

TSO REXX ® ™

**TSO REXX: TSO REXX Programming
Student Guide**

RX201/E



Computer Associates™

EDJ24T20SGU

– PROPRIETARY AND CONFIDENTIAL INFORMATION –

These education materials and the related computer software program (hereinafter referred to as the "Education Materials") are for the end user's informational purposes only and are subject to change or withdrawal by Computer Associates International, Inc. ("CA") at any time.

These Education Materials may not be copied, transferred, reproduced, disclosed or distributed, in whole or in part, without the prior written consent of CA. These Education Materials are proprietary information and a trade secret of CA. Title to these Education Materials remains with CA, and these Education Materials are protected by the copyright laws of the United States and international treaties. All authorized reproductions must be marked with this legend.

RESTRICTED RIGHTS LEGEND

TO THE EXTENT PERMITTED BY APPLICABLE LAW, CA PROVIDES THIS DOCUMENTATION "AS IS" WITHOUT WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT. IN NO EVENT WILL CA BE LIABLE TO THE END USER OR ANY THIRD PARTY FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, FROM THE USE OF THIS DOCUMENTATION, INCLUDING WITHOUT LIMITATION, LOST PROFITS, BUSINESS INTERRUPTION, GOODWILL OR LOST DATA, EVEN IF CA IS EXPRESSLY ADVISED OF SUCH LOSS OR DAMAGE.

THE USE OF ANY PRODUCT REFERENCED IN THIS DOCUMENTATION AND THIS DOCUMENTATION IS GOVERNED BY THE END USER'S APPLICABLE LICENSE AGREEMENT.

The manufacturer of this documentation is Computer Associates International, Inc.

Provided with "Restricted Rights" as set forth in 48 C.F.R. Section 12.212, 48 C.F.R. Sections 52.227-19(c)(1) and (2) or DFARS Section 252.227.7013(c)(1)(ii) or applicable successor provisions.

© 2001 Computer Associates International, Inc.
One Computer Associates Plaza, Islandia, NY 11749
All rights reserved.

All trademarks, trade names, service marks or logos referenced herein belong to their respective companies.

Call Computer Associates technical services for any information not covered in this manual or the related publications. In North America, see your Computer Associates *Product Support Directory* for the appropriate telephone number to call for direct support, or you may call 1-800-645-3042 or 631-342-4683 and your call will be returned as soon as possible.

Outside North America, contact your local Computer Associates technical support center for assistance.

TSO REXX

TSO REXX Programming

RX201/E

MVS



The Software That Manages eBusiness™

--PROPRIETARY AND CONFIDENTIAL INFORMATION--

THIS MATERIAL CONTAINS, AND IS PART OF A COMPUTER SOFTWARE PROGRAM WHICH IS PROPRIETARY AND CONFIDENTIAL INFORMATION OWNED BY COMPUTER ASSOCIATES INTERNATIONAL, INC. THE PROGRAM, INCLUDING THIS MATERIAL, MAY NOT BE DUPLICATED, DISCLOSED OR REPRODUCED IN WHOLE OR IN PART FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF COMPUTER ASSOCIATES. ALL AUTHORIZED REPRODUCTIONS MUST BE MARKED WITH THIS LEGEND.

RESTRICTED RIGHTS LEGEND

Use, duplication, or disclosure by the United States Government ("the Government") is subject to restrictions as set forth in A) subparagraph (c)(2) of the Commercial Computer Software - Restricted Rights clause at FAR 52.227-19, and/or B) subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause of DFAR 252.227-7013. This software is distributed to the Government by:

Computer Associates International, Inc.
One Computer Associates Plaza
Islandia, NY 11788-7000

Unpublished copyrighted work - all rights reserved under the copyright laws of the United States.

This material may be reproduced by or for the United States Government pursuant to the copyright license under the clause at DFAR 252.227-7013 (OCTOBER 1988).



I-2

The Software That Manages eBusiness™

Copyright ©2000 Computer Associates International, Inc.
One Computer Associates Plaza, Islandia, NY 11788-7000
All rights reserved.

All product names referenced herein are trademarks of their respective companies.

