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CoCo Magazines Database

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Abstract

The CoCo Magazines Database is presented and described; a Microsoft Access database containing 3,677 records of CoCo articles from eleven different magazines; a database which can be downloaded and used on (non-CoCo) personal computers.

Table of Contents

Introduction

It's two o'clock in the morning.

You're feverishly trying to finish the paper that you hope to present at the next Last CoCoFest.

The deadline is tomorrow! Where is that article you vaguely remember and want to reference in your paper? If only you could remember which issue it was in. Or which magazine. Aaaarrrggghh!!!

What you need is The CoCo Magazines Database!

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Recently, I was researching the possibility of using PMODE Graphics space for storage of machine language routines. I thought that one potential solution might include using PCLEAR0. Within half-an-hour, I had located, accessed, and read:

Esposito, Richard and Willingham, Mary. "Doctor ASCII: Automation Routine." The Rainbow, February, 1989, page 112.
Farmer, Alan. "PCLEAR0." Hot CoCo, June, 1984, page 98.
Heusinkveld, John. "PCLEAR0." 80micro, September, 1982, page 282.
Krebs, Ron. "De-Mystifying PCLEAR0." The Rainbow, September 1983, page 112.

I eventually concluded that PCLEAR0 was not the solution for what I was trying to do. But the negative information from the magazine articles cataloged in The CoCo Magazines Database saved me a significant amount of additional work.

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You can now have your own CoCo Magazines Database cataloging 3,677 articles in hundreds of issues of eleven different CoCo and related magazines.

This is not an online database. It's a database you can download and use on your own (non-CoCo) computer. (I suppose you *could* manually convert it to a VIP database for actual use right on the CoCo itself - might be an interesting project - Good Luck!).

You can use it just as it is, or you can customize it and add to it as you see fit.

The database is free and downloadable from my BDS Software site via the link:

http://www.bds-soft.com/files/databases/CoCoMags.zip

4

Description of the Database

First of all, the CoCo Magazines Database is NOT (and never will be) a comprehensive index. It's my personal database, and it only catalogs articles which are of personal interest to me.

HOWEVER, it could be useful to you as a foundation upon which to build your own personal database; by adding entries for articles which are of personal interest to YOU. You can add to them, subtract from them, or change them however you see fit.

Also, since my interests are somewhat eclectic, you may find that a good portion of what interests you has already been cataloged in the 3,677 records extant.

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The database primarily covers CoCo~123, CoCo Friends Disk magazine, Color Computer Magazine, Gamers Connection, Hot CoCo, The Rainbow, and parts of 80 Micro; with bits and pieces of Byte Magazine, Creative Computing, Dr. Dobb's Journal, and Forth Dimensions.

The database is a Microsoft Access 2010 database. You will generally need a copy of Microsoft Access in order to use it. If you get or have a newer (than 2010) copy of Access, it may translate the database into its own format - this is normal. If you have a copy of Microsoft Access which is older than 2010, it will not be able to use this database.

Alternatively, if you just want to look at the database entries without changing anything, you can download the free Microsoft Access Viewer from Microsoft.

If you wish, you could also use the Access To MySQL conversion tool from Bullzip, or the Access To SQLite conversion tool from DBConvert, or something similar for whichever DBMS (Data Base Management System) you have.

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Database Design

I have a Masters Degree in Computer Science and, over the years, I've built many commercial, industrial, and governmental quality databases in MS Access, MySQL, SQlite, MS SQL Server, postgreSQL, Oracle, and DB2. I know all the rules of proper database design and normalization...

For this project, I've chosen to ignore most of those rules.

What I need (and what I suspect you might yourselves prefer) is a simple system which is easy to use and easy to maintain.

The database consists of one table and five queries. The Table Fields are:

```
ID              AutoNumber  Long Integer
ArticleName     Text        255
Category1       Text        255
Category2       Text        255
Magazine        Text        255
Volume          Number      Long Integer
Number          Number      Long Integer
Page            Number      Long Integer
MagMonth        Number      Long Integer
MagYear         Number      Long Integer
Comment         Memo        --
```

The five queries are:

ArticleNameSearch - Selects records whose ArticleName Field contains a word or phrase you specify.
Category1Query - The entire table in Category1 order.
Category2Query - The entire table in Category2 order.
CommentQuery - Selects records whose Comment Field contains a word or phrase you specify.
MagOrderQuery - The entire table in Magazine Name order.

