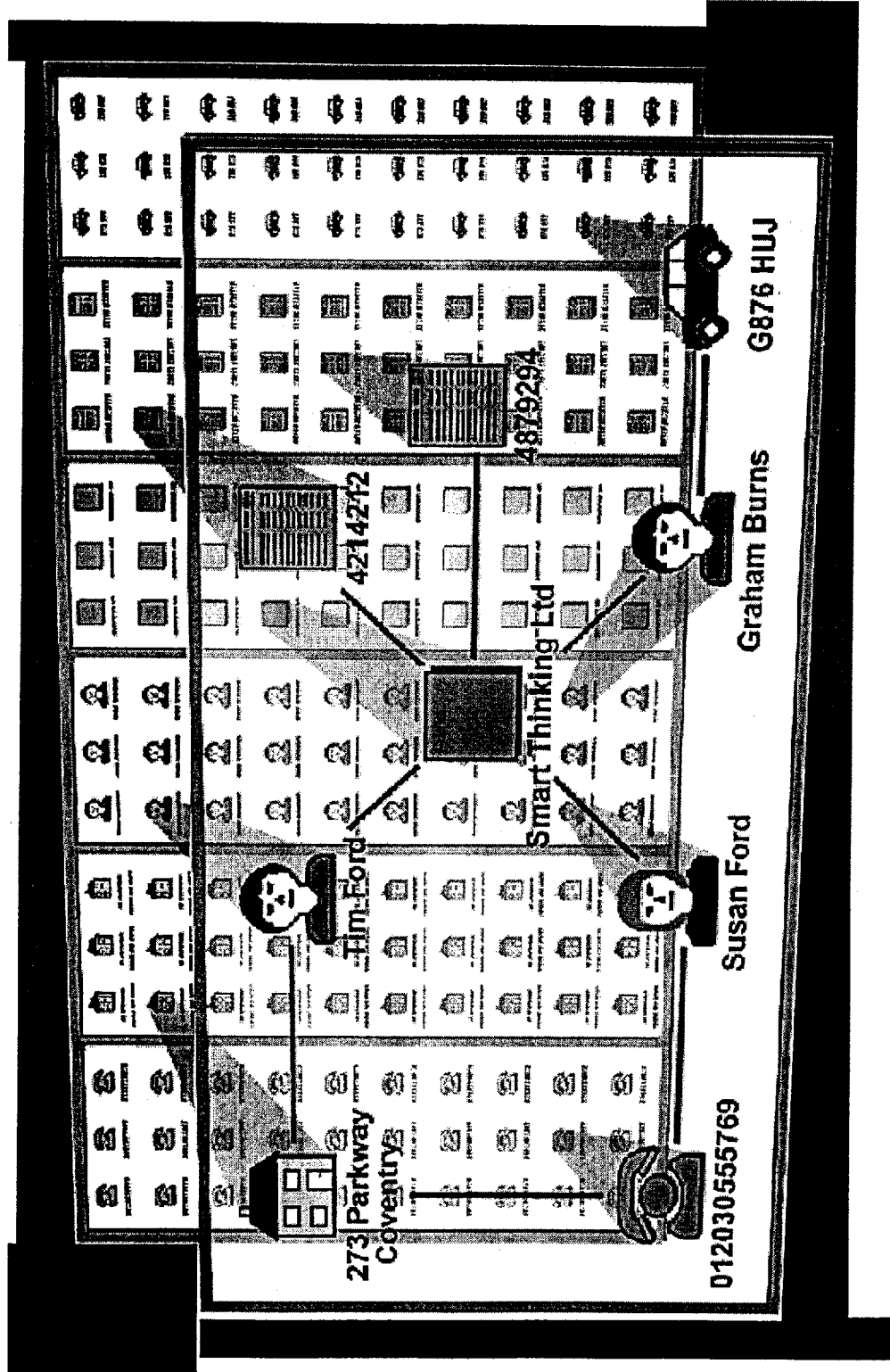




Creating Intelligence Automatically



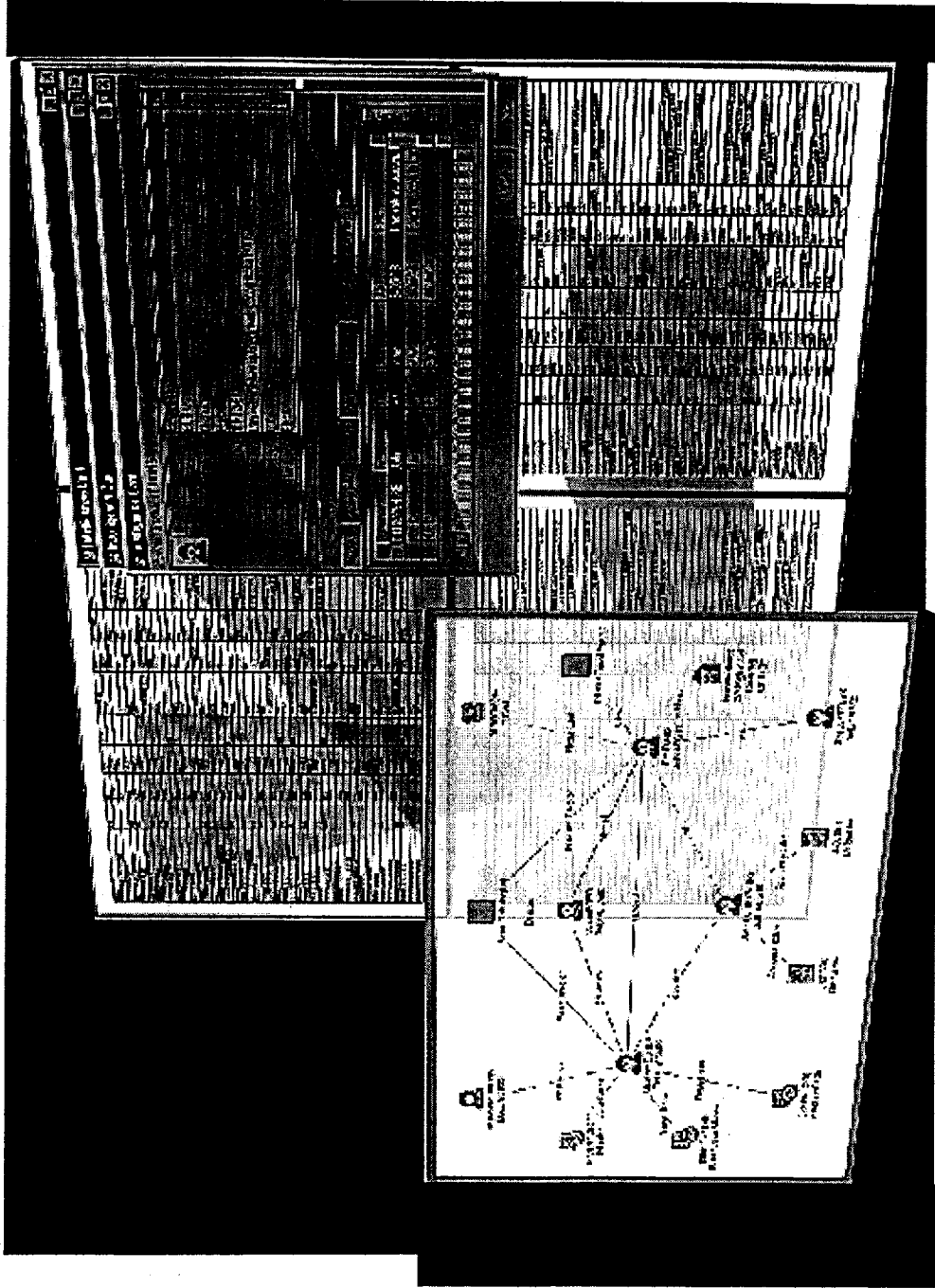
Mike Hunter
Managing Director



Creating Intelligence Through Automated Tools

i2

What is i2?



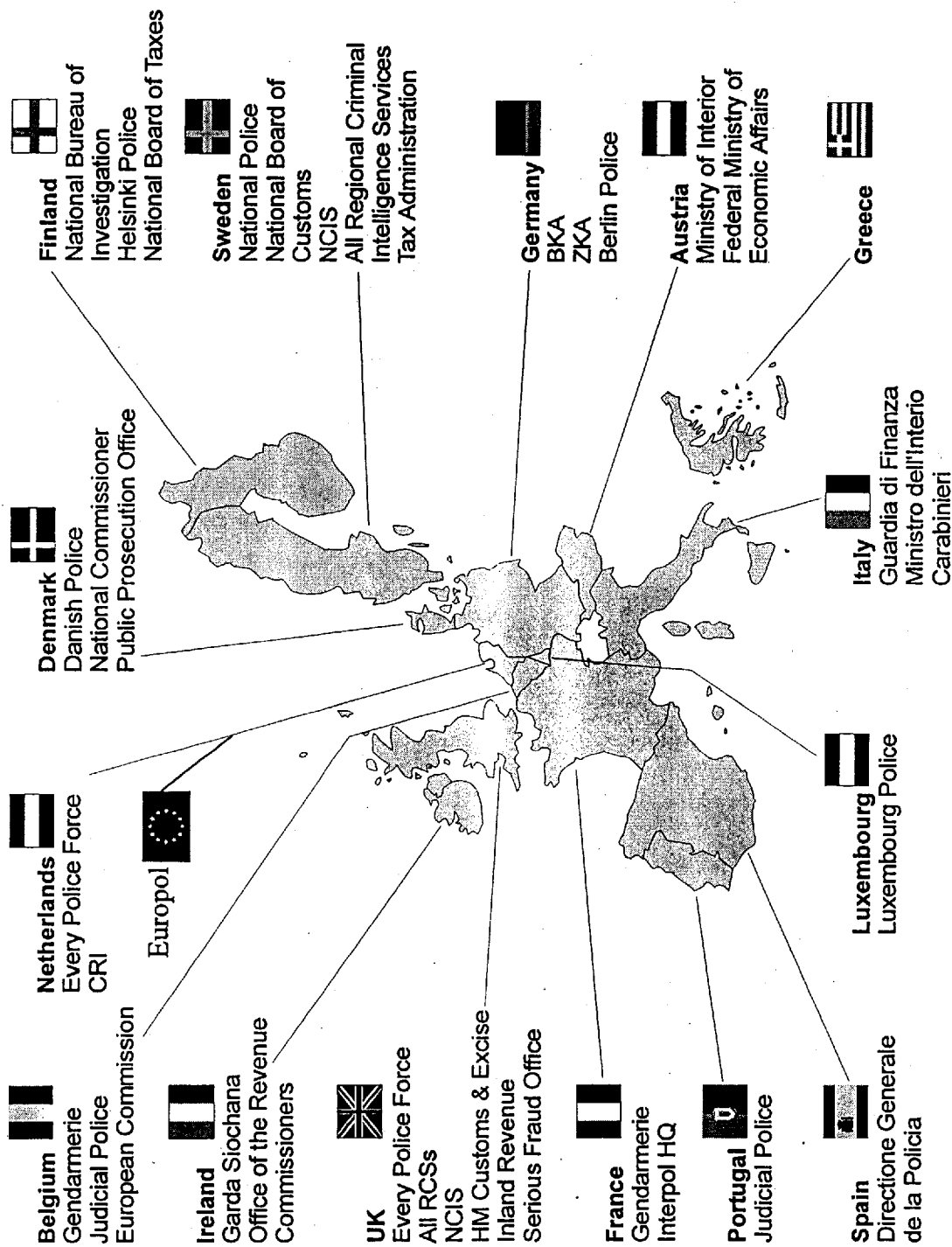
Developers of the Analyst's Notebook (and companion products)

© Copyright i2 Limited 1998

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What's Missing the Analyst's Notebook?



The 'De-Facto' EU Standard



What is in the Analyst's Notebook?

USA

FBI

DEA

ATF

US Customs

FINCEN

Secret Service

Canada

RCMP

Australia

Every State

Federal Police

NCA

Tax

Norway

BCI

Switzerland

Every Canton

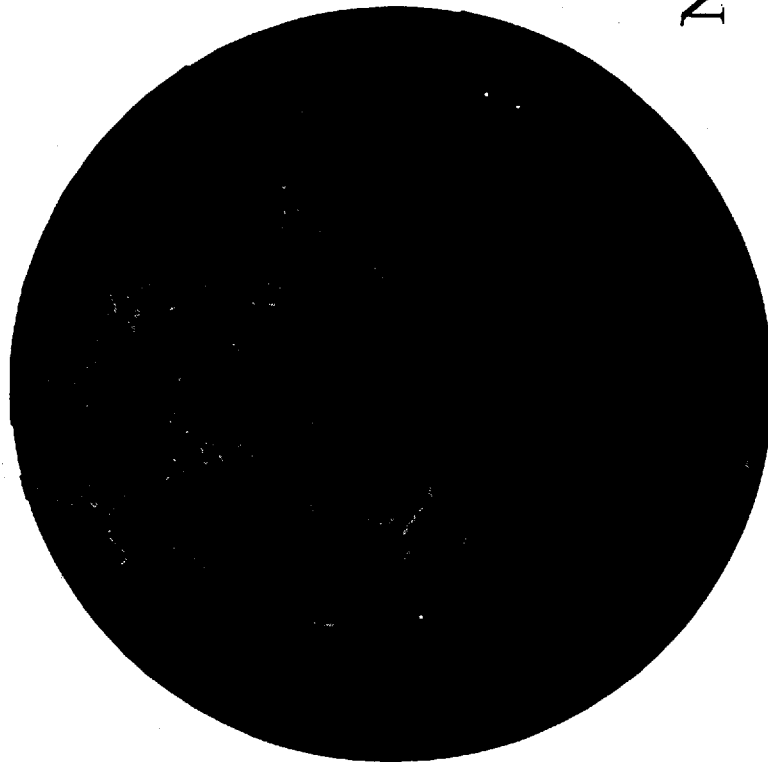
Interpol

New Zealand

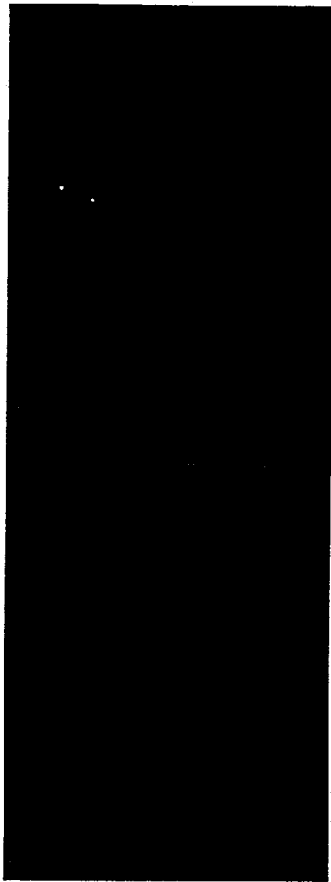
Police

Customs

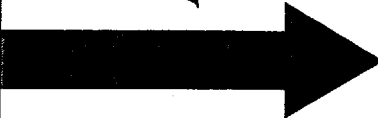
MAFF



The 'De-Facto' World Standard



Analysis





Can computers perform analysis ?

Yes and No



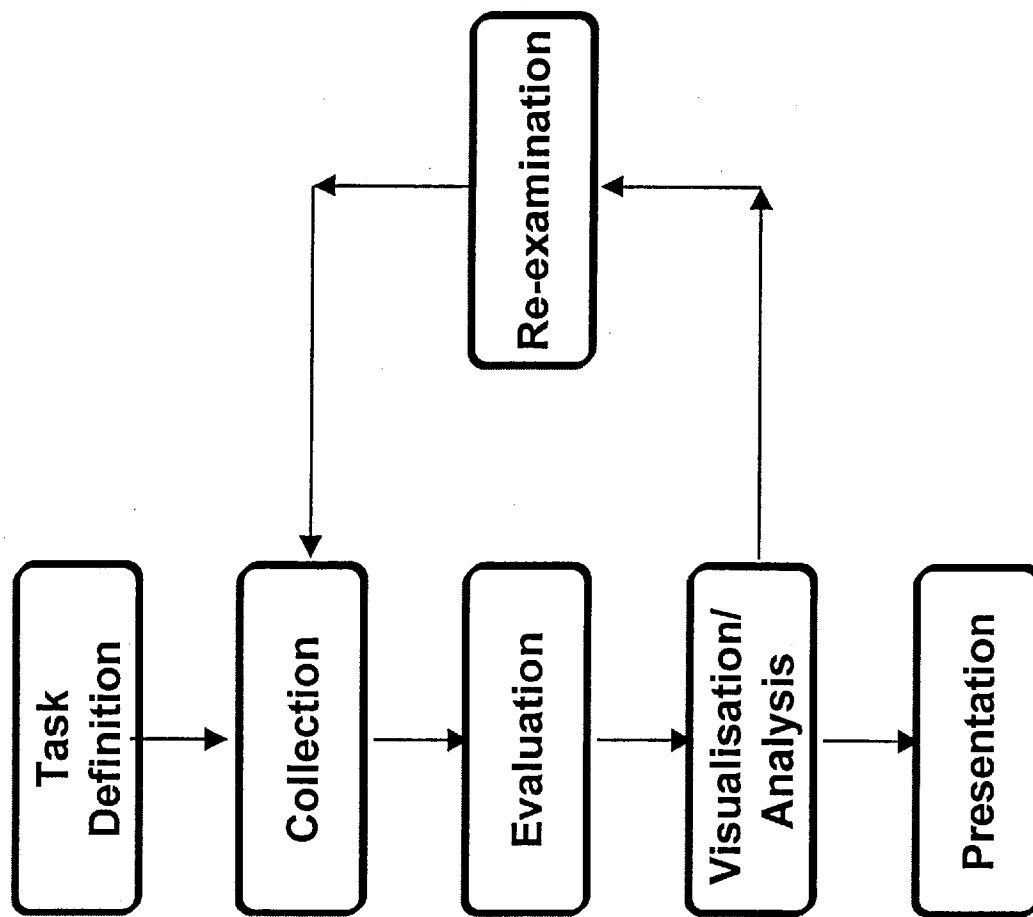
Analysis is primarily a human activity

But, there are already many 'routine' forms of analysis that cannot be practically done without automated tools!