Call Computer Associates technical services for any information not covered in this manual or the related publications. In North America, see your Computer Associates Product Support Directory for the appropriate telephone number to call for direct support, or you may call 1-800-645-3042 or 516-342-4683 and your call will be returned as soon as possible.

Outside North America, contact your local Computer Associates technical support center for assistance.

Introduction

- RX201/E
 - 4 days
- Audience
 - The course will benefit anyone building applications in REXX under the TSO environment..
- Prerequisites
 - ISPF editor and utilities
 - QSAM concepts
 - Programming concepts and techniques
- Description
 - This hands-on course is designed to provide TSO REXX programming skills. It focuses on the structure and format of the REXX language and utilising the features available under TSO.



The Software That Manages eBusiness™

Course Objectives

- Use proper syntax and demonstrating the fundamentals of good programming
- Use REXX functions as well as DO/WHILE loops and IF/THEN/ELSE constructs
- Use Built-in functions such as SUBSTR, DATATYPE and POS
- Code basic user-written functions
- Write REXX program to pass commands to TSO
- Use the results of TSO commands in a REXX program.
- Read and write to QSAM datasets.
- Use REXX with Dialog manager panels.
- Use the TSO program stacks for storing and retrieving data.
- Capture TSO messages.



Course Outline

- Preliminary concepts
- Basic Components
- Flow Control Instructions
- Looping Instructions
- Built-in functions
- PARSE instructions
- ADDRESSing
- OUTTRAP
- EXECIO
- Data stacks
- Dialog Panels



I-5

The Software That Manages eBusiness™

Are we on the right course ?

Computer Associates™

The Software That Manages eBusiness™

1-6

Concepts

Section 1

ca Computer Associates™

1 - 1

The Software That Manages eBusiness™

Brief History

- REstructured eXtended eXecutor
- Standard SAA procedure Language
- User driven development
- Designed to issue commands to the operating system



1-2

The Software That Manages eBusiness™

Why Program in REXX

- Easy to read and write, using meaningful English words
- Very little punctuation
- Free format - instructions are not column dependant and can span multiple line
- Variable declaration is not required
- Built-in Functions
- Trace capabilities
- Extensive word and character manipulation



The Software That Manages eBusiness™

Where to use REXX

- Use REXX to:
 - create easy and error free tasks
 - automate repetitive tasks
 - create programs that behave like system commands
 - tailor and enhance advanced software systems



The Software That Manages eBusiness™

Simple REXX program

```
/****** REXX *****/
/* Program */
/* sample1 */
/* Description */
/* REXX program to display current time. */
/* Author : Michaelangelo DeParma */
/* Date : 1st January 2000 */
/*----- Amendment History -----*/
/*******/
current_time = TIME("N")
SAY "The time is : "current_time
```

```
The time is : 03:47:07
***
```



REXX Instruction Formats

- Instructions are scanned left to right, top to bottom
- generally one line is an instruction
- indentation is only used for readability and does not affect program execution.



1-6

The Software That Manages eBusiness™

REXX Instruction Formats

- Multiple instructions are separated by semicolons when placed on the same line.

```
SAY "Hello"; SAY "Good-bye"
```

- Use a comma on the end of a line to continue a statement.

```
job_cost = cpu_charge + oi_charge + shift_charge + tape_charge,  
          + print_charge
```



SAY Instruction

- Output

- Format

```
SAY [expression]
```

- Examples

```
SAY error_message  
SAY "Enter the error message :"
```



PARSE PULL Instruction

- Input

- Format

```
PARSE PULL [variable]  
PULL [variable]
```

- Examples

```
PARSE PULL error_message  
PULL answer
```



SAY and PULL Instructions

- Sample Program


```
/****** REXX *****/
/* Program */
/* sample2 */
/* Description */
/* REXX program to demonstrate SAY and PULL */
/* Author : Michaelangelo DeParma */
/* Date : 1st January 2000 */
/*----- Amendment History -----*/
/*******/
SAY "Please enter the error code : "
PULL error_code
SAY "The error you are requesting information"
SAY "on is : "error_code" Y/N"
PULL answer
```



Work Section 1.1

- 1. Write a REXX program to display a list of three names.

```
Bob Flemming  
Gary Stinker  
John Thomas  
***
```

 Computer Associates™

The Software That Manages eBusiness™

Use your dataset for all the REXX programs.

