

2200/VS

Local Communications Option

OVERVIEW

The 2200/VS Local Communications Option (LCO) is a data communications hardware and software option that enables a Wang 2200MVP, -LVP, or Micro-VP system to communicate with a Wang VS computer system. Communications between the 2200 system and the VS system occur at speeds of 4.27 megabits per second (Mbps) over dual coaxial cable facilities.

The 2200/VS LCO is intended for those 2200 environments that have a local VS system (up to 2000 ft from the 2200) with an available serial port for a coaxial cable connection. While maintaining the efficient, stable and familiar 2200 systems and applications software environment, the 2200/VS LCO provides 2200 users with convenient access to additional VS disk storage (for 2200 file storage and VS file storage) and to complementary VS applications.

With the 2200/VS LCO hardware and software installed on a 2200, a coaxial connection to the

VS, and an appropriately configured VS system, a 2200 user can perform the following:

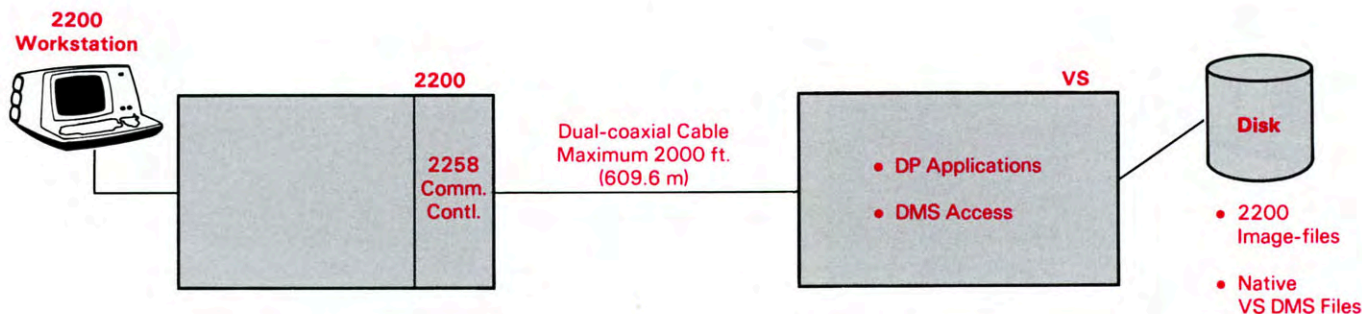
- Log on to the VS and run VS application programs that do not require the downloading of microcode to a VS workstation. Among the available applications are
 - All DP applications
 - Wang OFFICE
 - Professional Application Creation Environment (PACE)
 - VS Batch Communications
- Run 2200 application programs that store data to and retrieve data from VDISKS existing on the VS system. VDISKS are VS files created in the image of a 2200 disk. Each record is 256 bytes long to replicate one sector of information. The user creates VDISKS with utilities included with the 2200/VS LCO package and can use them just like any other 2200 platter.
- Run 2200 application programs that store data to and retrieve data from native VS

files, using subroutines provided with the 2200/VS LCO package. For example, the 2200 user can run one 2200 program to update inventory and add the results to a PACE database file on the VS.

PRODUCT FEATURES

As a hardware and software package, the 2200/VS LCO provides a new communications controller. The 2258 Communications Controller is an internal microprocessor-based controller mounted in an empty slot in the 2200 chassis. It supports up to four concurrent sessions between 2200 users and the VS.

When the 2258 controller is installed in the 2200 chassis, the Wang Customer Engineer sets the controller address on the board. The controller address consists of a 2200 disk address and a communications address. After the 2258 controller is installed and the 2200 is powered on, the controller receives microcode from the VS and initializes itself.



After the 2258 controller is initialized, a 2200 user can run one of the following two LCO components:

- Workstation Emulation
- VS Filing Services

Workstation Emulation

The workstation emulation component of the 2200/VS LCO package enables a 2200 user to log on to a VS system and access VS DP applications from any workstation on the 2200. It is easy to use. The user simply invokes the workstation emulation from a menu similar to those provided with other Wang 2200 software packages.

Once the workstation emulation option is chosen, the user provides the communications address of the 2258 controller to use and select a session option. Then, the user can start a workstation emulation session, terminate a session, suspend a session, return to a suspended session, or restart the session.

While in a workstation emulation session with the VS, a simple keystroke sequence enables a user to exit temporarily from workstation emulation, suspend the emulation, and run a 2200 BASIC-2 application. The application can use disks connected to the 2200 or disks on the VS available through VS Filing Services. When the application has finished processing, the user can reattach to the suspended emulation and continue.

The 2200/VS LCO workstation emulation has the following features:

- Available from any workstation on the 2200.
- Supports up to four workstation emulation sessions concurrently through a single 2258 controller. If the 2200 system use demands additional sessions, additional 2258 controllers must be installed on the 2200.

