training, as well as an ideal place to recruit. If you have to train, retrain or upgrade your technical staff, our convenient educational

options are top notch, including The University of Notre Dame, the regional campuses of Indiana and Purdue Universities, Ivy Tech State College and Lake Michigan College.

Want to learn more about the ways South Bend and Mishawaka can make your business feel at home? Call 800-228-8086 today. We'll respond quickly with all the details.



TAKE A CLOSER LOOK AT A COMMUNITY IN MOTION.

We are pleased to announce the strategic partnership between,



AND



The undersigned has arranged the strategic partnership between the above companies



PERFECT WORLD TECHNOLOGIES, LLC, is an entrepreneurial company specializing in launching, investing capital in, forming strategic alliances for, and managing businesses focused on proprietary products and technologies.

55 WEST MONROE, SUITE 910 • CHICAGO, IL 60603 USA
 For further information, contact:
 DAVID SHERMAN (312) 214-3402 or MICHAEL GRAY (312) 214-3408
 VISIT OUR WEBSITE AT: <http://www.pworld.com>

THE WHITE HOUSE
WASHINGTON

cc:
Scheduling
HRC
Not
Scheduling

January 5, 1998

H. Brandt Ayers
The Anniston Star
216 West Tenth Street
Post Office Box 189
Anniston, Alabama 36202

Dear Brandy:

Thanks for your letter. Hillary and I will be delighted to have you, Josie and Margaret to the White House. I have informed the appropriate schedulers who will contact you to pinpoint a date for your visit.

I'll look forward to discussing the international conference you mentioned. The question you posed in your letter is very interesting -- and I'm sure I'll have some thoughts for you!

I also like your ideas for the State of the Union address, and I appreciate your sharing them with me.

Hillary and I send our best. We'll see you soon.

Sincerely,

Bill

The Anniston Star

"Alabama's Largest Home-Owned Newspaper"

Office of the Editor and Publisher

December 9, 1997

The President
The White House
Washington, DC 20500-2000

Dear Mr. President:

Both Hillary and Erskine have invited Josie and me to visit. We'd like to do that, and pay a courtesy call on you, sometime in late January or early February. But first, here's a thought for the State of the Union.

There are only two kinds of politics: The politics of the status quo, benefiting those who already enjoy the good life, and the politics of opportunity,* policies that equip people to enter the economic mainstream--that grows the middle class and shrinks the underclass, as you have often said.

It seems to me that the "politics of opportunity" summarizes the main cluster of your policies--education, economic growth and affirmative action--and that firmly aligns so-called New Democrats in the White House with classic liberals in the Congressional Party. The contrast with the GOP is obvious: They comfort the comfortable and afflict the afflicted.

During what would mainly be a social visit (my daughter, Margaret, has bugged me for five years about meeting you), I'd appreciate your insights on an off-the-record international conference I've cooked up with the Ditchley Foundation and Dick Neustadt's wife, Baroness Shirley Williams. The question is this:

** You've more than declared the "Politics of Opportunity" in your book.*

The President

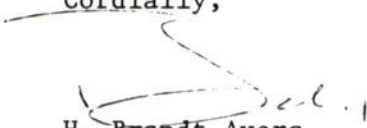
- 2 -

December 9, 1997

When times are good and no one is in a mood to listen, how does political leadership draw attention to the potential consequences of income rising rapidly at the top but stagnating or just barely inching ahead for most of the population? I know you've given this a lot of thought and you could prepare me for stardom at the conference table.

We do hope to see you, Hillary and Erskine before leaving for London in mid-February.

Cordially,



H. Brandt Ayers

HBA: bjh

cc: The First Lady

The Hon. Erskine Bowles

-- (ATTACHED) 12/9/97 from H. Brandt Ayers, thanking for invitation to visit. They'd enjoy spending time with you, the President and Erskine in late January or early February. He sends suggestion for recreating the Lamar Society and providing a forum for Southern leaders to dialogue and bring attention to regional issues.