You'll note that the tables don't include fields for Author Name, Publisher, Address, etc., etc. If I need any of that information, I'll simply look it up in the magazine issue in question.

You'll also note that, except for the ArticleNameSearch and the CommentQuery, the queries don't isolate any records. I simply scan down the list until I come to the entry I'm looking for: they're all in alphanumeric order at that point.

For example, if I'm looking for articles about Mathematics, I'll do a Category1Query and scan down the list until I come to the "Math" entries in the Category1 Field. Then, I'll do a Category2Query and scan down the list until I come to the "Math" entries in the Category2 Field.

One of the costs of the simplicity of this database is the need to check both category fields, because a given entry may appear in either field. For example, for one record, Category1 may be "Math" and Category2 may be "Business". Yet, for another record, Category1 may be "Assembly" and Category2 may be "Math".

Very seldom will a record require more than two categories. When it does, I simply commit the cardinal sin of duplicating the record, resulting in (OH! The HORROR of it all!) two records containing the same data. In formal database work, this is bad because if something needs to be changed, you might change it in one record and forget to change it in the other. This project is not that mission-critical. I'll simply fix any such errors when and if I come across them.

In a similar fashion, it would be formally correct to provide a separate table of category entries to minimize the possibility of spelling errors. Built-in traps for such errors on entry would also be provided. In this project, such errors will simply appear out of order in the Category queries and will then be corrected forthwith. (For a list of the Categories I use, see below).

What appears in the ArticleName Field of the database does not always match the actual article name in the publication: I use whatever wording will be clearest and easiest to understand, and which will do the best job of directing me to the articles I'm looking for.

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Idiosyncracies

Some magazines are identified by month and year, but not by volume and number. Conversely, some are identified by volume and number, but not by month and year. Some magazines (especially in the HTML only collections) do not specify page numbers. Wherever Volume, Number, Page, MagMonth, or MagYear data is missing or unavailable, I insert the value 0 (zero).

Some magazines are published quarterly rather than monthly. For such, I use "month" numbers: Spring = 13, Summer = 14, Fall = 15, and Winter = 16.

Some MC6809 articles are included in the database even where the MC6809 is not in a CoCo.

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Categories

Adventure = Adventure Games (Usually Text-Only)
AdventureDesign
AdventureGraphic = Adventure Games with Graphics
AI = Artificial Intelligence
Algorithms
Arcade = Arcade Games
Assembly = Assembly, Disassembly, and Machine Language
Astronomy
Audio = Speech and organized sounds, other than Music
Backup
BASIC = The BASIC Programming Language
BDS = BDS Software Articles
Benchmarks
Business
C = The C Programming Language
Case = Case Statements in Forth
CF83 = BDS Software's 83-Standard Forth for the Color Computer
Classes = Classes, Objects, etc.

Communications = Serial and Parallel
Compilers = Compilers and Decompilers
Compression = Data Compression and Decompression
ControlStructures
Corrections
Cryptography
Database
DataStructures
Debugging
DragonsByte = A Fantasy Game Column
Editor = Text Editors, IDEs, etc.
Education
Email = Email Systems
Embedded = Embedded Systems
Emulator = Emulators and Simulators, etc.
Execution = Execution Mechanisms in Forth
ExternalDevices = Sensors, Controllers, etc.
Files
Filters
Fonts
Forth = Forth Articles
FPGA = Field Programmable Gate Array
FRP = Fantasy Role Playing
FSM = Finite State Machines
Game
GameBBS = Games on Bulletin Board Systems
GameDesign
GameHelp = Helps for Gameplay
GMApprentice = Game Master's Apprentice, A Fantasy Game Column
Graphics
Hardware
Hints = Hints, Tips, and Tricks
I/O
Internal = System Internals
KJV = BDS Software's King James Version of the Bible on Color Computer Disks
Languages = Programming Dialects and Languages
Maint = Maintenance, Troubleshooting, and Repair
Make = Make and Makefile tools
Math
Memory
Misc = Miscellaneous Articles, not otherwise classifiable
Music
Network = Nets and Networking
OpSys = Operating Systems
Optimize = Optimization
OS9 = The OS/9 Operating System