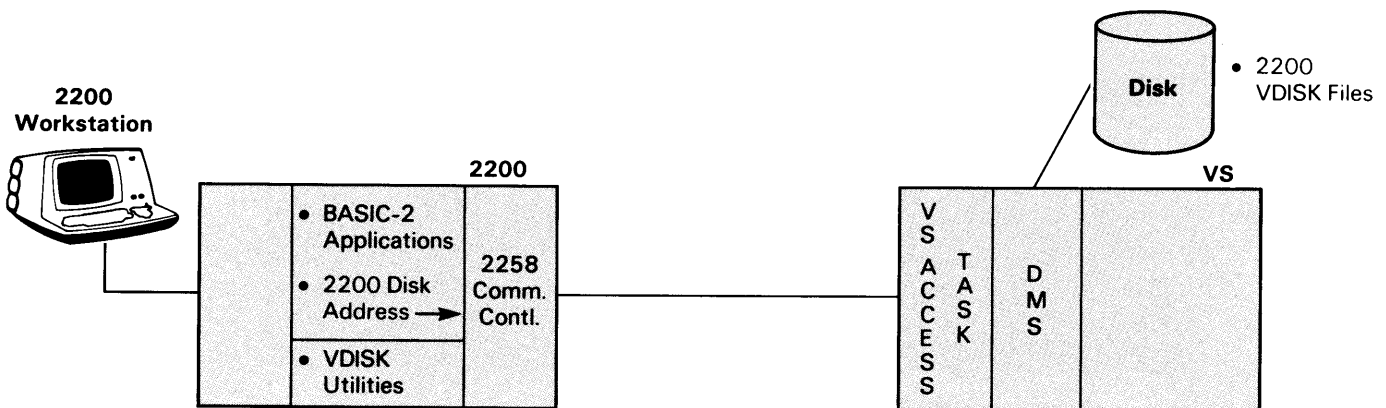
- Emulates a VS 2256C workstation (DP mode only).
- Provides a function strip that indicates how the 2200 workstation special function keys correspond to VS workstation keys.

VS Filing Services

The VS Filing Services component of the 2200/VS LCO package enables 2200 BASIC-2 applications programs to access (e.g., create, write, and read) VS Data Management System (DMS) files on the attached VS system. The VS DMS manages all disk file space and services all file I/O requests on the VS system.

The following two types of files can be accessed through VS Filing Services:

- VDISKs
- Native VS DMS files



LCO VDISK File Access

To run a VS Filing Service session, a 2200 Workstation 1 operator selects Attach from a menu, logs on to the VS, starts up the VS program giving the 2200 access to filing services, and suspends emulation by selecting the Attach VS File Services option. This option makes the VS filing services available to all 2200 partitions. If desired, it also opens all VDISKs in the selected VDISK configuration file, making these VDISKs available to all 2200 partitions.

The 2200/VS LCO VS Filing Services has the following features:

- Available from any partition on the 2200.
- Supports one VS Filing Services session for each 2258 controller. This session is available to all 2200 partitions. To optimize performance, additional 2258 controllers may be installed on the 2200.
- Provides menu-driven utilities for attaching to and detaching

from VS Filing Services, for creating and deleting VDISKs, for viewing Filing Services status, and for modifying the VDISK configuration file. Of these utilities, attaching to and detaching from VS Filing Services, deleting VDISKs, and changing the VDISK configuration file can be run only from Workstation 1 on the 2200.

VDISKs

A VDISK is a VS DMS file created to resemble a 2200 disk platter. To the 2200 user, it is just like any other 2200 platter. The user creates VDISKs on the VS using utilities provided with the 2200/VS LCO software. VDISKs can be shared with other 2200 systems equipped with the 2200/VS LCO package, but not with VS applications, since VDISKs are stored in the 2200 format.

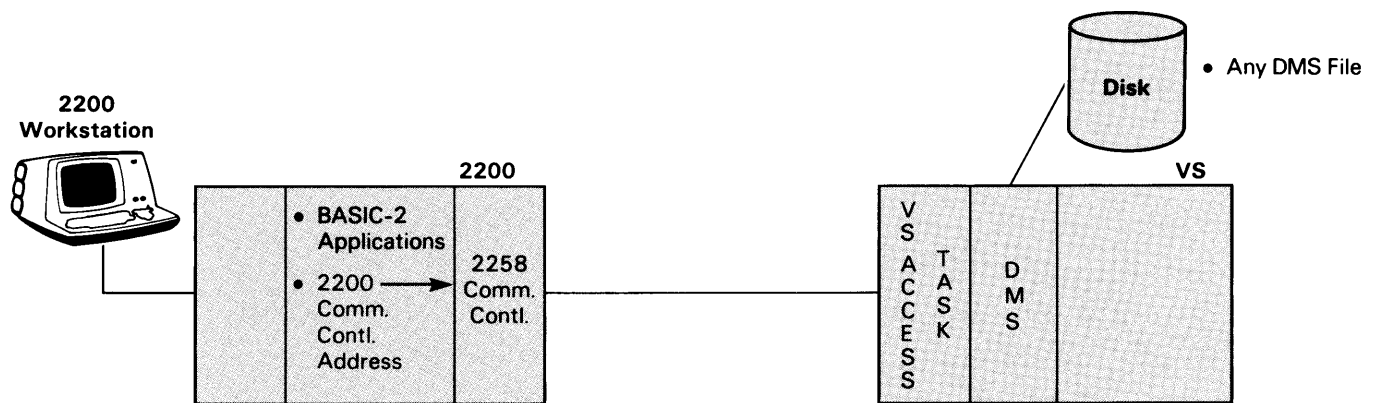
To access VDISKs, the Workstation 1 operator must already have established a VS Filing Services session and activated the configuration file specifying the

