RomWBW

Disk Catalog

Version 3.6

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Contents

Chapter 1

RomWBW Distribution File Catalog

This document is a reference to the files found on the disk media distributed with RomWBW. Specifically, RomWBW provides a set of floppy and hard disk images in the Binary directory of the distribution. The contents of these images is listed here.

The files on the disk images were sourced from a variety of locations. The primary sources of these files are listed below. Note that the primary documentation for each of these sources is listed. You are strongly encouraged to refer to this documentation for more information on using the applications and files listed.

This document primarily describes to contents of the hard disk images. Floppy disk images may contain a cut down (sub-set) of the files on a hard disk. This is of course to conserve disk space

Note: This document received a major update in October 2024, when while still not fully complete, most of the core operating system disks should now be fully described.

1.1 Sources

- **RomWBW**: RomWBW Custom Applications

  Documentation: *RomWBW Applications.pdf*

  These files are custom applications built exclusively to enhance the functionality of RomWBW. In some cases they are built from scratch while others are customized versions of well known CP/M tools.

- **CPM22**: Digital Research CP/M-80 2.2 Distribution Files

Documentation: *CPM Manual.pdf*

These files are from the official Digital Research distribution of CP/M 2.2. Applications have been patched according to the DRI patch list.

- **ZSDOS**: ZSDOS 1.1 Disk Operating System Distribution Files

  Documentation: *ZSDOS Manual.pdf*

  These files are from the official ZSDOS 1.1 distribution. Some of the files are redistributions of applications from other sources.

- **ZCPR**: ZCPR 1.0 Command Processor Distribution Files

  Documentation: *ZCPR Manual.pdf*

  These files are from the ZCPR 1.0 distribution.

- **NZCOM**: NZCOM Automatic Z-System Distribution Files

  Documentation: *NZCOM Users Manual.pdf*

  These files are from the last official release of NZCOM.

- **CPM3**: Digital Research CP/M 3 Distribution Files

  Documentation: *CPM3 Users Guide.pdf*, *CPM3 System Guide.pdf*, *CPM3 Programmers Guide.pdf*, *CPM3 Command Summary.pdf*

  These files are from the official Digital Research distribution of CP/M 3. Applications have been patched according to the DRI patch list.

- **ZPM3**: ZPM3 Distribution Files

  Documentation: *ZPM3.txt*

  These files are from Simeon Cran's official distribution of ZPM3. All known patches have been applied.

Chapter 2

Operating System Boot Disks

RomWBW contains several ready-to-run disks, that have been adapted for RomWBW. Theses disks are bootable as is (the operating system image is already embedded in the system tracks) and can be launched from the RomWBW Loader prompt.

Each Disk contains the following file

File	Description
README.TXT	Information about the Operating System

2.1   CP/M 2.2

A vanilla distribution of DRI's CP/M-80 2.2 adapted for RomWBW.

Floppy Disk Image: **fd_cpm22.img**
Hard Disk Image: **hd_cpm22.img**
Combo Disk Image: **Slice 0**

2.1.1   CP/M 2.2 OS Files

These are built and provide the OS. CP/M 2.2 Typically has no boot files stored on the disk. It entirely boots from the system track

The following files appear in User Area 0

File	Source	Description
`CPM.SYS`	RomWBW	DRI CPM 2.2 Boot Image for SYSCOPY

2.1.2   CP/M 2.2 Files

The following CP/M 2.2 files were distributed by DRI with the operating system or as supplemental add-on programs. They are documented in the "CP/M Manual.pdf" document in the Doc/CPM directory of the Rom WBW distribution.

The following files appear in User Area 0

File	Description
`ASM.COM`	DRI 8080 assembler
`DDT.COM`	8080 dynamic debugger
`DUMP.COM`	DRI type contents of file in hex
`ED.COM`	DRI line editor
`HELP.COM`	CP/M 3 derived HELP display
`HELP.HLP`	CP/M 3 derived HELP data file
`LIB.COM`	DRI object file library manager
`LINK.COM`	DRI object file linker
`LOAD.COM`	DRI loader for Intel hex files
`MAC.COM`	DRI 8080 macro assembler
`PIP.COM`	DRI periperal interchange program
`RMAC.COM`	DRI 8080 relocating macro assembler
`STAT.COM`	DRI file/disk/device info & config
`SUBMIT.COM`	DRI batch file submission tool
`XREF.COM`	DRI assembler cross reference listing utility
`XSUB.COM`	DRI batch file resident extension
`ZSID.COM`	DRI Z80 symbolic debugger

NOTE: The above files are also included in the NZCOM disk image.

MAC, RMAC, XREF, and ZSID are supplemental programs from DRI with separate standalone documentation which is not included in the RomWBW package (but easily found on the Internet via Google search).

2.1.3   Additional Files

File	Documentation	User Area
	OS General Files	0
	General Purpose Applications	0
	Testing Applications	2
	Sample Audio Files	3
	CP/NET 1.2	4
	SIMH Simulator	13

2.2   ZSDOS 1.1

It contains a customized version of ZSDOS 1.1 for RomWBW. The disk is bootable as is (the operating system image is already embedded in the system tracks) and can be launched from the RomWBW Loader prompt.

The starting point for the disk content was the final public release of ZSDOS which is generally available on the Internet.

Floppy Disk Image: **fd_zsdos.img**
Hard Disk Image: **hd_zsdos.img**
Combo Disk Image: **Slice 1**

2.2.1   ZSDOS 1.1 OS Files

These are built and provide the OS. ZSDOS Typically has no boot files stored on the disk. It entirely boots from the system track

The following files appear in User Area 0

File	Source	Description
ZSYS.SYS	RomWBW	ZSDOS Boot Image for SYSCOPY

2.2.2   ZSDOS 1.1 Files

The following files came from the official ZSDOS distribution. These are generally documented in the "ZSDOS Manual.pdf" document in the Doc/CPM directory of the RomWBW distribution.

Note: Some of the files included in the ZSDOS distribution are not listed below because they have been superseded by more recent versions listed in other sections below.

The following files appear in User Area 0

File	Description
BGPATCH.HEX	Patches BackGrounder II for ZSDOS 1.1 compatibility
CLOCKS.DAT	Library of clock drivers
COPY.UPD	Document describing updates to COPY program
DATSWEEP.COM	Comprehensive file management w/ date stamp awareness
DSCONFIG.COM	Program to configure DATSWEEP
FA16.CFG	ZCNFG configuration file for FILEATTR.COM
FA16.DOC	Documentation for FILEATTR.COM

File	Description
FA16A.FOR	Summary Information for FILEATTR.COM
FA16CFG.TXT	describes configuration options for FILEATTR.COM
FILEATTR.COM	Set and/or display file attributes
FILEDATE.COM	Date/time stamping aware disk directory utility
FILEDATE.CFG	ZCNFG configuration fie for FILEDATE
INITDIR.COM	Prepare disk for P2DOS date/time stamping
INITDIR.CFG	ZCNFG configuration file for INITDIR
LDDS.COM	Load DateStamper date/time stamping resident extension
LDNZT.COM	Load NZT date/time stamping resident extension
LDP2D.COM	Load P2DOS date/time stamping resident extension
PUTBG.COM	Updated replacement for BackGrounder II PUTBG program
PUTDS.COM	Prepare disk for datestamper date/time stamping
RELOG.COM	Clear fixed disk login vector in ZSDOS
SETTERM.COM	Terminal configuration utility for DATSWEEP & DSCONFIG
SETUPZST.COM	Creates date/time stamping resident extensions
STAMPS.DAT	Library of date/time stamping modules for SETUPZST
TD.COM	Read and set system real-time clock
TD.CFG	ZCNFG Configuration file for TD.COM
TERMBASE.DAT	Library of terminals used by SETTERM
TESTCLOK.COM	Test a selected clock driver
ZCAL.COM	Display a small one-month calendar to the screen
ZPATH.COM	Set or display ZSDOS and ZCPR search paths
ZSCONFIG.COM	Configure features of ZSDOS operating systems
ZSVSTAMP.COM	Preserves file date/time stamp across modifications
ZSVSTAMP.DOC	Document describes the use and operation of ZSVSTAMP

NOTE: The above files are also included in the NZ-COM disk image distribution

2.2.3 Additional Files

Documentation	User Area
CP/M 2.2 Files	0
OS General Files	0
General Purpose Applications	0
Testing Applications	2
Sample Audio Files	3

Documentation	User Area
SIMH Simulator	13

2.3　NZCOM

This disk contains NZ-COM, which is an implementation of the Z-System. You may also see NZ-COM referred to as ZCPR 3.4. This is a powerful replacement for CP/M 2.2 w/ full backward compatibility. NZ-COM is extremely configurable and far more powerful than DRI CP/M. It is almost mandatory that you read the NZ-COM manual to use the system effectively.

