

New Media in Visitor
Orientation:
The Franklin Institute Science
Museum's Unisystem

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New Media in Visitor Orientation: The Franklin Institute Science Museum's Unisystem

- **Goal:** to mediate between the museum and the museum visitor, providing useful information for the general public audience (adults, older children, younger children, and K-12 teachers).

What is the Unisystem?

- Consists of:
 - @40 computer LAN, controlled by a 6 minicomputer LAN,
 - Information Stations,
 - Exhibit Enhancement Stations,
 - 5 Print Stations.
- Designed and implemented at the Franklin Institute Science Museum, Philadelphia, PA during 1989 - 1991.

What is the Unisystem?

- **Exhibit Enhancement Stations (@28)** are located in each exhibit area (including traveling / temporary exhibit galleries).
- As visitors interact, they can request take-home science activities (available at Print Stations).

What is the Unisystem?

- **Information Stations (@8)** are provided at key circulation points.
- As visitors interact, they have access to information on showtimes, demonstrations, and visitor services.

What is the Unisystem?

- **Print Stations (5)** are provided in the Science Center and Mandell Center.
- **Funding Sources:**
 - Unisys Corporation,
 - The National Science Foundation.
- **Developers:**
 - The Franklin Institute Science Museum,
 - Unisys Corporation.

What is the Unisystem?

■ **Kiosk Design:**

- Wheel chair accessible,
- Movable platform, allows for custom viewing angles,
- Similar design throughout museum used as a unifying element,
- Unique color schemes used to blend in with individual exhibit areas.

What is the Unisystem?



What is the Unisystem?

■ **User Interface:**

- Graphical User Interface -- Icons,
- Touch Screen -- Level Menus,
- Bar Code Cards -- Usage Patterns.

■ **Universal Accessibility Issues:**

- close-captioning,
- physically challenged kiosk design issues,
- English as second language issues.

What is the Unisystem?

■ **The Content Development Team:**

- **Writer/Researcher** -- researches content, writes exhibit narrative, and creates storyboards,
- **Graphic Designer** -- creates graphics incorporating storyboards,
- **System Administrator** -- converts graphic files into user presentation, sends to client computers on museum floor for public access.

Unisystem Exhibit Stations

■ Science Center:

- Adults (middle school and above) -

- » Exhibit Overviews (interpretive programs explore each exhibit's salient themes),
- » Newscience (the newest developments in each field),
- » How To Use This Computer (tutorial on interface conventions).

A

ADULT MENU
TOUCH YOUR CHOICE TO BEGIN. . .



**ABOUT THE
AVIATION
EXHIBIT**

**MORE ABOUT
AVIATION**

**HOW TO USE
THIS COMPUTER**

Unisystem Exhibit Stations

■ Science Center:

- Big Kids (grades K - 6) -

- » Games (interactive activities that emphasize each exhibit's salient themes),
- » Take-home Activities (printed science activities to continue explorations at home),
- » How To Use This Computer.

BIG KIDS

M E N U



TOUCH YOUR
CHOICE TO
BEGIN . . .



ELECTRICITY
GAMES

TAKE-HOME
ACTIVITIES

HOW TO USE
THIS COMPUTER

Unisystem Exhibit Stations

■ Science Center:

- Little Kids (pre-school) -

- » Exhibit Slide Show (colorful graphics direct parents to experiences appropriate for the youngest visitors),
- » Take-home Activities (printed science activities designed for parents and children),
- » How To Use This Computer.

WHAT TO
EXPLORE
IN
AVIATION:

IN THE
HALL OF
AVIATION
SEE AND
FEEL THE
EFFECTS
OF AIR.



See 
THE
BRIGHT
COLORS
OF THE
HOT AIR
BALLOON
AND WATCH IT
rise



Unisystem Exhibit Stations

■ **Mandell Center:**

- **Adults (middle school and above) -**

- » Exhibit Overviews (an introduction to the exhibit),
- » Choose the Future (an interactive poll raises science-related issues and encourages visitors to register their own opinions),
- » Newscience,
- » Infoprint (additional topical information -- like Weather Basics),
- » How To Use This Computer.

A

**DULT MENU
TOUCH YOUR CHOICE TO BEGIN. . .**



**ABOUT THE
FUTUREHEALTH
EXHIBIT**

**MORE ABOUT
HEALTH**

**HOW TO USE
THIS COMPUTER**

Unisystem Exhibit Stations

■ **Mandell Center:**

- **Big Kids (grades K - 6) -**

- » Games,
- » Choose the Future,
- » Take-home Activities,
- » How To Use This Computer.

BIG KIDS

M E N U



TOUCH YOUR
CHOICE TO
BEGIN . . .