VDISKs to be opened and their assigned platter addresses. Once the VDISKs are opened, any 2200 user can run an application program and access the disks. The application program addresses the VDISK like any 2200 disk, only using a 2258 disk address. The 2258 controller recognizes the address and passes filing requests to the file access program on the VS.

When the application program is finished processing, the user can then run any other 2200 applications. Only the Workstation 1 operator can change the VDISK configuration file or terminate the VS filing services session.

Access to VDISKs has the following features:

- Supports up to 32 VDISKs for each 2258 controller. If additional VDISKs are required, additional 2258 controllers must be installed on the 2200 system.



LCO VS Filing Service

ORDERING INFORMATION

Model Number	Description
2258-3	2258 Controller with software on 8" SSSD diskette.
2258-5	2258 Controller with software on 8" DSSD diskette.
2258-9	2258 Controller with software on 5 1/4" DSSD diskette.

- Supports a VDISK maximum platter size of 65,536 sectors.
- Requires no changes to the BASIC-2 application program unless the program specifically references a disk address that differs from the disk address assigned to the VDISKS.
- Supports the sharing of VDISK files with similarly equipped 2200 systems connected to a VS.
- Enables a 2200 user to copy files stored on VDISKS to an actual 2200 disk and copy files stored on 2200 disks to a VDISK.

Native VS DMS Files
 The VS Filing Services component of the 2200/VS LCO package allows a 2200 BASIC-2 application program access to native VS DMS files on a VS system. An application can open native VS DMS files, read, write, and delete records from DMS files, and close DMS files. The DMS files can be shared with other VS systems and applications, as well as other 2200 system applications that use the 2200/VS LCO software.
 To access the native DMS files, the Workstation 1 operator must already have established a VS Filing Services session. Any 2200 user can then run an application program and access the cation program and access the disks. The application program addresses the 2258 controller using the 2258 communications address. The 2258 controller recognizes the address and passes filing requests to the VS File Services program on the VS. All DMS file requests (e.g., open, read, write, and close) are handled by VS DMS File Access Subroutines provided with the LCO package.
 When the application program is finished processing, the user can then run any other 2200 application.

Access to Native VS DMS files has the following features:

- Requires the addition of File Access Subroutines to the BASIC-2 application program. The File Access Subroutines are provided with the 2200/VS LCO package.
- Allows access to any currently defined native VS DMS file type. For example, consecutive, relative, and multiple-indexed ISAM (Indexed Sequential Access Method) files are supported.
- Supports the sharing of native DMS files with other VS applications and systems and with similarly equipped 2200 systems connected to a VS.

SPECIFICATIONS

Number of Sessions

Four workstation emulation sessions or three workstation emulation sessions and one VS Filing Services (both VDISK and native DMS file access) session per 2258 controller.

2200 to VS Connection

Operating Mode

Asynchronous, polled

Data Format

Serial

Data Rate

4.27 Mbps

Transmission Medium

Dual-coaxial baseband cable

2200 System Requirements

MVP OS Release 2.7 or greater. Requires a 28K memory partition to run the VDISK Utilities and Workstation Emulation. Adding File Access Subroutines to a BASIC-2 application increases the program size by 5-7K.

Any 2336DE, 2336DW, 2226DW, 2236DE/DW, 2436DW, or 2326DW workstation can be used to run Workstation Emulation.

VS System Requirements

Operating System, Version 7.10 or greater.

One unused serial port. The serial port is configured for a 2258MWS device using the VS GENEDIT program.

A procedure the Workstation 1 operator can use to start up the VS file access program for processing the 2200 file requests (both VDISK and native DMS). The VS System Administrator provides this information.

All hardware, software, and a cable to connect the 2200 to the VS are included with the 2200 Local Communications Option product. The software is available in 5 1/4-inch double-sided double-density (DSDD) diskettes, 8-inch single-sided single-density (SSSD) or double-sided double-density (DSDD) diskettes.

The Wang dual coaxial cable supplied is 25 feet (7.6 m) in length. Additional cable, to meet other length requirements, is available from WangDirect™ in lengths up to 2000 ft (609.6 m). A workstation function strip is also included.

Standard Warranty Applies



ONE INDUSTRIAL AVENUE
LOWELL, MASSACHUSETTS 01851
TEL. (617) 459-5000
TWX 710-343-6769, TELEX 94-7421

Wang Laboratories, Inc., reserves the right to change specifications without prior notice.