

Professional Information Technology Group

March 2003

MichiganTech

Charge to PIT Group

- Establish appropriate criteria for IT positions
- Establish appropriate levels for IT positions
- Definition of who is in IT group
- User-friendly for incumbents and supervisors
- Product will aid in writing of job descriptions and conducting position audits
- Model will evolve as time passes

PIT Group Members

- Brenda Helminen, Director, Telcom Eng.
- George Fox – Director, Admin. Computing
- Chris Williams – Direct, West Eng. Comp.
- Scott Ackerman – Director, Central Eng. Comp.
- Sakke Karstu – Lecturer, Comp. Sci.
- Bob Landsparger – Director, East Eng. Comp.
- Mark Harris – J R VanPelt Library Asst. Dir.,
Tech and Auto Svcs
- Gary Schlaff – LTAP, Senior Software Eng.
- Becky Christianson – Facilitator

Compensation Issues

- No individual's salary will be reduced as a result of the PIT modeling process, nor will increases necessarily result
- The PIT modeling project is concerned solely with duties and responsibilities of the position involved and not the person who holds the position

Hay Methodology vs. Modeling System

Hay Methodology uses a point factor system to analyze a job based on:

- Know How
- Problem Solving
- Accountability

Modeling approach uses a set of criteria for each job. These models aid in position comparison or delineation of levels.

PIT Group Process

- Group first met November 28, 2001, to begin the development of criteria and a method for modeling IT positions
- Over 60 hours went into the development of this modeling process
- Initially 20 job factors or criteria were identified

Some positions currently in IT classification

- System administrators
- Data base administrators
- Programmers
- Software engineers
- Telecommunications engineers
- Software analysts
- IT managers

Information Technology Classification

Information Technology professionals devote the majority of their time to the design, development, configuration, maintenance, and/or user support of information technology systems. An information technology system is comprised of hardware and/or software to create, transmit, store, or display information. Usually, these systems are electronic and digital in nature. Management professionals in this category spend the majority of their effort directly responsible for overall information technology policy, strategy, and management, and IT financial and personnel management.

Clarification – This classification is not directed at people using software to do their job, rather it is directed at people who configure and manipulate software to provide it to their users.

PIT Group Process (con't)

- 5 positions were modeled resulting in:
 - Consolidation of criteria from 20 to 9
 - Delineation of criteria into 7 levels
 - Stronger, clearer language within each criteria
 - Development of definitions for terms

PIT Group Process (con't)

- Ten more positions representing a broad spectrum of technology positions on campus were modeled to validate the process and matrix
- Matrix tested for logical flow and consistency both horizontally and vertically
- Currently the matrix has 8 criteria (columns) and 7 levels (rows) within each criteria
- Dual track – process and matrix were developed to address both managerial and technical positions