CLCS.IULCnn.REXX

Execute the program from ispf option 6

```
Menu List Mode Functions Utilities Help
```

```
-----  
ISPF Command Shell  
Enter TSO or Workstation commands below:
```

```
===> ex 'clcs.iulc01.rexx(test)'
```

Replace nn with your user number.

E.g. for id IULC35

CLCS.IULC35.REXX

Work Section 1.2

- 2. Write a REXX program to collect and name from the screen and display a welcome to the screen.

```
Please enter your name :  
bob  
  
Hello BOB  
Welcome to the course.  
***
```



Additional Program

- Write a REXX program to collect a forename and surname and display them both to the screen on one line.

```
Please enter your forename :  
bob  
  
Please enter your surname :  
flemming  
  
Welcome to the course - BOB FLEMING  
***
```



Additional Program

- Write a REXX program to collect a forename and surname on one line and display them both to the screen in reverse order..

```
Please enter your Forename and Surname :  
bob flemming
```

```
Welcome to the course - FLEMMING BOB  
***
```



Basic Components

Section 2



The Software That Manages eBusiness™

Clauses

- REXX Instructions
- Tokens
 - symbols
 - operators
 - literal
 - special characters
- Blanks



Example Clauses

```
/****** REXX *****/
/* Program */
/* sample3 */
/* Description */
/* REXX program to display examples. */
/* Author : Michaelangelo DeParma */
/* Date : 1st January 2000 */
/*----- Amendment History -----*/
/*******/
SAY "This is some text"
x = x+w.i*(10**(w.i-1))
x = x + w.i * (10 ** (w.i - 1))
start = "01/01/2000"; end = "31/12/2002"
```



Sample Program

```
/****** REXX *****/
/* Program */
/* sample4 */
/* Description */
/* REXX program to calculate payroll */
/* Author : Michaelangelo DeParma */
/* Date : 1st January 2000 */
/*----- Amendment History -----*/
/*******/
PULL pay_month /* get pay_month */
pay_roll = 0 /* Initialise var */
CALL find_month /* subroutine */
SAY "Total for "pay_month" was : "pay_roll /* Display result */
EXIT /* Leave program */

find_month:
NOP
RETURN
```



Types of statements

- Null
 - blank or comments
- Label
 - label_name:
- Assignments
 - literal, numbers, symbols, operators, variables
- Keyword instructions
- Commands



2 - 5

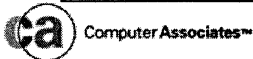
The Software That Manages eBusiness™

Comments

- Begin with /* and end with */
- Can contain any sequence of characters on one or more lines
- Most REXX programs begin with a comment with the word REXX contained within the comments.

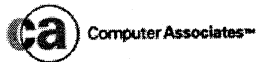
- Example

```
/* ***** REXX ***** */
/* Program */
/* sample1 */
/* Description */
/* REXX program to display current time. */
/* Author : Michaelangelo DeParma */
/* Date : 1st January 2000 */
/*----- Amendment History -----*/
/* ***** */
current_time = TIME("N") /* get time */
SAY "The time is : "current_time /* display result */
```



Literal Strings

- A series of characters enclosed in single or double quotes
- A literal string can contain ANY characters
- Maximum size may vary
- Continued by placing a comma after the last character on the line continuing in column 1 on next line



Literal Strings

- If a literal contains a ' use a "
- If a literal contains a " use a '
- Strings starting with quotes must also end with quotes
- Any string with no characters, "", is called a null string and has a length of 0



2-8

The Software That Manages eBusiness™

Literal String examples

```
SAY "12345"  
SAY 'abc'  
SAY "ABC"  
SAY "Please enter a number"  
SAY "Your name is 'Bob Flemming'"
```

```
12345  
abc  
ABC  
Please enter a number  
Your name is 'Bob Flemming'  
***
```



