Customer Software Release Notice for

VS BASIC

Version 7.52.04

March 2000

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1.0 Release Abstract

The WANG VS BASIC compiler validates and translates source programs written in the BASIC language and produces a program file which may be executed on any WANG VS system. The BASIC Compiler supports the full range of functions offered to a programmer using the VS System, such as Symbolic Debugger support, full screen workstation I/O, full disk I/O, EDITOR support, etc.

2.0 Prerequisites and Dependencies

2.1 Hardware Pre-Requisites

The BASIC compiler may be installed and run on any VS configuration that has a floppy and a disk drive, except as follows:

- The minimal ANSI option, the float decimal option and the external routines CVDQ and CVQD will run on any VS system other than the VS-50 and VS-80, which do not support float decimal.

- To run Basic on the VS-25 or VS-45 with the float decimal option requires version 5.12.01 or later of the CP5 microcode.

- To run Basic on the VS-300 or other CP8 machine requires version 8.70.60 or later of the CP8 microcode (8.71.60 or later on systems containing a Floating Point Unit).

2.2 Software Pre-Requisites

- To run BASIC programs which take advantage of the Extended DMS (XDMS) options requires VS Operating System version 7.18.70 or higher and XDMS.

- Versions 7.52.00 and later of the BASIC compiler and the object code they create must be run on a VS Operating System version 7.52.00 or greater to have full YEAR 2000 support and take advantage of the new DATE4 keyword documented further in this document. If this is not a requirment the COBOL compiler may be run on VS Operating System 7.21.09 or Operating Systems 7.40 and later.

3.0 Restrictions and Special Considerations

3.1 New Reserved Word.

This version of the BASIC compiler includes a new RESERVED WORD, which if included may result in compiler generated error messages if existing BASIC programs include this word outside its new context, such as variable declarations. Such programs will require modification and recompilation. The reserved word list has been extended to include:

3.2 DATE4

In order to take advantage of the 4-digit year provided for by the DATE4 function, BASIC programs must be run on VS OS 7.52.00 or higher. These BASIC programs may be compiled on any currently supported version of the VS Operating System. If programs containing the DATE4 function are run on an operating system prior to 07.52.00 the first two high order bytes of the year may contain undefinable information. In most cases the century digits will contain zeros, for example October 31, 1995 would be expressed as 00951031.

3.3 Extended Device Support

Version 4.03.04 of the VS BASIC compiler is compatible with support for extended devices, available with VS Operating System 7.30.00 or higher. However, this necessitates relinking as described below.

3.4 Object Incompatabilties

Object Incompatabilties With Previous VS BASIC Versions Code and runtime generated by particular previous versions of the compiler are incompatible with that generated by this compiler. Additionally, code and runtime generated by some previous versions of the compiler are not compatible with other previous versions. In order to resolve these problems all users must perform the following activities if they are linking object files generated by more than one version of the compiler.

A. All users with object files generated by releases of the compiler prior to version 3.5 must recompile all of those files.

B. All users with object files generated by versions 3.9.3 and versions .0.0 must recompile all of those files.

C. All users with object files generated by versions 3.5.0 and 3.5.1 of the compiler may link with modules created by version 4.1.0 and beyond by adhering to one of the following procedures:

i. Place the file @BASRTM@ as the first input file in the linker input list and set the correct entry point. - or -

ii. Execute the file BASCNVRT entering as input the name of the linker output file containing mixed objects generated by versions 3.5 and 4.1 and beyond.

D. Alternatively, the user may wish to recompile all BASIC source modules with version 4.01.00 or later (must be at least 4.02.81 for VS1K support) of the compiler and obviate the need for being concerned with mixed object versions.

- PLEASE NOTE: If you are not mixing object files generated by different versions of the compiler, there is no need to do anything differently.

4.0 Enhancements (since the last General Release 04.03.00)

DCR number	***Description***
C200017021	BASIC 04.03.06 allows up to 128 files to be selected in a single program. The number of files which can be open at a single time is still controlled by DMS and the VS operating system.
Internal	DATE4 function returning an 8-character string giving the current date in the form YYYYMMDD.

5.0 Changes to be aware of:

An internal change now places the compilation time in a previously unused area in the lengths block of the object 0 output file. This can be used by LINKER versions 7.52.05 and greater to determine DATESEL criteria as well as print out the compilation times on the linkage map.

6.0 Problems Corrected since General Release 04.03.00

For a complete list of problems corrected in the 04.03 series of the Basic compiler obtain a copy of the CSRN for BASIC 7.52.00.

6.1 Problems Corrected since General Release 07.52.00

When testing the DATE4 function on OS 7.21.09 it was discovered that the 4 digit year being returned did not always contain valid data. Changes have been made to the code generation for the DATE4 function to guarantee that the date will contain zeros in the century digits and that the year will be valid when DATE4 is being used on an operating system prior to 7.52.00.

6.2 Problem Corrected since General Release 07.52.01

PTR number	Problem Description
M800027644	A program check is no longer the result when using the DATE4 function inside a subroutine.

6.3 Problem Corrected since General Release 07.52.02

CTS number	Problem Description
E141775	When using the NOALT clause the proper branch is now taken for ALT and NOALT conditions. Therefore, it is no longer necessary to include dummy statements to cause the program to execute the proper statement following the execution of the NOALT clause.

7.0 Documentation and Functional Clarifications

PTR number	Documentation statement
P800016327	BASIC Reference Manual Part #800 1202E PG 8-18 should be modified to say 6400 HEX = 0110 0100 0000 0000.

8.0 Known Anomalies

None

9.0 Media Contents

VOLUME = BASIC

LIBRARY = BASIC

Module	Version	Description
@BASRTM@	7.52.04	VS BASIC Runtime File
BASCNVRT	(none)	Proc. to convert runtime
BASFORM	000004	Compile Options for Editors
BASIC	7.52.04	VS BASIC Compiler
CVDQ	7.52.04	Convert Binary to Decimal
CVQD	7.52.04	Convert Decimal to Binary
INSTALL	(none)	BASIC Install Procedure

LIBRARY = CSRNLIB

BAS75204	BASIC SRN

10.0 Installation Instructions

If restoring from tape, run the BACKUP utility and backup the library BASIC on volume BASIC to a disk volume on your system, then proceed to run the INSTALL procedure. If restoring from disk, the INSTALL procedure may be run directly from your installation disk. You may wish to delete the INSTALL procedure once installation is complete.

INSTALL will place the BASIC compiler and form file onto your system. The procedure will allow you to enter the volume and library on which to put the compiler. The form file (BASFORM) will be placed in the library @SYSFRM@ on your system volume. If a compiler or form file already exists, you will be prompted and allowed to save them before installation of your new software. The procedure will also allow you to customize compilation defaults specified thru the form by optionally running the SETOPTS utility. Any previously set defaults will be lost and the new ones retained. The SETOPTS compilation

defaults are not available when compiling directly from BASIC but are for use when compiling from the EDITOR or ADEPT.