Floppy Disk Image: **fd_nzcom.img**
Hard Disk Image: **hd_nzcom.img**
Combo Disk Image: **Slice 2**

2.3.1　NZ-COM OS Files

NZ-COM is not designed to load directly from the boot tracks of a disk. Instead, it expects to be loaded from an already running OS.

This disk has been configured to boot using ZSDOS with a PROFILE.SUB command file that automatically loads NZ-COM. So, NZ-COM will load completely without any intervention, but you may notice that ZSDOS loads first, then ZSDOS loads NZ-COM.

The following files appear in User Area 0

File	Source	Description
!(C)1988	NZCOM	Original copyright (since placed in public domain)
!NZ-COM	NZCOM	Software marker directory entry (empty file)
!VERS--1.2H	NZCOM	Version marker directory entry (empty file)
NZCOM.COM	NZCOM	Loads and launches NZ-COM system
NZCOM.ENV	RomWBW	Z-System environment descriptor
NZCOM.LBR	NZCOM	Library of NZCOM system modules
NZCOM.ZCM	RomWBW	Environment descriptor (alternate format)
NZCPR.LBR	NZCOM	Library of alternative ZCPR modules
PROFILE.SUB	RomWBW	Command file to auto-start NZ-COM at system boot
RCP.LBR	NZCOM	Library of alternative RCP modules
STARTZCM.COM	RomWBW	Commands to execute after NZ-COM is launched
ZRDOS.ZRL	ZRDOS	Relocatable version of ZRDOS BDOS module
ZSDOS.ZRL	ZSDOS	Relocatable version of ZSDOS 1.1 BDOS module
ZSYS.SYS	RomWBW	ZSDOS Boot Image for SYSCOPY

2.3.2 NZ-COM Files

The following files came from the official NZ-COM distribution. These are generally documented in the "NZCOM Users Manual.pdf" document in the Doc/CPM directory of the RomWBW distribution.

NOTE: It may appear theat there are not many files, this is because most of the OS files are shared with Z3PLUS. See here for a list NZ-COM Z3PLUS OS Files

The following file are in User Area 15, and where noted 10 for help files, or 14 for config files.

File	Description
`ALIAS.CMD`	Sample alias definitions for use with ARUNZ
`BGZRDS19.LBR`	Patch for Backgrounder II (U10)
`CMDRUN.COM`	Extended Command Processor (copied from ARUNZ)
`MKZCM.COM`	Create/update NZ-COM load environment
`NZBLITZ.COM`	Rapid coldboot of complete NZ-COM system image
`NZBLTZ14.CFG`	ZCNFG configuration file for NZBLITZ. (U14)
`NZBLTZ14.HZP`	Help file for NZBLITZ (U10)
`NZ-DBASE.INF`	dBase II application note regarding SUBMIT files (U10)
`PUBLIC.COM`	Specify ZRDOS public directories/user areas
`RELEASE.NOT`	Update information on NZ-COM (U10)
`SUB.COM`	Enhanced version of SUBMIT

2.3.3 Additional Files

Documentation	User Area
Testing Applications	2
Sample Audio Files	3
CP/NET 1.2	4
SIMH Simulator	13
CP/M 2.2 Files	15
ZSDOS 1.1 Files	15, 14, 10
NZ-COM Z3PLUS OS Files	15, 14, 10
OS General Files	15, 14, 10
General Purpose Applications	15, 10

2.4   CP/M 3

A vanilla distribution of DRI's CP/M 3, also known as CP/M Plus adapted for RomWBW.

Floppy Disk Image: **fd_cpm3.img**
Hard Disk Image: **hd_cpm3.img**
Combo Disk Image: **Slice 3**

2.4.1   CP/M 3 OS Files

The following files appear in User Area 0

File	Source	Description
BDOS3.SPR	CPM3	DRI CPM+ GENCPM input file for the non-banked BDOS
BIOS3.SPR	RomWBW	DRI CPM+ GENCPM input file for non-banked BIOS
BNKBIOS3.SPR	RomWBW	DRI CPM+ GENCPM input file for banked BIOS
BNKBDOS3.SPR	CPM3	DRI CPM+ GENCPM input file for banked BDOS
CCP.COM	CPM3	DRI CPM+ Console Command Processor
CPM3.SYS	RomWBW	DRI CPM+ (non-banked) memory image
CPM3RES.SYS	RomWBW	DRI CPM+ (non-banked) memory image
CPM3BNK.SYS	RomWBW	DRI CPM+ (banked) memory image
CPM3FIX.PAT	CPM3	DRI CPM+ patch list
CPMLDR.COM	RomWBW	DRI CPM 3.0 Boot Loader Application
CPMLDR.SYS	RomWBW	DRI CPM 3.0 Boot Loader for SYSCOPY
GENBNK.DAT	RomWBW	GENCPM config data file (banked)
GENRES.DAT	RomWBW	GENCPM config data file (non-banked)
GENCPM.DAT	RomWBW	Current GENCPM config data file
GENCPM.COM	CPM3	DRI CPM+ Create a memory image of CPM3.SYS
RESBDOS3.SPR	CPM3	DRI CPM+ GENCPM input file for resident BDOS

2.4.2   CP/M 3 Files

The following CP/M 3 files were distributed by DRI with the operating system or as supplemental add-on programs. They are documented in the "CPM3 Command Summary.pdf" document in the Doc/CPM directory of the Rom WBW distribution.

The following files appear in User Area 0

File	Description
DATE.COM	DRI CPM+ Set or display the date and time
DEVICE.COM	DRI CPM+ Assign logical devices with one or more physical devices
DIR.COM	DRI CPM+ DIR with options
DUMP.COM	DRI type contents of disk file in hex
ED.COM	DRI CPM+ line editor
ERASE.COM	DRI CPM+ file deletion
GENCOM.COM	DRI CPM+ Generate special COM file with attached RSX files
GET.COM	DRI CPM+ Temporarily get console input form a disk file
HELP.COM	DRI CPM+ Display information on how to use commands
HELP.HLP	DRI CPM+ Databse of help information for HELP.COM
HEXCOM.COM	DRI CPM+ Create a COM file from a hex file (replaces LOAD.COM)
INITDIR.COM	DRI CPM+ Initializes a disk to allow time and date stamping
LIB.COM	DRI object file library manager
LINK.COM	DRI object file linker
MAC.COM	DRI 8080 macro assembler
PATCH.COM	DRI CPM+ Display or install patch to the CPM+ system or command files
PIP.COM	DRI CPM+ Periperal Interchange Program
PUT.COM	DIR CPM+ Temporarily redirect printer or console output to a disk file
RENAME.COM	DRI CPM+ Rename a file
RMAC.COM	DRI 8080 relocating macro assembler
SAVE.COM	DRI CPM+ Copy the contents of memory to a file
SET.COM	DIR CPM+ Set file options
SETDEF.COM	DIR CPM+ Set system options including the drive search chain
SHOW.COM	DIR CPM+ Display disk and drive statistics
SUBMIT.COM	DRI CPM+ batch processor
TYPE.COM	DRI CPM+ Display the contents of an ASCII character file
XREF.COM	DRI assembler cross reference listing utility
ZSID.COM	DRI Z80 symbolic instruction debugger

NOTE: The above files are also included in the ZPM3 and Z3PLUS disk images.

ZSID is a supplemental program from DRI with separate standalone documentation which is not included in the RomWBW package (but easily found on the Internet via Google search).

2.4.3   Additional Files

Documentation	User Area
OS General Files	0
General Purpose Applications	0
Testing Applications	2
Sample Audio Files	3
CP/NET 1.2	4
SIMH Simulator	13

2.5   Z3PLUS

2.5.1   Z3PLUS OS Files

Z3PLUS is not designed to load directly from the boot tracks of a disk. Instead, it expects to be loaded from an already running OS.

