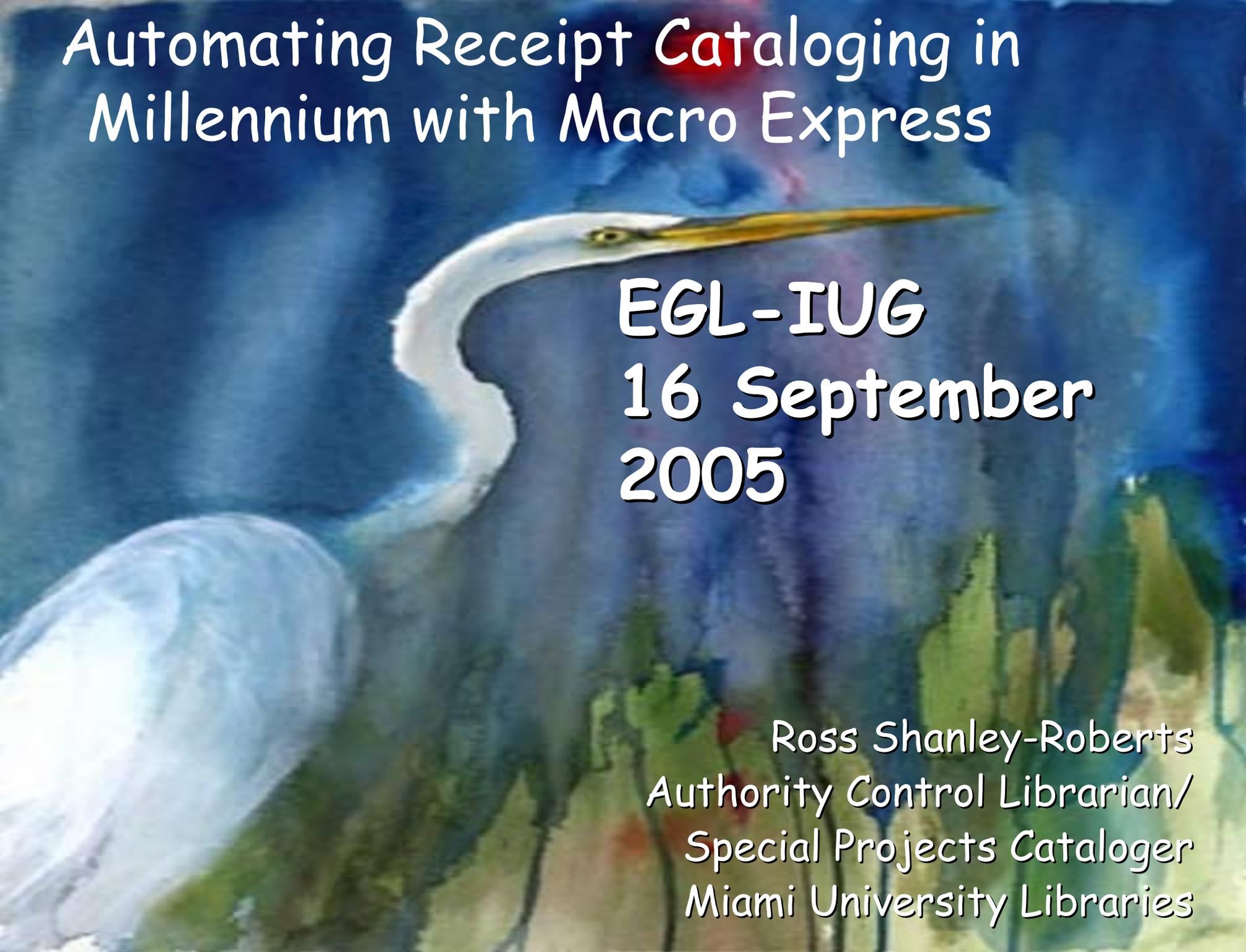


Automating Receipt Cataloging in Millennium with Macro Express



EGL-IUG

16 September
2005

Ross Shanley-Roberts
Authority Control Librarian/
Special Projects Cataloger
Miami University Libraries

Disclaimer

- I am not an employee or agent of Macro Express or Insight Software Solutions, Inc.
- All that I will discuss can be done using other software, e.g., Visual Basic or AppleScript
- Macro Express is inexpensive, easy-to-use, flexible and useable on nearly all Windows software
- Macro Express <http://www.macros.com/>

Thinking like [sic] a Human

- Humans take in the whole picture at once
- Humans perceive patterns and build relationships between disparate entities
- Patterns and relationships do not have to be logical or rational
- Humans process logic slowly

"Thinking" like [sic] a Computer

- Computers take in the picture bit by bit
- Computers can be programmed to recognize predetermined patterns
- Patterns and relationships **MUST** be logical/rational
- Computers process logic quickly and accurately, but not creatively

Contrasting Computer "Thinking" to Human Thinking

Computer

- $1 + 1 + 1 + 1 + 1 + 1 + 1 \dots$
- stupid, but fast
- consistent
- yes/no
- on/off
- CTGTCTGCTGAGAACTCATCT
GACAATTCATCCTAATCCCTA
GAGGGCCCCAAGCAAAA...

Human

- 2 apples + cup of sugar
- smart, but slow
- creative
- yes/no/maybe
- too bright
- Nice monkey

Computers can't think, but they can liberate humans from spending time on the easy questions

File Edit View Go Tools Window Help



Insert



Save



View



Edit



Media(0)



WB



Summary



Browse



Export



Vendor



Print



Close

b33709257

TITLE Moral sentiments and material interests : the foundations of cooperation in economic life / edited by Herbert Gintis ... [et al.]
CALL # HD2961 .M657 2005

LOCATIONS kngl

Summary Record o442346x Receive o442346x Payments o442346x

Queue P.O.