✓ To Patti to coordinate scheduling with POTUS' and Erskine's staffs

*for a visit + overnight stay
Send him a letter to me (POTUS) per HRC*

December 9, 1997

The First Lady
The White House
Washington, DC 20500-2000

Dear Hillary:

Erskine earlier invited us to visit. Your kind invitation makes it almost unanimous. We'd very much enjoy spending some time with three very special Southerners.

I think Erskine would be particularly interested in the creation of a meeting place, centered in Chapel Hill, where serious leaders can meet and draw attention to the substantive agenda of the South and the nation. What would they do? I've enclosed my original vision statement.

There's more to talk about than there is time, but I'd very much like to have your own insight on the one big question I've asked the President to address in the enclosed letter.

Josie and I have memories of the White House that go back to our newly wed days in the Kennedy years, and I'll never forget a revealing conversation with Rosalyn Carter in the Map Room. It will be pleasure to call on our gallant friends in that house.

Fond regards,


H. Brandt Ayers

HBA: bjh

Enclosures

The Anniston Star

"Alabama's Largest Home-Owned Newspaper"

Office of the Editor and Publisher

December 9, 1997

The Hon. Erskine Bowles
Chief of Staff to the President
The White House
Washington, DC 20500-2000

Dear Erskine:

Hillary made the same friendly invitation you had earlier to come by for a visit. In response to the two-vote clamor for our company: Yes, we'd very much like to call on three gallant Southerners in the White House. I've written Hillary and the President that we'd like to drop by in late January or early February. Since you're the gate-keeper, I'll await word from you.

I think you'll be interested in an effort involving Bill Friday, Hugh McColl, Terry Sanford, William Winter, George Autry and me to create a meeting place where serious Southern leaders can meet. I'm enclosing my early draft of a vision statement that touches on what such a group might do.

Josie (Ehringhaus) and I hope it will be possible to visit you all.

Cordially,

H. Brandt Ayers
HBA: bjh
Enclosures

DRAFT MISSION STATEMENT**THE MEETING PLACE: A network of Southern leaders.**

Southern leaders have no regional meeting place, a town square where issues of the day are debated with civility, and practical solutions proposed that are free of the rigidities of ideology. There was such a place in the 1970s where Southerners long on energy and imagination, short on ideology, came together to try to define what kind of South would rise from the discarded skin of its old creed, legal segregation. It was called the L.Q.C. Lamar Society, after the Mississippi statesman celebrated in John F. Kennedy's "Profiles in Courage."

The Lamar Society did good work: It was instrumental, under the leadership of former Gov. Terry Sanford, in creating the Southern Growth Policies Board. It produced a manifesto for the New South, a book published by McGraw-Hill, "You Can't Eat Magnolias." It held conferences attended by Southern governors and other leaders and, most importantly, created a network where problem-solvers could exchange information and insights.

It is time once again for Southern leaders to ask, "What kind of place do we want the South to be?" It is time to recreate the Lamar Society, and the spirit that animated it -- an organization of invited leaders for our time. What would a renewed Lamar Society do? Many of the same things the original society did: Connect and nurture pockets of moral leadership; shape the substance and tone of the public agenda; link public, private and non-profit leadership; become the hub of the region's burgeoning leadership programs.

How would it accomplish its goals? It would: Hold conferences on regional problems; provide a forum for elevating the dialogue between the races to a higher moral plane; publish papers on issues of concern; draw on the resources of the region's research universities; feed state leadership organizations with creative, workable ideas; constantly pass on the mantle of leadership to the cohort of promising younger Southerners -- White House Fellows, Rhodes Scholars, etc. -- and most importantly again, create the meeting place, a regional common market for problem solvers.

In short, a reinvigorated Lamar Society intends to be a voice of informed intelligence speaking to the sensible majority -- the sails and rudder of democracy.