Hexadecimal Strings

- Contain the characters 0-9, a-f, A-F
- Delimited by quotes
- Followed by an X or x

```
num_1 = 'ABCD'X  
num_2 = "1d ec f8"X  
num_3 = '123 45'x
```



Numbers

- Character strings that consist of one or more decimal digits
- Optionally prefixed by a plus or minus
- Can include decimal point
- can be exponential notation

```
num_1 = 29  
num_2 = -94.3  
num_3 = 53.312E23  
num_4 = +0.5  
num_5 = 0.73E-7
```



Test Exercise 21

- Write a REXX program using the following code. Test and identify the type of statements. Which statement is :
 - Comment
 - Literal
 - Hexadecimal
 - number
 - error

```
/* REXX EXEC */  
a = "REXX EXEC"  
c = 94 4F  
d = '94 4F'  
e = 32  
f = '32'  
g = "32"x  
b = "REXX EXEC"x  
REXX EXEC
```



Symbols

- A group of any characters selected from the English alphabetic and numeric characters (A-Z, a-z, 0-9) and/or from the characters .!? And _
- Symbols are used to name variables, functions, instructions, labels etc.

```
a = ALLEN  
b = this is a symbol!  
c = hello?  
test_routine:
```



Simple Variables

- A variable is a name that represents a value.
- First character cannot be a number or a period
- Variable names must be less than 250 characters

```
salary = pay + benefit + bonus
job_class = "A"
msg_class = "X"
operator = current_operator_for_this_task
```



Simple Variables

- Variable names can only consist of the following :
 - A-Z, 0-9, a-z, @\$?!_
- Variable names are converted to upper case for comparison
- Variables are initialised to their own name in upper case.

```
SAY pay_roll
```

```
PAY_ROLL  
***
```



2 - 15

The Software That Manages eBusiness™

Test Exercise 22

- Write a REXX program to identify which are valid statements.
 - Try and fix where possible.

```
Answer = "yes"
The-Answer = "no"
Msg.Text = "IST510I"
1ST_Class = "never"
the_worlds_largest_variable = "test"
REPLY? = "Z NET,QUICK"
SAY reply
```



Compound Variables

- A technique for grouping variables
- Start with a stem which is a valid variable name followed by a period (.)
- Characters after the first period are called tail

```
CPUTIME.ASID  
Stem    Tail  
  
new_rate.shift.type.weekly  
Stem    Tail Tail Tail
```



2 - 17

The Software That Manages eBusiness™

Compound Variables

- Tails are treated as a series of simple variable names separated by periods
- At execution time, each variable is replaced by its current value to generate the derived name.

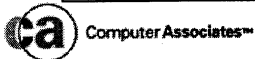
```
/* ***** REXX ***** */
/* Program                               */
/* test                                  */
/* Description                            */
/* REXX program to test statements       */
/* Author      : Michaelangelo DeParma  */
/* Date       : 1st January 2000        */
/*----- Amendment History -----*/
/* ***** */
tgif = 3
day.1 = "Mon"
day.2 = "Tue"
day.3 = "Wed"
SAY day.tgif
```


Assigning Values to the Stem

- If a value is assigned to a stem, ALL POSSIBLE compound variables that begin with that stem also are assigned to this value.

```
name. = "Nobody"  
a = 2  
b = 3  
name.a = "Jed"  
name.b = "Jim"  
SAY name.1 name.2 name.3 a b
```

```
Nobody Jed Jim 2 3  
***
```



Arithmetic Operators

- Prefix operators
 - +, -
- Power Operators
 - **
- Multiplication and division
 - *, /, %, //
- Addition and subtraction
 - +, -
- Grouping
 - ()

Computer Associates™

2 - 20

The Software That Manages eBusiness™

- 1) Expressions in parenthesis are evaluated first
- 2) prefix operators - and + if present for numbers in expression
- 3) exponentiation **
- 4) Multiplication and division in this order *, /, %, //
- 5) Addition and Subtraction + and -

Test exercise 23

- What are the answers to the following:
 - $2+3*4$
 - $(2+3)*4$
 - $9**2/10$
 - $23\%5//2**3$
- Now check how REXX calculates these numbers.