[View Finances](#)

o442346x Last Updated: 08-22-2005 Created: 08-22-2005 Revisions: 1

ACQ TYPE	PURCHASE	CODE4	- ---	RDATE	- -
LOCATION	knqli King Library	E PRICE	\$40.00	RLOC	n NOTIFICATIONS
CDATE	- -	FORM	u PRINT	BLOC	a APPROVAL
CLAIM	- ---	FUND	38/6 38/06 Economics	STATUS	o ON ORDER
COPIES	1	ODATE	08-22-2005	TLOC	- ---
CODE1	- ---	ORD NOTE	- ---	VENDOR	ybp Yankee Book Peddler Inc.
CODE2	- ---	ORD TYPE	n APPVL SLIP	LANG	eng English
CODE3	-	RACTION	- ---	VOLUMES	1



Insert



Save



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View Finances

o442346x Last Updated: 08-22-2005 Created: 08-22-2005 Revisions: 1

ACQ TYPE	p PURCHASE	CODE4	- ---	RDATE	- -
LOCATION	acq King Acquisitions Dept.	E PRICE	\$40.00	RLOC	a APPROVAL
CDATE	- -	FORM	u PRINT	BLOC	a APPROVAL
CLAIM	- ---	FUND	38/6 38/06 Economics	STATUS	o ON ORDER
COPIES	1	ODATE	08-22-2005	TLOC	- ---
CODE1	- ---	ORD NOTE	- ---	VENDOR	ybp Yankee Book Peddler Inc.
CODE2	- ---	ORD TYPE	n APPVL SLIP	LANG	eng English
CODE3	-	RACTION	- ---	VOLUMES	1

o442346x

Edit Mode (INS)



File Edit View Go Tools Window Help



Insert



Save



View



Edit



Media(0)



WB



Summary



Browse



Export



Vendor



Print



Close

b33709257

TITLE Moral sentiments and material interests : the foundations of cooperation in economic life / edited by Herbert Gintis ... [et al.]
 CALL # HD2961 .M657 2005

LOCATIONS kngl

Summary

Record o442346x

Receive o442346x

Payments o442346x

 Queue P.O.

View Finances

o442346x Last Updated: 08-22-2005 Created: 08-22-2005 Revisions: 1

ACQ TYPE	p PURCHASE	CODE4	- ---	RDATE	- -
LOCATION	acq King Acquisitions Dept.	E PRICE	\$40.00	RLOC	a APPROVAL
CDATE	- -	FORM	d AUDIO CD	BLOC	a APPROVAL
CLAIM	- ---	FUND	38/6 38/06 Economics	STATUS	z CANCELLED
COPIES	1	ODATE	08-22-2005	TLOC	- ---
CODE1	- ---	ORD NOTE	- ---	VENDOR	ybp Yankee Book Peddler Inc.
CODE2	- ---	ORD TYPE	n APPVL SLIP	LANG	eng English
CODE3	-	RACTION	- ---	VOLUMES	1

