

Memo to: All UH-Downtown/PS Holders

UH-Downtown/PS 08.A.02

From: Max Castillo, President

Issue No. 3

Effective date: 3/23/94

Page 1 of 1

Subject: Information Systems Policies, Procedures, Standards, and Plans

## 1. PURPOSE

The purpose of this PS is to establish the process by which policies and procedures governing the use of information systems resources are developed, published, enforced, and reviewed.

## 2. POLICY/PROCEDURES

2.1 The Information Systems Steering Committee and the Chief Information Officer, acting in consultation with all appropriate user constituencies, shall develop and periodically review the following policies, procedures, standards, and plans:

2.1.1 A policy for establishing project priorities as described in PS 08A.01;

2.1.2 Procedures for controlling access to Information Systems facilities by all user groups as denoted in *PS 08A.05*;

2.1.3 Security and access policies and procedures for hardware and software as specified in *PS 08.A.04*;

2.1.4 Procedures for recommending university software and hardware standards and establishing an approved technology list (*Exhibit A*);

2.1.5 Procedures and standards for the application development environment (*Exhibit B*);

2.1.6 A business continuity plan and disaster recovery procedures (*Exhibit C*); and

2.1.7 University information resource strategic and operating plans.

2.2 The Chief Information Officer is responsible for publishing and enforcing the policies and procedures developed under 2.1 above.

2.3 Objections to the policies and/or procedures developed under 2.1 above must be made to the Chief Information Officer. If those objections cannot be resolved by the Chief Information Officer or by the Information Systems Steering Committee, the appropriate vice president(s) will resolve them.

## 3. REVIEW AND RESPONSIBILITIES

Responsible Party (Reviewer): Chief Information Officer

Review: Biennial

Reprint of original policy statement. Signed original on file in the President's Office.

UNIVERSITY OF HOUSTON - DOWNTOWN

**SOFTWARE AND HARDWARE STANDARDS**

The University of Houston-Downtown will develop and maintain a Supported Technology List for basic software and hardware products which are frequently used on campus. The purpose of this list is to assist users in selecting the computing or communications products that are tested, proven, maintainable and can be supported by Information Systems. The process will also ensure that departmental purchases are consistent with the university's short and long term information technology plans.

1. Information Systems will be responsible for maintaining, updating and distributing the current Supported Technology List.
2. The Chief Information Officer and/or the Information Systems Steering Committee will recommend Supported Technology List updates to the president for approval.
3. Departments are encouraged to select from the Supported Technology List when applicable. Requests for university-funded software/hardware purchases which are not on the list will require written justification which must be approved by the Chief Information Officer and/or the Information Systems Steering Committee in order for the product to be supported by Information Systems.
4. As funding becomes available, information systems will negotiate site license agreements with various vendors for basic desktop productivity software.

UNIVERSITY OF HOUSTON - DOWNTOWN

**SOFTWARE DEVELOPMENT LIFE CYCLE**

1. PURPOSE

The Software Development Life Cycle provides a management tool to control and manage activities (management, software engineering and quality assurance) which produce software products as authorized by the University of Houston - Downtown through development or modification. The objective is to imbue a set of controls which ensure that Information Services products conform to requirements, standards and procedures.

2. PROCEDURES

2.1 All software product development or modification authorized by the University of Houston - Downtown will be subject to an implementation plan which includes the industry standard software development life cycle phases of:

- Project Concept and Initiation
- System Requirements
- Application System Architectural Design
- Program Detailed Design
- Implementation
- System Integration & Testing
- Application Acceptance & Delivery
- Migration to Production
- Program Maintenance and Operations

2.2 Each phase in the cycle will conclude with a standard transition review, including:

- Software Concept Review
- Software Requirements Review
- Preliminary Design Review
- Critical Design Review
- Functional Configuration Audit
- Test Readiness Review
- Security Compliance Review
- Software Acceptance Review
- Data Integrity Review

2.3 Transition between one phase of the software development life cycle and the next will be authorized only when a documented agreement between the primary user and Information Systems defines a corresponding baseline for continuance including:

- Planning Baseline
- Resource Allocation Baseline
- System Design Baseline
- Software Code Baseline
- System Integration Baseline
- Application Acceptance Baseline

2.4 Use and customization of this Life Cycle is the responsibility of the program/project management and the Chief Information Officer and is to be determined on a program/project basis.

