Object Oriented COBOL
Introduction

• Object COBOL is an extension of the current COBOL standard allowing the incorporation of objects.

• Terminology for Object COBOL is similar to other object languages such as C++ and Visual Basic.
Procedural Vs. Object COBOL

- Sequence, Selection, Iteration?
- Functional Decomposition
- Procedures
- Strong Coupling
- Mathematical Model

- Integrated Development Tools
- Classes
- Weak Coupling
- View World as an Object
Terminology of Object COBOL

- OOP
- Class
- Object
- Method
- Encapsulation
- Polymorphism
- Instantiation
- Base Class
- Ancestor Class
- Inheritance
OOP

Data and Procedures are Pre-Written and are acted upon by messages sent to the object.
Class

- A class is similar to a sub-program
- Contains data that is only accessible to a calling program through procedures of the class program
- A class is not executed
An object is an instance of a class.
Method

- A method is an object’s way of responding to a user messages.
- Methods can be shared or unique
Encapsulation

- Hiding details of data and methods while allowing access to them through a user issued method.
Polymorphism

• The same user message results in a different action.
Instantiation

- The instance of an object is defined
- Only the instance can be executed
- The instance contains data and procedures that can be unique
Method

• A method is an object’s way of responding to a user messages.
• Methods can be shared or unique
Base Class

- Class from which other classes derive.
- A base class may contain critical system functions such as “new” which subsequent classes inherit.
Ancestor Class

• A class that includes subclasses
Inheritance

- One class uses methods from another class
Programming Example

Comparison between a Procedural Cobol program calling a sub-program and an Object program consisting of a Driver program and a Class program
Future of COBOL

- COBOL 2000 is here now
- Web COBOL provides cost savings to businesses
- Opportunities in COBOL programming
COBOL 2000


- COBOL is very stable with long periods between new standards
Web COBOL

- Micro Focus Netexpress 3.0 currently available. (Buy or demo it)
- Allows customers to access legacy COBOL using a Web Browser
- Enormous cost savings
- Able to link to VB and C
Object COBOL and Your Future

- Along with Java and VB, Object COBOL will be important languages for many years.
- Reusability of code will allow great efficiencies for the user while strides in hardware allow the object language itself to be more inefficient.