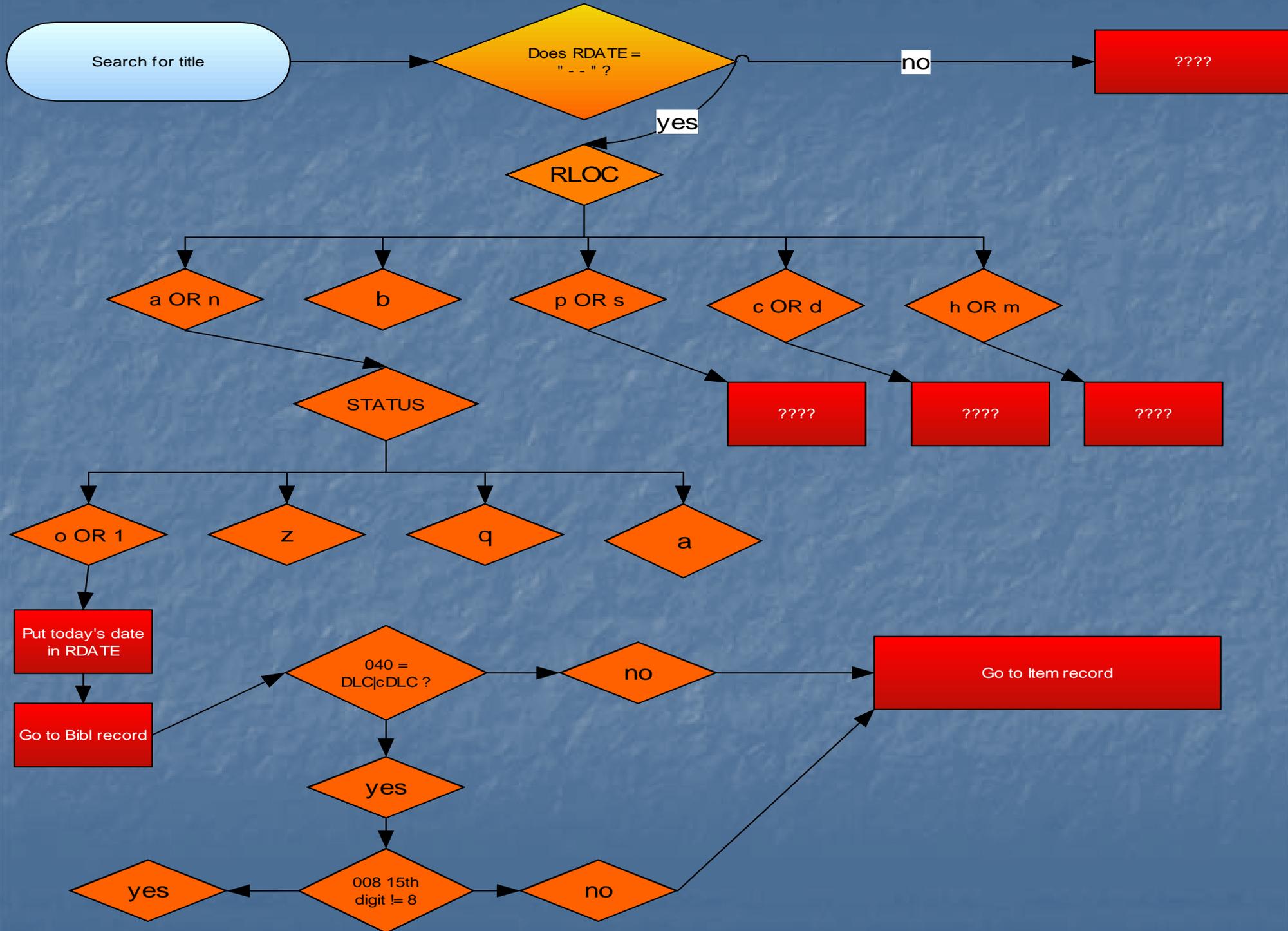
o442346x

Edit Mode (OVR)

Flowcharting the Receipt Cataloging Process

- There are many things that we should think about only once:
 - Location codes, Status codes, Format codes
 - 040s, 050s, skips, MARC Leader 30
- It is important to work out the actions needed depending on the many variables

RECEIPT CATALOGING PROCESS FLOWCHART



Using Macro Express with a well-charted process can extend the decision-making powers of the computer, which can increase the efficiency and accuracy of the work and shorten training time.



Macexp.exe

Overview

- Important features
- 4 ways to record macros
- 9 ways to activate macros
- 24 categories of commands
- 4 categories of scoping
- 2 categories of properties & enabling/disabling macros
- Editing and macro management



Macexp.exe

Important features

- easy recording of basic macros
- single program for writing macros in all programs
- modular creation of parts of macros
- communication between programs
- sophisticated programming options



Macexp.exe

4 ways to record macros

- Direct Editor
- Quick Wizards
- Scripting Editor
- Capture

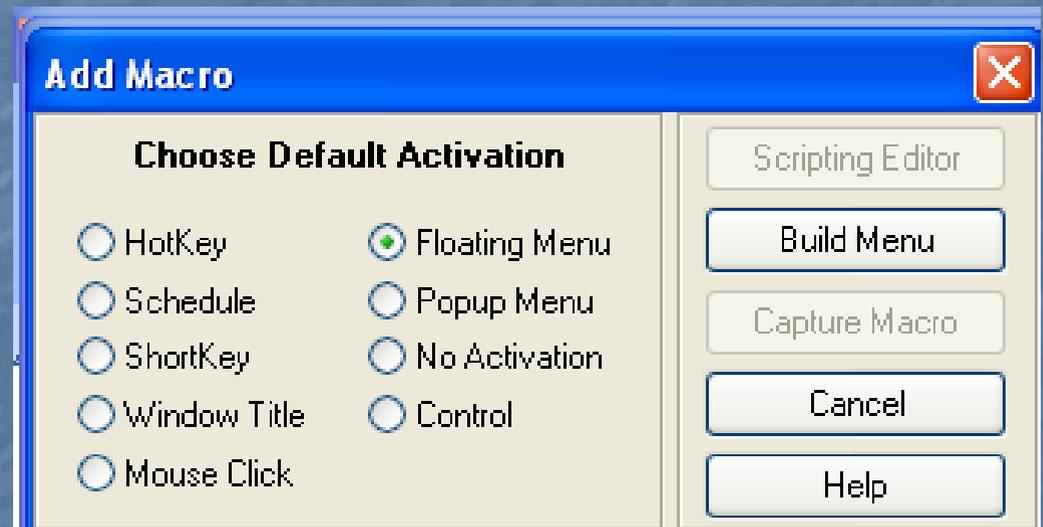




Macexp.exe

9 ways to activate macros

- HotKey
- Schedule
- ShortKey
- Window Title
- Mouse Click
- Floating Menu
- Popup Menu
- No Activation
- Control





Macexp.exe

4 categories of scoping

- Global
- Global Except
- Window Specific
- Program Specific

The screenshot shows a dialog box with a tabbed interface. The 'Scope' tab is selected. It contains four radio button options, each with a 'Select' button to its right. The 'Program Specific' option is selected, indicated by a green dot in the radio button.

Option	Description	Action
<input type="radio"/> Global	This macro is available in all running programs	
<input type="radio"/> Global Except	This macro is available in all running programs except the selected programs	Select
<input type="radio"/> Window Specific	This macro is available only in the selected windows	Select
<input checked="" type="radio"/> Program Specific	This macro is available only in the selected programs	Select

24 categories of commands

- Commands**
- ▶ CD-ROM
- ▶ Clipboard
- ▶ Debug
- ▶ Desktop
- ▶ Dialogs
- ▶ Explorer
- ▶ Files/Folders
- ▶ Internet
- ▶ Internet Explorer
- ▶ Keyboard
- ▶ Logic 
- ▶ Macro Control

- ▶ Macro Express
- ▶ Mouse
- ▶ Multimedia
- ▶ Network
- ▶ Registry
- ▶ Repeat 
- ▶ System
- ▶ Text
- ▶ Timing
- ▶ Variables 
- ▶ Window Controls 
- ▶ Windows/Programs

