

Rexx Vs Bash

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For those who know one of these languages and want to learn about the other.

The Basics

	Rexx	Bash
Easy to learn, use, and maintain	Yes	No (unfriendly syntax)
Very powerful	Yes	Yes
Open source	Yes	Yes
Portable	Yes	Yes
Runs on all platforms	Yes	Yes
Runs as the OS Shell	No	Yes
Interfaces to tons of tools	Yes	Yes
ANSI or ISO Standard	Yes (ANSI-1996)	Yes (POSIX compliant with extensions)

Profiles

	Rexx	Bash
Dialects	TRL-2, ANSI, Mainframe, ooRexx, NetRexx	Bash (a superset of the Bourne shell)
Unique Usage	* Default scripting language for mainframes and several minor platforms * Interfaces to all mainframe environments and address spaces	* Default scripting language for Linux (including on Windows and mainframe Linux systems) * Sometimes the default for BSD, Oracle Solaris, older Apples, other systems
Programming paradigms	Procedural, scripting, functional, object-oriented (ooRexx and NetRexx)	Procedural, scripting, functional
OOP: classes, objects, multi-inheritance, polymorphism, encapsulation	In ooRexx and NetRexx	Unsupported
User Group	Rexx Language Association	Free Software Foundation
Quick Online Lookup	Quick Lookup	DevHints , LinuxTutorials
Cheat Sheet (printable PDF)	ANSI Rexx , Mainframe Rexx	LinuxSimplify , Cheatography
Forum	RexxLA forum	LinuxQuestions.org , Linux.org
Further information	RexxInfo.org	Free Software Foundation: GNU Bash

Language Comparison

	ANSI REXX	Bash
Formatting	Free form	Free form
Case-sensitive	No	Yes
Comments	Enclose inside /* and */	Start comment with: # Or, use a Here document for commenting out multiple lines
Line Continuation	, (comma)	\ (backslash)
Statement Separator	; (semi-colon)	; (semi-colon)
Code Blocks	Define by do - end	Define by do - done, if - fi, or case - esac
Undefined Variables	Allowed. Use SYMBOL to determine if a variable has been defined	Allowed. To error on undefined variables, code: set -u
Assignment Operators	=	= += -= *= /= %= Compound Bitwise: &= = <<= >>= ^=
Arithmetic Operators	+ - * / % ** //	+ - * / % ** Compound: += -= *= /= %= Evaluate arithmetic expression: \$((expression)) Increment/decrement a value: i++ i-- ++i --i
Comparison Operators	== \== >> << >>= \<< <<= \>> = \ = <> >< > < >= \< <= \ (\ can be replaced with ~ in any of these)	Integers: -eq -ne -gt -ge -lt -le Strings: = == != > >= < <= =~
Logical Operators	& && \ (prefix) ~ (prefix)	&& ! (prefix)
Concatenation Operators	Or, concatenate with blank between Or, concatenate by abuttal (no blank)	+= Or, use abuttal: VAR3="\$VAR1\$VAR2"
Bitwise Operators	Use built-in functions	& ^ << >> ~ Compound: &= = <<= >>= ^=
Membership Operators	Unsupported	Unsupported
Regular Expressions	Use REXXRE Regular Expressions external Library	Yes
Built-in Functions	About 70 functions	None in the traditional sense, designed to issue shell and line commands
Data Types	Everything's a string, types are reflected in usage	By default, variables are untyped. Or use "declare" to explicitly type them as: -a, -A, -i, -l, -n, -r, -t, -u, -x
Function to Check Data	datatype	declare -p

Type		
Collections of Variables	Use compound variables	One-dimensional arrays: declare -a array_name
Associative Arrays	Use compound variables	declare -A array_name
Multidimensional Arrays	Use compound variables	Unsupported
Stack & Queue Operations	Yes (push, pull, parse pull, queue, queued)	No generalized facility (offers a directory stack with pushd, popd, and dirs)
Decimal Arithmetic	Default	Install and use: bc
Flow of Control	if, do, select, call, exit, return, iterate, leave, signal, nop	until, while, for, break, continue, return, exit
Trace Script Execution	trace (instruction), trace (function)	Use the -x option. Run the script: bash -x or inside the script: set -x
Terminate Process	exit	exit
Get User Input	say "Enter your name:" parse pull name	echo -n "Enter your name: " read name
Exception Handling	signal	trap
Standard Exceptions	novalue, error, failure, halt, notready, syntax, lostdigits	trap covers 64 signal specs (list them by: trap -l)
Run an Operating System Command	Just issue the command string (Rexx passes unrecognized strings to the default active environment)	Just issue the command string

Based on [Rexx Programmer's Reference](#) and [Bash Reference Manual](#) version 5.2.