The Analysis Cycle

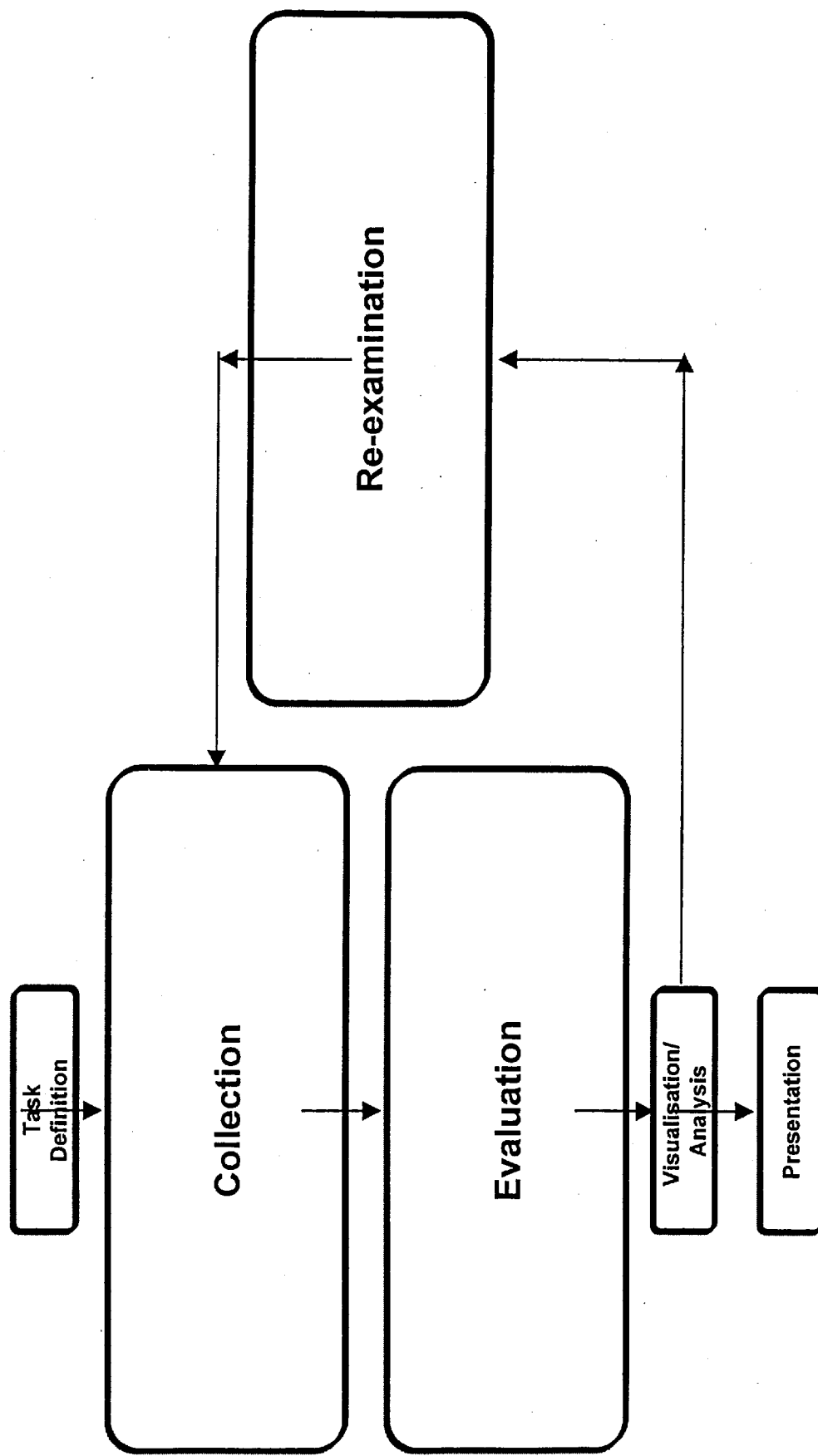
i 2





The New Analysis Cycle

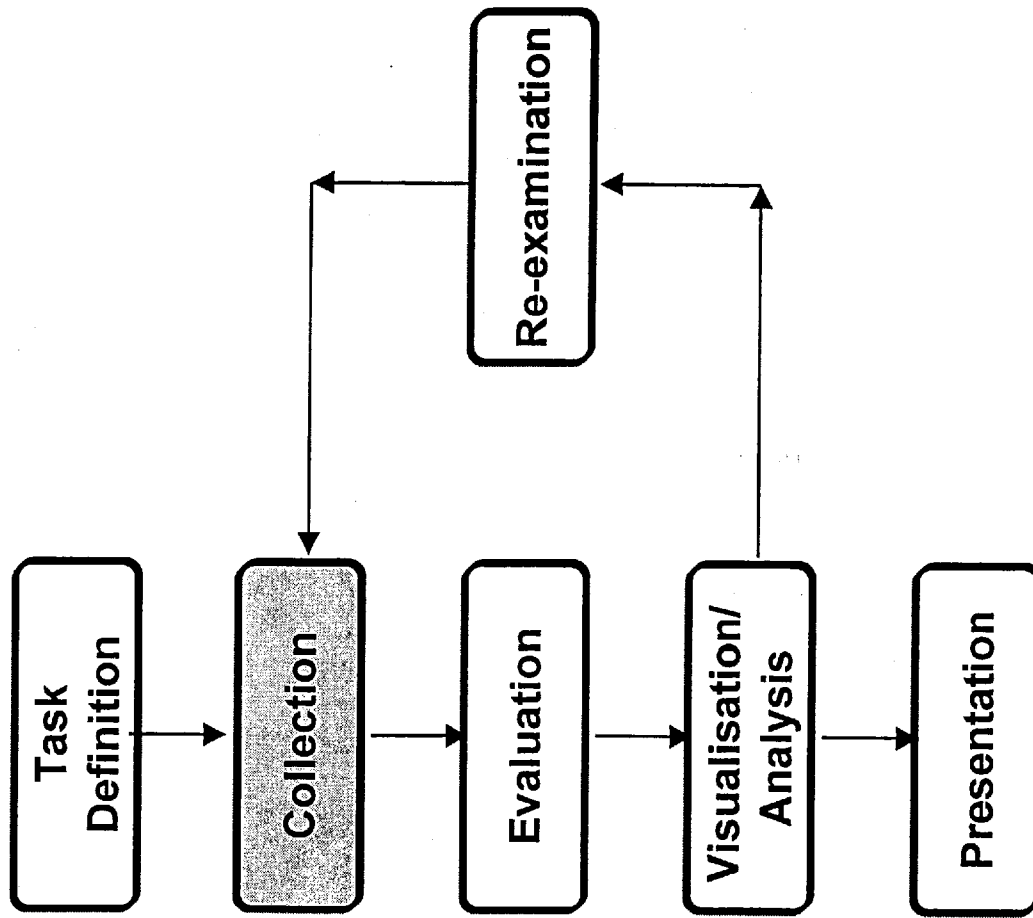
i2





The Analysis Cycle

i 2





- Internet - a delivery mechanism
- Internet - a 'short circuit' mechanism

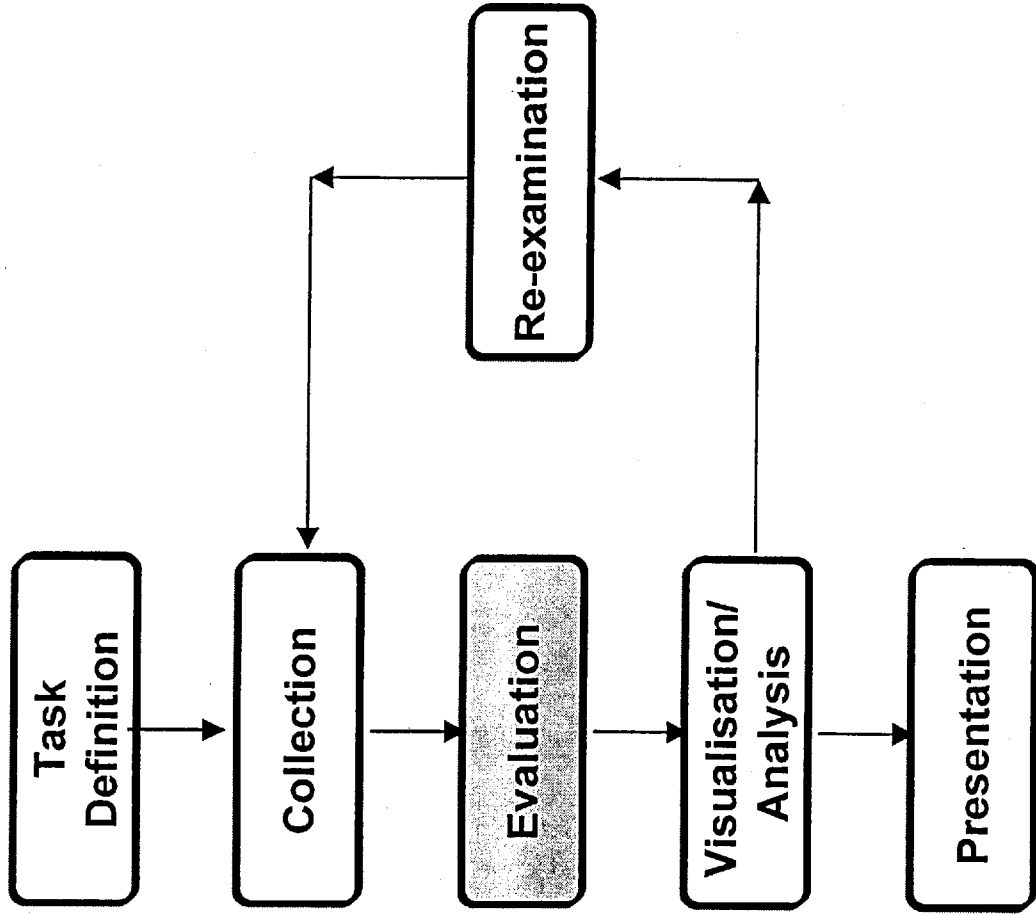


- Retrieval - the quickest way to overload
- Intelligent retrieval - profiles, agents
- Pull/Push/(Pop) technology



The Analysis Cycle

i2

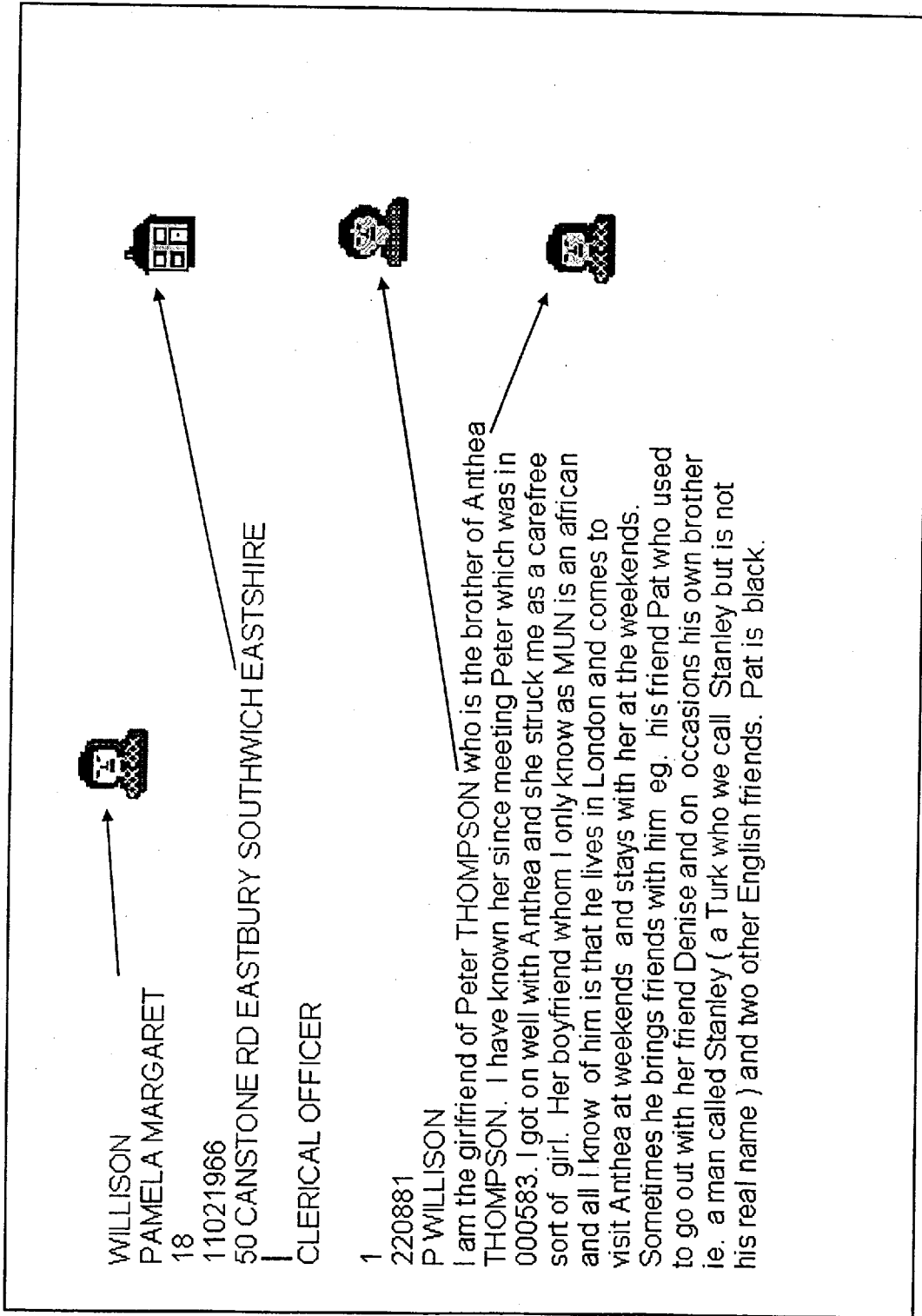




- Quantity versus Quality



Identity Relationship Extraction





- US DARPA Funded 'Tipster Text Project'
- Message Understanding Conferences
- MUC-6 November 1995
- 16 organisations tested systems
- Entity Extraction - first useful products in 1998
- Link Extraction - beyond the current state of the art

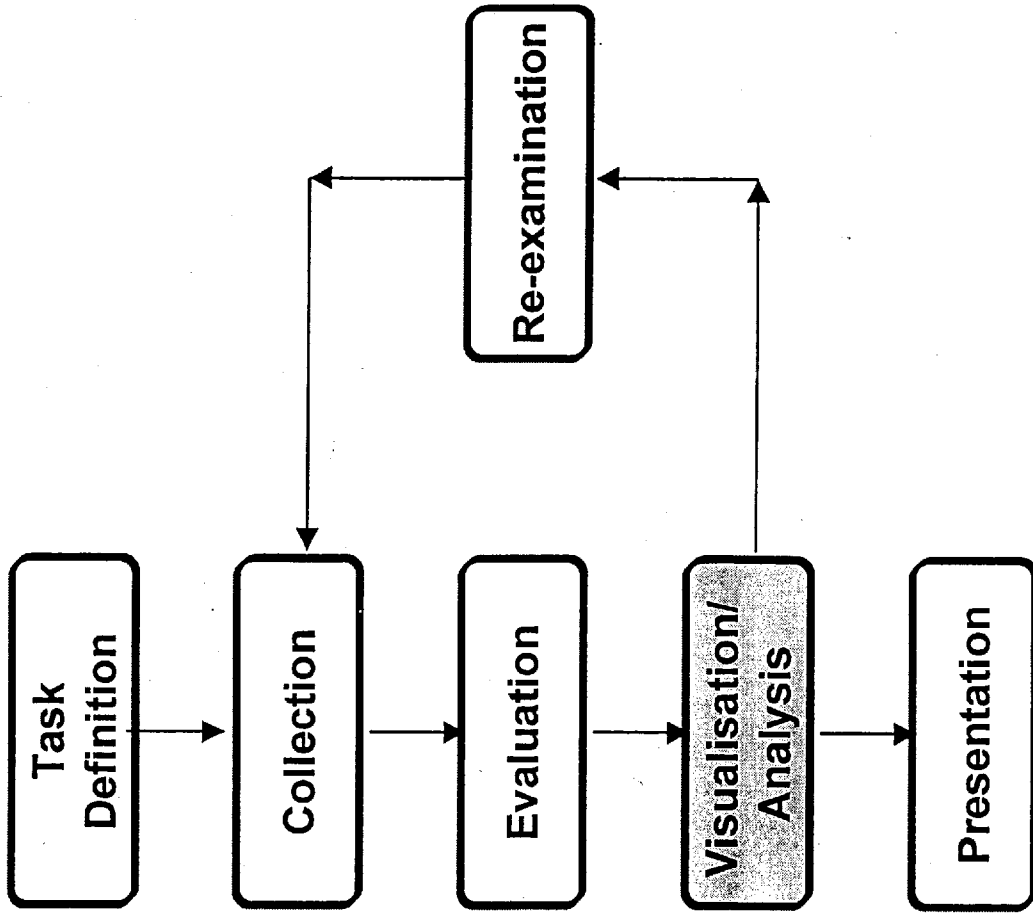


Implementation References

- Tipster
<http://tipster.org/>
- MUC-6
<http://cs.nyu.edu/cs/faculty/grishman/muc6.html>
- IsoQuest (SRA) - NetOwl
<http://www.isoquest.com/>
- Manning & Naper - DrLink
<HTTP://www.mnis.net/drlink>
- BBN