Criteria Matrix

Criteria	Level of Responsibility	Application of Knowledge	Judgment	Education/ Experience	Level of Accomplishment	Communication Skills	Leadership	External Representation
Definitions	Scope and scale of responsibility for work performed and/or delegated	Scope and depth of professional knowledge and innovation as applied to technology, support, personnel, and/or business systems within information technology	Scope, depth, and impact of judgment on work assignments	Level of formal education and/or related professional experience/ development required for the position	Depth of professional accomplishments (What does the person bring to the position? Is not what the person is expected to do.)	Scope of verbal/written communication skills	Level of direction needed and/or leadership exercised	The scope and nature of external representation (external to MTU)
Level 1	May require participation in cost justifications and/or purchase recommendations Technical responsibility may include hardware devices	Applies standard procedures to complete a series of tasks Installs, supports, configures	Works with known factors requiring very limited judgment Work consists of minor phases of broader assignments	No degree with 6 months to 2 years experience or Associate Degree	Good personal recommendation from references, supervisor, educational institution, and/or previous employer	Effective interpersonal communication, both verbal and written	Follows specific instructions to complete tasks	Direct contact with customers Supervised contact with sponsors and vendors
Level 2	May have some functional supervisory responsibilities Technical responsibility expands to include hardware systems or stand-alone software	Diagnoses typical problems and applies the known solutions Creates solutions and procedures for recurring problems	Develops a plan of solution for assignments Judgment is applied to technical aspects of assignments	Associate Degree + 2 years experience	Good recommendation of accomplishment from references, supervisor, educational institution, and/or previous employer	Communicates simple procedures both written and verbal	Receives guidance prior to tasks but is expected to perform tasks with minimal supervision	Same as Level 1
Level 3	Coordinates work with others Technical responsibilities expand to include software and hardware systems	Designs subsystems and/or Develops processes/procedures for the deployment, maintenance, or diagnosis for predesigned systems	Uses judgment in selection, adaptation, and modification of standard technical processes	Bachelor's Degree	Good academic record for degreeed individuals or record of achievement in technical areas	Provides effective written and verbal communication related to complex topics	Works independently Has a clear understanding of, and works toward, the mission and goals of the unit	Direct contact with vendors
Level 4	Effective supervision may include (any or all of) hiring, promoting, dismissing, assigning, monitoring, training, evaluating, and mentoring of hourly staff and/or student employees or Financial responsibility expands include to budget components or budget proposals or Technical responsibility expands to include comprehensive systems and/or departmental standards	Designs systems and/or Develops processes/procedures for the deployment, maintenance, diagnosis, or implementation for predesigned complex or comprehensive systems and/or Contributes technical knowledge to proposals.	Ability to review and evaluate work of peers Requires judgment to insure successful completion of projects and objectives	Bachelor's Degree + 2 years experience	Sufficient professional experience to work independently on a day-to-day basis Consulted on information technology developments and activities	Able to negotiate Presents to peer groups	Pursues objectives and seeks opportunities Demonstrates consistency among principles, values, ethics, and behavior to establish and maintain credibility with a variety of constituents (peers, employees, customers, etc.)	Direct contact with sponsors where appropriate and/or Participates in external committees and organizations.

Eight Criteria

- Level of Responsibility
- Application of Knowledge
- Judgment
- Education/ Experience
- Level of Accomplishment
- Communication Skills
- Leadership
- External Representation

Level of Responsibility

- Scope and scale of responsibility for work performed and/or delegated
 - Level 1:
 - May require participation in cost justifications and/or purchase recommendations
 - Technical responsibility may include hardware devices
 - Level 7:
 - Effective supervision includes professional staff with diverse responsibilities **OR**
 - Financial responsibility expands to include multiple department budgets and contracts **OR**
 - Technical responsibility expands to include multiple business and enterprise systems

Application of Knowledge

- Scope and depth of professional knowledge and innovation as applied to technology, support, personnel, and/or business systems within information technology
 - Level 1:
 - Applies standard procedures to complete a series of tasks
 - Installs, supports, configures
 - Level 7:
 - Strategic development and/or deployment of overall vision
 - Mobilizes teams and resources to achieve and sustain results across the organization

Judgment

- Scope, depth, and impact of judgment on work assignments
 - Level 1:
 - Works with known factors requiring very limited judgment
 - Work consists of minor phases of broader assignments
 - Level 7:
 - Independently conceives, plans, and conducts initiatives to meet broad university strategic technology needs
 - Implements technology to meet strategic university needs

Education/Experience

- Level of formal education and/or related professional experience/development required for the position
 - Level 1:
 - No degree with 6 months to 2 years experience or Associate Degree
 - Level 7:
 - Master's Degree + 4 years experience
 - Where applicable, management of professional personnel with diverse responsibilities is desirable

Level of Accomplishment

- Depth of professional accomplishments
- What does the person bring to the position
 - Level 1:
 - Good personal recommendation from references, supervisor, educational institution, and/or previous employer
 - Level 7:
 - Peer recognition of innovative professional capabilities for information technology positions and may have co-authored or authored publications
 - Complex project management experience