Key elements of effective macro writing

- Variables
- Logic
- Window Controls
- Repeat

None of these are available with Capture

Variables

- A full set of variables: text, integer and decimal
- Actions: modifying, saving, converting

Break
Clear Variables
Convert Filename
End If
Get File Version
If Variable
Multiple Choice Menu
Repeat End
Repeat Exit
Repeat with Variable
Round Decimal
Run Macro in Variable
Terminal Services Session I
Variable Get Control Class
Variable Get Control Text
Variable Modify Control
Variable Modify Decimal
Variable Modify Integer
Variable Modify String
Variable Restore
Variable Save
Variable Set Control Text
Variable Set Decimal
Variable Set From File
Variable Set From Misc
Variable Set Integer
Variable Set String

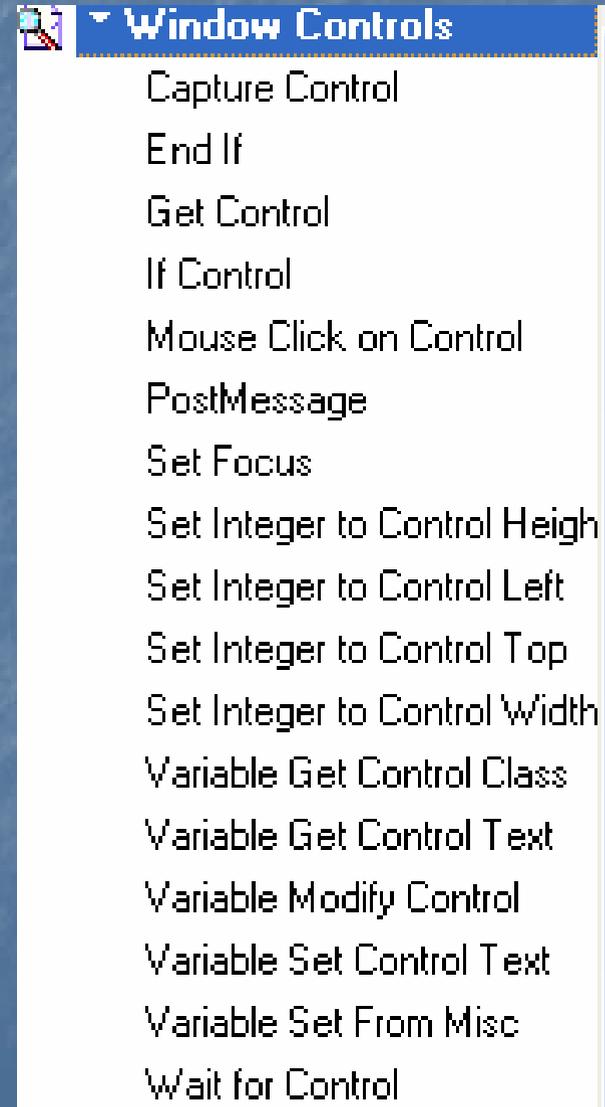
Logic

- If, Else, Switch
- Boolean: And, Or, XOR

And
Case
Default Case
Else
End Case
End If
End Switch
If Clipboard
If Control
If Dial-Up Successful
If File Exists
If File Ready
If Folder Exists
If Macro
If Message
If Mouse Cursor
If Not File Exists
If Not File Ready
If Not Folder Exists
If Not Mouse Cursor
If Not Program
If Not Window
If Online
If OS Version
If Ping Successful
If Program
If Registry
If Variable
If Window
Or

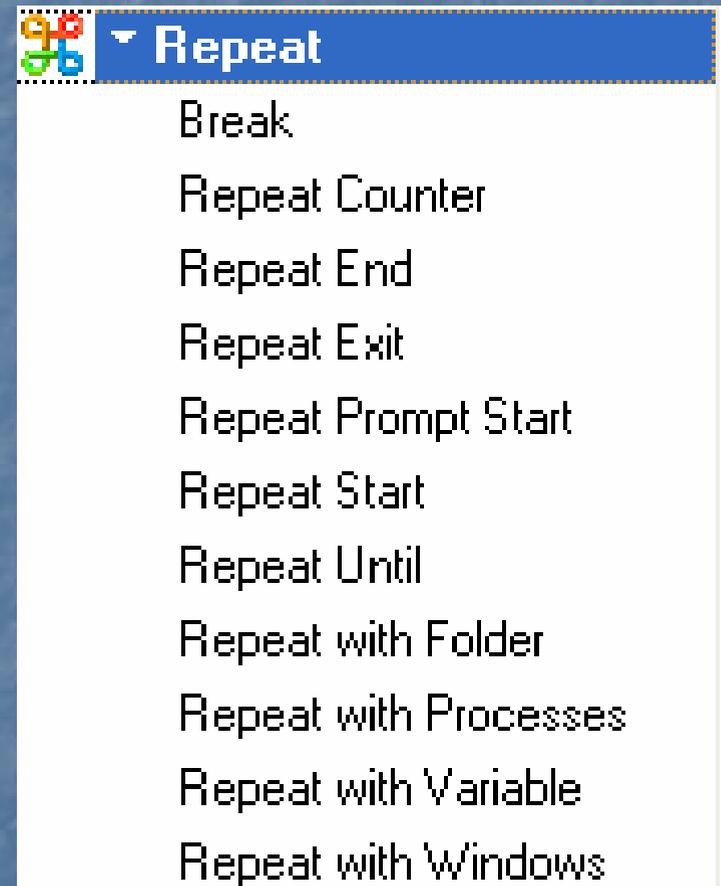
Window Controls

- Control when, where and how macros run



Repeat

- Run any aspect of a macro any number of times needed



Screen shot of Macro Express Explorer

Macro Express - Macro Explorer

File Macros Category Wizards View Options Tools Help

C:\Documents and Settings\shanlera\Desktop\macro express training\receipt_automated.mex