Physics
Print = Printers and Printing
Programming = General Programming
Publish = Desktop Publishing
Puzzle
PuzzleDesign
Random = Random Numbers and Generators
R&C = Received and Certified
Recursion
Review = Software and other product reviews
Robotics
Science = Science, Engineering, etc.
Searching
Simulation = Software Simulations (e.g. Games that model reality)
SimulationDesign
Sorting
Sound = Sound Effects (e.g. disorganized sounds)
Sports
Spreadsheets
Stacks = Stacks in Forth
Statistics = Probability and Statistics
Storage
StringProcessing
Strings
Subroutine = Subroutines, Functions, Macros, and Modules, etc.
SysAdmin = Systems Administration
Tools
Utility
Variables
Web = The Web and the Internet
WordP = Word Processors
Words = Forth Colon Definitions, i.e. Words

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Column Names and Other Abbreviations

In the ArticleName Field of this database, in order to save typing time and effort, I use various abbreviations for recurring magazine column names and often reappearing words and phrases. Among these abbreviations are:

AC - Assembly Corner; Rainbow Magazine
AL - Assembly Line; 80 Micro Magazine
AOP - Art of Programming; 80 Micro Magazine
ATD - Ask The Doctor; Forth Dimensions
BB - Basic Beat; Hot CoCo

BS - Basically Speaking; Rainbow Magazine
BT - Basic Training; Rainbow Magazine
BTA - Basic Takes; 80 Micro Magazine
CC - CoCo Consultations; Rainbow Magazine
CM - Copernica Mathematica; 80 Micro Magazine
DA - Dr. ASCII; Rainbow Magazine and Hot CoCo
EA - Elmer's Arcade; Hot CoCo
ECB - Extended Color BASIC (CoCo)
FH - Fun House; 80 Micro Magazine
FRP - Fantasy Role Playing; Rainbow Magazine
GA - Gamemaster's Apprentice; Rainbow Magazine
GS - Graphically Speaking; Hot CoCo
NN - Novice's Niche; Rainbow Magazine
OHL - OS-9 Hotline; Rainbow Magazine
OOF - Object-Oriented Forth
PT3 - Programming Tips, Tricks, and Traps; Rainbow Magazine
RF - Reader's Forum; Hot CoCo
RWA - Real World Applications; Hot CoCo
SB - Soft Bits, 80 Micro Magazine
TAL - The Assembly Line; Rainbow Magazine
TOTS - Turn Of The Screw; Rainbow Magazine
TQA - Technical Questions and Answers; Rainbow Magazine
* - In Comments Field = an article of special interest to me
** - In Comments Field = an article of particularly special interest to me
*** - In Comments Field = an article of great special interest to me
**** - In Comments Field = an article of exceeding special interest to me
***** - In Comments Field = an article of most special interest to me

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Magazine Source Locations

Downsizing is a way of life at my age: I can't devote room in the house to a magazine collection. Therefore, except where otherwise indicated, I'm only cataloging articles from computer magazines which are available free and online. Also except where otherwise indicated, the magazines are all downloadable .pdf files. The magazine source locations are:

80 Micro Magazine
--- http://www.colorcomputerarchive.com/

Byte Magazine
--- https://archive.org/details/byte-magazine?&sort=date

CoCo~123
--- Back Issues http://www.colorcomputerarchive.com/
--- Current Issues http://www.glensideccc.com/

CoCo Friends Disk Magazine (CFDM)
--- http://www.colorcomputerarchive.com/

Color Computer Magazine
--- http://www.colorcomputerarchive.com/

Creative Computing
--- https://archive.org/details/creativecomputing?&sort=date

Dr. Dobb's Journal
--- 1976-1990: https://archive.org/search.php?query=creator%3A%22People%27s
        +Computer+Company%22&sort=-date
--- 1988-2008: https://collaboration.cmc.ec.gc.ca/science/rpn/biblio/ddj/
        Website/forms/left.htm - HTML Only.
            As of 2021/07/20, this link appears to be defunct. I have not as
            yet discovered any viable alternate link.
--- 2008-2019: http://www.drdobbs.com/articles/archives?startAt=10 - HTML Only.
        To use this latter site, you must have a free account. But the account signup
        wasn't working as of 2019/03/31. But if you establish an account at InfoWeek
        that account seems to work on the Dr. Dobb's site as well.