SPACE GAMES

TAKE-HOME
ACTIVITIES

CHOOSE THE
FUTURE

HOW TO USE
THIS COMPUTER

Unisystem Exhibit Stations

■ **Mandell Center:**

- **Little Kids (pre-school) -**

- » When I Grow Up (a look at topical issues that may affect a visitors future),
- » Take-home Activities,
- » How To Use This Computer.

LITTLE KIDS

M E N U

TOUCH YOUR
CHOICE TO
BEGIN . . .



KIDSTUFF

**TAKE-HOME
ACTIVITIES**

**HOW TO USE
THIS COMPUTER**

Unisystem Information Stations

■ Science and Mandell Center:

- What's Inside? -

- » What Else To See (a guide to all museum public programs),
- » Maps,
- » Showtimes,
- » How To Use This Computer,

Planetarium

Bat Tales

DAILY: 12:15, 2:15.

The Sky Tonight

DAILY: 1:15

The Other Side of the Universe

WEEKDAYS: 3:15

WEEKENDS: 11:15, 3:15, 4:15.

FLOOR
1
SCIENCE
CENTER

EXIT

Unisystem Information Stations

■ Science and Mandell Center:

- What's Inside? (cont.) -

» Visitor Services:

- Food,
- Stores (Science For Sale),
- Rest Rooms,
- Membership (print-out),

Unisystem Information Stations

■ Science and Mandell Center:

- What's Inside? (cont.) -

» Visitor Services (cont.):

- Volunteer opportunities (print-out),
- American with Disabilities information.

Unisystem Print Stations

- **Science and Mandell Center:**
 - Obtain printouts from current visit,
 - On-screen explanations.

Teacher Bulletin Board

- **Originally available via modem:**
 - Pre- and post-visit materials for teachers in grades K-3, 4-6, 7-8, and 9-12,
 - Starwatcher's Guide to the Night Sky,
 - Ask an Expert.

The Franklin Institute Online

- **Now available online via the World Wide Web at <http://sln.fi.edu>:**
 - Integrated Search Engine (LYCOS),
 - Monthly Sky Report,
 - Ask an Expert,
 - Educational Hotlists,

The Franklin Institute Online

- **Now available online via the World Wide Web at <http://sln.fi.edu>:**
 - Units of Study,
 - Hotlists of Online Exhibits, and Kid's Stuff,
 - Virtual Exhibits, including traveling exhibit support and enhancement,
 - Monthly Publications -- InQuiry Almanack, Philadelphia Inquirer Health & Science.

Unisystem Multimedia Upgrade via The Franklin Institute Online

- **Goal:** to mediate between the museum and the museum visitor, **and now the online museum visitor**, providing useful information for the general public audience with refined demographic subsets (adults, older children, younger children, and K-12 teachers and students).

Unisystem Multimedia Upgrade via The Franklin Institute Online

■ The Challenges:

- Building a bridge between the museum floor-based experience and the online experience,
- Integrating a scrolling slide show design (museum floor - Unisystem “Classic”) with a hypermedia environment (the Internet / World Wide Web / Netscape v.2.x),
- Wayfinding in a hypermedia environment (interface design issues),

Unisystem Multimedia Upgrade via The Franklin Institute Online

■ The Challenges (cont.):

- Staying abreast of the rapid technological innovations occurring on the Internet:
 - » 2D text-based multimedia environment (HTML v.3.0) vs. 3D multimedia environment (VRML, Hot Java, Netscape v.2.x, etc.),
 - » Resources integrated with a Search Engine (like LYCOS, InfoSeek, etc.) to facilitate user searching by key word, natural language, etc.,

Unisystem Multimedia Upgrade via The Franklin Institute Online

■ The Challenges (cont.):

- Staying abreast of the rapid technological innovations occurring on the Internet (cont.):
 - » Resources integrated with an “electronic librarian;” an integrated agent-based software environment,
 - » Integrated file access by all users -- **from the museum floor** (floor-based print stations, email to themselves or others),
 - » Integrated file access by all users -- **remote access via the WWW** (email, ftp, other).

Unisystem Multimedia Upgrade via The Franklin Institute Online

■ The Challenges (cont.):

- Staying abreast of the growth of our Internet audiences (@ 12 million WWW users, @20-30 million Internet users),
- Defining the demographics of our Internet audience (regional vs. global),
- Obtaining funding sources,

Unisystem Multimedia Upgrade via The Franklin Institute Online

■ **The Challenges (cont.):**

- Defining internal policies and staff management structures to allow museum-wide participation in creating and managing online resources.

■ **The Unisystem Online (www.unisystem.fi.edu):**

- Unisystem online to be available on November 1, 1996 via the Inside Information Exhibit in the lower level Mandell Center.