This disk has been configured to boot using CP/M 3 with a PROFILE.SUB command file that automatically loads Z3PLUS. So, Z3PLUS will load completely without any intervention, but you may notice that CP/M 3 loads first.

The following Z3PLUS files appear in User Area 0

File	Source	Description
!(C)1988	Z3PLUS	Original copyright (since placed in public domain)
!VERS--1.02F	Z3PLUS	Version marker directory entry (empty file)
!Z3PLUS	Z3PLUS	Software marker directory entry (empty file)
NAMES.NDR	RomWBW	Default Directory Names loaded at boot
RCP.LBR	Z3PLUS	Library of alternative RCP modules
PROFILE.SUB	RomWBW	Command file to auto-start Z3PLUS at system boot
STARTZ3P.COM	RomWBW	Commands to execute after Z3PLUS is launched
Z3PLUS.COM	Z3PLUS	Loads and launches Z3PLUS system
Z3PLUS.LBR	Z3PLUS	Library of Z3PLUS system modules

2.5.2   Z3PLUS Files

The following files came from the official Z3PLUS distribution. These are generally documented in the "Z3PLUS Users Manual.pdf" document in the Doc/CPM directory of the RomWBW distribution. Note:

NOTE: It may appear theat there are not many files, this is because most of the OS files are shared with NZCOM. See here for a list NZ-COM Z3PLUS OS Files

The following file are in User Area 15, and where noted 10 for help files.

File	Description
ALIAS.CMD	Sample alias definitions for use with ARUNZ
PATCHSK.SUB	Patch smartkey II v. 1.0A (U10)
PATCH4SK.HEX	Patch smartkey II v. 1.0A - Hex File (U10)
RELEASE.NOT	Update information on Z3PLUS (U10)

2.5.3   Additional Files

Documentation	User Area
Testing Applications	2
Sample Audio Files	3
CP/NET 1.2	4
SIMH Simulator	13
CP/M 3 Files	15
NZ-COM Z3PLUS OS Files	15, 14, 10
OS General Files	15, 14, 10
General Purpose Applications	15, 10

2.6 ZPM3

This is a generic ZPM3 adaptation for RomWBW.

Floppy Disk Image: **fd_zpm3.img**
Hard Disk Image: **hd_zpm3.img**
Combo Disk Image: **Slice 4**

Per ZPM3 standard, files are distributed across different user areas depending on their usage. Normal applications are in user area 15. Help files in user area 10. Configuration files in user area 14.

2.6.1 ZPM3 OS Files

The following files appear in User Area 0

File	Source	Description
BNKBIOS3.SPR	RomWBW	Banked BIOS
BNKBDOS3.SPR	ZPM3	Banked BDOS
CPM3.SYS	RomWBW	ZPM3 system file (See Note)
GENCPM.DAT	RomWBW	DRI CPM+ System generation tool data file
HELP.HLP	ZPM3	System Help File
MAKEDOS.COM	ZPM3	Utility to overlay your system file with ZPM3
STARTZPM.COM	RomWBW	Commands to execute after ZPM is launched
RESBDOS3.SPR	ZPM3	Resident BDOS
ZCCP.COM	ZPM3	ZCCP replacement for CCP.COM
ZINSTAL.ZPM	ZPM3	Segment containing environment information
ZPMLDR.COM	RomWBW	ZPM3 Boot Loader Application
ZPMLDR.SYS	RomWBW	ZPM3 Boot Loader for SYSCOPY

NOTE: Currently GENCPM.COM is located in User Area 15

NOTE: The ZPM3 system file is called CPM3.SYS. This is the ZPM3 default configuration. It is done to maximize compatibility with CP/M 3.

Either ZPMLDR or CPMLDR can be used to launch ZPM3. CPMLDR is equivalent to ZPMLDR.

The following files appear in User Area 15

File	Source	Description
AUTOTOG.COM	ZPM3	
CLRHIST.COM	ZPM3	
SETZ3.COM	ZPM3	

2.6.2 ZPM3 Files

This is a generic ZPM3 adaptation for RomWBW.

File	User Area	Description
ARUNZ.COM	15	Alias-RUN-forZ-System command alias exec (v1.1 Type3)
DEV.COM	15	
DISKINFO.COM	15	ZCPR utility which gives information about your disks.
DU.COM	15	
ERASE.CFG	14	
GENCPM.COM	15	DRI CPM3 Utility to Create a memory image of CPM3.SYS
GOTO.COM	15	
HELPC15.CFG	14	
IF.COM	15	Extended flow control tester for FCP (v1.6 Type 3)
IF.HLP	10	
LOADSEG.COM	15	ZCCP Utility to Load RSXes, TCAPs and Named Directory files.
MENU.HLP	10	
NAMES.NDR	15	Default Directory Names loaded at boot
REMOVE.COM	15	
RSXDIR.COM	15	ZCPR Utility which displays RSXes in memory
SETPATH.COM	15	used to set the command search path.
VERROR.COM	15	Installs a resident error handler
VLU.COM	15	Video Library Utility views or extracts files from libraries
VLU.HLP	10	
XREF.COM	15	
ZERASE.COM	15	
ZFHIST.HLP	10	
ZFILER.COM	15	File management shell, with GUI.
ZFILER.HLP	10	Help file for ZFILER.COM
ZF11.CFG	14	
ZFMACRO.HLP	10	
ZHELP.COM	15	

File	User Area	Description
ZSHOW.COM	15	displays amount of information about your Z-System

2.6.3   Additional Files

Documentation	User Area
Testing Applications	2
Sample Audio Files	3
SIMH Simulator	13
CP/M 3 Files	15
OS General Files	15, 14, 10
General Purpose Applications	15, 10

2.7   QPM 2.7

The following files came from from Microcode Consulting. The official distribution files can be found on the Microcode Consulting website at https://www.microcodeconsulting.com/z80/qpm.htm. Also included in this image are debugz, and linkz frm the same company.

This disk includes the standard DRI CP/M 2.2 files in addition to the QP/M files. QP/M generally assumes you already had DRI CP/M 2.2 prior to adding QP/M features.

2.7.1   QPM 2.7 OS Files

These are built and provide the OS. QPM Typically has no boot files stored on the disk. It entirely boots from the system track

The following files appear in User Area 0

File	Description
QPM.SYS	RomWBW configured QP/M system image (for use with SYSCOPY)

The qpm.sys file and the QP/M image on the system tracks was created using QINSTALL with default settings EXCEPT for the two settings described under Notes (current drive/user storage address and TIMDAT vector).

2.7.2   QPM 2.7 Files

The following files appear in User Area 0

File	Description
D.COM	Directory lister
DBGINST.COM	Configures DEBUGZ debugger
DEBUGZ.COM	Symbolic debugger for Z80
DEBUGZ.HLP	Symbolic debugger help file
DHORIZ.COM	Version of directory lister for horizontal file sorting
HELLO.QPM	Text file with QP/M version information
LZ.COM	Z80 Linking Loader
QBACKUP.COM	Data backup application
QINSTALL.COM	QP/M installer / configurator
QPATCH.COM	Patches (customizes) a few QP/M applications
QPIP.COM	QP/M enhanced version of CP/M 2.2 PIP application
QPMCLK.MAC	Example of QP/M clock assembler routine
QPMCMDS.TXT	Brief summary of QP/M commands
QPMUTILS.TXT	Brief summary of QP/M utilities
QSTAMP.COM	Initializes disk for date/time stamping
QSTAMPV.COM	Initializes disk for date/time stamping (vertical sort)
QSTAMPX.COM	Initializes disk for date/time stamping (horizontal sort)
QSTAT.COM	QP/M enhanced version of CP/M 2.2 STAT application
QSUB.COM	QP/M batch file submission program - Like SUBMIT
QSWEEP.COM	QP/M directory sweep utility
QTERM.DAT	Terminal control codes used by DEBUGZ
QTERMS.LIB	Library of available terminal definitions
SETQTERM.COM	Configures QTERM.DAT
TDCNFG.COM	Configures date/time directory display preferences

There are two text files (QPMCMDS.TXT and QPMUTILS.TXT) included.
These files have escape sequences imbedded in them which makes them look a little strange depending on the terminal emulation you are using.