Forth Dimensions
--- https://archive.org/details/forthdimension

Gamers Connection
--- http://www.colorcomputerarchive.com/

Hot CoCo
--- http://www.colorcomputerarchive.com/

Rainbow Magazine
--- http://www.colorcomputerarchive.com/

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Conclusions and Future Work

Other than for the possible addition of future articles which may appear and interest me from time-to-time, the database is essentially complete as it stands.

No further future work is anticipated.

Appendix A: My CoCo Philosophy

The CoCo community enjoys a great diversity of interests.

Some choose to concentrate on hardware innovations and modifications such as interfacing with VGA and HDMI monitors, SD Card data storage, and 104-key keyboards. This interest is at least partly born of necessity, since composite monitors, floppy diskettes, and CoCo spare parts are no longer manufactured and are in increasingly short supply.

Others concentrate on expanding the software horizons of the CoCo 3, using NitrOS-9 and other operating systems to make the multitasking CoCo behave ever closer to modern Windows, Mac, and Linux machines.

Still others are devoted to emulating the CoCo on other platforms by developing emulators such as VCC, OVCC, MAME, and XRoar.

And some just love retro gaming.

My personal interest is twofold:

      1. To see VCC increasingly used as a learning tool for budding software developers.

      2. To see just how much I can cram into a 64K CoCo 2.

First, VCC: Today's Grade School, Junior High, and High School students have a wealth of available learning tools. Micro-bits, Arduinos, and Raspberry Pi supermicro devices provide highly affordable entry-level introductions to computer programming and interfacing. Maker-Spaces and Innovation Centers in our schools and libraries help foster growth and experience.

But these devices do have limitations. Even these simple(?) computers can have rather steep learning curves, and their low initial cost can quickly expand as new peripherals and experimental equipment and supplies are added.

VCC is free, and can be used on any Windows computer: just download it, install it, and it runs. If you don't own a Windows computer, your school, library, or a friend probably does. The included BASIC language is easy to learn and can readily serve as a stepping-stone towards more complex programming languages. (And, no, learning structured programming does not require a language that enforces structure. In fact, I think learning to structure your programs is actually more effective when you do so on your own.)

I prefer VCC to the other emulators for these purposes because its setup is trivial: Again, just download it, install it, and it runs. OVCC, MAME, and XRoar have their advantages, but ease of setup is not one of them. Even with their available Windows binary packages, they require pre-installation of other bits and pieces of software before they can be downloaded, installed, and run. This may not be a major problem for a reasonably adept aficionado, but it forms a significant barrier for the newbie. And, it's the newbie whom we're trying to reach, interest, and encourage here; the newbie who may not yet recognize even the tiniest awakening of interest in things computational.

But, for these purposes, VCC has one glaring weakness: its instruction manual is woefully terse. I would like to see VCC bundled with a selection of tutorials, manuals, and examples suited to guiding even the most newbie of newbies into the wonders of computing.

Second, The Stuffed CoCo: I'm simply fascinated by the challenge of seeing how much functional capability I can sandwich into the nooks and crannies of the 64K space. Whether it's working in the available RAM left by the 32K ROM and the dedicated RAM that supports that ROM, or whether it's jumping right into ALLRAM mode and just filling the entire 64K to near-overflowing; it's an investigative gauntlet which goes right to the heart of my enchantment with puzzles in general.

It's great fun!

M.D.J. 2021/08/29

Appendix B: New BDS Software License

This New Software License applies to all software found on the BDS Software site, and supersedes all previous copyright notices and licensing provisions which may appear in the software itself or in any documentation therefor.

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If they don't work for you, I commiserate.

If they crash your system, I sympathize.

But I accept no responsibility whatsoever for any such consequences. Under no circumstances will BDS Software or M. David Johnson be liable for any negative results of any kind which you may experience from downloading or using these items.

BDS Software's former mail address at P.O. Box 485 in Glenview, IL is no longer valid. Any mail sent to that address will be rejected by the U.S. Postal Service. See my Contact page.

M.D.J. 2018/06/08

Works Cited

Esposito, Richard and Willingham, Mary. "Doctor ASCII: Automation Routine." *The Rainbow*,
      February, 1989. 112. Print.

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