Categories: All Categories (receipt_autc), *Unassigned*

Macros	Activation	Scope
Suspend / Resume Macro Express	Ctrl+Alt+Shift+U	System
Terminate Macro Express	Ctrl+Alt+Shift+V	System
Run Macro Express Editor	Ctrl+Alt+Shift+W	System
Start / Stop Capture	Ctrl+Alt+Shift+X	System
Resume Pause	Ctrl+Alt+Shift+Y	System
Menu of Macros for Topmost Window	Ctrl+Alt+Shift+Z	System
isbn search to title search	Ctrl+F4	Window Specific: "Millennium Cataloging"
batch export	Ctrl+Shift+F12	Program Specific: "CONNEX.EXE"
batch	Ctrl+Shift+F9	Program Specific: "CONNEX.EXE"
clear all variables and clipboard	Ctrl+Shift+Q	Global
bibl record -- check and receive	F1	Program Specific: "JAVA.EXE"
received order record	F12	Program Specific: "JAVA.EXE"
isbn search	F4	Window Specific: "Millennium Cataloging"
close MILCAT item window and go to search	F9	Window Specific: "i"
close MILCAT order window and go to search	F9	Window Specific: "o"
Receipt Macros	Floating Menu	Global
user	No Activation	Global
ORDER check RLDC	No Activation	Program Specific: "JAVA.EXE"
added item record creation	No Activation	Program Specific: "JAVA.EXE"
ORDER check E PRICE	No Activation	Program Specific: "JAVA.EXE"
BIBL check IMPRINT DATE	No Activation	Program Specific: "JAVA.EXE"
ORDER check STATUS	No Activation	Program Specific: "JAVA.EXE"
BIBL check LOCATIONS	No Activation	Global
ORDER check FORM	No Activation	Program Specific: "JAVA.EXE"
ORDER check ORD TYPE	No Activation	Program Specific: "JAVA.EXE"
accompanying material item record creation	No Activation	Global
DLC add item record -- physical processing	No Activation	Window Specific: "b"
DLC add item record -- conservation	No Activation	Window Specific: "b"
non-DLC item record creation	No Activation	Window Specific: "b"
BIBL check ILOCS	No Activation	Program Specific: "JAVA.EXE"
item record creation	No Activation	Program Specific: "JAVA.EXE"
BIBL check SERIES	No Activation	Program Specific: "JAVA.EXE"

32 Macros

Screen shot of Macro Express Scripting Editor

Macro Express - Scripting Editor - [Macro Name: received order record]

File Edit Debug View Options Tools Help

Actions

Script Properties Scope Security Notes

Commands

- CD-ROM
- Clipboard
- Debug
- Desktop
- Dialogs
- Explorer
- Files/Folders
- Internet
- Internet Explorer
- Keyboard
- Logic
- Macro Control
- Macro Express
- Mouse
- Multimedia
- Network
- Registry
- Repeat
- System
- Text
- Timing
- Variables
- Window Controls
- Windows/Programs

Search for Command:

Macro Script

```
Clipboard Empty
Clear All Variables: All
// N80: receive with today's date? -- 1 for yes, 0 for no
// N81: review bibl record before creating item record? -- 1 for yes, 0 for no
Variable Set Integer %N80% to 1
Variable Set Integer %N81% to 1
Get Control %C1% (a:)
Wait for Control %C1% to become enabled
// T1 is the order record number
// begin setting T1 -- the order record number
Variable Get Control Text: %C1% to %T1%
// end setting T1 -- the order record number
// T2 is the whole order record
// begin setting T2 -- the whole order record
A Text Type: <TAB><CTRLD>a<CTRLU><CTRLD><<CTRLU><HOME>
Delay 0.5 Seconds
Variable Set String %T2% from Clipboard
If Clipboard Contains "%T1%"
OR
If Clipboard Contains "TITLEI"
OR
If Clipboard Text Equals ""
A Text Box Display: Receipt Dialog
Macro Stop
End If
// end setting T2 -- the whole order record
// T5 is LDAP userid AND T6 is III cataloger's initials -- assigned in macro USER
Macro Run user
```

Key Principles of Automating

- Capture the data
- Parse the data
- Query the data
- Augment the data
- Take actions based on the data

Capture the data

- When order record appears, Select all (CTRL a), Copy to clipboard (CTRL c)
- Transfer Clipboard to Text Variable



Parse the data

- Using regular expressions, set variables to the values of elements in the order record

```
 // begin setting T14 (RLOC) from order record  
 If Variable %T2% contains "RLOC"  
 Variable Set Integer %N14% from Position of Text in Variable %T2%  
 Variable Modify String: Copy Part of %T2% to %T14%  
 Variable Modify String: Delete Part of %T14%  
 End If
```

If Variable



Variable	Condition	<input checked="" type="radio"/> Value
T1	<input type="radio"/> =	<input type="text" value="RLOC1"/>
N1	<input type="radio"/> <>	
D1	<input type="radio"/> <	<input type="radio"/> Variable
T2	<input type="radio"/> >	<input type="text" value="T1"/>
N2	<input type="radio"/> >=	T2
D2	<input type="radio"/> <=	T3
T3	<input checked="" type="radio"/> Contains	T4
N3	<input type="radio"/> Does not Contain	T5
D3		T6
T4		T7
N4		T8
D4		