A HISTORY OF THE

Swamy R THE PRESIDENT HAS SEEN
1-5-98

ugh + section on my
history - Is he an owl
Thatcher? —

Boz

Copied
Blumenthal
Bowles

'Be not afraid of greatness'

Shakespeare, Twelfth Night, II, v

UNCORRECTED PROOF

Title: A HISTORY OF THE AMERICAN PEOPLE

Author: PAUL JOHNSON

Classification: NONFICTION

Probable publication date: MARCH 1998

Probable price: \$35.00

Index: YES

Illustrations: NO

Approximate length: 944 pages

Trim size: 6 1/8 x 9 1/4

ISBN: 0-06-016636-6

Reviewers are reminded that changes may be made in this proof copy before books are printed. If any material from the book is to be quoted in a review the quotation should be checked against the final bound book.

HarperCollinsPublishers

A HISTORY OF THE AMERICAN PEOPLE

Paul Johnson

'Be not afraid of greatness'

Shakespeare, Twelfth Night, II, v

UNCORRECTED PROOF

Title: A HISTORY OF THE AMERICAN PEOPLE

Author: PAUL JOHNSON

Classification: NONFICTION

Probable publication date: MARCH 1998

Probable price: \$35.00

Index: YES

Illustrations: NO

Approximate length: 944 pages

Trim size: 6 1/8 x 9 1/4

ISBN: 0-06-016836-6

Reviewers are reminded that changes may be made in this proof copy before books are printed. If any material from the book is to be quoted in a review the quotation should be checked against the final bound book.

HarperCollinsPublishers

The 1960 election and the myth of Camelot	711
The Space race	716
The Bay of Pigs and the missile crisis	718
Lyndon Johnson and his Great Society	725
Getting into the Vietnam quagmire	731
Nixon and his silent majority	740
Civil rights and campus violence	743
Watergate and the <i>putsch</i> against the Executive	749
Congressional rule and America's nadir	754
Carter, the 1980 watershed, and Reaganism	759
Rearmament and the collapse of Soviet power	773
The Bush interlude and Clintonian corruption	776
Fin-de-siècle America and its whims	784
Wyeth and the significance of the realist revival	788
Judicial aggression and the litigational society	791
The sinister legacy of Myrdal	794
Language, abortion, and crime	801
Family collapse and religious persecution	807
The triumph of women	811

Source notes 815

Index 899

lived in Maine, and worshiped in an Episcopalian church: he was, in short, an Eastern Wasp in a stetson. He was curiously inarticulate for a well-educated man, used words clumsily (unlike Reagan, whose verbal touch was always sure). He had an unfortunate habit of abandoning his written text, in speeches, for extempore remarks, and beginning sentences without being sure what his main verb would be, entangling himself in syntactical confusion and thus ending each utterance on an uncertain note.²²⁹

Bush was always a gentleman and, so long as the Reagan penumbra surrounded him, did moderately well. Then, as the impact of Reagan faded, Bush faded with it. Panama was a case in point. President Carter had concluded a treaty with Panama, ratified by the Senate on March 16, 1978, which in effect handed over the Panama Canal in stages to a sovereign Panamanian government. This retreat of US power had been much criticized, and the feeling that America had got a poor deal was reinforced by the behavior of President Manuel Noriega, who used the Panamanian government to operate a huge drug-smuggling business in the United States. In 1989 Florida grand juries indicted Noriega on a variety of serious drug offenses and demanded his extradition. America imposed economic sanctions when Noriega refused to surrender to the US authorities and, after a US naval officer was killed by Panamanian police on December 16, Bush brought himself to order an invasion of the country by 10,000 American troops. Panamanian dissidents duly overthrew the government; Noriega was arrested on January 3, 1990 and taken to Miami, where he was convicted of drug-smuggling on April 9, 1992 and sentenced to forty years in a top-security prison. But, characteristically, Bush did not follow up this striking, and much approved, success by revising the operations of the Panama Canal, where conditions continued to deteriorate under Panamanian control. Bush's instincts were often right but he did not know the meaning of the word 'thorough.' Thus the fact that he delighted to display a portrait of Theodore Roosevelt in the Cabinet room and tell visitors about his quiet voice and Big Stick, was an ironic comment on his administration.²³⁰