2.7.3   Additional Files

Documentation	User Area
CP/M 2.2 Files	0

Documentation	User Area
OS General Files	0
General Purpose Applications	0
Testing Applications	2
Sample Audio Files	3
SIMH Simulator	13

Chapter 3

Common Disk Contents

3.1   CP/NET 1.2

User area 4 contains a full implementation of the CP/NET 1.2 client provided by Doug Miller. Please refer to https://github.com/durgadas311/cpnet-z80 for more information, complete documentation and the latest source code.

Please refer to the RomWBW User Guide for instructions on installing and using these these packages. Either the MT011 RCBus module or the Duodyne Disk I/O board is required. In general, to use CP/NET on RomWBW, it is intended that you will extract the appropriate set of files into your default directory in user area 0.

The following are found in

- /Binary/CPNET

File	CP/NET Version	OS	Hardware
`CPN12MT.LBR`	CP/NET 1.2	CP/M 2.2	RCBus w/ MT011
`CPN3MT.LBR`	CP/NET 3	CP/M 3	RCBus w/ MT011
`CPN12DUO.LBR`	CP/NET 1.2	CP/M 2.2	Duodyne w/ Disk I/O
`CPN3DUO.LBR`	CP/NET 3	CP/M 3	Duodyne w/ Disk I/O
`CPN12SER.LBR`	CP/NET 1.2	CP/M 2.2	RomWBW Serial Port
`CPN3SER.LBR`	CP/NET 3	CP/M 3	RomWBW Serial Port

3.2   General Purpose Applications

The following files are general purpose an provided in (mostly) all OS images

The following files are found in

- /Source/Apps/*
- /Source/Images/Common/All
- /Source/TastyBasic

The following files provide specific functionality enabled by RomWBW enhancements. These applications are typically documented in the "RomWBW Applications.pdf" document in the Doc directory of the RomWBW Distribution.

File	Source	Description
ASSIGN.COM	RomWBW	Assign,remove,swap drive letters of RomWBW disk slices
CLRDIR.COM	Max Scane	Initializes the directory area of a disk
COPYSL.COM	M.Pruden	Copy CPM Hard Disk Slices
COPYSL.DOC	M.Pruden	Documentation for COPYSL.COM
CPUSPD.COM	RomWBW	CPU Speed
FAT.COM	RomWBW	MS-DOS FAT filesystem tool (list, copy, delete, format, etc.)
FDISK80.COM	John Coffman	Hard disk partitioning tool
FDU.COM	RomWBW	Floppy Disk Utility, Test and format floppy disks
FDU.DOC	RomWBW	Documentation for FDU
FLASH.COM	Will Sowerbutts	Program FLASH chips in-situ
FLASH.DOC	Will Sowerbutts	Documentation for FLASH
FORMAT.COM	RomWBW	Placeholder application with formatting instructions
HTALK.COM	Tom Plano	Terminal utility talking directly to HBIOS Character Units
MODE.COM	RomWBW	Change serial line characteristics (baud rate, etc.)
REBOOT.COM	MartinR	Cold or Warm Boot the RomWBW System
RTC.COM	Andrew Lynch	Test real time clock hardware on your system
SURVEY.COM	RomWBW	Display system resources summary
SYSCOPY.COM	RomWBW	Copy system tracks to disks (make bootable)
TALK.COM	RomWBW	Route console I/O to & from specified serial port
TIMER.COM	RomWBW	Test and display system timer ticks
TUNE.COM	RomWBW	Play .PT2, .PT3, and .MYM audio files on supported hardware
VGMPLAY.COM		Simple player for VGM (Video Game Music) files.
WDATE.COM	Kevin Boone	Utility to configure RTC Date.

File	Source	Description
`XM.COM`	RomWBW	XModem file transfer application

Then we have some more general purpose applications. In general, there is no documentation for these applications included with the RomWBW distribution. Some provide command line help themselves. Some are fairly obvious.

File	Source	Description
`BBCBASIC.COM`	R.T.Russell	BBC BASIC CP/M Version
`BBCBASIC.TXT`	R.T.Russell	Help file for BBC BASIC
`COMPARE.COM`		Compare content of two files (binary)
`CRUNCH.COM`		Compress file(s) using Crunch algorithmn
`CRUNCH28.CFG`		ZCNFG configuration file for CRUNCH & UNCR
`DDTZ.COM`		Z80 debug tool (modified to use RST 6)
`DDTZ.DOC`		Documentation for DDTZ
`DOWNLOAD.COM`	Grant Searle	Grant Searle's DOWNLOAD, used by File Packager
`EX.COM`		Batch file processor (alternative to DRI SUBMIT)
`FIND.COM`	Jay Cotton	Search all drives for a file ()
`GENHEX.COM`		Generates an Intel Hex file from the input file
`LS.COM`		An alternative file listing to DIR
`LSWEEP.COM`		Extract and view member files of an .LBR archive
`MBASIC.COM`	Microsoft	Microsoft BASIC language interpreter
`NULU.COM`		NZCOM new library utility (.LBR) management tool
`PMARC.COM`		Create or add file(s) to LHA .PMA archive
`PMEXT.COM`		Extract file(s) from .PMA/.LZH/.LHA archive
`RMXSUB1.COM`	Lars Nelson	Remove XSUB1 RSX from memory
`SUPERSUB.COM`		Enhanced replacement for DRI SUBMIT
`SUPERSUB.DOC`		Documentation for SUPERSUB
`SYSGEN.COM`	DRI	Copy system tracks to disks
`TBASIC.COM`	Dimitri Theulings	Tasty Basic. This also exists as a Rom appication
`TDLBASIC.COM`		TDL Zapple 12K BASIC language interpreter
`TE.COM`	Ladislau Szilagyi	RomWBW enhanced version of TE editor
`TE.DOC`	Ladislau Szilagyi	TE Editor Documentation
`UNARC.COM`		Extract file(s) from .ARC or .ARK archive
`UNARC.DOC`		Documentation for UNARC
`UNCR.COM`		Decompress Crunched file(s). See CRUNCH.COM
`UNZIP.COM`	Lars Nelson	UNZIP extracts from MS-DOS ZIP files
`UNZIP.DOC`		Documentation for UNZIP

File	Source	Description
XSUB1.COM	Lars Nelson	Replacement for DRI XSUB
ZAP.COM		Interactive disk & file utility
ZDE.COM		Compact WordStar-like editor
ZDE.DOC		ZDE Documentation
ZDENST.COM		Installation/configuration tool for ZDE
ZMRX.COM		
ZMTX.COM		
ZMD.COM	R.W.K	Z80 RCP/M File Transfer Program (Robert W. Kramer III)
ZMP.COM		ZModem communications program (dedicated port)
ZMP.DOC		Documentation for ZMP
ZMP.HLP		Help file for ZMP
ZMXFER.OVR		Overlay file for ZMP
ZMTERM.OVR		Overlay file for ZMP
ZMINIT.OVR		Overlay file for ZMP
ZMCONFIG.OVR		Overlay file for ZMP

3.3   OS General Files

The following files are specific files shared across several OS's.

In general, there is no documentation for these applications included with the RomWBW distribution. Some provide command line help themselves.

Some are fairly obvious.

The following files are found in

- /Source/Images/Common/CPM22
- /Source/Images/Common/CPM3
- /Source/Images/Common/Z
- /Source/Images/Common/Z3

File	Applicability	Description
ALIAS.COM	Z3	Create an Alias (v1.1)
ALIAS.HLP	Z3	Help File for ALIAS.COM
COPY.COM	Z	File copier with ZSDOS date stamping awareness
COPY.CFG	Z	ZCNFG configuration file for COPY application
EDITNDR.COM	Z3	Edit named directory register in memory.

