

REXXBITS

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IBM

# **REXXbits**

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## REXX History

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**REX becomes REXX**

**In the beginning, there was**

**REX      (REformed eXecutor)**

**which eventually became**

**REXX      (REstructured eXtended eXecutor)**

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## REXX Firsts

- ◆ 1979 - Mike Cowlshaw (MFC) starts work on REX
- ◆ 1981 - First SHARE presentation on REX by Mike
- ◆ 1982 - First non-IBM location to get REX is SLAC
- ◆ 1983 - First REXX interpreter shipped by IBM for VM
- ◆ 1985 - First non-IBM implementation of REXX shipped
- ◆ 1985 - First REXX trade press book published
- ◆ 1987 - IBM Selects REXX as the SAA Procedures Language
- ◆ 1989 - First REXX compiler shipped by IBM for VM
- ◆ 1990 - SHARE REXX committee becomes a project
- ◆ 1990 - First SHARE presentation on Object Oriented REXX
- ◆ 1990 - First Annual REXX symposium held (organized by SLACs Cathie Dager)
- ◆ 1991 - First REXX ANSI committee meeting held

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**Jeopardy: REXX for \$1000**

**Answer is:**

**19**

**Question is:**

**What are the number of official members of X3J18  
(ANSI REXX committee)?**



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**Jeopardy: REXX for \$800**

**Answer is:**

**118**

**Question is:**

**How many people attended the first annual REXX  
symposium in 1990 (as listed in the proceedings)?**

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**Jeopardy: REXX for \$600**

**Answer is:**

**203**

**Question is:**

**What is the number of pages in the second edition of TRL (The REXX Language) book by Mike Cowlshaw?**

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**Jeopardy: REXX for \$400**

**Answer is:**

**646**

**Question is:**

**What are the number of pages in TRH (The REXX Handbook) written by many people in this room?**

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**Jeopardy: REXX for \$200**

**Answer is:**

**4794**

**Question is:**

**How many days has it been since REXX was started on March 20, 1979? (13 years, 45 days)**

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**Jeopardy: REXX for \$500**

**Answer is:**

**5**

**Question is:**

**How many programming languages has MFC  
designed?**

**Note that REXX is his latest!!!!**

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**Jeopardy: REXX for \$400**

**Answer is:**

**350**

**Question is:**

**What is the peak amount of REXX electronic mail  
MFC received per working day?**

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**Jeopardy: REXX for \$300**

**Answer is:**

**4000**

**Question is:**

**What is the approximate number of hours  
MFC spent on REXX before the first product  
shipped?**

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**Jeopardy: REXX for \$200**

**Answer is:**

**500,000**

**Question is:**

**What are the approximate number of REXX related electronic mail MFC has read since REXX started?**



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**Jeopardy: REXX for \$100**

**Answer is:**

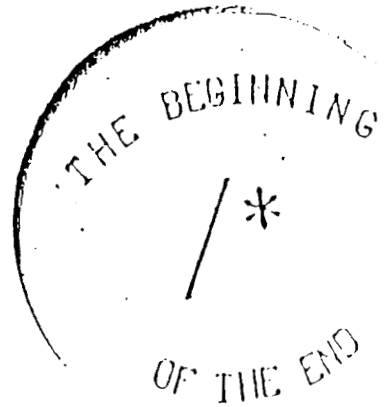
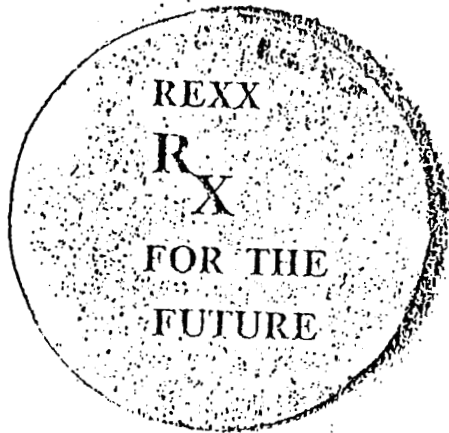
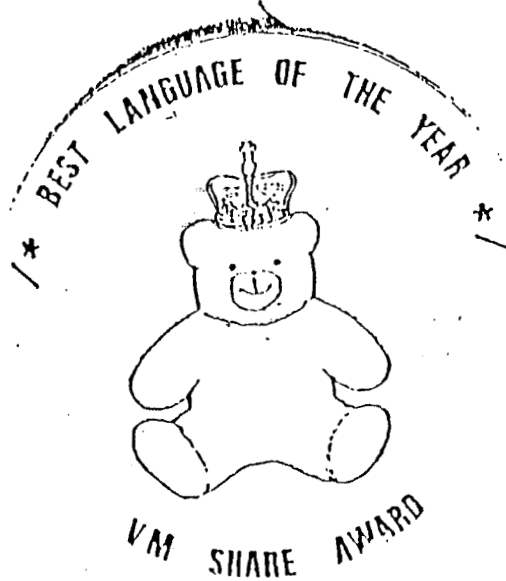
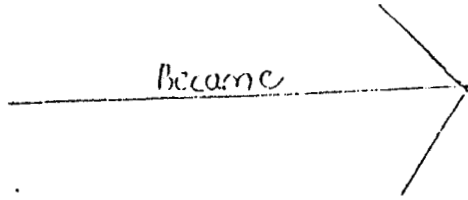
**over 6,000,000**