Nevertheless, it is likely Bush would have been reelected in 1992 had it not been for the intervention of a Texan billionaire, H. Ross Perot, in the race. Perot, born in 1930, was an Annapolis graduate who left the US Navy in 1957 to found Electronic Data Systems, which he built into a firm worth over \$2 billion by the mid-1980s. Campaigning on a platform of eliminating the deficit and paying off the national debt, Perot originally attracted more interest, in a poor field, than any third candidate since the Bull Moose Party. However, his indecisiveness—he filed his candidacy on March 18, 1992, pulled out on July 16, and reentered on October 1—ruined his chances of a dramatic upset. Even so, he polled 19 percent of the votes, the largest third-party fraction of the polls since Theodore Roosevelt in 1912 (27.4 percent) and Millard Fillmore in 1856 (21.6 percent). The effect of the high Perot poll was to let in a lacklustre Democratic candidate, William ('Bill') Jefferson Clinton, governor of Arkansas. Born in 1946, Clinton came from a modest family background and

rose through academic performance, was Rhodes Scholar at Oxford, graduated at Yale Law School in 1973, and taught law at the University of Arkansas. Critics dismissed him as a 'spoiled Sixties rebel' and 'draft dodger' who had consistently taken up anti-American postures from Vietnam to the Gulf War. Others drew attention to his career in the murky waters of Arkansas politics. There, he ran unsuccessfully for Congress at thirty-two, was elected Arkansas attorney-general in 1976, and became the state's youngest governor in 1978. Although defeated in 1980, he won reelection as governor in 1982, 1984, and 1986. In Arkansas he was universally known as 'The Boy,' and when elected president of the United States in 1992, with 43 percent of the vote, he was the first minority President since 1968 and the youngest since Kennedy was chosen in 1960.²³¹

Clinton, and his wife Hillary Rodham Clinton, rapidly ran into trouble in the White House. One reason was inexperience. Clinton had great difficulty in completing his administration and getting Senate approval for some of his nominees, especially for the post of attorney-general. When he finally succeeded, his choice, Janet Reno, soon involved the administration in a disastrous episode near Waco, Texas, where federal agents conducted an ill-planned assault on the headquarters of the Branch Davidian religious sect, run by a messianic figure called David Koresh. The raid, by nearly 100 agents from the Bureau of Alcohol, Tobacco, and Firearms, was a failure and led to five deaths, four of them agents. Reno then took over personally and, tiring of negotiations, she ordered a military-style attack with heavy equipment and gas, during which the entire compound went up in flames, in which seventy-eight of Koresh's followers were burned alive. Among the dead were seventeen children.

On the more positive side, Clinton entrusted the presentation of his health-care bill on Capitol Hill to his wife, an outspoken and venturesome lady who impressed the legislators, one of whom, Democrat Dan Rostenkowski, of the House Ways and Means Committee, told her: 'In the very near future, the President will be known as your husband.' This turned into an accurate, if embarrassing, prophecy since the First Lady was soon involved in a complex financial investigation into an Arkansas firm with which she was connected, the Whitewater Development Corporation, and a number of other awkward matters. Indeed she became the first President's wife to be subpoenaed in a criminal investigation.²³² In the meantime the health-care Bill was blocked. Clinton's budget-package attempt to reduce the deficit, as amended by Congress, cut it from 4 percent to 2.4 percent of GDP (from \$255 billion in 1993 to \$167 billion in 1994), but there was little general coherence to his domestic program and still less to his foreign policy. He ended Bush's disastrous involvement in Somalia; on the other hand, he occupied Haiti for a spell, to little purpose. He was tardy in trying to sort out the series of Balkan conflicts left by the disintegration of the former Yugoslav federation and he used the continuing difficulties with Saddam's Iraq more as an occasional exercise to

strike military postures. Virtually all the rest of of scandals.

The idea of a president doing had haunted the said that the media had presidential blood. UN Admiral John Poindexter conducting secret arms free US hostages held profits from the \$48 n seeking to undermine th to be in violation of t December 21, 1982, w from using any funds 'f Nicaragua or provokin Honduras,' and by a f extended the prohibition There was a general im that US undercover act gents, were the product Washington, who was given entire discretion Florida and Jefferson James's Palace in reta Jackson used secret fun American insurgents in for secret purposes, ev Naval Intelligence, and every subsequent presi North and Poindexter scale of Watergate but e after a series of televis inflame the public, a Se was obliged to report 1989 both Poindexter misleading Congress, b convictions and other c

The witchhunt serv proceedings against of American interests, ev same time, several mir had their savings wipe themselves against a sp solely to deal with po The continual fear of

strike military postures and win votes than for any constructive purpose.²³³ Virtually all the rest of Clinton's first term was spent fending off a series of scandals.