File	Applicability	Description
HELLO.ASM	CPM22	Sample assembly language source file
HP-RPN.HLP	Z3	Help File for ZP.COM - HP RPN Calculators
HP-ZP.HLP	Z3	Help File for ZP.COM - HP ZP Calculators
KERCPM22.COM	CPM22	Kermit communication application
KERCPM3.COM	CPM3	Kermit communication application
LBREXT.COM	Z	Extract file from .LBR libraries
LBREX36.CFG	Z	ZCNFG configuration file for LBREXT
RZ.COM	CPM3	Receive files with X/Y/ZModem (experimental)
RZSC.FOR	CPM3	Description of RZ/SZ programs
SAINST.COM	Z3	Install/configure SALIAS.
SALIAS.COM	Z3	Screen oriented alias editor. (v1.6)
SAVENDR.COM	Z3	Writes the named directory to disk.
SDZ.COM	Z3	Enhanced directory lister.
SCOPY.COM	Z3	Screen-oriented file copy for ZCPR3
SCOPY10.CFG	Z3	ZCNFG configuration file for SCOPY
SCOPY.HLP	Z3	Primary help file for SCOPY
SCOPY10F.HLP	Z3	Secondary help file for SCOPY
SZ.COM	CPM3	Send files with X/Y/ZModem (experimental)
TCAP.Z3T	Z3	Terminal capabilities for ZCPR3 (VT100)
TCSELECT.COM	Z3	NZCOM Create terminal capability file (newer version)
TCVIEW.COM	Z3	View zcpr3 terminal capabilities
UMAP.COM	Z3	Shows directory usage
UMAP18.CFG	Z3	ZCNFG configuration file for UMAP program
UNARCU1.CFG	Z	ZCNFG configuration file for UNARC program
ZCNFG.COM	Z	Configuration tool for programs with .CFG files
ZCNFG24.CFG	Z	Configuration file for ZCNFG.COM
ZEX.COM	Z3	A memory-based command file processor, like SUBMIT
ZEX.CFG	Z3	ZCNFG configuration file for ZEX program
ZP.COM	Z3	Screen-oriented file/disk/memory record patcher (ZAP)
ZP.HLP	Z3	Help File for ZP.COM
ZP17.CFG	Z3	Configuration file for ZP.COM
ZXD.CFG	Z	Configuration file for ZXD.COM
ZXD.COM	Z	Extended directory utility w/ date/time stamp support
Z3LOC.COM	Z3	Display info of the ZCPR3 CCP, BDOS, and BIOS
Z3TCAP.LBR	Z3	Database of terminal descriptions

Applicability:

- CPM22 - Included in all CP/M 2.2 OS's (CPM2.2, ZSDOS, NZ-COM, QPM)
- CPM3 - Included in all CP/M 3 OS's (CPM3, Z3PLUS, ZPM3)
- Z - Included in All Z OS's (ZSDOS, NZ-COM, Z3PLUS, ZPM3)
- Z3 - Included in ZCPR3 OS's (NZ-COM, Z3PLUS, ZPM3)

3.4   NZ-COM Z3PLUS OS Files

The following files are specific files share across two operating systems.

- NZ-COM - The Automatic Z-System - Alpha Systems
- Z3PLUS - The Z-System for CP/M-Plus - Plu*Perfect Systems

These 2 operating systems are identical in all respects, except for the underlying operating system that they run on.

The following files are found in

- /Source/Images/Common/NZ3PLUS

The following file are in User Area 15, and where noted 14 for config files.

File	Description
ARUNZ.COM	Alias-RUN-forZ-System command alias exec (v0.9u Type4)
CLEDINST.COM	Command line editing and history shell installer
CLEDSAVE.COM	Save RCP-resident command line editor history
CONFIG.LBR	Various configuration files for use with ZCNFG. (U14)
CPSET.COM	Displays/defines CRT/PRT characteristics
FCP.LBR	Library of alternative FCP modules
FF.COM	File finder utility
IF.COM	Extended flow control tester for FCP (v1.5 Type4)
JETLDR.COM	Z-System General-purpose module loader
LBRHELP.COM	Help file viewer for use with help file libraries (.LBR)
LDIR.COM	Directory lister for libraries (.LBR)
LPUT.COM	Puts file(s) into a library (.LBR)
LSH.COM	Command history shell and command line editor
LSH-HELP.COM	Display LSH help when LSH is running
LSHINST.COM	LSH configuration editor
LX.COM	Execute programs directly from a library (.LBR)
NAME.COM	Quickly add or remove a name for a single directory
PATH.COM	Set/display command search path

File	Description
PWD.COM	Displays DU and Directory Names with paging
TY3ERA.COM	Type-3 program to erase a file
TY3REN.COM	Type-3 program to rename a file
TY4ERA.COM	Type-4 program to erase a file
TY4REN.COM	Type-4 program to rename a file
TY4SAVE.COM	Type-4 program to save memory to a file
TY4SP.COM	Type-4 program to display disk space
VIEW.COM	Quad directional file viewer
XTCAP.COM	Interactive Extended TCAP Installer
ZERR.COM	Z34 Error Handler
ZF-DIM.COM	ZFILER shell for dim-video terminals
ZF-REV.COM	ZFILER shell for reverse-video terminals
ZFILER.CMD	Macro script file for ZFILER
ZHELP.COM	(HELPC14) is an improved version of the help utility
ZLT.COM	File lister with support for compressed files
ZSHOW.COM	Display Z-System configuration information

The following documentation files are in User Area 10

File	Description
DOCFILES.LBR	Documentation and help files collected into an LBR file
HLPFILES.LBR	Various app help files for use with LBRHELP
LSH.WZ	User manual for LSH
TCJ.INF	Subscription information for The Computer Journal
TCJ*.WZ	Selected articles from The Computer Journal
ZFILEB38.LZT	Brief listing of Z-System support programs
ZHELPERS.LZT	List of volunteers who will help installing Z-System
ZNODES66.LZT	List of Z-Node remote access systems
ZSYSTEM.IZF	Information on Z-System and related products

3.5 Sample Audio Files

User area 3 contains sample audio files that can be played using the TUNE or VGMPLAY applications.

NOTE These files are NOT present on floppy disk images

The following files are found in

- /Binary/Apps/Tunes

File	File	File	File
ATTACK.PT3	DEMO4.MYM	NAMIDA.PT3	VICTORY.PT3
BACKUP.PT3	ENDING.VGM	RECOLL.PT3	WICKED.PT3
BADMICE.PT3	HOWRU.PT3	SANXION.PT3	WONDER01.VGM
DEMO.MYM	INCHINA.VGM	SHIRAKAW.VGM	YEOLDE.PT3
DEMO1.MYM	ITERATN.PT3	STARTDEM.VGM	YEOVIL.PT3
DEMO3.MYM	LOOKBACK.PT3	SYNCH.PT3	
DEMO3MIX.MYM	LOUBOUTN.PT3	TOSTAR.PT3	

3.6   SIMH Simulator

Files for use with the SIMH Simulator

The following files are found in

- /Source/Images/Common/SIMH

File	Description
HDIR.COM	
R.COM	transfer files between the simulator and host file system
RSETSIMH.COM	–
TIMER.COM	–
URL.COM	–
W.COM	transfer files between the simulator and host file system

3.7   Testing Applications

User area 2 contains a variety of hardware testing applications. These are generally user contributed and have no documentation.

These applications are frequently not compatible with all RomWBW hardware. They are included here as a convenience. If applicable, your hardware documentation should refer to them and provide usage instructions.

NOTE These files are NOT present on floppy disk images

The following files are found in

- /Binary/Apps/Test
- /Source/Images/Common/Test

File	Description
2PIOTST.COM	ECB-ZILOG PERIPHERALS BOARD TEST 2 PIO's
AY-TEST.COM	AY-3-8910 Sound Test Program (SOUND)
BANKTEST.COM	Test RomWBW bank management API
DMAMON.COM	Verify operation of the Z80 MBC DMA board
I2CLCD.COM	PCF8584 HD44780 I2C LCD UTILITY
I2CSCAN.COM	I2C BUS SCANNER
INTTEST.COM	Test HBIOS interrupt API functions
KBDTEST.COM	test program to work with the Z80 KBDMSE board
PIOMON.COM	Zilog PIO Monitor & Hardware Testing Application
PORTSCAN.COM	Reads all ports and displays values read
PPIDETST.COM	PPI IDE test for checkout of all 8255 IDE drives
PS2INFO.COM	PS/2 Keyboard/Mouse Information Utility
RAMTEST.COM	RAM_TEST_PROGRAM
RTCDS7.COM	PCF8584/DS1307 I2C DATE AND TIME UTILITY (I2C)
RZ.COM	Receive Zmodem disassembly of CP/M 3 binaries
SOUND.COM	RomWBW HBIOS Sound Device Test Tool (SOUND)
SROM.COM	I2C Serial ROM Read/Write Utility (I2C)
SZ.COM	Send Zmodem is a disassembly of CP/M 3 binaries
TESTH8P.COM	H8 Panel Test
TSTDSKNG.COM	DSKY NEXT GENERATION TEST APPLICATION
VDCONLY.COM	COLOR VDU TEST
VDCTEST.COM	COLOR VDU TEST
Z80TYPE.COM	Z80 Chip Variant Detection
ZEXALL.COM	Z80 Instruction Set Exerciser
ZEXDOC.COM	Z80 Instruction Set Exerciser