2-21

The Software That Manages eBusiness™

Concatenation Operators

- Concatenation
 - blank
 - ||
 - abutted

```
a = "one"; b = "two"
total = "75"
SAY a b
SAY ab
SAY a||b
SAY total "% "
SAY total"% "
```

```
one two
AB
onetwo
75 %
75%
***
```



The Software That Manages eBusiness™

Test exercise 24

- Test the following :

```
SAY "REXX"      ||      "Course"  
SAY "REXX" || "Course"  
variable = "who knows"  
SAY variable"the answer"  
SAY "First"      "Second"  
SAY variable||" "||answer
```



Keyword Instructions

- One or more clauses, first of which starts with a keyword that identifies the instruction
- Keyword instructions control
 - external and internal interfaces
 - affect the flow of control
- Some keywords can include nested instructions
- Keywords are not case dependent.



2 - 24

The Software That Manages eBusiness™

Keyword Instructions

```
IF title = "Yes" THEN DO  
  SAY "Hello"  
END  
DO WHILE title = "Yes"  
  SAY "Hi"  
  LEAVE  
END
```



Work Section 2.1

- Write a REXX program to manipulate information entered from the terminal.
- Prompt the user to enter their first name. Then prompt the user to enter their last name.
- After they do this display the first and last names in the following formats on the terminal

```
first_name last_name
last_name, first_name
last_namefirst_name
first_namelast_name
```



2 - 26

The Software That Manages eBusiness™

What is the result from this?

Use your dataset for all the REXX programs.

CLCS.IULCnn.REX

Work Section 2.2

- Write a REXX program to prompt a user to enter their name.
- Then prompt for their gross salary.
- Then display their name and the tax they have paid at 30%

```
Please enter your first name.  
Mike  
Please enter your salary.  
20000  
Your tax paid is :6000.0  
***
```



What is the format of the result ?

Section end

ca Computer Associates™

2 - 28

The Software That Manages eBusiness™

The PARSE Instruction

Section 3



The Software That Manages eBusiness™

PARSE Instruction

- The PARSE Instruction is used to assign data from various sources to one or more variables

```

PARSE {UPPER} { ARG          }           {template}
              { EXTERNAL }
              { NUMERIC  }
              { PULL     }
              { SOURCE   }
              { VALUE {expression} WITH }
              { VAR name }
              { VERSION  }
    
```



3 - 2

The Software That Manages eBusiness™

The PARSE instruction tells REXX how to assign data to one or more variables. The data to assign can be from the terminal, the data stack, or from arguments passed to a subroutine or function. The way in which REXX assigns data to a variable is governed by what is known as a 'parsing template', discussed below.

'template' is made up of alternating optional "patterns" and variable names. "patterns" are of two types: those that cause parsing to search for a matching string (variable patterns and literal patterns) and numeric patterns that supply a string position number in the data from which parsing is to extract data. Any number of "patterns" and variables can be intermixed.

Operands

- **PARSE UPPER**
 - tells REXX to translate the data to be parsed to uppercase before parsing is done. Without the UPPER option, no uppercase translation is done before or after parsing.

- **PARSE ARG**
 - The arguments passed to the subroutine or function in which the PARSE statement is executed are parsed. This is equivalent to the operation of the REXX ARG function.

- **PARSE EXTERNAL**
 - REXX obtains the string to be parsed from the TSO stack, which usually gets it from the TSO terminal. PARSE PULL has the same affect as this PARSE form and is used more often.



3-3

The Software That Manages eBusiness™

Operands

- **PARSE NUMERIC**
 - returns the current settings for the **NUMERIC** options **DIGITS**, **FUZZ**, and **FORM**, in that order.
- **PARSE PULL**
 - This form of the **PARSE** instruction makes **REXX** get the next string from the **REXX** data stack. If the stack is empty, **REXX** will get the string from **TSO** terminal.
- **PARSE VALUE**
 - this **PARSE** form parses a string under the control of the parsing template, described previously.