The idea of a president being brought down by the exposure of wrongdoing had haunted the White House since Watergate, though it must be said that the media had never since shown quite the same relish for presidential blood. Under Reagan, National Security Council officials Admiral John Poindexter and Colonel Oliver North had been accused of conducting secret arms sales (via Israel) to Iran, hoping for goodwill to free US hostages held by the fundamentalist regime and in order to use profits from the \$48 million sales to finance democratic Contra rebels seeking to undermine the Communist regime in Nicaragua. This was said to be in violation of the Boland Amendments, passed by Congress on December 21, 1982, which forbade the CIA or the Defense Department from using any funds 'for the purpose of overthrowing the government of Nicaragua or provoking a military exchange between Nicaragua and Honduras,' and by a further Amendment on October 12, 1984, which extended the prohibition to any agency involved in 'intelligence activities.' There was a general impression in Congress during the 1970s and 1980s that US undercover activities, including the support of democratic insurgents, were the product of the Cold War. Actually, they go back to President Washington, who was voted a 'Contingency Fund' for this purpose and given entire discretion over its use. Madison funded dissidents in Spanish Florida and Jefferson wanted to finance an attempt to burn down St James's Palace in retaliation for the burning of Washington. Andrew Jackson used secret funds to subvert Mexico and James Polk subsidized American insurgents in Texas. Lincoln created an organization in Europe for secret purposes, eventually dignified with the title of the Office of Naval Intelligence, and there were many instances of covert work in almost every subsequent presidency.²³⁴ An attempt was made not only to indict North and Poindexter and crank up a Congressional witchhunt on the scale of Watergate but even to involve President Reagan himself. However, after a series of televised hearings from November 1986, which failed to inflame the public, a Senate-House committee, dominated by Democrats, was obliged to report there was no direct evidence involving Reagan. In 1989 both Poindexter (April 7) and North (May 4) were found guilty of misleading Congress, but an appeals court (July 20, 1990) overturned both convictions and other charges against them were dropped.

The witchhunt served only to reveal a waning popular backing for proceedings against officials who had merely acted in what they thought American interests, even if they had technically broken the law. At the same time, several minor functionaries were forced to plea-bargain and had their savings wiped out by the heavy legal costs involved in defending themselves against a special prosecutor, with unlimited funds, appointed solely to deal with possible unlawful activities by the executive branch. The continual fear of prosecution engendered what has been called a

'culture of mistrust' in American government and led to an unwillingness of public-spirited citizens to run for high political office or to accept presidential invitations to serve. One critic of the intermittent witchhunting of the executive by Congress noted that 'a self-enforcing scandal machine' had come into existence: 'Prosecutors use journalists to publicise criminal cases [involving members of the administration] while journalists, through their news-stories, put pressure on prosecutors for still more action.' 'Scandal politics' were thus part of the process whereby 'popular democracy' was degenerating into a 'media democracy.'²³⁵