And The following CPU Tests - Which are probably originally from this source. https://github.com/raxoft/z80test

File	Description
Z80CCF.COM	tests flags after executing CCF after each instruction.
Z80DOC.COM	tests registers, but only officially documented flags
Z80DOCF.COM	

File	Description
Z80FLAGS.COM	tests flags, ignores registers.
Z80FULL.COM	tests flags and registers
Z80MPTR.COM	tests flags after executing BIT N,(HL) after each instruction

Chapter 4

Application Standalone Disks

4.1 Aztec C Compiler

Floppy Disk Image: **fd_aztecc.img**
Hard Disk Image: **hd_aztecc.img**

Aztec C is a discontinued programming language for a variety of platforms including MS-DOS, Apple II DOS 3.3 and PRoDOS, Commodore 64, Macintosh and Amiga. This disk contains the CP/M version of that compiler. A cross-compiler for MS-DOS or Windows XP is also available.

For full documentation, see https://www.aztecmuseum.ca The user manual is available in the Doc/Language directory Aztec_C_1.06_User_Manual_Mar84.pdf

The following files are found in

- /Source/Images/d_aztec

File	Description
–	–

NOTE : The above is incomplete

4.2 Microsoft Basic Compiler

Floppy Disk Image: **fd_bascomp.img**
Hard Disk Image: **hd_bascomp.img**

The Microsoft BASIC Compiler is a highly efficient programming tool that converts BASIC programs from BASIC source code into machine code. This provides much faster BASIC program execution than has previously been possible. It can make programs run an average of 3 to 10 times faster than programs run under BASIC-80. Compiled programs can be up to 30 times faster than interpreted programs if maximum use of integer variables is made.

View BASCOM.HLP included in the disk image using HELP.COM for documentation.

The following files are found in

- /Source/Images/d_bascomp

File	Description
–	–

NOTE : The above is incomplete

4.3   Cowgol Compiler

Floppy Disk Image: **fd_cowgol.img**
Hard Disk Image: **hd_cowgol.img**

The Cowgol 2.0 compiler and related tools. These files were provided by Ladislau Szilagyi and were sourced from his GitHub repository at https://github.com/Laci1953/Cowgol_on_CP_M.

The primary distribution site for Cowgol 2.0 is at https://github.com/davidgiven/cowgol. The user manual is available in the Doc/Language directory Cowgol Language.pdf.

The following files are found in

- /Source/Images/d_cowgol

File	Description
$EXEC.COM	HiTech C batch processor which launches the Cowgol toolchain executables
ADVENT.COW	Adventure game program source
ADVENT.SUB	SUBMIT file to build Adventure game
ADVENT?.TXT	Adventure game program resources
ADVMAIN.COW	Adventure game program source
ADVTRAV.COW	Adventure game component source
ARGV.COH	Cowgol include file providing command line argument processing

File	Description
C.LIB	HI-TECH C runtime library
CGEN.COM	HiTech C compiler pass 2
COMMFILE.COH	Include file providing file I/O
COMMON.COH	Include file providing common functions
COWBE.COM	Cowgol back end which builds the cowgol object files (optimized)
COWFE.COM	Cowgol front end which parses the source file (optimized)
COWFIX.COM	Interface to Z80AS – performs code optimizations
COWGOL.COH	Include file providing standard Cowgol functions
COWGOL.COM	Interprets the command line and generates $EXEC run requests (a variant of HiTech C.COM)
COWGOL.COO	Cowgol object file with ???
COWGOL.LIB	???
COWGOLC.COH	Cowgol include file providing ???
COWLINK.COM	Cowgol linker which binds all the cowgol object files and outputs a Z80 assembler file (optimized)
CPP.COM	HiTech C pre-processor, modified to accept // style comments
DYNMSORT.COW	Sort algorithm sample program source
DYNMSORT.SUB	SUBMIT file to build DYNMSORT sample application
FACT.COW	Factorial computation sample program source
FILE.COH	Include file providing CP/M file processing support
FILEIO.COH	Include file providing CP/M file processing support
HEXDUMP.COW	Hex file dump sample source
HEXDUMP.SUB	SUBMIT file to build HEXDUMP sample program
LIBBASIC.COH	Include file providing ???
LIBBIOS.COH	Include file providing ???
LIBCONIO.COH	Include file providing console I/O
LIBFP.COH	Include file providing floating point support
LIBR.COM	HiTech object file librarian
LIBSTR.COH	Include file providing string functions
LINK.COM	HiTech linker which builds the final executable from object and library files
MALLOC.COH	Include file providing dynamic memory management functions
MERGES.C	Merge sort sample function C language source
MISC.COH	Include file providing miscellaneous functions
MISC.COO	Miscellaneous functions object file
MISC.COW	Miscellaneous functions source file
OPTIM.COM	HiTech C compiler optimizer
P1.COM	HiTech C compiler first pass

File	Description
RAND.AS	Pseudo-random number generator source in assembly language
RANFILE.COH	Include file providing random file access functions
RANFILE.COO	Random file access functions object file
RANFILE.COW	Random file access functions source file
README.TXT	Cowgol disk image release notes
SEQFILE.COH	Include file providing sequential file access functions
SEQFILE.COO	Sequential file access functions object file
SEQFILE.COW	Sequential file access functions source file
STDCOW.COH	Include file providing standard library functions
STRING.COH	Include file providing string functions
STRING.COO	String functions object file
STRING.COW	String functions source file
STRINGS.COH	Include file implementing string functions
TESTAS.COW	Assembly language interface sample program source
TESTAS.SUB	SUBMIT file to build TESTAS sample program
Z80AS.COM	Z80 assembler which assembles the output of COWFIX and other Z80 source files (see https://github.com/Laci1953/Z80AS)

4.4   Microsoft Fortran 80

Floppy Disk Image: **fd_fortran.img**
Hard Disk Image: **hd_fortran.img**

This is Microsoft's implementation of the FORTRAN scientific-oriented high level programming language. It was one of their early core languages developed for the 8-bit computers and later brought to the 8086 and IBM PC. In 1993 Microsoft rebranded the product as Microsoft Fortran Powerstation. (Note: -80 refers to the 8080/Z80 platform, not the language specification version)

The user manual is available in the Doc/Language directory, Microsoft_FORTRAN-80_Users_Manual_1977.pdf

The following files are found in

- /Source/Images/d_fortram

File	Description
–	–

NOTE : The above is incomplete

4.5 Games

Floppy Disk Image: **fd_games.img**
Hard Disk Image: **hd_games.img**

This disk contains several games for CP/M including the Infocom games Zork 1 through 3, Planetfall and Hitchhiker's Guide to the Galaxy.

Nemesis and Dungeon Master is a Rogue-like game released in 1981. It is playable on a text terminal using ASCII graphics to represent the dungeon. Only a few thousand copies of the game were ever made, making it very rare. See http://crpgaddict.blogspot.com/2019/03/game-322-nemesis-1981.html

Colossal Cave Adventure is a CP/M port of the 1976 classic game originally written by Will Crowther for the PDP-10 mainframe. See https://en.wikipedia.org/wiki/Colossal_Cave_Adventure and https://if50.substack.com/p/1976-adventure

The following files are found in

   • /Source/Images/d_games

File	Description
–	–

NOTE : The above is incomplete

4.6 HI-TECH C Compiler

Floppy Disk Image: **fd_hitechc.img**
Hard Disk Image: **hd_hitechc.img**

The HI-TECH C Compiler is a set of software which translates programs written in the C language to executable machine code programs. Versions are available which compile programs for operation under the host operating system, or which produce programs for execution in embedded systems without an operating system.

This is the Jun 2, 2025 update 19 released by Tony Nicholson who currently maintains HI-TECH C at https://github.com/agn453/HI-TECH-Z80-C.

The manual is available in the Doc/Language directory, HI-TECH Z80 C Compiler Manual.txt. A textual description of all error and warning messages is found in the same directory, HI-TECH Z80 C Compiler Messages.txt.