The Analysis Cycle

i 2



*The two way visual and
interactive interface between
humans and their information
resources.*

P1000 Strategy Definition



*“the right picture
paints a thousand words”*



Creating Intelligence Through Automated Tools

Visual Excellence

i2

- Clarity
- Precision
- Efficiency
- (Practicality)

Edward Tufte - The Visual Display of Quantitative Information



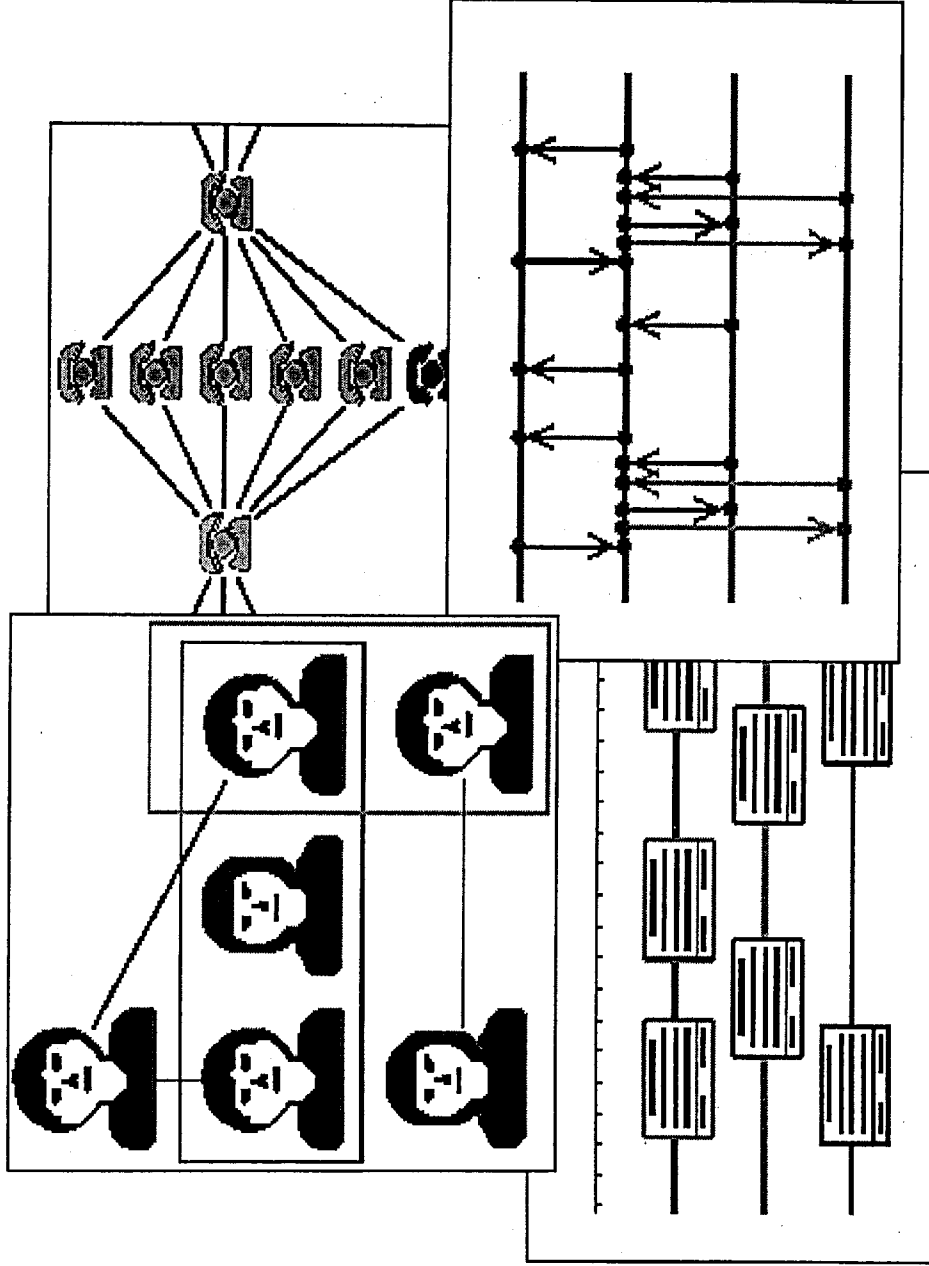
- show the information / data
- content not style
- avoid distortion
- present a large amount in a small space
- make large information / data sets coherent
- encourage comparison
- reveal levels of detail
- serve a purpose

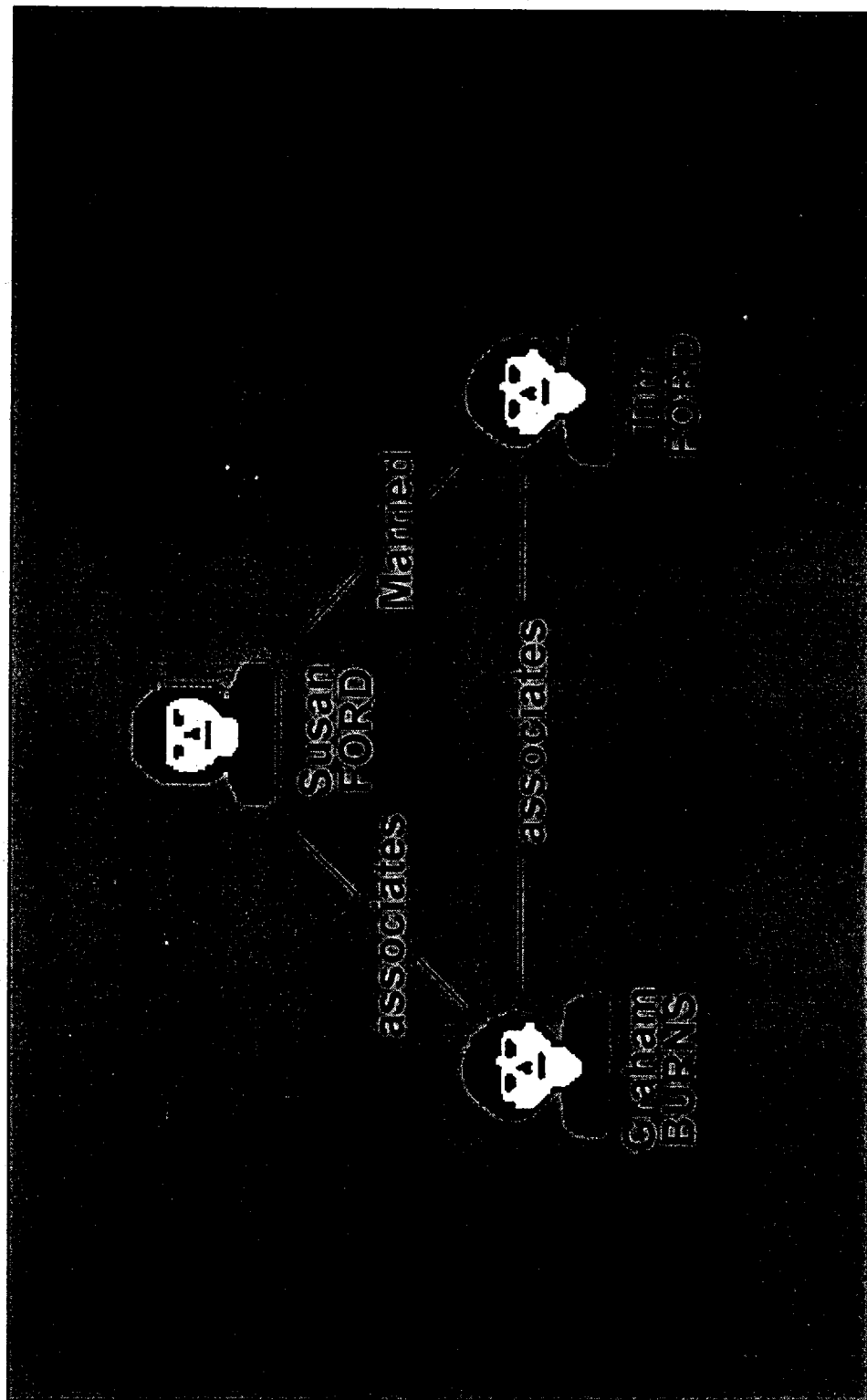
Edward Tufte again

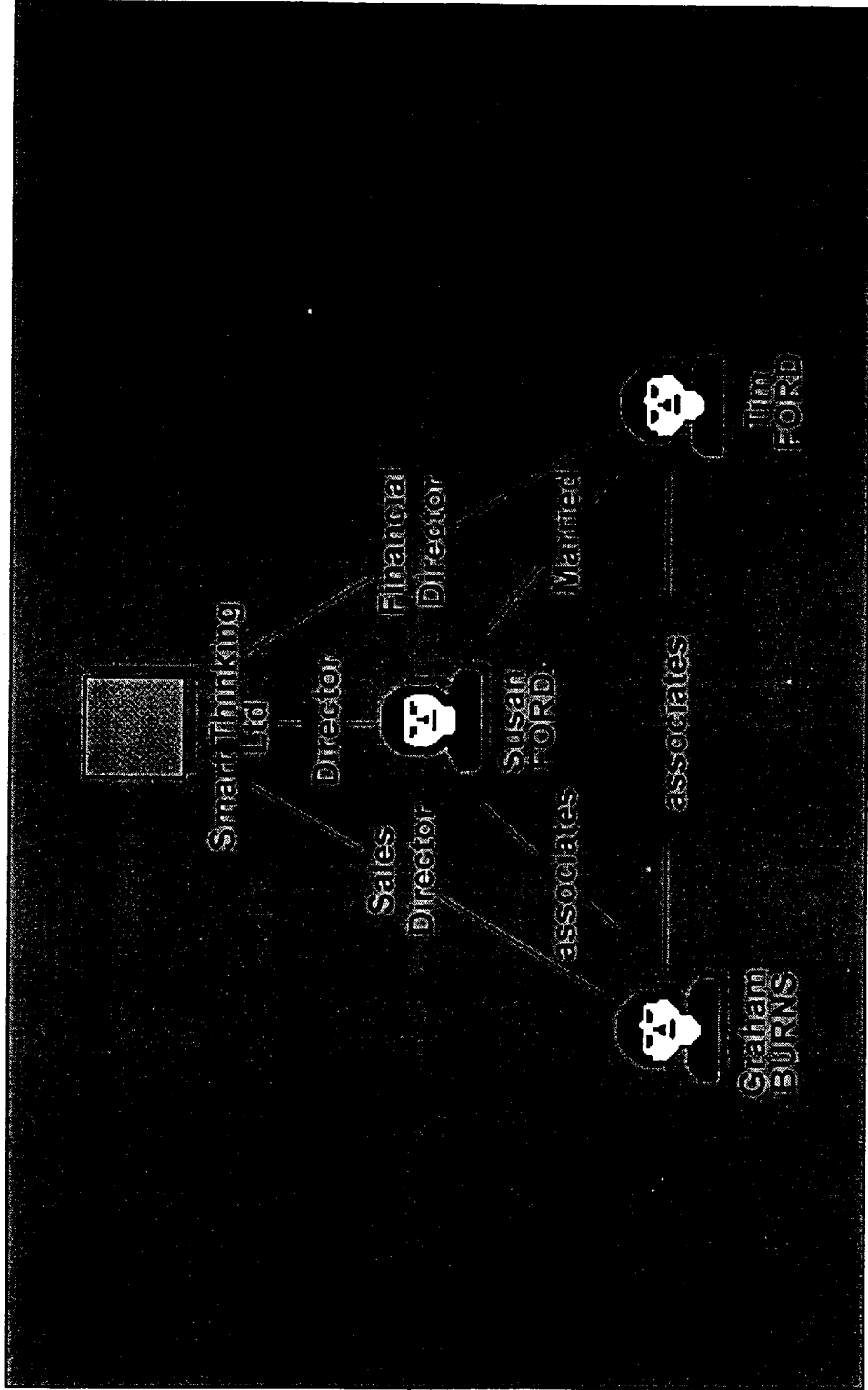


A Variety of Styles

* 1 | 2









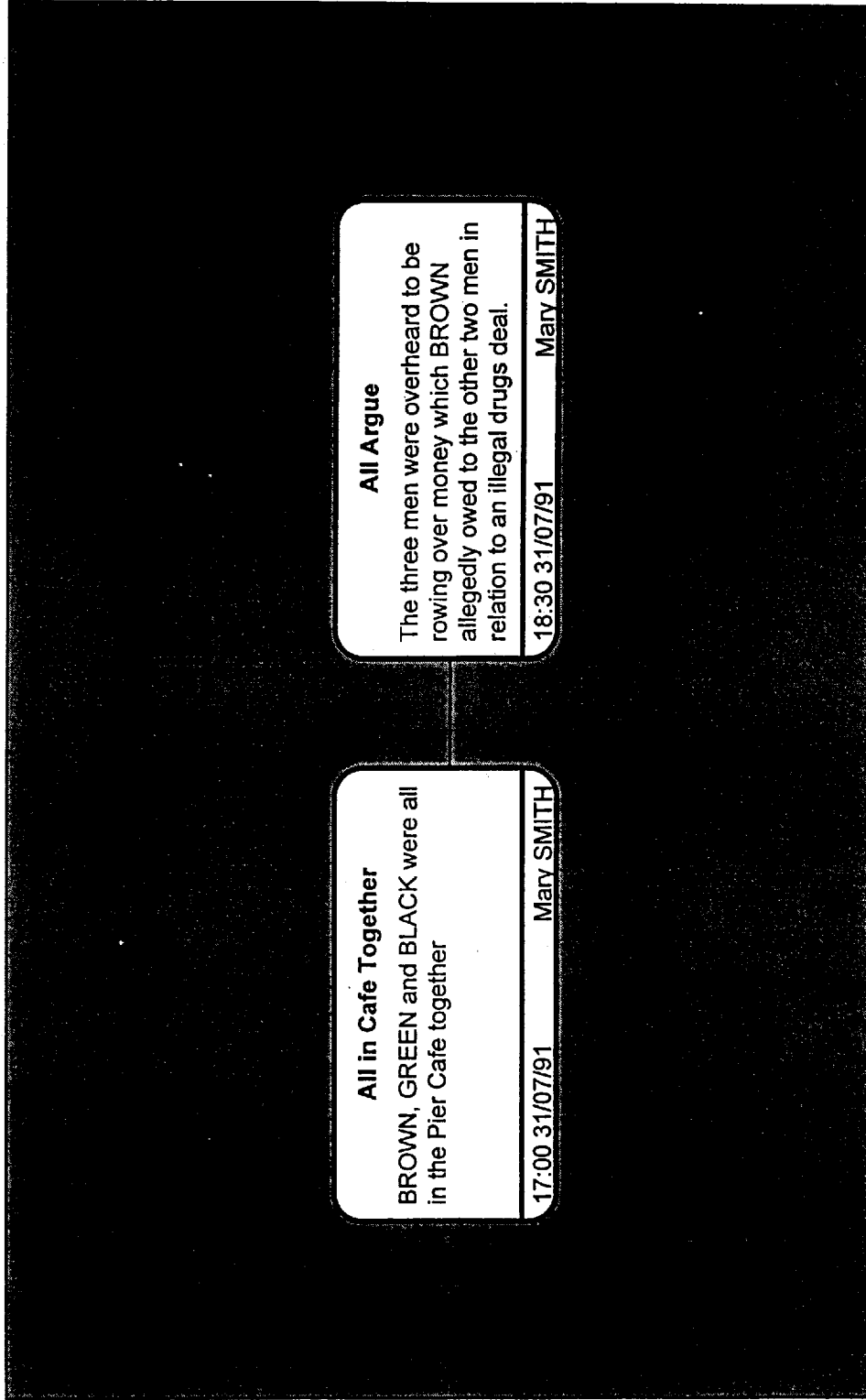
All in Cafe Together
BROWN, GREEN and BLACK were all
in the Pier Cafe together

