

IBC233 - System i Business Computing

Week 1: Intro to System i

Agenda

- ▶ Introduction
- ▶ Course Details
- ▶ Intro to System i
- ▶ Definitions
- ▶ Write our first CL Program – Lab 1

Ways to Contact Wei Song

- email: wei.song@senecacollege.ca
- Home Page:
<https://scs.senecac.on.ca/~wei.song/>

Course Details

- ▶ Course Standards

- ▶ Lecture notes:

<https://scs.senecac.on.ca/~wei.song/ibc233/ibc233.html>

- ▶ Labs:

- Labs are available for download from ZEUS server in IFS.
- Path: Root File System / Russ / IBC233

- ▶ Grades will be posted on Blackboard

Promotion Policy

- To obtain a credit in this subject, a student must :
 - Achieve a grade of 50% or better on the final exam
 - Achieve a weighted average of 50% or better for the tests and final exam
 - Achieve a grade of 50% or better on the overall course
- Evaluation
 - Tests 35%
 - Labs 30%
 - Final Examination 35%

How to Get an A in this Course

1. Attend all lectures and labs.
2. Take notes – write down everything that's typed or said in class
 - Ask question if you don't understand.
3. Complete labs on time.

IBM's product offerings/lines

- System z
 - Mainframes!
- **System i**
 - i means integration
 - IBM's midrange server line designed to grow with a business
- System p
 - (formerly RS/6000) AIX and Linux!!!
 - IBM's RISC/UNIX-based server and workstation line designed to accommodate small to medium size businesses
- System x
 - PCs!!

System i

Developed by IBM to support medium to large scales business
i means iNTEGRATION!

A server designed for the on demand challenges of Web and e-business, as well as core On-line Transaction Processing (OLTP) workloads, with support for multiple operating and application environments.



The History of System i

System 3

1969 - 1985

System 32

1975 - 1984

System 34

1977 - 1985

1983 - 1994

System 36

System 38

1980 - 1994

AS/400

1988 - present

iSeries

2000 - present

System i

2006 - 2007

Power Systems

2008

Power Systems

- ▶ In April 2008, IBM officially merged **System i** and **System p** under the same name – **Power Systems** with identical hardware and a choice of operating systems.
 - Being as System i, Power Systems run **IBM i**.
 - Being as System p, Power Systems run AIX or Linux.
- ▶ IBC233 covers mainly the System i part of IBM Power Systems, so we mix the usage of System i and Power Systems.

Operating Systems

- The operating systems for IBM's midrange server line:
 - IBM i – runs on Power Systems or System i.
 - i5/OS (OS/400 V5R3)– runs on iServers (i5, i Series).
 - OS/400 – runs on AS/400.
 - CPF – runs on System 38.
 -
- IBM i, i5/OS and OS/400 are basically the same.

Who Uses System i ?

- ▶ 98% of Fortune 100 companies use iSeries and System i :
 - Microsoft
 - McDonald's Canada
 - Canadian Tire (head office and one in every store)
 - Kraft Foods
 - Loblaws
 - Holt Renfrew
 - Coca Cola
 - more...

Power System in Seneca

- ▶ Server name: ZEUS
- ▶ Installed: in January, 2009.
- ▶ Model: IBM Power 520 Express
- ▶ URL: zeus.senecac.on.ca



Let's sign on!



Connectivity Tools

- Rational Developer for Power Systems (RDp)
 - The Eclipse-based Rational IDE
 - Formerly RDI
- Client Access
 - Production Environment
- MOCHAsoft
 - Production Environment
 - Download from ITS site

Definitions

User Profiles

- ▶ Each **UserId** has a **User Profile** which describes the **user** and their authorities
- ▶ **User Profile** Contains information such as
 - Current Library,
 - default output queue,
 - password,
 - class of user

“Job”

- ▶ A “**job**” is any and every piece of work on the AS/400.
- ▶ There are two types of **jobs**:
 - Interactive jobs
 - Batch jobs

“Interactive Jobs”

- ▶ A **job**
 - begins when a **user** signs on to the **system** and
 - ends when they sign off.
- ▶ It is a **job** with **interaction** between the **user** and the iSeries, similar to a conversation (a polite conversation!).
- ▶ Interactive jobs run in **subsystem *QINTER***

“Batch Jobs”

- ▶ A **job** that runs in the *background*.
- ▶ They are generally **jobs** that
 - use a lot of resources and
 - are lower priority than **interactive jobs**.
- ▶ Batch jobs Usually started by **interactive jobs**
 - e.g. a program compile
- ▶ Batch jobs run in **subsystem** *QBATCH*

Work With Active Jobs

- ▶ Command is **WRKACTJOB**
- ▶ Shows you
 - all the jobs that are currently running and
 - their status.

Queues

- ▶ A **queue** is a line-up! A place where things wait.
- ▶ Examples of iSeries queues:
 - job queues: where batch jobs wait
 - message queues: where messages wait
 - output queues: where spool files wait to print

“Objects”

- ▶ Anything on the iSeries that has a name and takes up space in storage”
- ▶ On iSeries, everything is an **object**
 - on Unix/Windows, everything is a file
- ▶ On iSeries objects have **types**
 - on Windows, files have extensions (.txt)
- ▶ Common **object types** include:
 - libraries,
 - files,
 - job queues,
 - Programs.

“Libraries”

- ▶ **Library:** an object whose purpose is to ‘store’ and index other **objects**.
 - ie. objects are ‘stored’ in libraries.
 - Exactly **like a directory** in Unix/Windows
- ▶ However you do not have libraries within libraries on the iSeries.
 - Example: Cindy stores all her **objects** in **library LAURIN**

Files and Source Files

- ▶ Files are **objects** that store data
 - i.e. customer file: customer #, address, billing info etc. for each customer
- ▶ **Source** file - special files that stores a programmer's source code
 - e.g. Cindy stores all her source code in a source file in library LAURIN

File Members

- ▶ A source file may have many 'members'
- ▶ one member contains the source code for 1 program
- ▶ PDM (Prog Dev Mgr) and Websphere give easy access to a programmer's stuff (libs, files, and mbrs)

About Your Course Library

- ▶ Your 'Course Library' is the library which has the same name as your Userid.
- ▶ What Objects Do You Have (in your course library)?
 - An Output Queue which has the same name as your userid.
 - All objects which you create will be stored in your course library except for assignments.
 - ▶ Assignments will have separate libraries.
- ▶ **WRKOBJOWN** shows you all the objects you 'own'.

PDM commands

- PDM = Program Development Manager

PDM commands	To work with
WRKLIBPDM	libraries
WRKOBJPDM	objects
WRKMBRPDM	members

Terminal Keyboard Mapping

- ▶ System i (iSeries) Terminal Keyboard Mapping
- ▶ 24 Function keys



Commonly Used Function Keys

Function Key	Function
F1	Help
F2	Extended Help
F3	Exit
F4	Prompt
F5	Refresh Screen
F9	Retrieve Previous Command
F12	Cancel
F23 (Shift+F11)	More options
F24 (Shift+F12)	More function keys

Suggested Actions/Homework

- ▶ Memorize the basic concepts, definitions in the lecture.
- ▶ Install **Client Access** and **Rational Developer for Power Systems (DDp)** at home.
- ▶ Reading materials:
 - Week-1 reading
 - IBC233 FAQ

Lab 1

Thank You!