UNIVERSITY OF HOUSTON-DOWNTOWN

**DIVISION OF INFORMATION SYSTEMS**

**BUSINESS CONTINUITY  
AND  
DISASTER RECOVERY PLAN**

during this period (with some assistance) and will classify each application as defined above.

If an application is designated a category 1 or 2, further user interviews will be conducted and additional information will be captured by completing the Critical Automated Application Profile.

The information captured will list the requirements needed to run the applications during the recovery period. Using these requirements, disk space and CPU capacity will be determined and must be adjusted as changes are made to the critical application's list. These applications and requirements should be re-evaluated every six months. All new automated application systems will be reviewed and ranked in relation to risk prior to implementation.

SCOPE, PURPOSE AND DESCRIPTION

1.1 SCOPE

The Division of Information Systems Disaster Recovery Plan is intended to help develop an effective plan to minimize disruption and ensure continued availability of critical applications following a disaster.

1.2 PURPOSE AND DESCRIPTION

The purpose of the Disaster Recovery Plan is to provide a plan of action to determine the critical automated applications and develop recovery and operational procedures. Automated applications should be reviewed in relation to risk. Critical applications are determined by ranking potential financial or operational loss if an application was unavailable.

DISASTER RECOVERY PLAN

2.1 CRITICAL AUTOMATED APPLICATIONS DEFINED

The critical automated applications are those applications that will keep the university operational during the time of the disaster and the recovery operation (4 - 6 weeks) immediately following the disaster. There are many applications deemed important by both Information Systems and its users. However, most of these will not run during the Recovery Operation. The lack of computer time at an off-site, processing location, or the unavailability of resources (i.e., hardware, terminals, etc.), all constitute reasons for not being able to run certain applications.

The unavailability of resources is the prime reason for classifying applications. The University of Houston - Downtown's applications will be classified as follows:

<u>Category</u>	<u>Description</u>
1	This automated application is absolutely essential for the university to remain operational and must run during the recovery period.
2	This automated application is critical and will be operational when computer services are fully restored or if there is time available upon completion of Category 1 processing.
3	This application is not mandatory for the university to remain operational and will be suspended until the disaster is over.

RESOURCES AND SCHEDULES

3.1 ACTIVITY DEFINITION

1. Conduct user management interviews to determine application criticality and complete the *Division of Information Systems Disaster Recovery Plan Input Forms*.
2. Establish the list of critical automated application functions.
3. Conduct user interviews for each critical automated application and complete the *Critical Application Profile*.
4. Develop a proposed production schedule of priority sequence for critical application production systems.
5. Review the proposed schedule with management and obtain user management approval on priority sequence of critical automated application production systems.
6. Identify and quantify the service resumption resource requirements for critical automated application production systems.
7. Develop recovery and operational procedures to maintain back-up copies of critical application software, documentation, data and data files.
8. Determine and establish how to integrate recovery activities across the other university components for the critical automated applications.
9. Establish a list of contact names, phone numbers and initiation procedures for the critical automated applications.

2.2 USER INTERVIEWS

All University of Houston - Downtown automated application systems users will be interviewed. The interview process will result in the completion of a Disaster Recovery Plan Input Form for each application.

The interviews and forms will address the computer requirements during the Recovery Operation (4 - 6 weeks after the disaster). The user management will determine if they could operate manually

DIVISION OF INFORMATION SYSTEMS  
CRITICAL APPLICATION PROFILE

APPLICATION NAME: \_\_\_\_\_ CRITICAL CODE: \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

EQUIPMENT NEEDED FOR MINIMUM OPERATION

PRINTERS

Laser: # \_\_\_\_\_  
Line: # \_\_\_\_\_  
Other: # \_\_\_\_\_

TERMINALS

Work Stations: # \_\_\_\_\_  
PC's: # \_\_\_\_\_  
Other: # \_\_\_\_\_

SPECIAL REQUIREMENTS

1: \_\_\_\_\_ # \_\_\_\_\_  
2: \_\_\_\_\_ # \_\_\_\_\_  
3: \_\_\_\_\_ # \_\_\_\_\_