17:00 31/07/91	Mary SMITH
----------------	------------



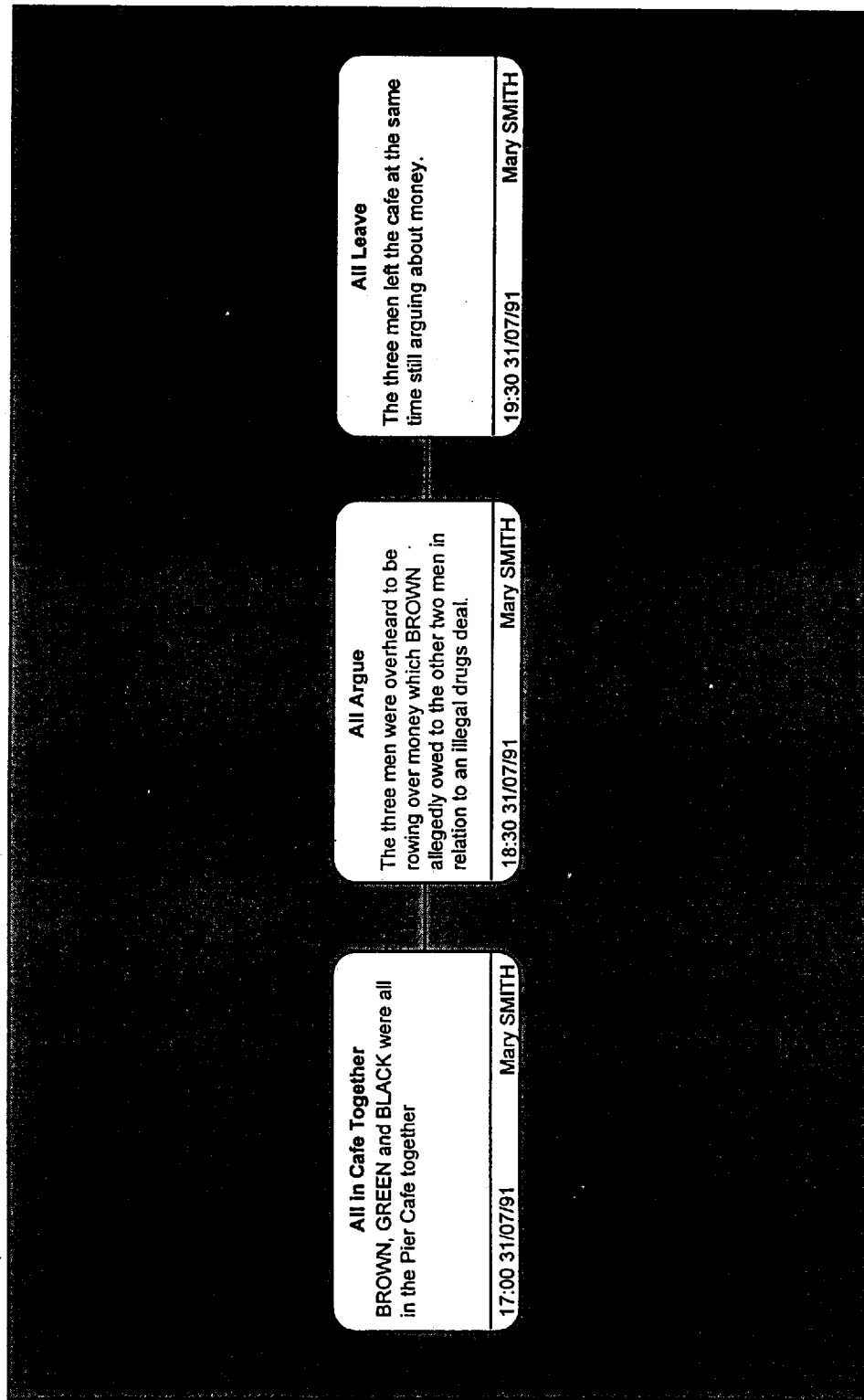
6/2

CASE ANALYSIS





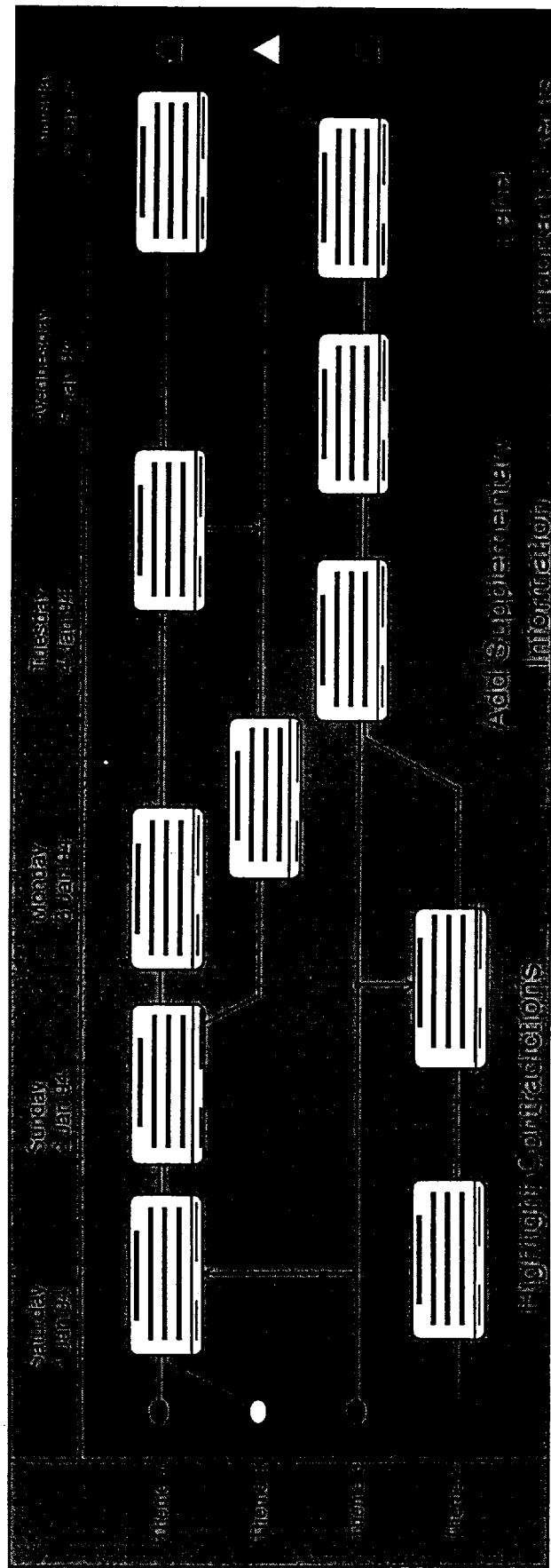
Case Analysis





Case Analysis

i2



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Creating Intelligence Through Automated Tools