It could be argued that the growing reluctance of gifted men and women to become candidates for national office explained the presidency of Bill Clinton. Certainly he was soon in trouble both for past misdemeanors as governor of Arkansas and for present malfeasance and abuse of power as chief magistrate. The charges against Clinton fell under three heads. First there was his own personal involvement, as his wife's partner, in the Whitewater and related scandals. Second was a series of sexual accusations made against him by a procession of women with names like Gennifer Flowers, Connie Hamzy, Sally Perdue, and Paula Corbin, some of these charges including Clinton's use of Arkansas police as procurers. Third were a miscellaneous series of charges reflecting badly on Clinton's behavior in federal office, the most important of which concerned the mysterious death of his aide, Vince Foster. Since Watergate, the media had developed an irritating habit of adding 'gate' to the name of any episode with a whiff of political scandal. So, in addition to Irangate in the 1980s, the 1990s now saw piling up Travelgate and Troopergate, Whitewatergate, Fostergate, and Haircutgate. This wearied the public, and, granted the unwillingness of newspapers like the *Washington Post* and the *New York Times* to investigate President Clinton's wrongdoing with the same zeal they had once displayed in Nixon's case, or even to report the investigations of others, it is not surprising that the climate of scandal, in the end, did not prevent Clinton getting reelected in 1996. It might have been a different matter if the Republicans had come up with a genuine vote-winner. But General Colin Powell would not run, or perhaps his wife, the strong-minded but fearful-of-assassination Alma, would not let him run. So the Republicans, in despair, at last picked the elderly Senator Robert Dole, who had been demanding to be their candidate as long as most people could remember, and in November 1996 Clinton had no difficulty at all in fending him off and getting himself reelected by a comfortable margin.²³⁶

The failures and moral inadequacies of Clinton did have one important, indeed historic consequence however. In the mid-term elections of 1994, Clinton's unpopularity enabled a brilliant political tactician, Newt Gingrich, the Republican Minority Leader in the House, to organize a nationwide campaign which ended in the Republican recapture of both Houses of Congress. This victory, the biggest Congressional upset since 1946, was significant for a number of reasons. For all practical purposes, the Democrats had dominated Congress, except for one or two brief intervals,

since 1932. There has been a long history in American history of a spending party, the Democrats, whose animism explained why they won a large a proportion of the national indebtedness, and were able about Democratic rule during the period of Reconstruction. Thus in every Congress Democrats had a majority. They held the presidency for 20 years, an overwhelming and dominant instance, the Democrats won a weak Democrat president. Under Reagan, who was elected by a majority varied from 52 to 58 percent, he pulled over senatorial and presidential in three of his four terms, and under Bush, who has been elected in which his opponent was Clinton.

This Democratic victory was a result of expenditure on political campaigns in the twentieth century and incurred by their higher exposure to their districts. They were able to reduce candidate expenses by cutting down one of its costs, the contributions by candidates in favor of the incumbent. They were getting themselves elected in the late 1990s, a strong Democratic working majority in the Senate, a structural bias in the House. Its effect on the strategy, described as a strategist, described as a strategist, looked straight at the clenched teeth: "I looked at me with a nodded yes."²³⁹ Mr. Clinton's presidency was a result of a popular leadership that fell as a result of a leadership that had largely achieved its goals.

In August 1996 Clinton's first major piece of

since 1932. There had been no precedent for this long legislative hegemony in American history and, the Democrats tending to be the high-tax, high-spending party, their continued tenure of the Constitution's financial mechanism explained why the federal government had continued to absorb so large a proportion of the GDP, why the deficit had mounted, and why national indebtedness had become such a problem. What was so remarkable about Democratic control of Congress was that it had continued during the period when the nation preferred to elect Republican presidents. Thus in every Congress from 1961 to 1993 (the 87th to the 103rd), the Democrats had a majority in the House, even though the Republicans held the presidency in ten of them. These majorities were sometimes overwhelming and always substantial: even in Nixon's best year, 1973, for instance, the Democrats still had a margin of 47 in the House. Carter, a weak Democrat president, nevertheless had a majority of 149 in 1977. Under Reagan, who twice won Republican landslides, the Democratic majority varied from 51 to 104. Reagan did contrive, however, to exert a pull over senatorial elections and had a small Republican Senate majority in three of his four Congresses.²³⁷ But the situation returned to 'normal' under Bush, who had to work throughout his presidency with Congresses in which his opponents controlled both Houses easily.