ARG

- Syntax
 - PARSE [UPPER] ARG [template]
- Parses the arguments passed to the program according to the template, optionally first translating it to uppercase
- Shortened to - ARG

```
ARG test_word  
SAY "You have passed the program : "test_word
```

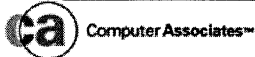


VAR

- Syntax
 - PARSE VAR name [template]

```
ARG test_words
PARSE VAR test_words first_word second_word left_overs
SAY "You have passed the program : "first_word
SAY "You have passed the program : "second_word
SAY "You have passed the program : "left_overs
```

```
You have passed the program : THIS
You have passed the program : IS
You have passed the program : A TEST OF WORDS
***
```

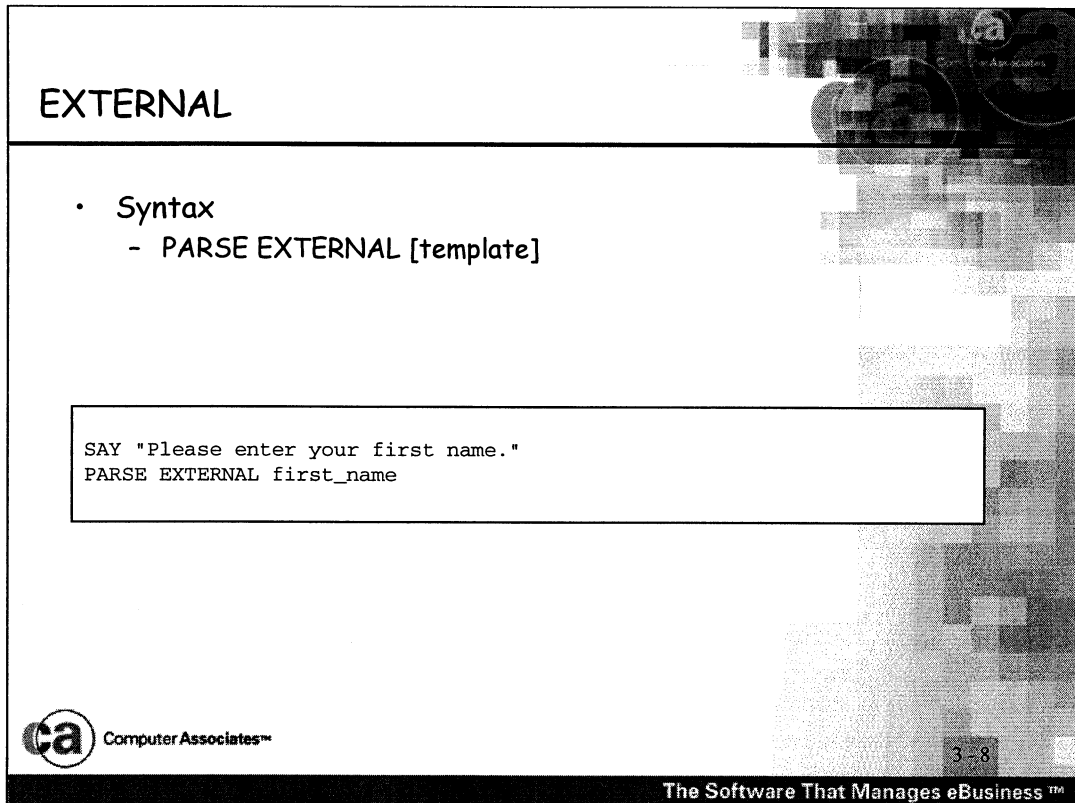


PULL

- Syntax
 - PARSE PULL [template]

```
SAY "Please enter your first name."  
PARSE PULL first_name
```






EXTERNAL

- Syntax
 - PARSE EXTERNAL [template]

```
SAY "Please enter your first name."  
PARSE EXTERNAL first_name
```

 Computer Associates™

3-8

The Software That Manages eBusiness™

This is TSO only.

