

RM300 E / RM400 E General Information

(Reliant UNIX)

Edition August 1998

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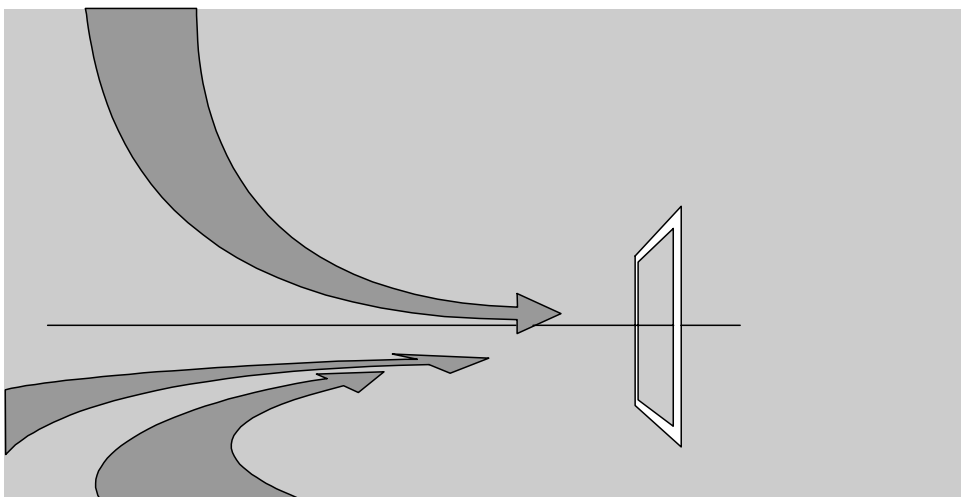
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Preface



E models of the RM300 and RM400 system

Summary of contents

Notational conventions

E models of the systems RM300 and RM400

The RM300 E and RM400 E system are high-performance server in RISC technology based on the MIPS® R5000® and R10000® processors.

The RM300 E is particularly suited for company use as a small decentral department server or as a powerful workgroup server. Typical areas of use are database applications and communications in client/server architectures.

The RM400 E is particularly suited for company-wide use as a large decentral department server or as a central server in medium-sized companies. The typical use profile is characterized by high-performance database applications and high-quality communications.

The RM300 E and RM400 E are available in two variants: they can either be operated as a standalone unit or installed into the RM 19 inch rack.

The system also supports a wide range of controllers for I/O devices and communications as well as a number of drives. The technical expansion options are being continually extended. To find out what is currently available, refer to your local branch of Siemens AG or in the Internet under the following address
<http://www.siemens.de/servers>

Special note to our customers



On October 1, 1998, most of Siemens Nixdorf Informationssysteme AG will be merged with some parts of Siemens AG to create a new Siemens Group. Due to this change, the designation of the firm in programs, documentation, internet addresses and so on may be inconsistent for a few months.

These production-related inconsistencies will only affect the outward appearance of the products, and not their inherent functionality or the accuracy of the documented descriptions. We will be making every effort to restore uniformity as soon as possible.

Thank you for your understanding.

Summary of contents

The documentation that you receive with your system unit is modular in structure. It comprises the following manuals:

- This manual „RM300 E / RM400 E - General Information“
- The manual „RM Systems - Safety Instructions“
- The manual „RM300 E - System unit“ or „RM400 E - System unit“
- The manual „RM300 E - Software for Configuration/Installation“ or „RM400 E - Software for Configuration/Installation“
- The manual „RM300 E / RM400 E - Storage Devices“
- The manual „RM300 E - Controller“ or „RM400 E - Controller“

The previous form of the documentation, with separate operating and technical manuals has been combined into the new product manual „RM300 E - System Unit“ or „RM400 E - System Unit“. This product manual contains all information required for installing and initial startup as well as the internal construction of the system unit.

Information on, for example, controllers, drives or software is now in separate manuals.

Summary

This manual comprises the following chapters:

- Important notes
This chapter tells you what you have to watch out for to ensure correct operation of your system unit.
- Reference Section
These comprise:
 - a glossary of terms used frequently in the documentation
 - a list of abbreviations used in the documentation
 - a list of related publicationsAt the end of the “related publications“ section there is also a note on how to order manuals.