The Analysis Cycle: Other New Visualisations

i 2



Creating Intelligence Through Automated Tools

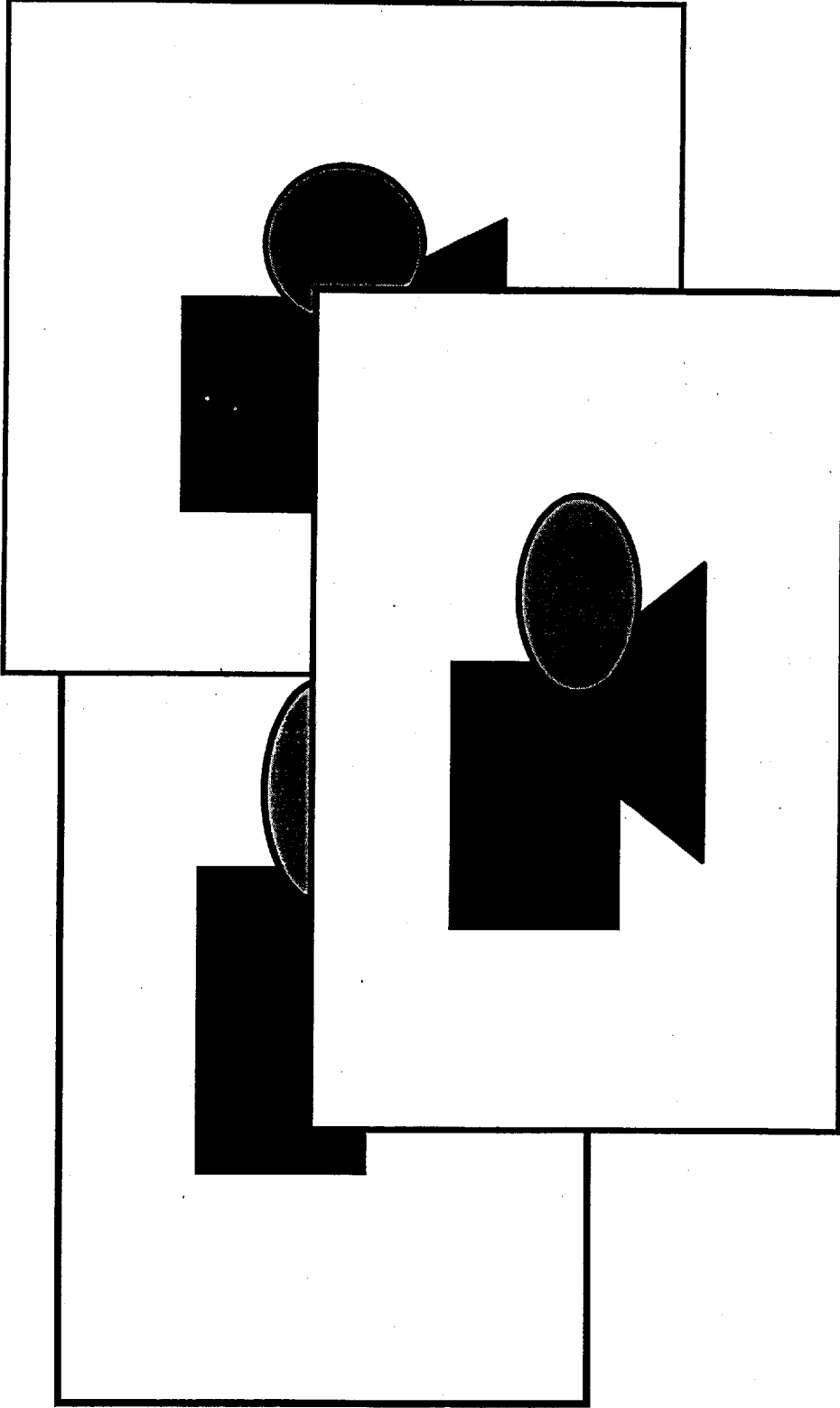
inXight - Xerox New Enterprise Company

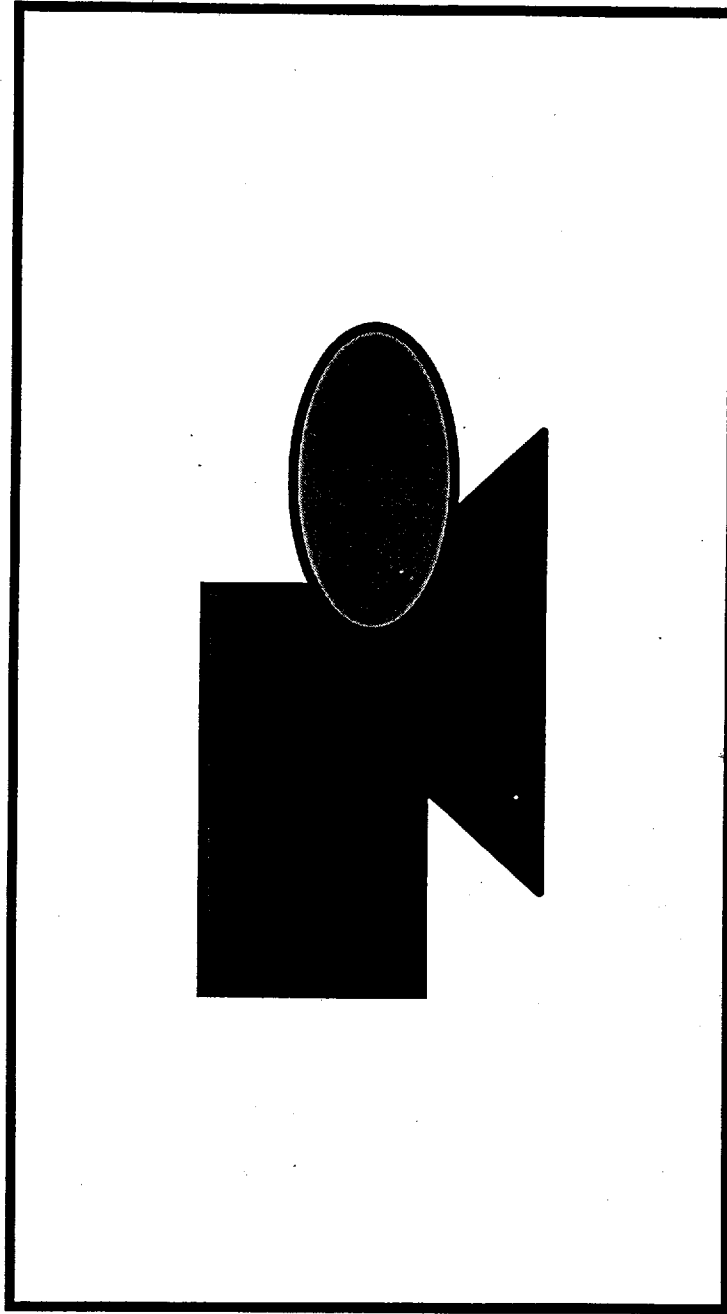
inXight - Xerox New Enterprise Company

Xerox PARC

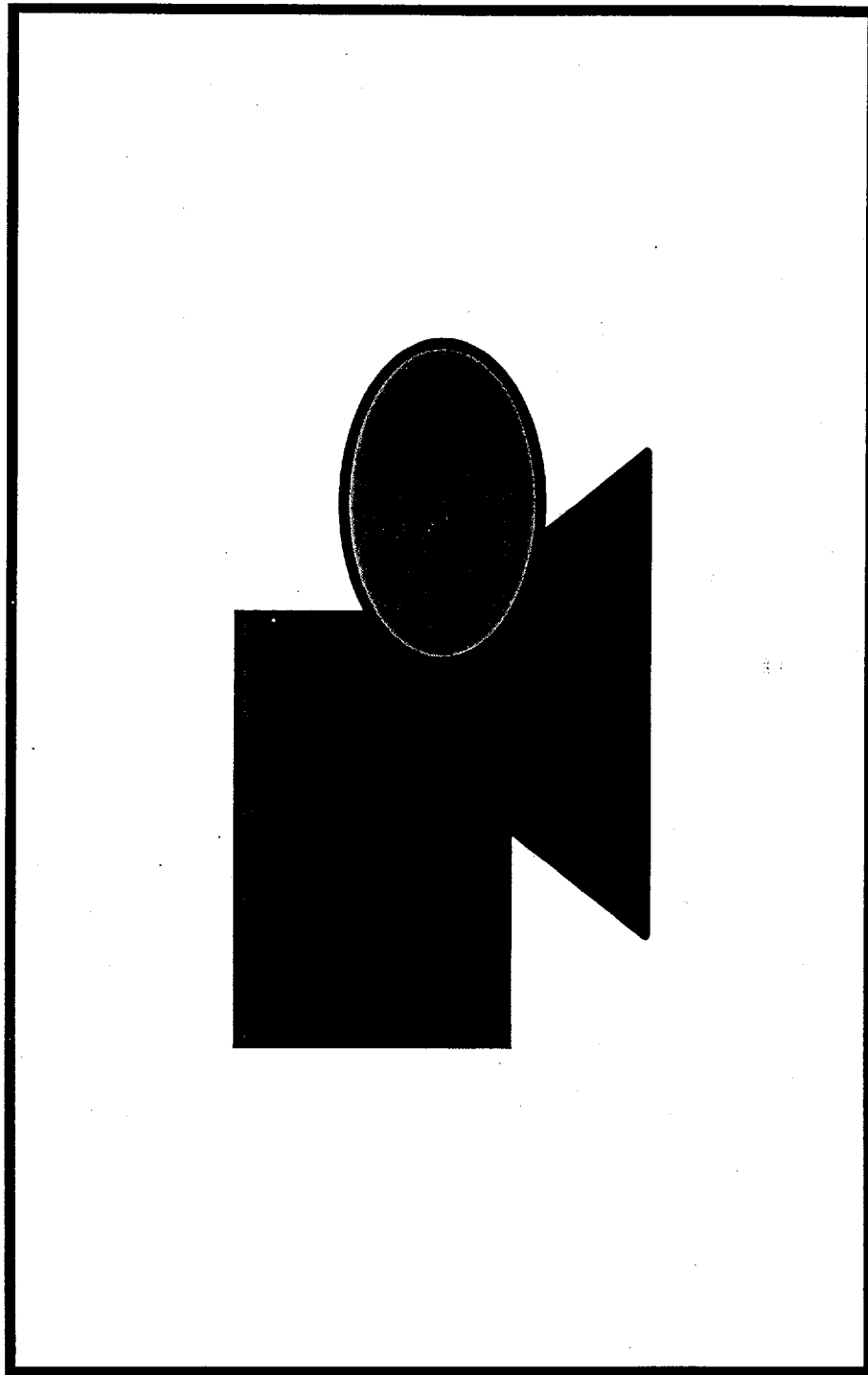
221

1 2

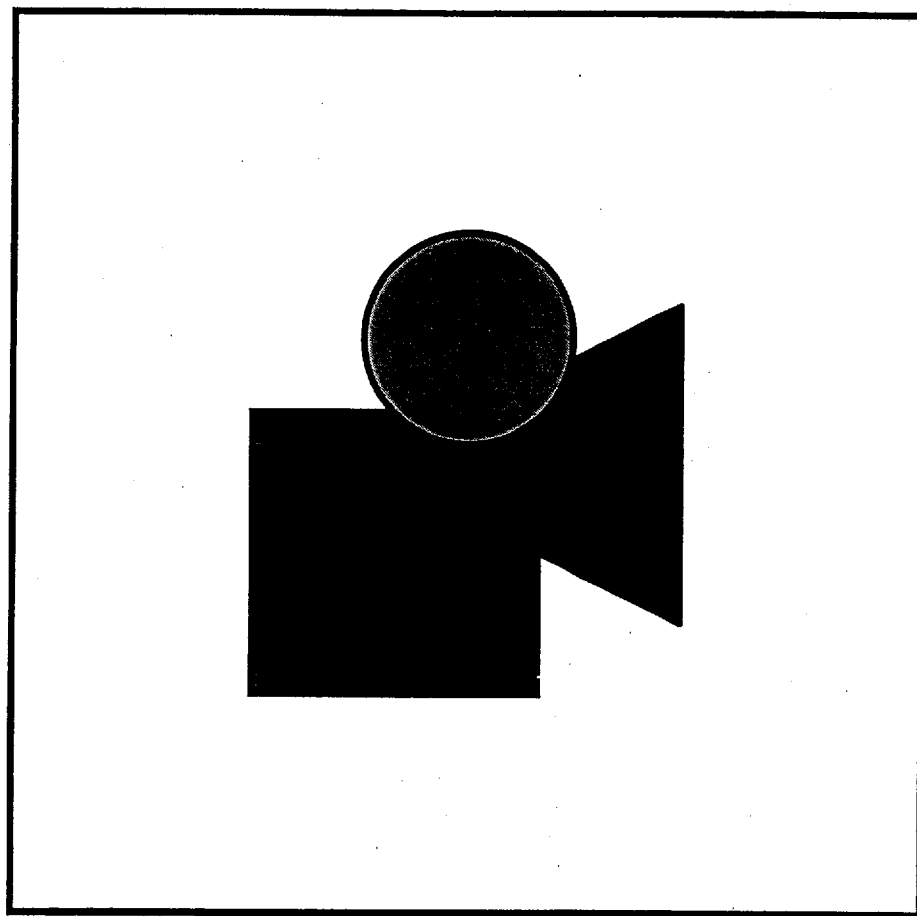




Perspective Wall



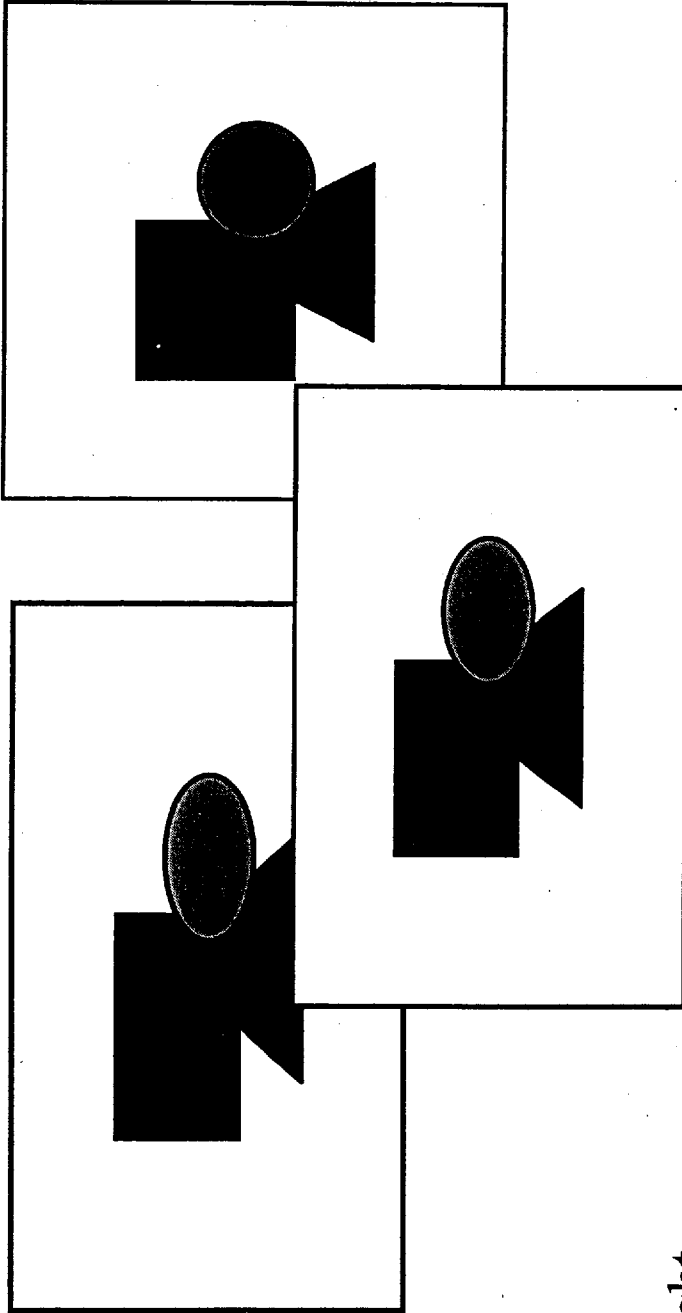
Cone Tree



Hyperbolic Tree



inXight VIZ Solutions



inXight

<http://www.inxight.com>

Xerox PARC

<http://www.parc.xerox.com/parc-go.html>

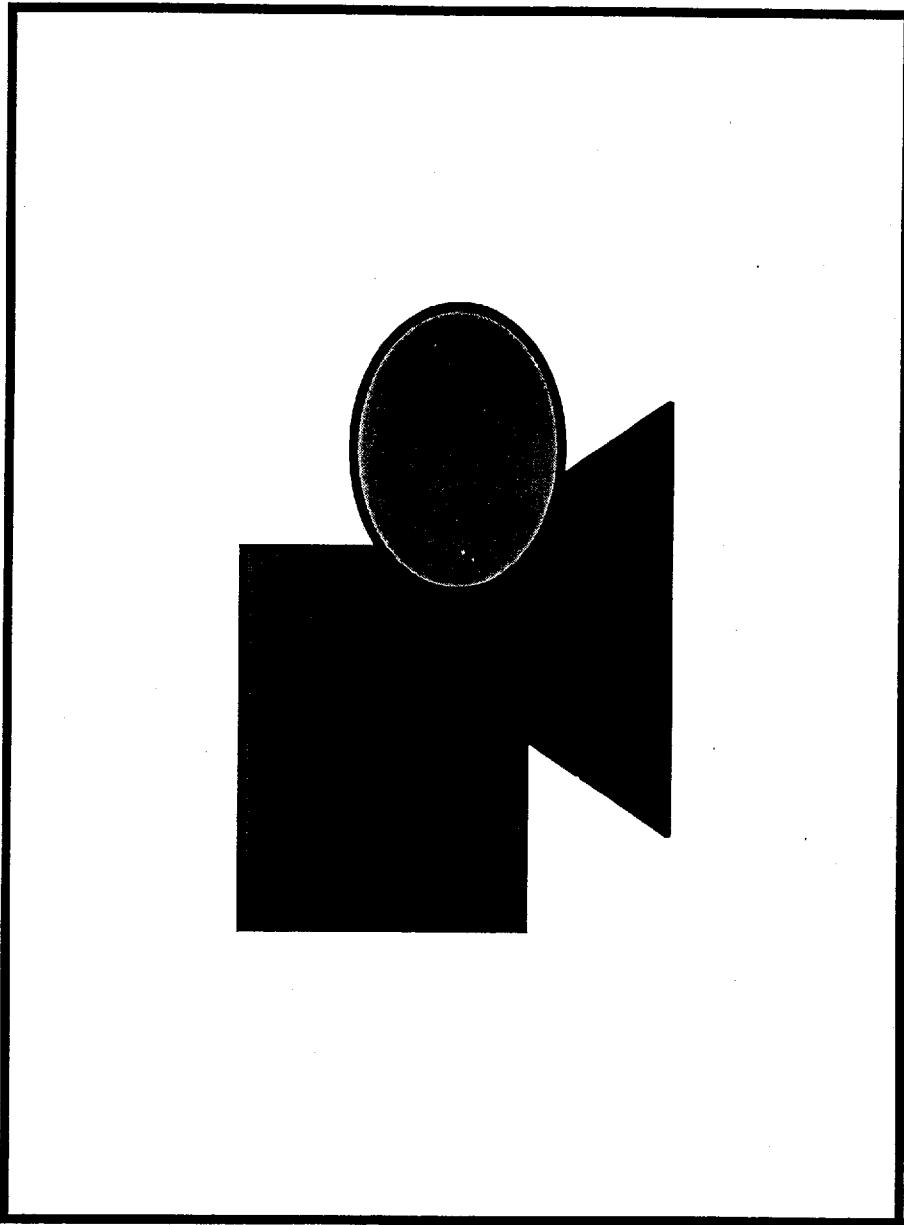




Creating Intelligence Through Automated Tools

Perspecta SmartContent System

1 | 2



Perspecta, Inc MIT Media Lab

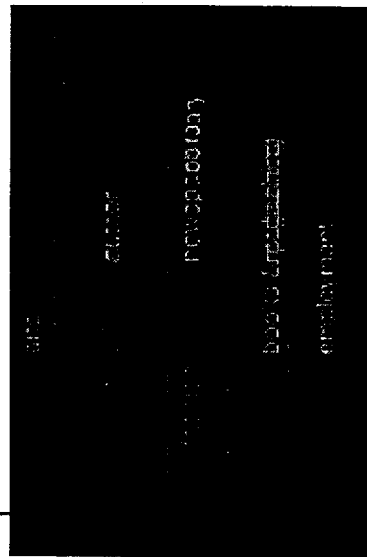
926



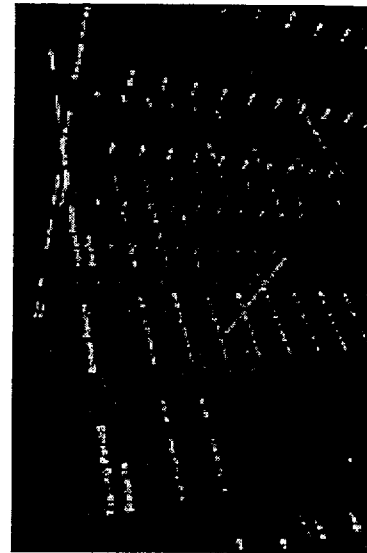
Perspectia Corporate Overview

i 2

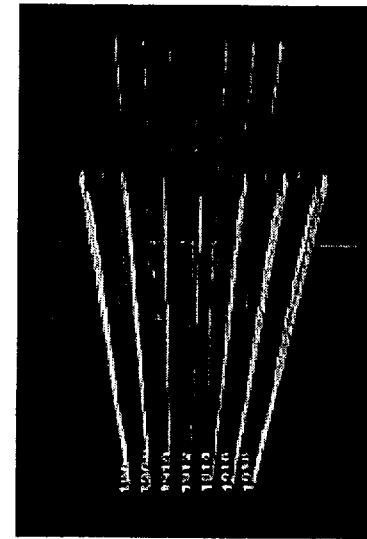
- Founded in January 1996 with a vision of dramatically enhancing the way people experience and understand information.
- Alumni of the MIT Media Lab
 - Earl Rennison, Lisa Strausfeld, Nicolas Saint-Arnaud
- Media Lab Projects



Galaxy of News



Financial Viewpoints



Millennium Project



Visual navigation and online analysis for multi-dimensional information

Perspecta's SmartContent System
is a unique development platform enabling
companies to enhance customer and supplier
interaction, communication, and education