Communication Skills

- Scope of verbal/written communication skills
 - Level 1:
 - Effective interpersonal communication, both verbal and written
 - Level 7:
 - Communicates complex topics to diverse formal groups

Leadership

- Level of direction needed and/or leadership exercised
 - Level 1:
 - Follows specific instructions to complete tasks
 - Level 7:
 - Understands and is committed to overall mission and goals of the University
 - Visionary/Strategic
 - Instills a collective commitment to a common university purpose

External Representation

- The scope and nature of external representation (external to MTU)
 - Level 1:
 - Direct contact with customers
 - Supervised contact with sponsors and vendors
 - Level 7:
 - Responsible for new program initiatives
 - Responsible for development of partnerships

Modeling a Position

Criteria	Level
Level of Responsibility	
Application of Knowledge	
Judgment	
Education/Experience	
Level of Accomplishment	
Communication Skills	
Leadership	
External Representation	
Predominant Level	

Position to Model:

System Administrator for a small academic department with basic computing needs

- A. Responsible for all technical (design/installation/maintenance) aspects of department computing
- B. Consults with department computer committee on budget/planning issues
- C. Hires and supervises student employees
- D. Bachelor's Degree + 2 years experience
- E. Works without supervision
- F. Interacts with peers on campus to obtain computing advice
- G. Makes most purchases through established suppliers or as part of on-campus bulk purchases. May negotiate special purchases with suppliers on occasion
- H. Provides user support

Level of Responsibility

- Level 3:
 - Coordinates work with others
 - Technical responsibilities expand to include software and hardware systems
- Level 4:
 - Effective supervision may include (any or all of) hiring, promoting, dismissing, assigning, monitoring, training, evaluating, and mentoring of hourly staff and/or student employees **OR**
 - Financial responsibility expands include to budget components or budget proposals **OR**
 - Technical responsibility expands to include comprehensive systems and/or departmental standards
- Level 5:
 - Effective supervision may expand to include professional staff **OR**
 - Financial responsibility expands to include project budgets, expenditure approvals and contracts **OR**
 - Technical responsibility expands to include complex systems

Modeling a Position

Criteria	Level
Level of Responsibility	4
Application of Knowledge	
Judgment	
Education/Experience	
Level of Accomplishment	
Communication Skills	
Leadership	
External Representation	
Predominant Level	

Application of Knowledge

- Level 2:
 - Diagnoses typical problems and applies the known solutions
 - Creates solutions and procedures for recurring problems
- Level 3:
 - Designs subsystems **and/or**
 - Develops processes/procedures for the deployment, maintenance, or diagnosis for predesigned systems
- Level 4:
 - Designs systems **and/or**
 - Develops processes/procedures for the deployment, maintenance, diagnosis, or implementation for predesigned complex or comprehensive systems **and/or**
 - Contributes technical knowledge to proposals

Modeling a Position

Criteria	Level
Level of Responsibility	4
Application of Knowledge	3
Judgment	
Education/Experience	
Level of Accomplishment	
Communication Skills	
Leadership	
External Representation	
Predominant Level	

Judgment

- Level 3:
 - Uses judgment in selection, adaptation, and modification of standard technical processes
- Level 4:
 - Ability to review and evaluate work of peers
 - Requires judgment to insure successful completion of projects and objectives
- Level 5:
 - Plans and conducts work requiring independent judgment in the design, adaptation, and modification of standard techniques, processes, and criteria
 - Creates project plans and tasks
 - Requires comprehensive judgment to insure successful completion of projects and objectives

Modeling a Position

Criteria	Level
Level of Responsibility	4
Application of Knowledge	3
Judgment	4
Education/Experience	
Level of Accomplishment	
Communication Skills	
Leadership	
External Representation	
Predominant Level	