VALUE WITH

- Syntax
 - PARSE VALUE [expression] WITH [template]
- Use VALUE WITH to break apart long strings or expressions that need to be evaluated first

```
new_date = "12/11/2000"  
PARSE VALUE new_date WITH mm "/" dd "/" yyyy  
SAY mm  
SAY dd  
SAY yyyy
```



Parsing Templates

- Simplest form consists of a list of variable names
- String being parsed is split into words
- each word is assigned to a variable from left to right
- The last variable is assigned whatever is left.

```
name = "Mike Fred Bob Jones"  
PARSE VALUE name WITH first_name left_overs  
SAY first_name  
SAY left_overs
```



Parsing Templates

- If there are fewer words than variables, any remaining variables are assigned the null string.
- Leading blanks are removed from each word.

```
name = "Mike"  
PARSE VALUE name WITH first_name left_overs  
SAY first_name  
SAY left_overs
```



3 - 11

The Software That Manages eBusiness™

Parsing Templates

- Example - What happens here ?

```
name = "Mike Fred Jones"  
PARSE VAR name new_name name  
SAY name  
SAY new_name
```



Literal Patterns

- Example

```
names = "Mike,Fred,Joe"  
PARSE VAR names one "," two "," three  
SAY one  
SAY two  
SAY three
```

```
Mike  
Fred  
Joe  
***
```



Using Placeholders

- Example

```
names = "Mike,Fred,Joe"  
PARSE VAR names . "," . "," last_name  
SAY last_name
```

```
Joe  
***
```



Positional Patterns

- Example

```
names = "Some text, to be, split up!"  
PARSE VAR names one 10 two 20 three  
SAY one  
SAY two  
SAY three
```

```
Some text  
, to be, s  
plit up!  
***
```



Relative Positional Patterns

- Example

```
names = "0987654321"  
PARSE VAR names 3 one +2 two +4 three 2 four  
SAY one  
SAY two  
SAY three  
SAY four
```

```
87  
6543  
21  
987654321  
***
```



Relative Positional Patterns

- The template
 - `' ; -1 test_char +1`
- Will
 - find the first comma in the input
 - backup one position
 - Assign one character to `test_char` after the comma
 - move along one position.



3 - 17

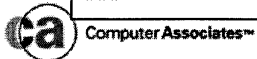
The Software That Manages eBusiness™

Relative Positional Patterns

- Simple using the relative column numbers relative to a literal.

```
names = "This is a list"  
PARSE VAR names 1 one +1 two +1 three +1 four the_rest  
SAY one  
SAY two  
SAY three  
SAY four  
SAY the_rest
```

```
T  
h  
i  
s  
is a list  
***
```



Keyword Arguments

- Example

```
ex 'IULC00.IULC.REXX(test)' 'FILE(iulc.test), VOL(i1)'
```

```
iulc.test  
i1  
***
```



3 - 19

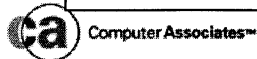
The Software That Manages eBusiness™

```
ARG data_list  
PARSE VAR data_list "FILE(" data_set "), " "VOL(" volume ")"  
SAY data_set  
SAY volume
```

Variable Patterns

- Specify a pattern by using the value of a variable instead of a fixed string number
- Place the name of the variable to be used as the pattern in parentheses
- If a +, - or = sign precedes the parentheses, the value of the variable is then used as though it were a relative column number'

```
name = "Mike"  
PARSE VALUE name WITH first_name left_overs  
SAY first_name  
SAY left_overs
```



Variable Patterns example

```
data = "L/look for /1 10"  
PARSE VAR data verb 2 delim +1 string (delim) rest  
SAY verb  
SAY delim  
SAY string  
SAY rest
```

```
L  
/  
look for  
1 10  
***
```



Work Section 3.1

- Write a REXX program to accept a name from the execution line.
- Say hello to the name.

```
ex 'clcs.iulc00.rexx(rx10131)' 'bob'
```

```
Hello bob  
***
```



Work Section 3.2

- Write a REXX program to accept a 3 level qualified dataset from the execution line.
- Then display each section to the screen

```
ex 'CLCS.IULC00.REXX(rx10132)' 'iulc00.iulc.rexx'
```

```
Project : iulc00  
Group   : iulc  
Type    : rexx  
***
```



Additional Program

- If you had proceeding spaces in work section 1.2 then re-write using PARSE to remove the spaces.



3 - 24

The Software That Manages eBusiness™