SCHEDULING INFORMATION (Check where applicable)

SUBMISSION METHOD

User: \_\_\_\_\_ Operator: \_\_\_\_\_ Interactive: \_\_\_\_\_

RUN SCHEDULE

Daily: \_\_\_\_\_ Weekly: \_\_\_\_\_ Monthly: \_\_\_\_\_ Quarterly: \_\_\_\_\_ Annually: \_\_\_\_\_  
When: \_\_\_\_\_ What time of day: \_\_\_\_\_

USER CONTACTS

Primary: \_\_\_\_\_ Secondary: \_\_\_\_\_  
Manager: \_\_\_\_\_

APPLICATION SUPPORT

Primary: \_\_\_\_\_ Secondary: \_\_\_\_\_  
Manager: \_\_\_\_\_

DOCUMENTATION (list where applicable)

User Manuals: \_\_\_\_\_  
System Manuals: \_\_\_\_\_

SPECIAL REQUIREMENTS

(e.g., security, remote communications, special forms, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FILES

(e.g., programs, procedures, data, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

USERS

Department: \_\_\_\_\_  
Name/Logon: \_\_\_\_\_

### DIVISION OF INFORMATION SYSTEMS DISASTER RECOVERY PLAN INPUT FORM

Application/System: \_\_\_\_\_

User Dept.: \_\_\_\_\_ Contact: \_\_\_\_\_

Functional description of Application/System: \_\_\_\_\_

\_\_\_\_\_

Is manual processing possible in event of a loss of Computer Services? If Yes, please complete the following:

How long is it possible to do manual processing? (Check one)

One day \_\_\_\_\_ One Week \_\_\_\_\_ One Month \_\_\_\_\_ How long \_\_\_\_\_

Would this require overtime expenses? If YES, how much money? \$ \_\_\_\_\_

Man hours? \_\_\_\_\_ Per month

Is there an existing alternative to manual processing? \_\_\_\_\_ YES \_\_\_\_\_ NO

If YES, please explain. \_\_\_\_\_

\_\_\_\_\_

What are the critical dates or periods for this system?

List the dates/periods and explain: \_\_\_\_\_

\_\_\_\_\_

Is this application required by law, contractual obligation, or regulatory reporting? If YES, please explain. \_\_\_\_\_

\_\_\_\_\_

Prioritize this application by indicating the most accurate category below (circle one).

- CAT 1 This application is absolutely essential for the university to remain operational and must run during the Recovery Period.
- CAT 2 This application is critical and will be operational when computer services are fully restored or if time is available upon completion of Category 1 processing.
- CAT 3 This application is not mandatory for the university to remain operational and will be suspended until the disaster is over.

DISASTER RECOVERY PLAN INPUT FORM (Page 2 of 2)

What processing frequency should be established for this application during the recovery (Check one)?

Daily: \_\_\_\_\_ Weekly \_\_\_\_\_ Monthly \_\_\_\_\_ Quarterly \_\_\_\_\_ Annually: \_\_\_\_\_

Can some of the less critical transactions be deferred until the Computer Center is fully recovered?

\_\_\_\_\_ YES \_\_\_\_\_ NO

If YES, what percentage of total processing can be deferred transactions? \_\_\_\_\_

Would there be a monetary loss if this application was not processed? \_\_\_\_\_ YES \_\_\_\_\_ NO

If YES, please explain: \_\_\_\_\_

If possible, give an estimated cost loss to the University

Enter one      One day:\$ \_\_\_\_\_      Two days:\$ \_\_\_\_\_  
One week:\$ \_\_\_\_\_      Two weeks:\$ \_\_\_\_\_  
One month:\$ \_\_\_\_\_      Longer:\$ \_\_\_\_\_

How many and what equipment is needed for the complete operation of this application?

<u>PRINTERS</u>	<u>TERMINALS</u>	<u>SPECIAL EQUIPMENT</u>
Laser: # _____	Work Station: # _____	1: _____ # _____
Line: # _____	PC's: # _____	2: _____ # _____
Other: # _____	Other: # _____	3: _____ # _____

Are there any special considerations for the equipment? If YES, please explain.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

List other intangible losses if this application is not processed.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

List any other special considerations or comments concerning this application.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_