Ignore Case

OK

Cancel

Help

Set Integer Variables



Option 1

Option 2

Commands

- Set Value Now
- Prompt for Value
- Set Value from Mouse X Position
- Set Value from Mouse Y Position
- Set Value from the Size of a File
- Set a Random Value
- Set Value from Screen Width
- Set Value from Screen Height
- Set Value from Current Window Top
- Set Value from Current Window Left
- Set Value from Current Window Width
- Set Value from Current Window Height
- Set Value from Clipboard
- Get Length of a Text Variable
- Get Position of Text in a Text Variable

Choose Variable Name:

N14



Text Variable:

T2



Search Text:

RLDCI

OK

Cancel

Help

Modify String Variables



Option 1

Option 2

Command Options

- Trim
- Left Trim
- Right Trim
- Strip CR/LF
- Convert to Integer
- Convert to Decimal
- Append Text
- Append Text String Variable
- Copy Whole Text
- Copy Part of Text
- Delete Part of Text
- Uppercase
- Lowercase
- Pad Left
- Pad Right
- Replace Substring

Variable to Copy to: T14

Variable to Copy from: T2

Starting Position:

Value

Variable N14

Characters to Copy:

Value 6

Variable N2

OK

Cancel

Help

Query the data

```
 // begin checking RLOC from order record
 // N80: receive with today's date? -- 1 for yes, 0 for no
 // N81: review bibl record before creating item record? -- 1 for yes, 0 for no
✓ Switch (T14)
✓ Case: a
✓ Case: b
✓ Case: n
 // RLOC | a means APPROVAL; RLOC | b means FIRM ORDER; RLOC | c means NOTIFICATION
 Variable Modify Integer: %N80% = %N80% * 1
✓ End Case
✓ Case: c
 // RLOC | c means Special Collections
 Variable Modify Integer: %N80% = %N80% * 1
 Variable Modify Integer: %N81% = %N81% * 0
 Variable Modify String: Append "This item is for SPECIAL COLLECTIONS." to %T85%
 Variable Modify String: Append "Do NOT create an item record." to %T86%
 Variable Modify String: Append "Do NOT barcode item." to %T87%
 Variable Modify String: Append "Print this record, place in item and put item in Tech Services tub." to %T88%
✓ End Case
```

Augment the data

```
 // begin checking LOCATION from order record
 // the locations in T61 stand for the following variables and values
 // T12\T13\T69\T16\T17
 // bloc\labelloc\OCLC_049\itype\item_status
 // N80: receive with today's date? -- 1 for yes, 0 for no
 // N81: review bibl record before creating item record? -- 1 for yes, 0 for no
✓ Switch (T11)
✓ Case: acq
✓ End Case
✓ Case: aali
 Variable Set String %T61% "aal \ArtArch\MIAH\0\"
✓ End Case
✓ Case: aarm
 Variable Set String %T61% "aal \ArtArch CD-ROM\MIAH\21\%a"
✓ End Case
✓ Case: aac
 Variable Set String %T61% "aal \ArtArch Circ\n/a\18\%a"
✓ End Case
```

Take actions based on the data

```
 // begin T85 dialog box
✓ If Variable %T85% <> ""
✓ OR
✓ If Variable %T86% <> ""
✓ OR
✓ If Variable %T87% <> ""
✓ OR
✓ If Variable %T88% <> ""
✓ OR
✓ If Variable %T89% <> ""
A Text Box Display: Receipt Cataloging
✓ End If
 // end T85 dialog box

 // begin receive order record -- if N80 = 1
✓ If Variable %N80% = 1
A Text Type: <CTRLD><HOME><CTRLU><TAB><TAB><TAB><TAB><CTRLD><CTRLU>
 Get Control %C2% (WARNING: )
 Wait for Control %C2% to become enabled
A Text Type: <ENTER>
✓ End If
 // end receive order record -- if N80 = 1
```

How we automated receipt cataloging at Miami University

- Order record
- Bibliographic record
- Item record

b33709257

TITLE Moral sentiments and material interests : the foundations of cooperation in economic life / edited by Herbert Gintis ... [et al.]
 CALL # HD2961 .M657 2005

LOCATIONS kngl

ORDER RECORD

Summary Record o442346x Receive o442346x Payments o442346x

Queue P.O. View Finances

o442346x Last Updated: 08-22-2005 Created: 08-22-2005 Revisions: 1

ACQ TYPE	PURCHASE	CODE4	- ---	RDATE	- -
LOCATION	knqli King Library	E PRICE	\$40.00	RLOC	n NOTIFICATIONS
CDATE	- -	FORM	u PRINT	BLOC	a APPROVAL
CLAIM	- ---	FUND	38/6 38/06 Economics	STATUS	o ON ORDER
COPIES	1	ODATE	08-22-2005	TLOC	- ---
CODE1	- ---	ORD NOTE	- ---	VENDOR	ybp Yankee Book Peddler Inc.
CODE2	- ---	ORD TYPE	n APPVL SLIP	LANG	eng English
CODE3	-	RACTION	- ---	VOLUMES	1

Also can include internal notes

What the clipboard captures

```
PURCHASE CODE4      ----  RDATE      - -
LOCATION    kngliKing Library  E PRICE    $40.00 RLOC nNOTIFICATIONS
CDATE     - -      FORMuPRINT      BLOC aAPPROVAL
CLAIM     ----    FUND 38/6 38/06 Economics STATUS    oON ORDER
COPIES    1      ODATE    08-22-2005  TLOC ----
CODE1     ----    ORD NOTE  ----  VENDOR    ybp Yankee Book Peddler Inc.
CODE2     ----    ORD TYPE  nAPPVL SLIPLANG engEnglish
CODE3     -      RACTION  ----  VOLUMES  1|
```