AllTheNews - Microsoft Internet Explorer

FILE EDIT VIEW GO STOP BACK

allthe

technology

AR

PARTNERS

date range: Mar 17-24, 1998

home news space sources feedback help

AllTheNews

Industry Segment

Companies

IT People

Hot Topics

back

fwd

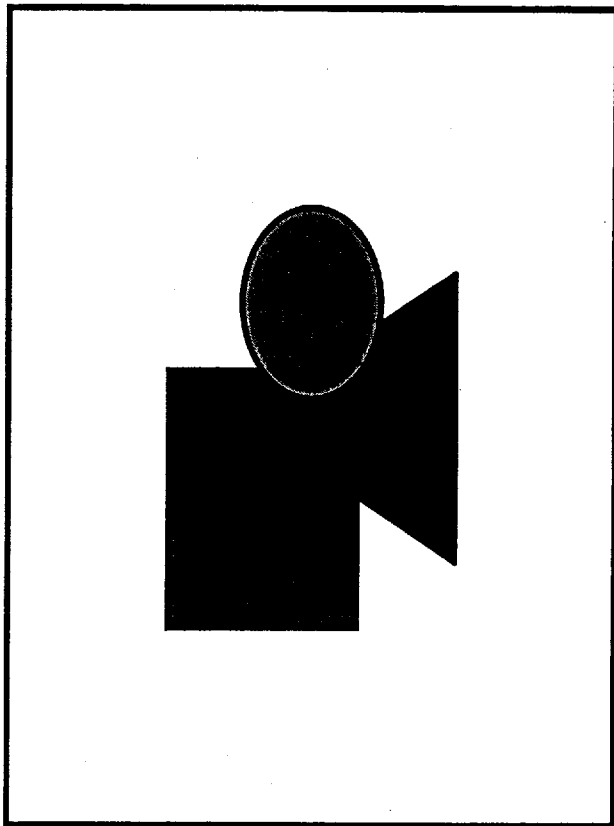
top

find

top stories



Perspecta SmartContent System



Perspecta, Inc

info@perspecta.com

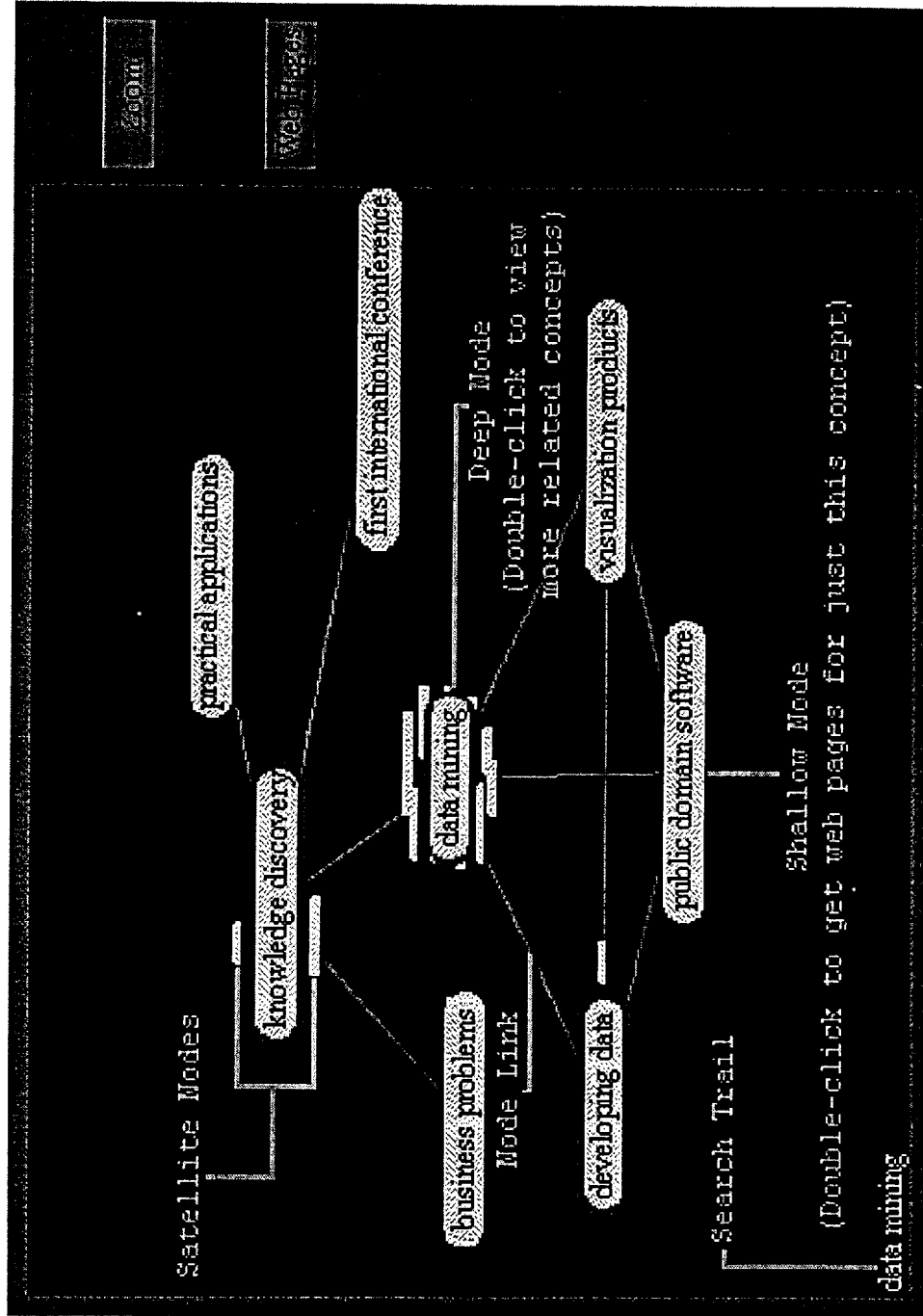
<http://www.perspecta.com>

MIT Media Lab

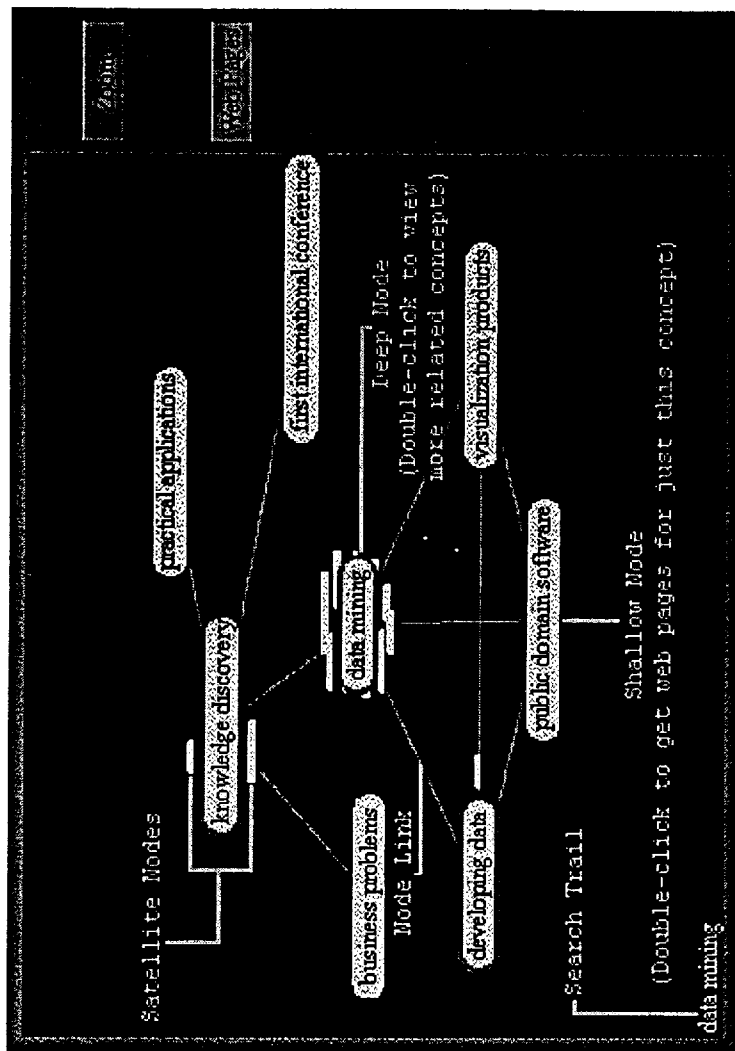
<http://www.media.mit.edu/>



SearchMap



Nodes (Deep and Shallow) and Clusters



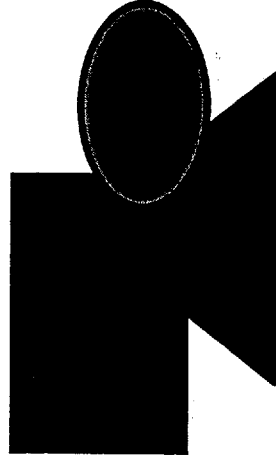
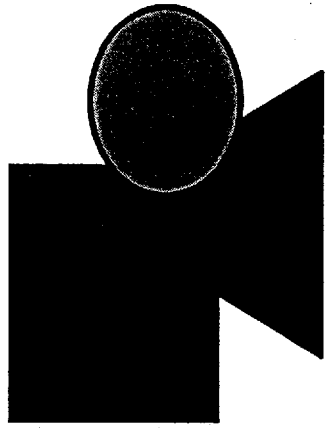
Semio Corporation

info@semio.com

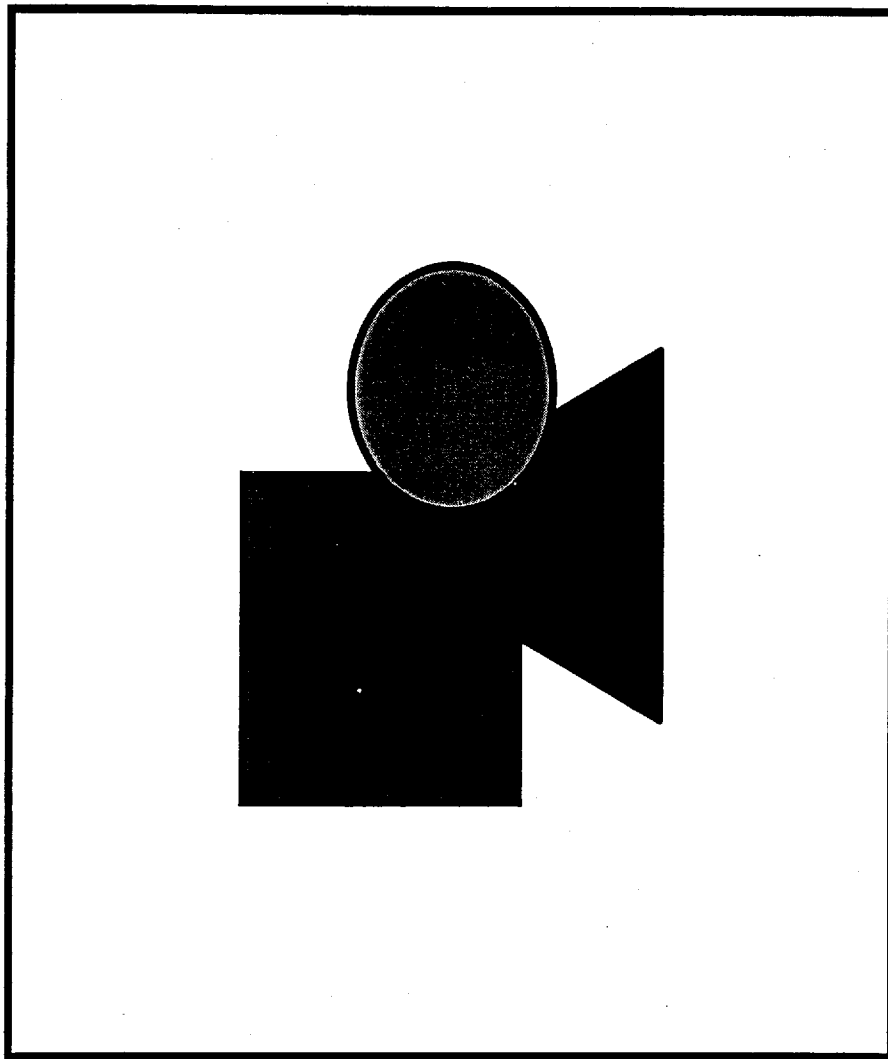
<http://www.semio.com/>



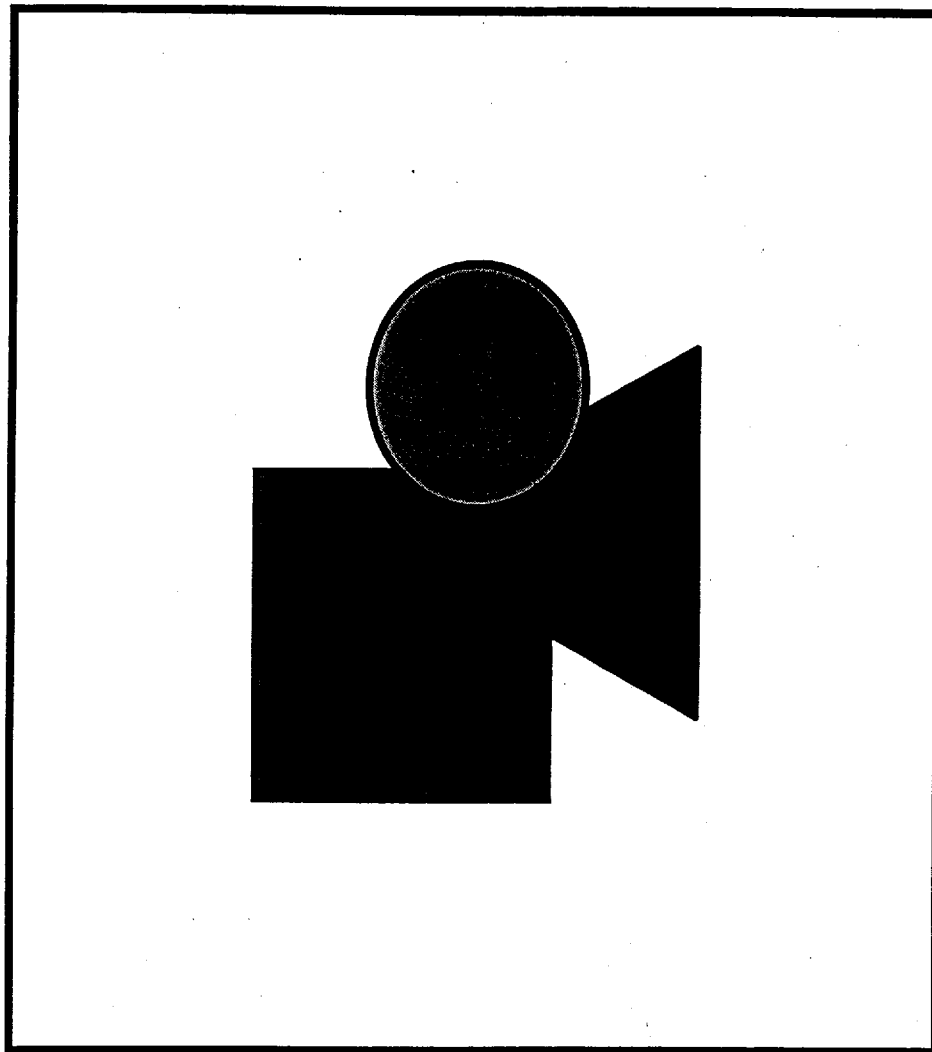
Visible Decisions Inc



3D Business Graphics



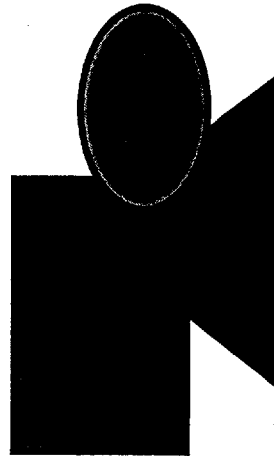
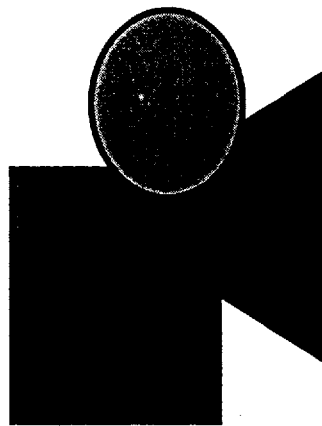
Sales Performance Across the US



Stock Transaction Processing

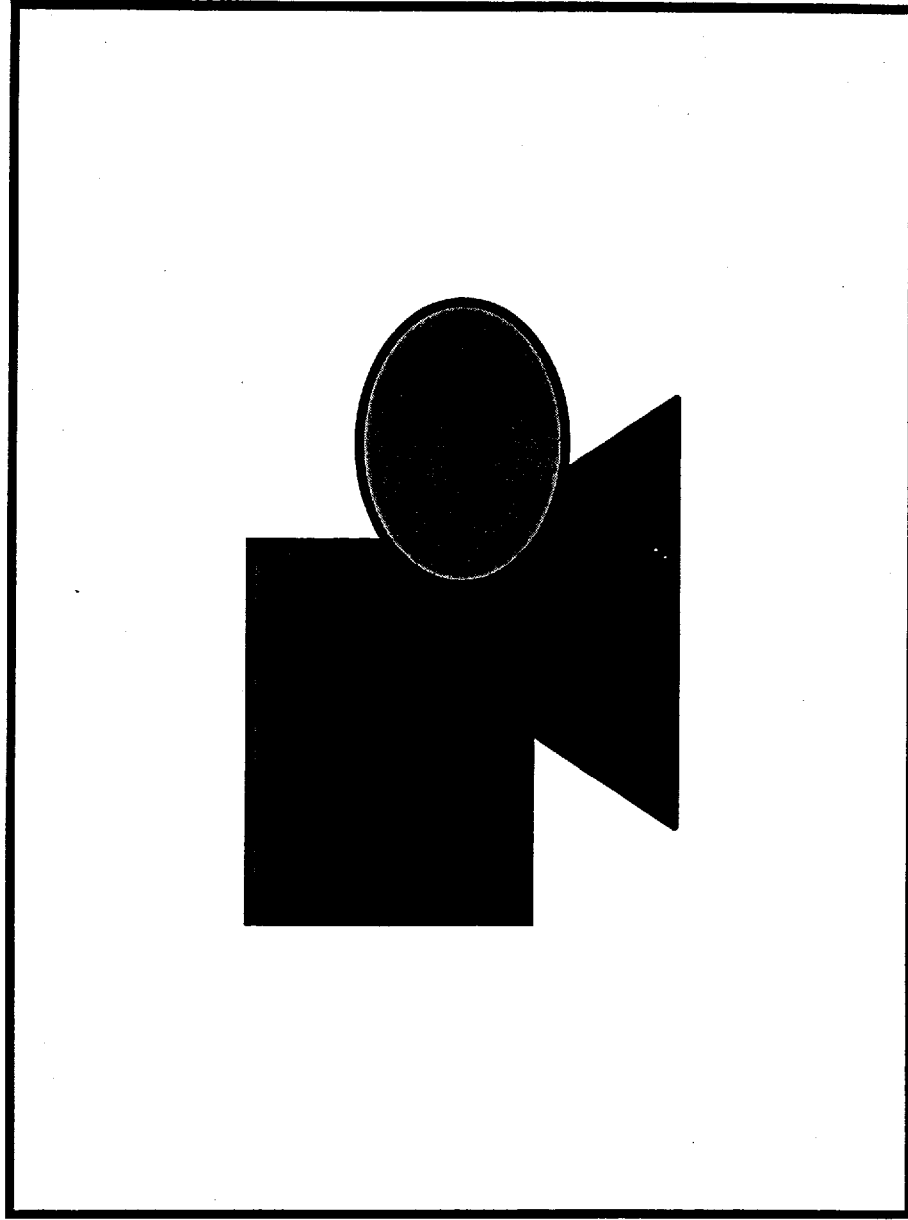


Visible Decisions Inc



info@vdi.com

<http://www.vdi.com>



Vemeer Gallery



Silicon Graphics

<http://www.sgi.com>

The VRML Repository

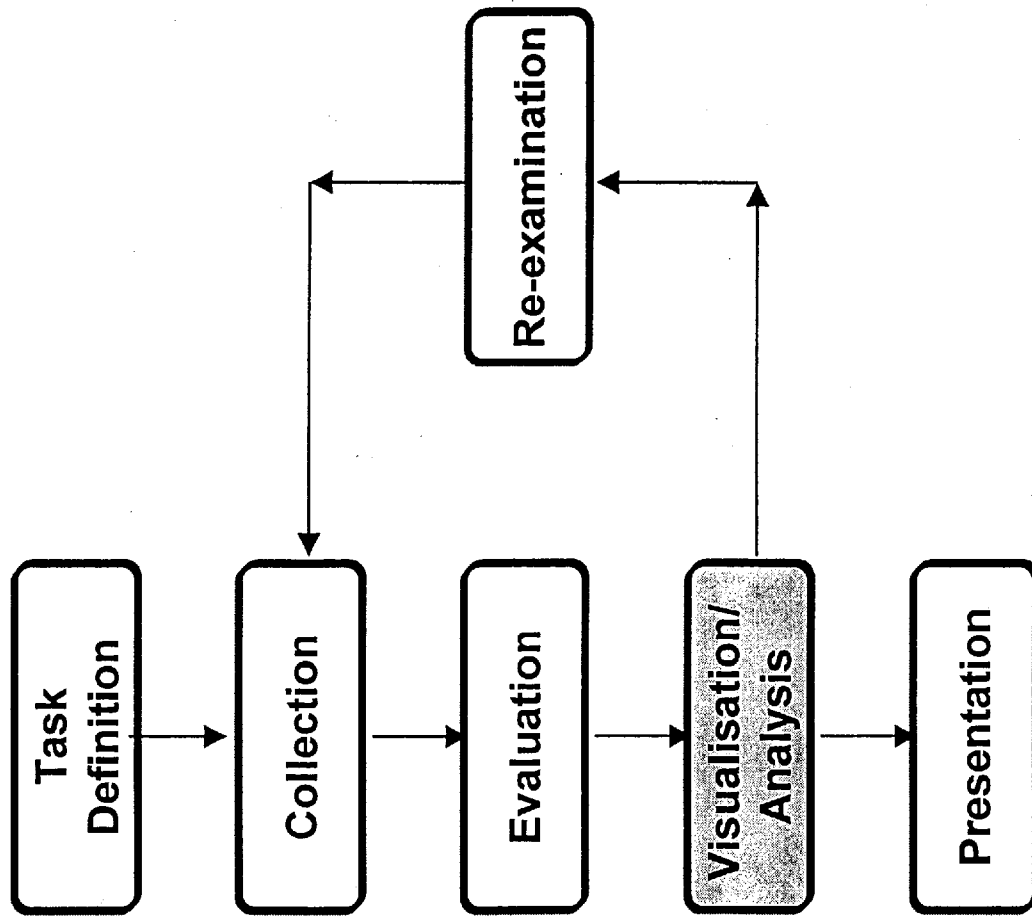
<http://www.sdsc.edu/vrml/repository.html>