A good blog post about the HI-TECH C Compiler is available at https://techtinkering.com/2008/10/22/installing-the-hi-tech-z80-c-compiler-for-cpm.

User area 1 contains another complete copy of the HI-TECH C Compiler. It is identical to the copy in user area 0 except for the following files which were enhanced by Ladislau Szilagyi from his GitHub Repository at https://github.com/Laci1953/HiTech-C-compiler-enhanced. The files take advantage of additional banked memory using the RomWBW HBIOS API. As such, they require RomWBW to operate. They should be compatible with all CP/M and compatible operations systems provided in RomWBW.

The enhanced files are:

- CGEN.COM
- CPP.COM
- OPTIM.COM
- P1.COM
- ZAS.COM

A thread discussing this enhanced version of HI-TECH C is found at https://groups.google.com/g/rc2014-z80/c/sBCCIpOnnGg.

The following files are found in

- /Source/Images/d_hitechc

File	Description
$EXEC.COM	Compiler execution manager
ASSERT.H	Language include file
C.COM	Compiler invocation application (updated)
C309.COM	Compiler invocation application (original)
CGEN.COM	The code generator - produces assembler code
CONIO.H	Language include file (see manual)
CPM.H	Language include file (see manual)
CPP.COM	Pre-processor - handles macros and conditional compilation
CREF.COM	Produces cross-reference listings of C or assembler programs
CRTCPM.OBJ	Startup Object File (standard)
CTYPE.H	Language include file (see manual)
DEBUG.COM	C Debugger (Z80)
DRTCPM.OBJ	Startup Object File (???)

File	Description
EXEC.H	Language include file (see manual)
FLOAT.H	Language include file (see manual)
HELLO.C	Sample C source file
HITECH.H	Language include file (see manual)
LIBC.LIB	Standard C Runtime Library
LIBF.LIB	Floating Point Library
LIBOVR.LIB	Overlay Library
LIBR.COM	Creates and maintains libraries of object modules
LIMITS.H	Language include file (see manual)
LINQ.COM	Link editor - links object files with libraries
MATH.H	Language include file (see manual)
NRTCPM.OBJ	Startup Object File (minimal getargs)
OBJTOHEX.COM	Converts the output of LINK into the appropriate executable file format (e.g., .EXE or .PRG or .HEX)
OPTIM.COM	Code improver - may optionally be omitted, reducing compilation time at a cost of larger, slower code produced
OPTIONS	Compiler usage help file
OVERLAY.H	Language include file
P1.COM	The syntax and semantic analysis pass - writes intermediate code for the code generator to read
RRTCPM.OBJ	Startup Object File (self relocating)
SETJMP.H	Language include file (see manual)
SIGNAL.H	Language include file (see manual)
STAT.H	Language include file (see manual)
STDARG.H	Language include file (see manual)
STDDEF.H	Language include file (see manual)
STDINT.H	Language include file (see manual)
STDIO.H	Language include file (see manual)
STDLIB.H	Language include file (see manual)
STRING.H	Language include file (see manual)
SYMTOAS.COM	Convert symbol file to assembler
SYS.H	Language include file (see manual)
TIME.H	Language include file (see manual)
UNIXIO.H	Language include file (see manual)
ZAS.COM	The assembler - in fact a general purpose macro assembler

4.7   Infocom (Text Adventure Games)

Hard Disk Image: **hd_infocom.img**

A collection of all Official releases of the interactive fiction games produced by Infocom in the 1980's

The following files are found in

- /Source/Images/d_infocom

File	Description
amfv.z4	A Mind Forever Voyaging (*)
arthur.z6	Arthur - The Quest for Excalibur (*)
ballyhoo.z3	Ballyhoo
beyond.z5	Beyond Zork (*)
border.z5	Border Zone (*)
bureau.z4	Bureaucracy (*)
cutthr.z3	Cutthroats
deadline.z3	Deadline
enchant.z3	Enchanter
h2g2.z3	The Hitchhiker's Guide to the Galaxy
hollyw.z3	Hollywood Hijinx
infidel.z3	Infidel
journey.z6	Journey (*)
leather.z3	Leather Goddesses of Phobos
lurking.z3	The Lurking Horror
moonmist.z3	Moonmist
nordbert.z4	Nord and Bert Couldn't Make Head or Tail of It (*)
planet.z3	Planetfall
plunder.z3	Plundered Hearts
readme.txt	Documentation about the Infocom games
seastalk.z3	Seastalker
sherlock.z5	Sherlock (*)
shogun.z6	Shogun (*)
sorcerer.z3	Sorcerer
spellb.z3	Spellbreaker
starcros.z3	Starcross
stationf.z3	Stationfall
suspect.z3	Suspect
suspend.z3	Suspended

File	Description
trinity.z4	Trinity (*)
wishb.z3	Wishbringer
witness.z3	Witness
zork0.z6	Zork Zero (*)
zork1.z3	Zork I
zork2.z3	Zork II
zork3.z3	Zork III
zorknote.txt	Documentation about terminal config of COM files

The above games have been curated from here https://eblong.com/infocom/. Full game documentation can be found here https://infodoc.plover.net/

The game files are a virtual machine code commonly known as Z-Machine, they are portable and will run on any machine that has a Z-Machine interpreter.

- All the Z3 games come with the official CP/M interpreter (the `COM` file) version C last updated by Inforcom on 5th Feb 1985. You can simply run the game by running it from the `COM` program

- All latter games Z4, Z5,.. and above, (Marked as * in the listing above) are more sophisticated and require a better interpreter. i.e. VEZZA.

VEZZA (User Area 15)

Vezza is a modern Infocom/Inform/Z-machine text adventure interpreter for 8 bit z80 based computers. What makes it modern is that it is written in hand-crafted z80 assembler for maximum speed, and can load not only the classics such as Zork 1,2 and 3 but also the later games.

It can run Z1 up to Z8 inform format interactive fiction game files. To run a game with Vezza just type Vezza followed by the game you want to run. e.g.

```
VEZZA ZORK0.Z6
```

Note: One of the bigger constraints is available RAM. An OS such as ZPM since it uses banked RAM does have a good amount of available RAM and was used to test these games work.

This tool is free but the developer accepts your support by letting you pay what you think is fair for the tool. If you find this useful consider donating at:

https://sijnstra.itch.io/vezza

You should (test and) choose one that works on you configuration, and best to copy and rename it as vezza.com

File	Description
vezza-B.com	80x24, VT52 + Banked CP/M 3
vezza-FG.com	80x25, VT100/ANSI (16 color) + CP/M 3
vezza-C2.com	80x24, VT100 - CP/M 2.2 large memory, no timed input
vezza-CC.com	80x24, VT100 (256 colour) - CP/M 2.2 large memory, no timed input
vezza-AV.com	80x24, VT100 (16 colour) - CP/M 2.2 high RAM.
vezza-AX.com	80x25, VT100/ANSI (16 colour) - CP/M 2.2 high RAM.
vezza-RW.com	80x24, VT100 - CP/M 2.2

The above is a subset of available builds. The full repository including documentation is available at https://gitlab.com/sijnstra1/vezza/

4.8   MSX ROMS

Hard Disk Image: **hd_msxroms1.img**
Hard Disk Image: **hd_msxroms2.img**

The collection of MSX ROMs (2 disks) as provided by Les Bird.
These ROMs are "run" by using the appropriate variant of Les' MSX8 ROM loader. You can download the loader binaries from https://github.com/lesbird/MSX8. You will need appropriate hardware to run the loader.

Please review the file ROMLIST.TXT for information on the current operational status of the ROM and it's long file name/description.

This disk (RomWBW slice) is not automatically included with the RomWBW "combo" disk images. You can simply add it to a combo image by appending it to the end. After booting your system, you can use the ASSIGN command to map the slice to a drive letter. Refer to the RomWBW User Guide for more information on this process.

The ROM files are found in

- /Source/Images/d_msxroms1
- /Source/Images/d_msxroms2

4.9　Turbo Pascal Compiler

Floppy Disk Image: **fd_tpascal.img**
Hard Disk Image: **hd_tpascal.img**

The Borland Turbo Pascal Compiler. Pascal is a general-purpose, high level programming language originally designed by Professor Niklaus Wirth of the Technical University of Zurich, Switzerland and named in honor of Blise Pascal, the famous French philosopher and mathematician.