What is hidden in the captured text

```
PURCHASE [REDACTED] CODE4 [REDACTED] ---- [REDACTED] RDATE [REDACTED] ---  
LOCATION [REDACTED] kngliKing Library [REDACTED] E PRICE [REDACTED] $40.00 RLOC [REDACTED] nNOTIFICATIONS  
CDATE [REDACTED] --- [REDACTED] FORM [REDACTED] uPRINT [REDACTED] BLOC [REDACTED] aAPPROVAL  
CLAIM [REDACTED] ---- [REDACTED] FUND [REDACTED] 38/6 38/06 Economics STATUS [REDACTED] oON ORDER  
COPIES [REDACTED] 1 [REDACTED] ODATE [REDACTED] 08-22-2005 [REDACTED] TLOC [REDACTED] ----  
CODE1 [REDACTED] ---- [REDACTED] ORD NOTE [REDACTED] ---- [REDACTED] VENDOR [REDACTED] ybp Yankee Book Peddler Inc.  
CODE2 [REDACTED] ---- [REDACTED] ORD TYPE [REDACTED] nAPPVL SLIPLANG [REDACTED] engEnglish  
CODE3 [REDACTED] ---- [REDACTED] RACTION [REDACTED] ---- [REDACTED] VOLUMES [REDACTED] 1|
```

TABS

Regular expressions in the captured text

```
PURCHASE CODE4 ---- RDATE ---  
LOCATION kngliKing Library E PRICE $40.00 RLOC nNOTIFICATIONS  
CDATE - - FORM uPRINT BLOC aAPPROVAL  
CLAIM ---- FUND 38/6 38/06 Economics STATUS oON ORDER  
COPIES 1 ODATE 08-22-2005 TLOC ----  
CODE1 ---- ORD NOTE ---- VENDOR ybp_Yankee Book Peddler Inc.  
CODE2 ---- ORD TYPE nAPPVL SLIP LANG engEnglish  
CODE3 - RACTION ---- VOLUMES 1
```

Example of information gleaned from order record and augmented

- Item location variable (T11) is sent to "check ILOCS" macro
- variable T61 returned: "kngr \MIAA\0\-" and parsed:
- T12 = BLOC
- T13 = Label loc
- T69 = 049
- T8 = ITYPE

```
// begin setting variables from T61
✓ If Variable %T61% <> ""
  Variable Modify String: Copy %T61% to %T60%
  Variable Set Integer %N61% from Position of Text in Variable %T61%
  Variable Modify String: Copy Part of %T61% to %T12%
  Variable Modify String: Delete Part of %T61%
  Replace "\" with "" in %T12%
  Variable Set Integer %N61% from Position of Text in Variable %T61%
  Variable Modify String: Copy Part of %T61% to %T13%
  Variable Modify String: Delete Part of %T61%
  Replace "\" with "" in %T13%
  Variable Set Integer %N61% from Position of Text in Variable %T61%
  Variable Modify String: Copy Part of %T61% to %T69%
  Variable Modify String: Delete Part of %T61%
  Replace "\" with "" in %T69%
  Variable Set Integer %N61% from Position of Text in Variable %T61%
  Variable Modify String: Copy Part of %T61% to %T16%
  Variable Modify String: Delete Part of %T61%
  Replace "\" with "" in %T16%
  Variable Modify String: Copy Part of %T61% to %T8%
✓ End If
// end setting variables from T61
```



b33709257 Last Updated: 08-22-2005 Created: 08-22-2005 Revisions: 1

LANG	eng English	CAT DATE	- -	BCODE3	-
SKIP	0	BCODE1	m MONOGRAPH	COUNTRY	mau Massachusetts
LOCATION	kngrl KING	BCODE2	a BOOKS		

BIBLIOGRAPHIC RECORD

MARC Leader #####pam 22#####4a 45 0

OCLC # 001 55846130

MARC 005 20050822072352.0

MARC 008 040629s2005 maua b 001 0 eng

LCCN 010 2004055175

ISN/STD# 020 0262072521 (alk. paper)

MARC 040 DLC|cDLC|dYDX|dBAKER

MARC 042 ~~pcc~~

MARC 049 MIAA

CALL # 050 0 0 HD2961|b.M657 2005

TITLE ~~245~~ 0 0 Moral sentiments and material interests :|bthe foundations of cooperation in economic life /|c edited by Herbert Gintis ... [et al.]

IMPRINT 260 Cambridge, Mass. :|bMIT Press,|cc2005

DESCRIPT. 300 xii, 404 p. :|bill. ;|c24 cm

SERIES 490 1 Economic learning and social evolution ;|v6

NOTE 504 Includes bibliographical references and index

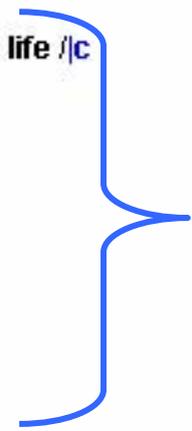
SUBJECT 650 0 Cooperation

SUBJECT 650 0 Game theory

SUBJECT 650 0 Economics|xSociological aspects

ADD AUTHOR 700 1 Gintis, Herbert

SERIES 830 0 MIT Press series on economic learning and social evolution ;|w. 6



What the clipboard captures

```
LANG engEnglish  CAT DATE  -  BCODE3  -
SKIP 0  BCODE1  mMONOGRAPH  COUNTRY  mauMassachusetts
LOCATION  knglKING  BCODE2  aBOOKS
MARC Leader#####pam_22#####4a 45 0
OCLC # 001 55846130
MARC005 20050822072352.0
MARC008 040629s2005 maua b 001 0 eng
LCCN 010 2004055175
ISN/STD# 020 0262072521 (alk. paper)
MARC040 DLC|cDLC|dYDX|dBAKER
MARC042 pcc
MARC049 MIAA
CALL # 050 0 0 HD2961bM657 2005
TITLE 245 0 0 Moral sentiments and material interests :|bthe foundations of cooperation in economic life /|cedited by Herbert Gintis ...
[et al]
IMPRINT 260 Cambridge, Mass. :|bMIT Press,|cc2005
DESCRIPT. 300 xii, 404 p. :|bill. :|c24 cm
SERIES 490 1 Economic learning and social evolution :|v6
NOTE 504 Includes bibliographical references and index
SUBJECT 650 0 Cooperation
SUBJECT 650 0 Game theory
SUBJECT 650 0 Economics|xSociological aspects
ADD AUTHOR 700 1 Gintis, Herbert
SERIES 830 0 MIT Press series on economic learning and social evolution :|vv. 6
```