Microsoft

<http://www.microsoft.com/vrml>



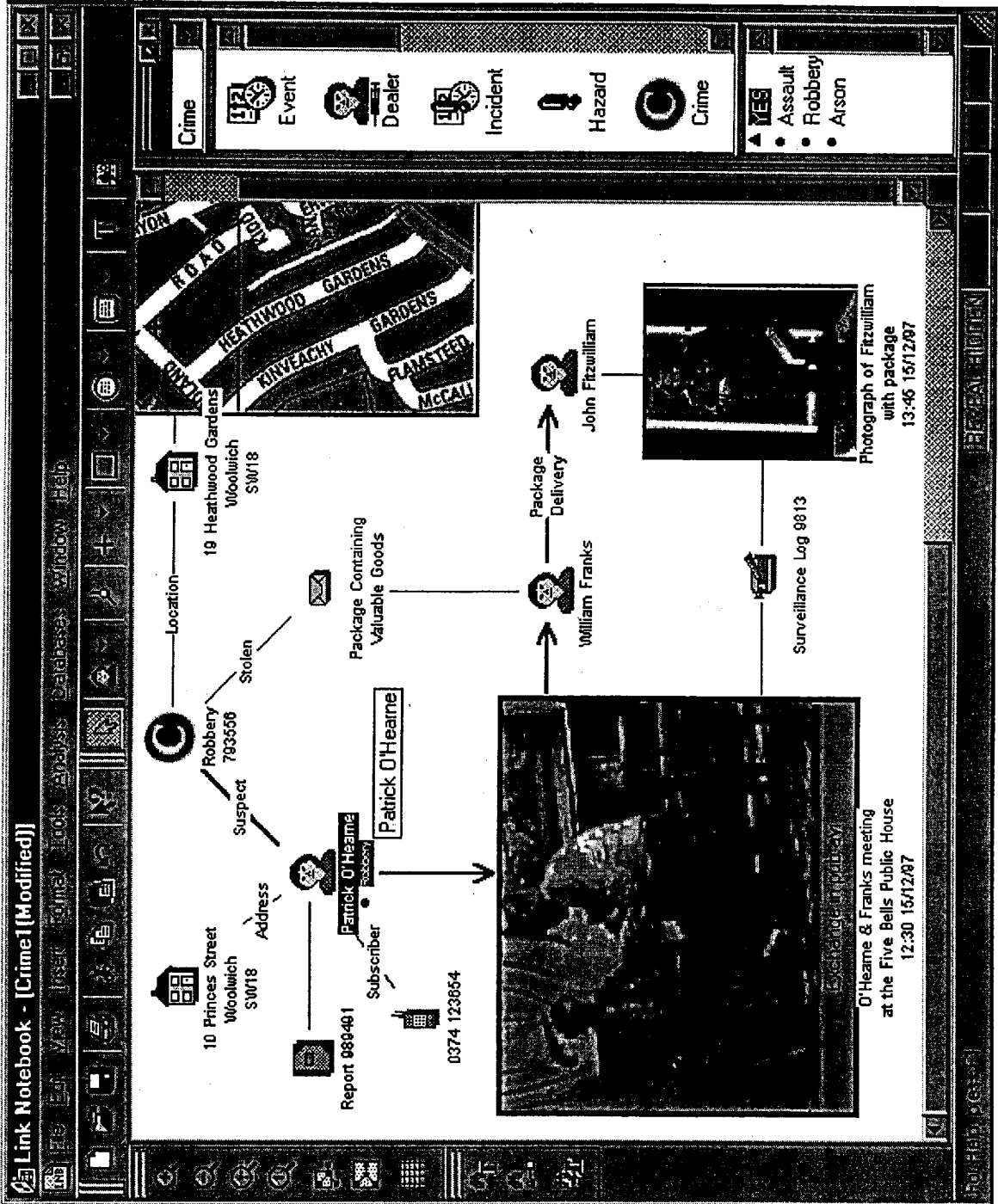
The Analysis Cycle





Crime Analysis Cycles Analysis

i2





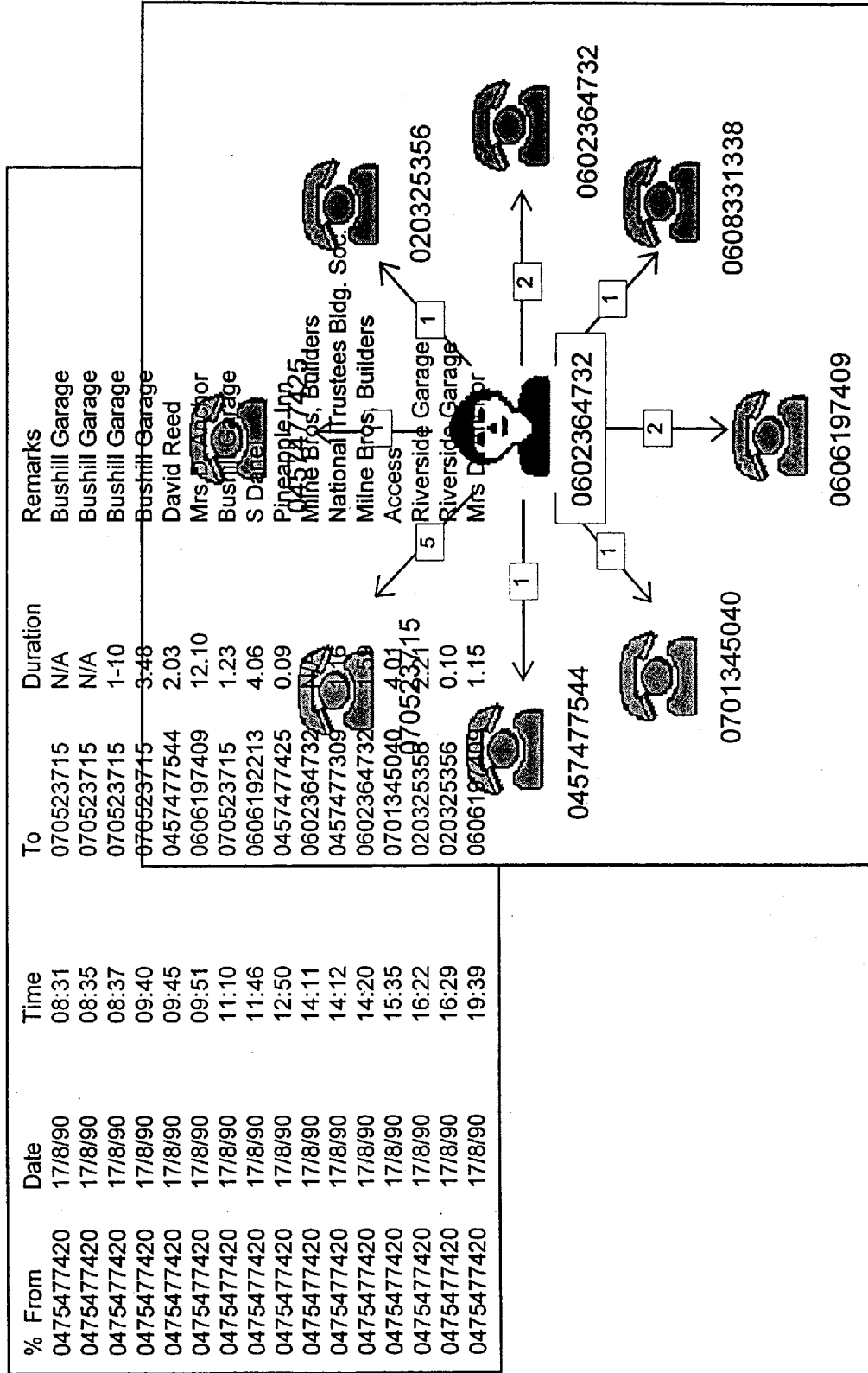
The processing of potentially large sets of data using a variety of automatic methods to identify specific areas of interest leading to subsequent manual analysis.