Turbo Pascal closely follows the definition of Standard Pascal as defined in the Pascal User Manual and Report with a few minor differences.

The manual can be found in the Docs/Language directory, Turbo_Pascal_Version_3.0_Reference_Manual_1986.pdf

A good overview of using Turbo Pascal in CP/M is available at https://techtinkering.com/2013/03/05/turbo-pascal-a-great-choice-for-programming-under-cpm

The following files are found in

- /Source/Images/d_tpascal

File	Description
ART.TXT	Part of the Example program
SA.PAS	Example Program
TINST.COM	Installation and Configuration
TINST.DTA	Part of TINST
TINST.MSG	Part of TINST
TURBO.COM	The main Turbo Pascal program
TURBO.MSG	Part of TURBO Pascal
TURBO.OVR	Part of TURBO Pascal
TURBOMSG.OVR	Part of TURBO Pascal

4.10　WordStar 4 (Word processor)

Floppy Disk Image: **fd_ws4.img**
Hard Disk Image: **hd_ws4.img**
Combo Disk Image: **Slice 5**

The following files are found in

- /Source/Images/d_ws4

File	Description
ANAGRAM.COM	
CHAPTER1.DOC	
CHAPTER2.DOC	
CHAPTER3.DOC	
DIARY.DOC	
DICTSORT.COM	
FIND.COM	
HOMONYMS.TXT	
HYEXCEPT.TXT	
HYPHEN.COM	
LOOKUP.COM	
MAINDICT.CMP	
MARKFIX.COM	
MOVEPRN.COM	
PATCH.LST	
PRINT.TST	
READ.ME	
README.	
REVIEW.COM	
RULER.DOC	
SAMPLE1.DOC	
SAMPLE2.DOC	
SAMPLE3.DOC	
SPELL.COM	
TABLE.DOC	
TEXT.DOC	
TW.COM	
WC.COM	
WINSTALL.COM	
WORDFREQ.COM	
WS.COM	
WS.OVR	
WSCHANGE.COM	
WSCHANGE.OVR	
WSCHHELP.OVR	
WSHELP.OVR	
WSINDEX.XCL	
WSMSGS.OVR	

File	Description
WSPRINT.OVR	
WSSHORT.OVR	

Also contained on this image in User Area 1 are.

File	Description
SAMPKEY.DOC	ZDE Distribution File
SAMPKEY.ZDK	ZDE Distribution File
SAMPKEY.ZDT	ZDE Distribution File
ZDE10.DOC	ZDE Distribution File
ZDE10.FOR	ZDE Distribution File
ZDE10.NEW	ZDE Distribution File
ZDE10.QRF	ZDE Distribution File
ZDE10.TOC	ZDE Distribution File
ZDE13.FOR	ZDE Distribution File
ZDE13.NEW	ZDE Distribution File
ZDE16.COM	ZDE Distribution File
ZDE16.DIR	ZDE Distribution File
ZDE16.FIX	ZDE Distribution File
ZDE16.FOR	ZDE Distribution File
ZDE16.NEW	ZDE Distribution File
ZDE16A.COM	ZDE Distribution File
ZDE16A.PAT	ZDE Distribution File
ZDENST16.COM	ZDE Distribution File
ZDEPROP.DOC	ZDE Distribution File
ZDEPROP.Z80	ZDE Distribution File
ZDKCOM13.COM	ZDE Distribution File
ZDKCOM13.DOC	ZDE Distribution File

4.11   Z80ASM Macro Assembler

Floppy Disk Image: **fd_z80asm.img**
Hard Disk Image: **hd_z80asm.img**

This disk contains 6 major components

- Z80ASM is a relocating macro assembler for CP/M. It takes assembly language source statements from a disk file, converts them into their binary equivalent, and stores the output in either a core-image, Intel hex format, or relocatable object file. The mnemonics recognized are those of Zilog/Mostek. The optional listing output may be sent to a disk file, the console and/or the printer, in any combination. Output files may also be generated containing cross-reference information on each symbol used.

- Z80ASMP (Z80ASM Plus). Referred to as the "Virtual Memory" version which uses disk for working storage, thus not constrained by RAM.

- SLR180 is a powerful relocating macro assembler for Z80 compatible CP/M systems. It takes assembly language source statements from a disk file, converts them into their binary equivalent, and stores the output in either a core-image, Intel hex format, or relocatable object file. The mnemonics recognized are those of Zilog (Z180)/Hitachi. The optional listing output may be sent to a disk file, the console and/or the printer, in any combination. Output files may also be generated containing cross-reference information on each symbol used.

- SLRMAC relocating macro assembler for Intel 8080 mnemonics

- SLRNK is a powerful linking loader for Z80-based CP/M systems. It takes relocatable binary information in either Microsoft or SLR Systems format from a disk file, resolves external and entry point references, and stores the output in memory for execution or outputs it to a disk file.

- SLRNKP (SLRNK Plus). Referred to as the "Virtual Memory" version which uses disk for working storage, thus not constrained by RAM.

- Z80DIS is an entirely new disassembler for Z80 based CP/M sys- tems. Z80DIS is written in TURBO PASCAL. Z80DIS generates Z80 mnemonics and prepares an assembly language file with many special features for ease of understanding the intent of the code. The program and documantation are Copyright 1985, by Kenneth Gielow, Palo Alto, CA. All rights are reserved.

The manual(s) are available in the Doc/Language directory,

- z80asm (SLR Systems).pdf
- SL180 (SLR Systems 1985).pdf
- SLRNK (SLR Systems 1984).pdf
- Z80DIS User Manual (1985).pdf

A run through of using the assembler is available at https://8bitlabs.ca/Posts/2023/05/20/learning-z80-asm

And another shorter, but shows linker usage guide https://pollmyfinger.wordpress.com/2022/

01/10/modular-retro-z80-assembly-language-programming-using-slr-systems-z80asm-and-srlnk/

The following files are found in

- /Source/Images/d_z80asm

User Area 0 - Assembler

File	Description
180FIG.COM	Configuration utility for SLR180.COM
8080.MAC	?
CONFIG.COM	Configuration utility for Z80ASM.COM
CONFIGP.COM	Configuration utility for Z80ASMP.COM
DUMP.*	Sample Program
MAKESYM.COM	Symbol File .SYM file generation
MAKESYM.DOC	Documentation for MAKESYM.COM
SLR180.COM	HD64180 (Z180) Relocating Macro Assembler
SLR180.DOC	Release Notes for SLR180.COM
SLRMAC.COM	8080 Relocating Macro Assembler
SYNTAX.HLP	Documentation basic usage for all SLR Tools
SYNTAX.TXT	Documentation basic usage for all SLR Tools
TEST.*	Sample Program
Z80ASM.COM	Z80 Relocating Macro Assembler
Z80ASMP.COM	Z80 Relocating Macro Assembler (PLUS)
Z80ASM.DOC	Release Notes for Z80ASM.COM

User Area 1 - Linker and Library Management

File	Description
LNKFIG.COM	Configuration utility for SLRNK.COM
NZLNKFIX.ZEX	?
SLRIB.COM	SuperLibrarian, library manager
SLRNK.COM	SuperLinker, the main linker tool
SLRNKP.COM	SuperLinker (PLUS)
SLRNK.DOC	Release Notes for SLRNK.COM
SLRNKFIX.ZEX	?
SYNTAX.HLP	Documentation basic usage for all SLR Tools
SYNTAX.TXT	Documentation basic usage for all SLR Tools
SYSSLR.REL	SYSLIB (older) Library compatible with SLR

File	Description
VSLR.REL	VLIB (older) Library compatible with SLR
Z3SLR.REL	Z3LIB (older) Library compatible with SLR

User Area 2 - Disassembler

File	Description
README.22	Documentation for Z80DIS
Z80DIS.000	Overlay File for Z80DIS.COM
Z80DIS.001	Overlay File for Z80DIS.COM
Z80DIS.002	Overlay File for Z80DIS.COM
Z80DIS.COM	Z80DIS Disassembler main program
Z80DIS22.DOC	Main Documentation for Z80DIS
ZDINSTAL.COM	Instal and Config for Z80DIS.COM
ZDINSTAL.DTA	Overlay file for ZDINSTAL.COM
ZDINSTAL.MSG	Overlay file for ZDINSTAL.COM