What is hidden in the captured text

```
LANG eng English CAT DATE -.- BCODE3 -
SKIP 0 BCODE1 m MONOGRAPH COUNTRY mau Massachusetts
LOCATION knl KING BCODE2 a BOOKS
MARC Leader#####pam_22#####4a 45 0
OCLC # 001 55846130
MARC005 20050822072352.0
MARC008 040629s2005 maua b 001 0 eng
LCCN 010 2004055175
ISN/STD# 020 0262072521 (alk. paper)
MARC040 DLC|cDLC|dYDX|dBAKER
MARC042 pcc
MARC049 MIAA
CALL # 050 0 HD2961b M657 2005
TITLE 245 0 0 Moral sentiments and material interests :|bthe foundations of cooperation in economic life /|cedited by Herbert Gintis ...
[et al.]
IMPRINT 260 Cambridge, Mass. :|bMIT Press,|cc2005
DESCRIPT. 300 xii, 404 p. :|bill. :|c24 cm
SERIES 490 1 Economic learning and social evolution :|v6
NOTE 504 Includes bibliographical references and index
SUBJECT 650 0 Cooperation
SUBJECT 650 0 Game theory
SUBJECT 650 0 Economics|xSociological aspects
ADD AUTHOR 700 1 Gintis, Herbert
SERIES 830 0 MIT Press series on economic learning and social evolution :|vv. 6
```

TABS

Regular expressions in the captured text

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LANG engEnglish   CAT DATE   ---   BCODE3   -
SKIP 0           BCODE1     mMONOGRAPH   COUNTRY   mauMassachusetts
LOCATION kngl KING   BCODE2     aBOOKS
MARC Leader#####pam_22#####4a 45 0
OCLC #          001                55846130
MARC005                20050822072352.0
MARC008                040629s2005 maua b 001 0 eng
LCCN 010                2004055175
ISN/STD#         020                0262072521 (alk. paper)
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b33709257

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 IMPRINT Cambridge, Mass. : MIT Press, c2005
 CALL # HD2961 .M657 2005
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ITEM RECORD

Summary New ITEM

New ITEM Last Updated: 09-14-2005 Created: 09-14-2005 Revisions: 0

COPY #	1	LPATRON	0	LOCATION	none
ICODE1	0	LCHKIN	- -	LOANRULE	0
ICODE2	-	# RENEWALS	0	STATUS	- AVAILABLE
I TYPE	0 MONOGRAPH	# OVERDUE	0	INTL USE	0
PRICE	\$0.00	ODUE DATE	- -	COPY USE	0
OUT DATE	- - :	RECAL DATE	- -	IMESSAGE	-
DUE DATE	- -	TOT CHKOUT	0	OPACMSG	-
PATRON#	0	TOT RENEW	0		

LABEL LOC
 BARCODE
 VOLUME

Variables input the new item record

Summary | **New ITEM**

New ITEM Last Updated: 09-14-2005 Created: 09-14-2005 Revisions: 0

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ICODE2	-	# RENEWALS	0	STATUS	- AVAILABLE T8
I TYPE	0 MONOGRAPH T16	# OVERDUE	0	INTL USE	0
PRICE	\$0.00	ODUE DATE	- -	COPY USE	0
OUT DATE	- - :	RECAL DATE	- -	IMESSAGE	-
DUE DATE	- -	TOT CHKOUT	0	OPACMSG	-
PATRON#	0	TOT RENEW	0		

LABEL LOC

➤ BARCODE

➤ VOLUME



Insert



Save



View



Edit



Media(0)



WB



Summary



Browse



Export



Print



Close

b33709257

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Receipt Macros



O B L R I Á M

Summary

Record i42793737

i42793737 Last Updated: 09-15-2005 Created: 09-15-2005 Revisions: 0

COPY #	1	LPATRON	0	LOCATION	kn gli King Library
ICODE1	12	LCHKIN	- -	LOANRULE	0
ICODE2	-	# RENEWALS	0	STATUS	I IN PHYS PROC
I TYPE	0 MONOGRAPH	# OVERDUE	0	INTL USE	0
PRICE	\$0.00	ODUE DATE	- -	COPY USE	0
OUT DATE	- - :	RECAL DATE	- -	IMESSAGE	-
DUE DATE	- -	TOT CHKOUT	0	OPACMSG	-
PATRON#	0	TOT RENEW	0		

BARCODE 35054028366637

Sharing Macros

- We write our macros together as a team and then share them through the department wiki
- Doing this ensures that we are all using the same codes and being consistent in our procedures

Resources Used

- Macro Express <http://www.macros.com/>
(free 30 day trial)
- Smart Draw
<http://www.smartdraw.com/exp/flo/home/>
- Opening slide "[Great Heron Blue](#)" by Wm. Coperthwaite from [Heron Dance - A Work of Love](#)
- Wiki <http://www.mediawiki.org/wiki/MediaWiki>