This Democratic paramountcy did not come about for political reasons. Expenditure on political campaigning had been rising throughout the 20th century and incumbents found it easier to raise money both because of their higher exposure and because they were able to direct federal funds to their districts. The Federal Election Campaign Act of 1974 attempted to reduce candidates' dependence on money, but the Supreme Court struck down one of its central provisions as unconstitutional (the limitation on contributions by candidates themselves) and as a result it actually worked in favor of the incumbent. By 1990, over 90 percent of the House members were getting themselves reelected, mainly for financial reasons, against 75 percent in the late 1940s.²³⁸ Hence the 1994 defeat, which reversed a strong Democratic majority in the House and secured the Republicans a working majority in the Senate too, was achieved against a long-entrenched structural bias in the system, and came as a profound shock to the Democrats. Its effect on Clinton was devastating. Bill Morris, his chief political strategist, described a scene with the President after the defeat: 'Then I looked straight at him and shook him harshly, violently. I said through clenched teeth: "Get your nerve back. Get your f--- nerve back." He looked at me with bloodshot weary eyes and with face downcast, solemnly nodded yes.'²³⁹ Morris persuaded Clinton that the remedy was to move his presidency towards the center and cooperate with Congress in pushing through popular legislation of a more conservative cast. Morris himself fell as a result of a morals scandal in autumn 1996 but before he did so he had largely achieved his object.²⁴⁰

In August 1996 Clinton signed into law the Welfare Reform Act, the first major piece of legislation from the new Republican Congress, which

dismantled a fundamental part of the welfare-state structure going back to the New Deal in 1935. Under this Aid to Families with Dependent Children ceased to be an open-ended distribution of cash entitlements to individual beneficiaries and became a \$16.4 billion lump-sum 'block grant' to the fifty states to allocate as they believed more effectively. This return of financial power from the federal government to the states set up pragmatic competition between them in ways to use money to reduce poverty. It marked the first change of approach to the problem since Lyndon Johnson declared 'unconditional war on poverty' in 1964—a war which had been going on longer than Vietnam, had cost more, and had been even less successful. Clinton's action in signing the Bill into law was the most significant move of his presidency and helped to explain how he contrived to get himself reelected three months later. The Republicans, however, retained control of the House—the first time they reelected a House majority since 1928—and even strengthened their grip on the Senate. This insured that Clinton's move towards the center would be sustained and that Congress would continue to probe into the chinks in his armor.²⁴¹

The Welfare Reform Act reflected a general feeling among Americans in the late 1990s that the country had moved too far in the direction of what might be called federal centralism, and that a redressment was needed. At the end of the 20th century America remained a profoundly democratic country. All its instincts were democratic, and the core of its democracy lay in the fifty states. The states were merely a top tier of a series of devolved representations. In 1987, the last count, there were 83,166 local governments in the United States, with over 526,000 elective posts.²⁴² No other country in the world had anything approaching this number and diversity of democratic forms. Considerable local power was still exercised, especially by the states, producing a wide variety of laws. Thus, most states levy income tax, but twelve do not. Most states have capital punishment, but twelve do not. Oregon and Hawaii have forms of state planning unknown in the other forty-eight. Utah is dry, whereas Louisiana has virtually no laws about liquor. Up to about 1933, the states defended their rights effectively (except during the Civil War). In the 1930s, however, the federal government began to invade the states' right to handle economic issues. At first the Supreme Court resisted this federal invasion, but since the 1950s the Court, Congress, and the federal government have combined to diminish the powers of the states.²⁴³ Strictly speaking, the Constitution gives the states only four absolute guarantees: equal representation in the Senate; protection from invasion and domestic violence; the right to jurisdictional integrity; and the right to a republican form of government. All the rest is open to interpretation and the interpretations by the Court since the 1940s have gone against the states.

We will come to the role of the Court itself shortly, but in the meantime it is worth noting that the switch from state to federal power tends to work against democracy. There is in America no automatic, nationally

organized, and of those eligible would rise by entitled to vote percent turnout percent in 19 election. Next voting as a advanced state registered voters more passion democracy has extension of participation recently as 19 black registration lower.²⁴⁴

All aspects important because the 20th century only advanced biggest decade 27,997,377, a country. During 27,164,068, a census for 20 to a population but a lot of the the 1965 Immigration since the year growth rose from almost 40 per which is large long-term one forty years come million by the defined) in a demographics moment, it is crowded in the in the 19th century. At the end of times greater. growth has come of the United this century it per square mile