Education/Experience

- Level 3:
 - Bachelor's Degree
- Level 4:
 - Bachelor's Degree + 2 years experience
- Level 5:
 - Bachelor's Degree + 4 years experience and/or Master's Degree

Modeling a Position

Criteria	Level
Level of Responsibility	4
Application of Knowledge	3
Judgment	4
Education/Experience	4
Level of Accomplishment	
Communication Skills	
Leadership	
External Representation	
Predominant Level	

Level of Accomplishment

- Level 2:
 - Good recommendation of accomplishment from references, supervisor, educational institution, and/or previous employer
- Level 3:
 - Good academic record for degreed individuals or record of achievement in technical areas
- Level 4:
 - Sufficient professional experience to work independently on a day-to-day basis
 - Consulted on information technology developments and activities

Modeling a Position

Criteria	Level
Level of Responsibility	4
Application of Knowledge	3
Judgment	4
Education/Experience	4
Level of Accomplishment	3
Communication Skills	
Leadership	
External Representation	
Predominant Level	

Communication Skills

- Level 2:
 - Communicates simple procedures both written and verbal
- Level 3:
 - Provides effective written and verbal communication related to complex topics
- Level 4:
 - Able to negotiate
 - Presents to peer groups

Modeling a Position

Criteria	Level
Level of Responsibility	4
Application of Knowledge	3
Judgment	4
Education/Experience	4
Level of Accomplishment	3
Communication Skills	3
Leadership	
External Representation	
Predominant Level	

Leadership

- Level 2:
 - Receives guidance prior to tasks but is expected to perform tasks with minimal supervision
- Level 3:
 - Works independently
 - Has a clear understanding of, and works toward, the mission and goals of the unit
- Level 4:
 - Pursues objectives and seeks opportunities
 - Demonstrates consistency among principles, values, ethics, and behavior to establish and maintain credibility with a variety of constituents (peers, employees, customers, etc.)

Modeling a Position

Criteria	Level
Level of Responsibility	4
Application of Knowledge	3
Judgment	4
Education/Experience	4
Level of Accomplishment	3
Communication Skills	3
Leadership	3
External Representation	
Predominant Level	

External Representation

- Level 2:
 - Direct contact with customers
 - Supervised contact with sponsors and vendors
- Level 3:
 - Direct contact with vendors
- Level 4:
 - Direct contact with sponsors where appropriate
and/or
 - Participates in external committees and organizations.

Modeling a Position

Criteria	Level
Level of Responsibility	4
Application of Knowledge	3
Judgment	4
Education/Experience	4
Level of Accomplishment	3
Communication Skills	3
Leadership	3
External Representation	3
Predominant Level	

Modeling a Position

Criteria	Level
Level of Responsibility	4
Application of Knowledge	3
Judgment	4
Education/Experience	4
Level of Accomplishment	3
Communication Skills	3
Leadership	3
External Representation	3
Predominant Level	3

Steps of the Rollout

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Steps of the Process

- Classification system completed
- Current positions slotted
- Compensation study undertaken

Creating classification system

- Feedback – until the end of March 2003
 - Cards in the room
 - www.admin.mtu.edu/hro/classcomp/index.shtml
 - Committee will review all comments and make final changes to classification matrix by mid April 2003

Classification Process

- Information gathering
 - Position classification forms filled out by individuals and supervisors
 - ?? (your ideas needed for tool development)
- Final review and approval by Human Resources and classification review committee
- Goal: Review to be completed by September 1, 2003

Compensation Study Process

- Compensation study will be conducted
- Estimated time to complete: 3 months
- Will not begin until classification of current positions is complete
- Compensation studies are repeated periodically

Reminder...

- No individual's salary will be reduced as a result of the PIT modeling process, nor will increases necessarily result

Interim steps

- New classification system will be used for new positions after matrix is set (September timeframe)

If you want to ask questions or influence change in the matrix or the process, contact members of the PIT Group or submit your ideas, questions or comments to www.admin.mtu.edu/hro/classcomp/index.shtml