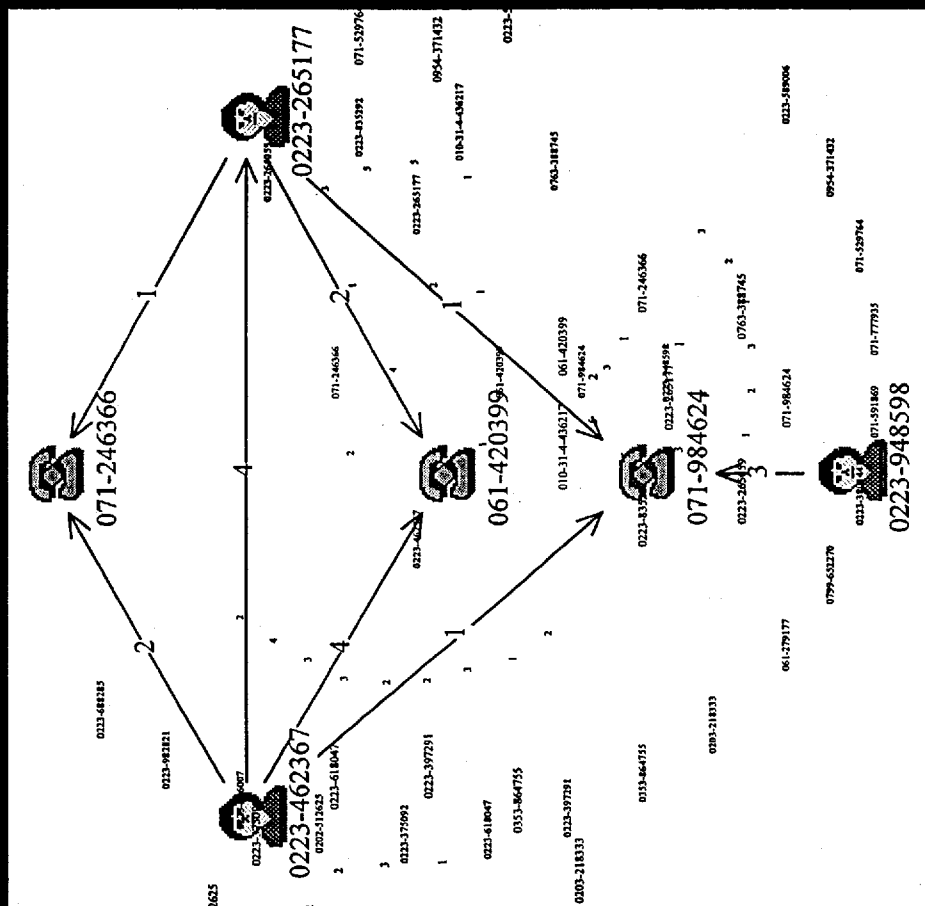
Mike Hunter, 1998



The Analysis Cycles Assisted Analysis

12

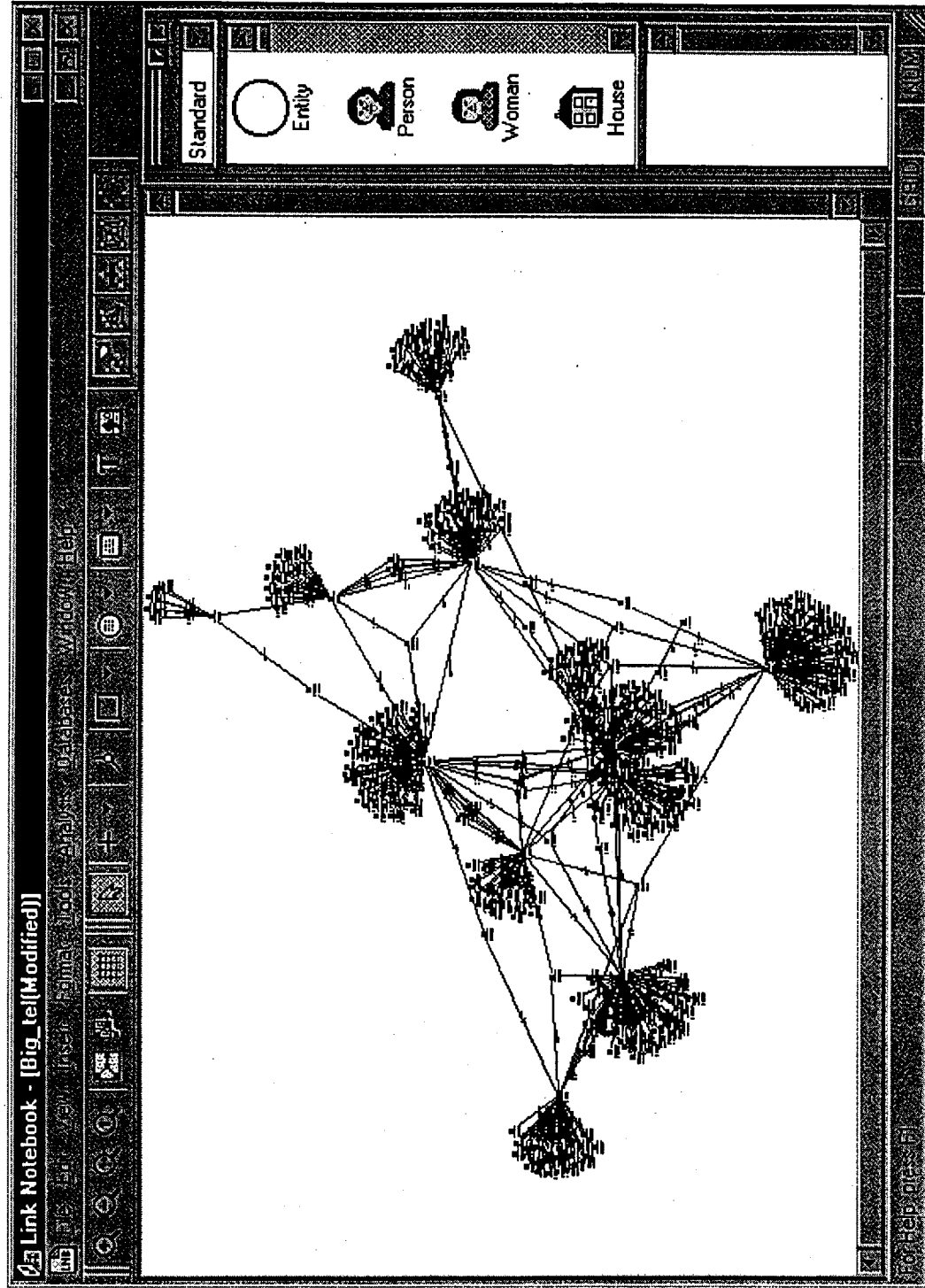






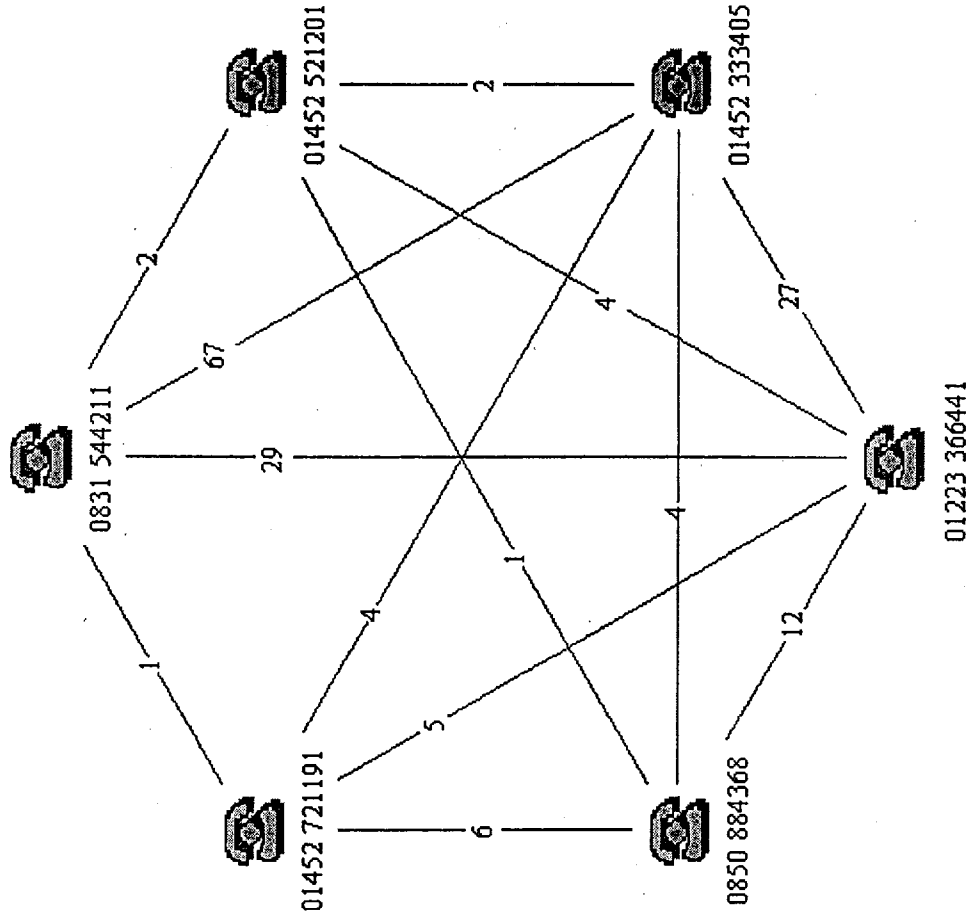
Assisted analysis - analytical layouts

i2

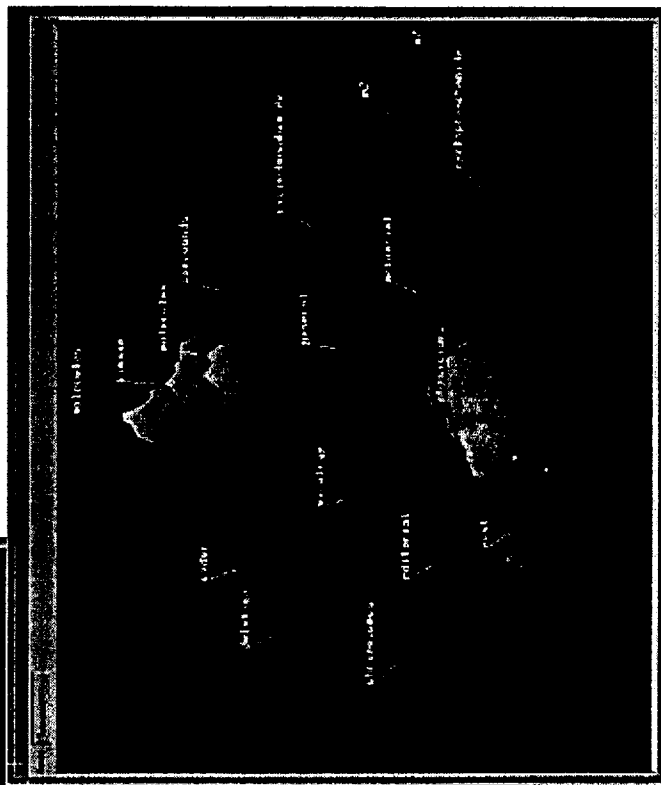
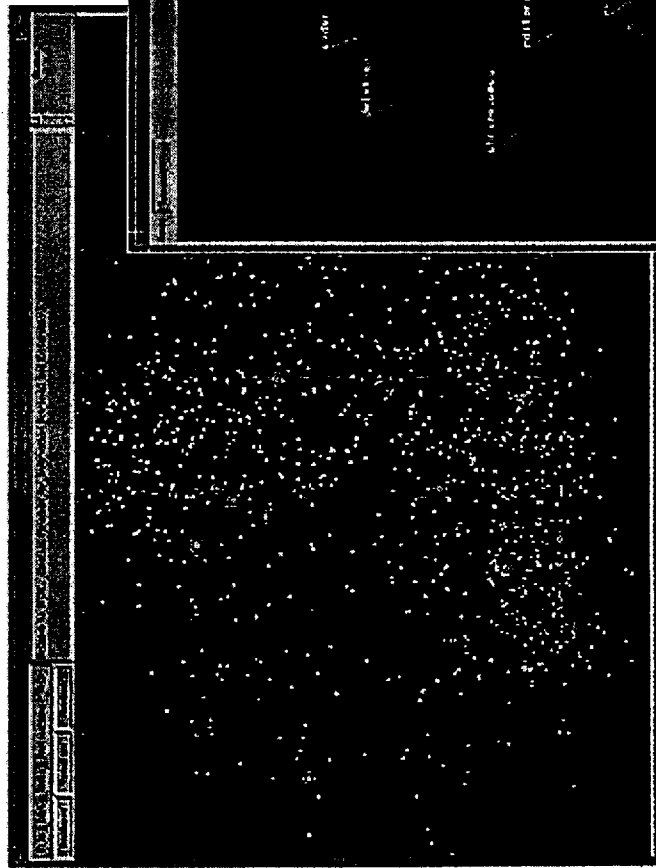




Assisted analysis - clustering mechanisms





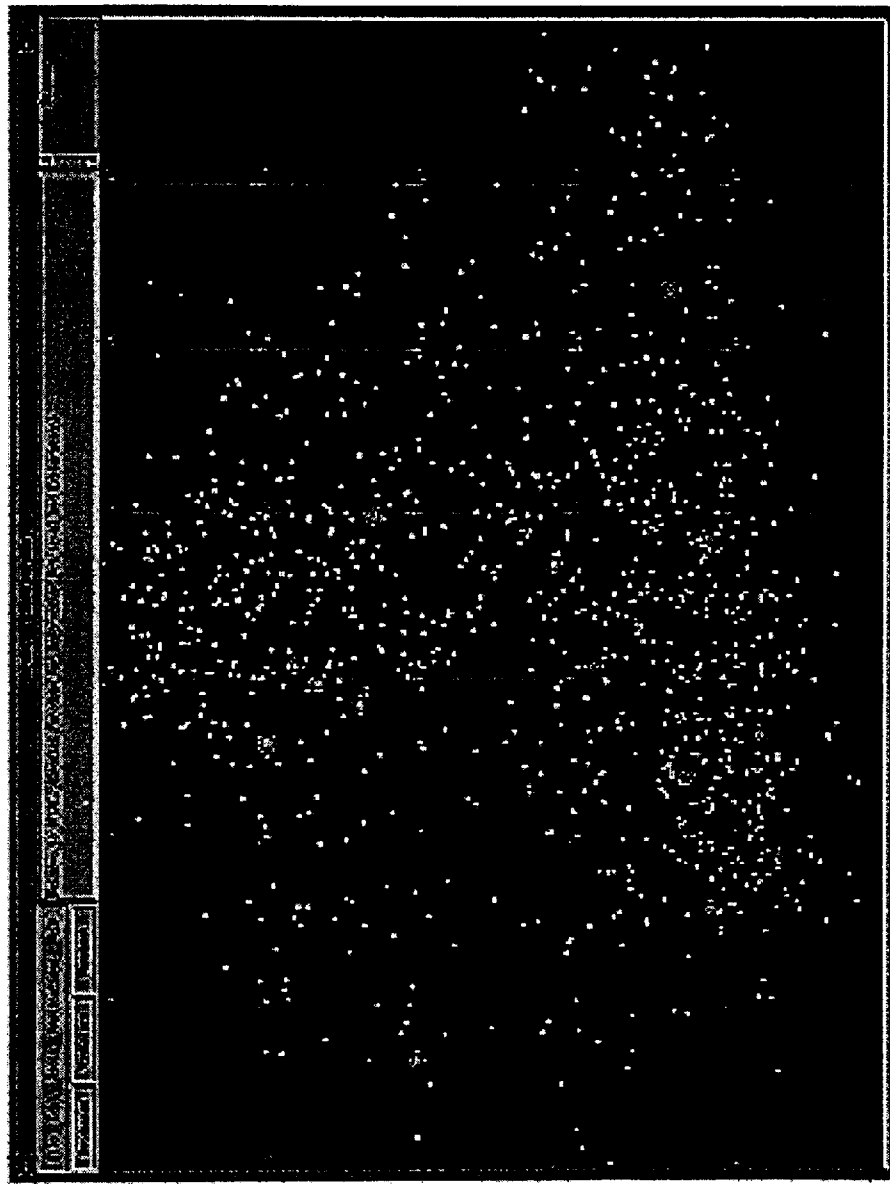
SPIRETM

Spatial Paradigm for Information Retrieval and Exploration

Explore the relationships between content of a set of documents



Document Clustering - Hierarchical



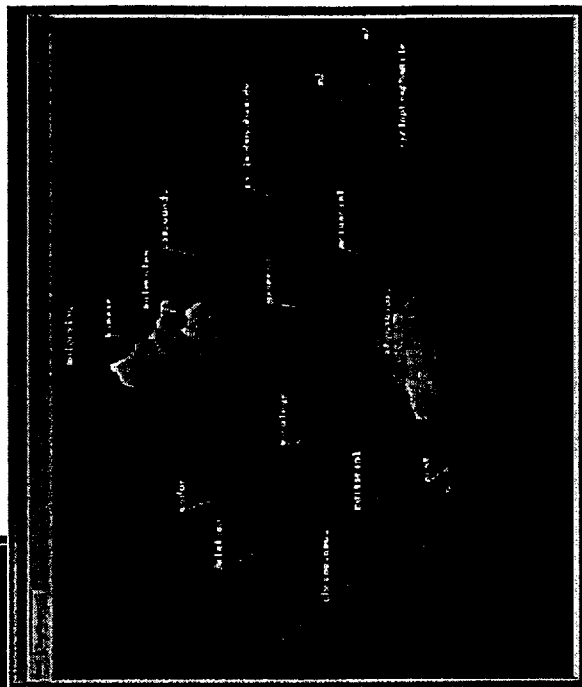
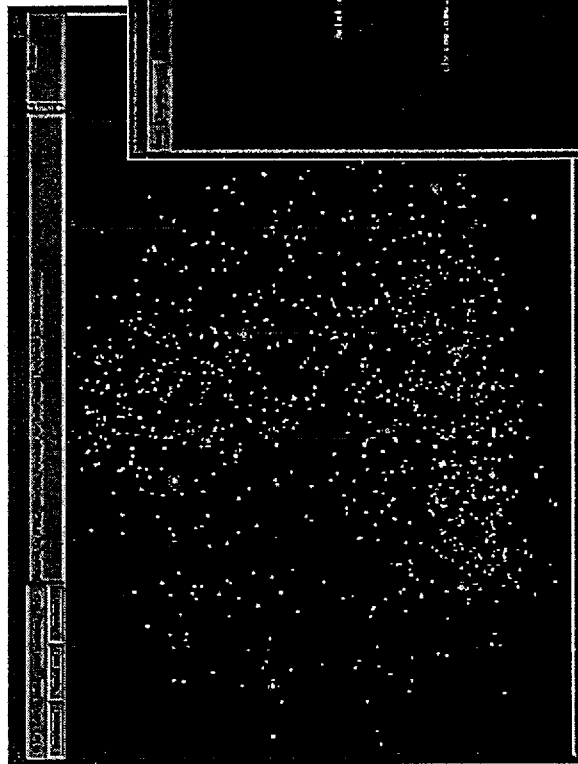
Galaxies - displays similarities between documents as a universe of 'docustars'
Separation inversely proportional to similarity





THE MEMEDIA - CONTACT POINTS

i 2



Thememedia, Inc

<http://www.smaby.com/pages/>

PNL - Pacific Northwest Laboratory

http://multimedia.pnl.gov:2080/showcase/?it_content/spire.node



Automated Analysis - new algorithms

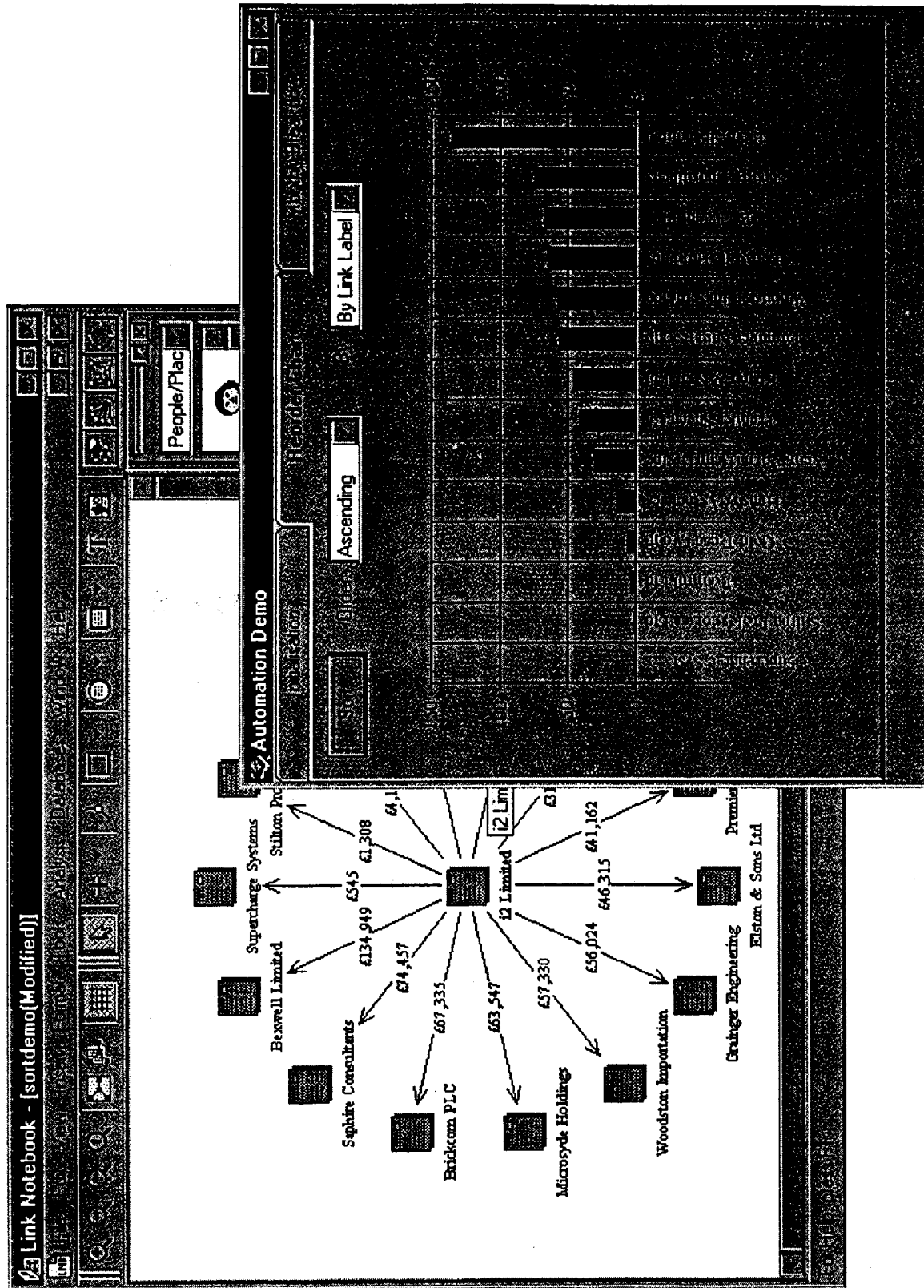
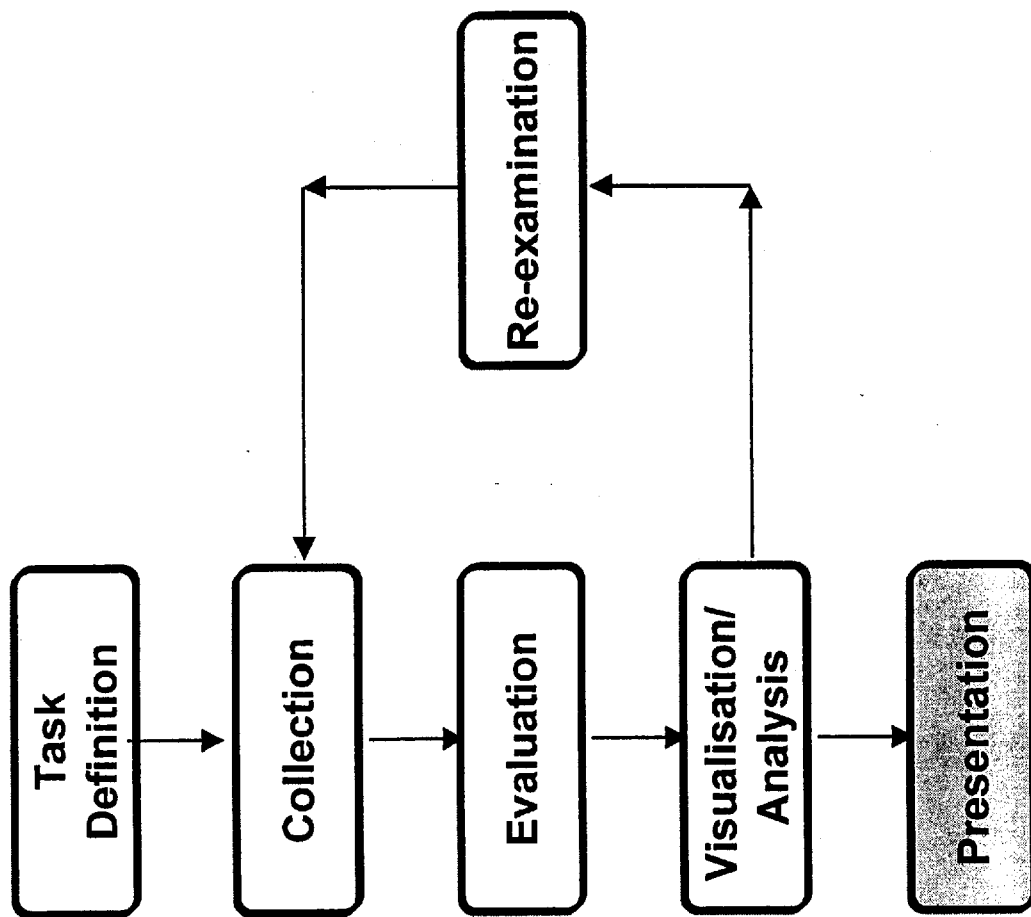




Figure 1 Analysis Cycle





i2

Webmaster's Cycle - Dissemination

Back Forward Stop Reload Home Search Favorites Print

C:\webdemo\bitop10s.htm

FBI Intra-Net Demonstration - Microsoft Internet Explorer

EXTRE

M

David Alex Alvarez

aka

aka

aka

aka

David Alejandro Alvarez

David Alex Alvarez

Spooky

David Alvarez

Miguel Alvarez, Jr.

PROCEEDINGS 1998 7th International Conference & Exhibit OPEN SOURCE SOLUTIONS: Global Intelligence Forum - Link Page

Previous	OSS '98 Mark T. Maybury, MITRE, Tools for the Knowledge Analyst: An Information Superiority Visionary Demonstration,
Next	OSS '98 Dr. Gil Feiler, Abstract: Open and Personal, Economic Intelligence Methods for the Middle East,

[Return to Electronic Index Page](#)