**Question is:**

**What is the largest known total number of lines of REXX code used in any one company?**

# REXX Buttons

Customer Created:



# REXX Buttons

Customer Created:



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**REXX Buttons ...**

IBM Created:



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## Text of the REXX Buttons

### General

- REX is not BASIC
- REXX is not BASIC
- The beginning /\* of the end
- REXX RX for the future
- I've been REXX'd and I like it
- REXX is not a ...
- REXX Havoc
- REXX, Libs and Video Displays

### VM

- /\* Best Language of the Year \*/ VM SHARE AWARD
- VM/SP has REXX Appeal
- RXSQL good medicine!
- Programming Power-CUA 2001-REXX

### SAA

- SAA Procedures Language/REXX

### TSO/E

- I practice safe REXX (TSO/E v2)
- TSO/E is REXX rated!
- Tyrannosaurus REXX TSO/E v2
- TSO/E Puttin' on the REXX

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## **REXX Excitements**

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## **REXX Excitement!**

- › **ANSI committee started**
  
- › **REXX Users start a yearly REXX Symposium in 1990**
  
- › **SHARE elevated REXX to a Project**
  
- › **Increasing number of books and articles on REXX**
  
- › **Increasing number of REXX Implementations on different platforms by increasing number of companies**

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## ANSI

REXX is one of 15 languages to be worked on as an ANSI standardized language. Others are:

- ◆ APL
- ◆ APT
- ◆ BASIC
- ◆ C
- ◆ C + +
- ◆ COBOL
- ◆ DATABUS
- ◆ DIBOL
- ◆ FORTH
- ◆ FORTRAN
- ◆ LISP
- ◆ PASCAL
- ◆ PL/I
- ◆ PROLOG

Note that the languages listed are at different levels of standardization.



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## **REXX Symposium**

**Annual event started in 1990**

**Run by Users of REXX**

**Attended by all vendors of REXX implementations and their users**

**includes presentations, demos, panel discussions, etc**

**Initiated by Cathie Dager of SLAC in 1990**

**1990: 118 attendees for a single day**

**1991: expanded to 2 days**

**1992: planned for May 3-5, 1992 in Annapolis, MD**

**Purpose: "a gathering where REXX users and developers could meet each other, exchange ideas, and information about the language and discuss future plans."**

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## SHARE Interest in REXX

SHARE Meeting	Number of REXX Sessions
72 (3/89)	9
73 (8/89)	13
74 (3/90)	23
74.5 (5/90)	REXX Project approved
75 (8/90)	25
76 (3/91)	20
77 (8/91)	28
78 (3/92)	41

**Note that the sessions are in the REXX Project, MVS Project, and CMS Project.**

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## **Publications**

**s of 12/90, REXX has been the subject of:**

**4 books (plus 4 in the works)**

**40 User Group Presentations**

**40 product manuals**

**40 articles**

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<b>REXX Books as of 3/92</b>
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**Published:**

- ◆ **The REXX Language, A Practical Approach to Programming by Mike Cowlshaw (1985, 1990)**
- ◆ **Modern Programming Using REXX by Bob O'Hara and Dave Gomberg (1985,1988)**
- ◆ **REXX in the TSO Environment by Gabriel F. Gargiulo (1990)**
- ◆ **Practical Usage of REXX by Anthony Rudd (1990)**
- ◆ **Using ARexx on the Amiga by Chris Zamara and Nick Sullivan (1991)**
- ◆ **Amiga Programmers Guide to AREXX by Eric Giguere (1991)**
- ◆ **REXX Handbook edited by Gabe Goldberg and Phil Smith (1992)**
- ◆ **Programming in REXX by Charles Daney (1992)**

**Planned:**

- ◆ **3 others being worked on**

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## **REXX is International**

**REXX books and manuals have been translated into many languages, including:**

- ◆ **Chinese**
  
- ◆ **French**
  
- ◆ **German**
  
- ◆ **Japanese**
  
- ◆ **Portuguese**
  
- ◆ **Spanish**

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## REXX is International - Part 2

REXX presentations have been given in the following countries:

- ◆ Austria
- ◆ Australia
- ◆ Belgium
- ◆ Canada
- ◆ England
- ◆ France
- ◆ Germany
- ◆ Holland
- ◆ Japan
- ◆ Jersey
- ◆ Scotland
- ◆ Spain
- ◆ United States
- ◆ Wales

As of 1982, MFC had received mail from over 30 countries!

REXX Trade Press Article Titles

EXOTIC LANGUAGE  
OF THE MONTH CLUB

REXX: A beginner's alternative

All Hail REXX

What you should know about IBM's soon to be  
ubiquitous procedural language

For Programmers

REXX — A Multifaceted Tool

WHY IS  
REXX SO  
POPULAR?

REXX: The Wonder Language

REXX—Portrait of a  
New Procedures Language

Capture cross-system capabilities with REXX

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**REXX Trade Press Article Titles**

**ANALYSIS**

Lotus Makes a Case for REXX  
To Foil Microsoft's BASIC Plan

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analysis \ *Powerful REXX vs. Popular BASIC*

**Rexx in Charge**

*You're not really multitasking in OS/2  
unless you're using Rexx*

**HELLO, REXX—  
GOODBYE, .BAT**

*REXX is a powerful new shell language that's as easy to use as BASIC. It may replace the  
DOS batch processor in the future.*

**REXX  
A USER'S DREAM IN A  
SYSTEM PROGRAMMER'S WORLD**



# Utilize The POWER of REXX/CP/CMS

TEST DRIVE

# AREXX

(The integrative language)

A language adopted by IBM comes to the Amiga – and has started to change many other applications.

# RE

# XX

The system  
architecture

application  
connection

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## REXX Language Level

REXX Level	Usage
3.20	CMS release 3
3.40	CMS release 4, 5, 5.5 MUSIC/SP version 2.2
3.45	CMS release 6 TSO/E version 2, release 1.



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## Implementations

There are REXX implementations for:

- ◆ AIX
- ◆ Amiga (interpreter/compiler)
- ◆ DOS
- ◆ OS/2
- ◆ OS/400
- ◆ Tandem
- ◆ TSO (interpreter/compiler)
- ◆ UNIX
- ◆ VM (interpreter/compiler)
- ◆ VMS
- ◆ WINDOWS

from 9 different sources.

## REXX Implementations by year First Available

Year	New Platform
1983	VM (IBM)
1985	PC-DOS (Mansfield)
1987	Amiga (W. S. Hawes)
1988	PC-DOS (Kilowatt) TSO (IBM)
1989	OS/2 (Mansfield) VM Compiler (IBM)
1990	UNIX/AIX (Workstation Group) Tandem (Kilowatt) OS/2 (IBM) AS/400 (IBM)
1991	DEC/VMS (Workstation Group) VM Compiler (Systems Center) 370 compiler (IBM) Amiga Compiler (Dineen Edwards Group)
1992	Windows (Kilowatt) Windows (Quercus) MS-DOS (Tritus) OS/2 (Tritus) UNIX/AIX (Becket Group)

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## **REXX Curiosities**

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## Name of a REXX Entity

What is the name of a REXX entity??? Is it:

- ◆ Program
- ◆ Exec
- ◆ Macro
- ◆ Procedure
- ◆ Shell
- ◆ Script

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**Name of a REXX Entity ...**

**Term definitions are:**

**Program:** A sequence of instructions suitable for processing by a computer. Processing may include the use of an assembler, a compiler, an interpreter, or a translator to prepare the program for execution, as well as to execute it.

**Exec procedure:** In VM, a CMS function that allows users to create new commands by setting up frequently used sequences of CP commands, CMS commands, or both, together with conditional branching facilities, into special procedures to eliminate the repetitious rekeying of those command sequences.

**Macro instruction:** An instruction that when executed causes the execution of a predefined sequence of instructions in the same source language.

**Procedure:** A set of related control statements that cause one or more programs to be performed.



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<b>Name of a REXX Entity ...</b>
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**shell:** A software interface between a user and the operating system of a computer. Shell programs interpret commands and user interactions on devices such as keyboards, pointing devices, and touch-sensitive screens and communicate them to the operating system.

**script:** In artificial intelligence, a data structure pertaining to a particular area of knowledge and consisting of slots which represent a set of events which can occur under a given situation.

**Note:** definitions come from the IBM "Dictionary of Computing".

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<b>Is REXX a....?</b>
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- ◆ **Programming language**
- ◆ **Exec language**
- ◆ **Macro language**
- ◆ **Procedure language**
- ◆ **Command procedures language**
- ◆ **Extension language**
- ◆ **System Extension language**
- ◆ **Glue language**
- ◆ **Shell language**
- ◆ **Batch language**
- ◆ **Scripting language**

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## **Cowlishaw Book Cover**

The 1990 edition of the Cowlishaw book has a new cover which includes the following changes:

- ◆ **King now matches the playing cards King of Spades meaning**
  - **King faces the opposite way**
  - **King holds the sword differently**

**King was chosen because REX is Latin for King!**

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## REXXbits Summary

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## **REXXbits Summary**

- ◆ **REXX is an international language**
  
- ◆ **REXX is growing in numbers of**
  - **implementers**
  
  - **different platforms available**
  
  - **users**
  
  - **books/articles.**
  
- ◆ **REXX is in the process of being formally standardized.**
  
- ◆ **REXX usage is in the "eyes of the beholder"!**