Notational conventions






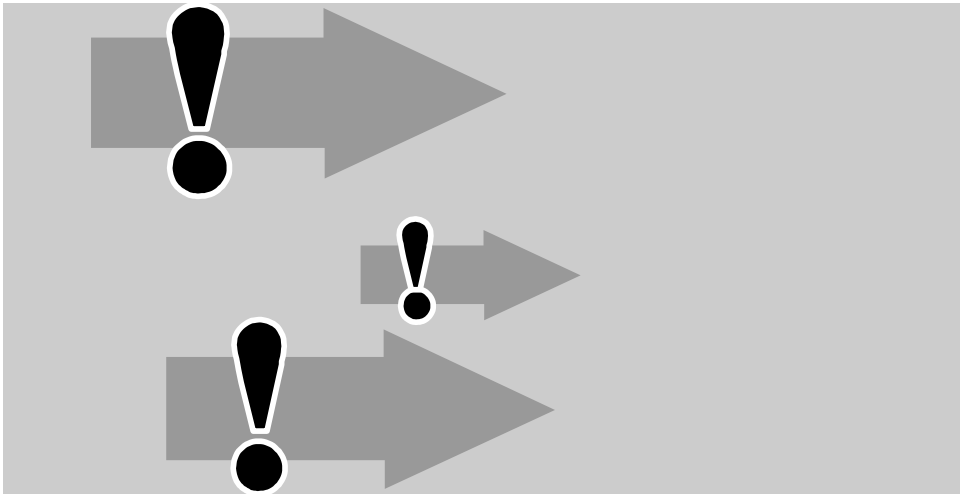
<i>italic type</i>	Identifies commands and other input within the body of the text
fixed-width type	Used for system output and for text on the monitor
bold type	Used for emphasis in the body of the text
“quotation marks”	Used for references to other chapters, sections or manuals
	Keys or key combinations in the body of the text
	Identifies an action that you need to take
	Alerts you to additional information, notes and tips
	Warning sign indicating that your health, the correct functioning of your system or the security of your data may be at risk if you ignore the information given at this point.
	Attention! If these notes are observed, the functionality of your system or the controllers will be endangered.

Table 1: Notational conventions

Important notes



Notes on safety

ESD label

RFI suppression

Important notice concerning power cable selection

Ergonomics

Environmental protection

Service



In this section you will find information that you must note when using systems and boards. It also contains information on the EMC (Electromagnetic Compatibility) of the systems and boards.

Notes on safety

This device complies with the relevant safety standards for IT equipment, including electronic office machines, intended for use in the office environment.



Observe the safety instructions in the manual “RM Systems - Safety Instructions”, which is supplied with your system.

Upgrade your system only with the modules and components approved by Siemens. This is the only way to ensure the highest quality, functionality and failure safety possible. Non-approved modules causing additional costs or time for Siemens with respect to diagnostics and error handling may result in loss of guarantee.

If you have any questions relating to setting up and operating your system in the environment where you intend to use it, please consult our service department.



- Transport the device in its original packaging or in other suitable packaging which will protect it against shock or impact.
- Read the notes on environmental conditions in the technical description in the system units product manual before setting up and operating the device.
- If the device is brought in from a cold environment, condensation may form both inside and on the outside of the machine.



- Wait until the device has acclimatized to room temperature and is absolutely dry before starting it up.
- Check that the rated voltage specified on the device's ID plate is the same as the local line voltage.
- The device is fitted with a tested and approved power cable and must only be connected to a properly grounded socket outlet.
- Make sure that the wall outlet of the building's wiring system is freely accessible.
- Switching off the device does not cut off the supply of power. To do this you must remove the power plugs (to counteract the risk of lightning strikes).
- Route the cables in such a way that they do not form a potential hazard (make sure no-one can trip over them) and that they cannot suffer damage. When connecting up a device, refer to the associated notes in this manual.
- Never connect or disconnect data transmission lines during a storm.
- When connecting up the system, work in the order described in the system units product manual.
- Systems which comprise a number of cabinets must have a separate fused socket for each cabinet.
- The system unit and the directly connected external peripheral devices should be connected to the same power distributor (sub-distribution board). Otherwise you run the risk of losing data if, for example, the central processing unit is still running but the peripheral devices has failed during a power failure.
- Make sure that no objects (such as bracelets or paper clips) or liquids fall into the device, as this may result in an electric shock or a short circuit.



- In emergencies (e.g. damage to housings, power cords or controls or ingress of liquids or foreign bodies), immediately power down the device, pull out the power plugs and notify your service department.
- Note that proper operation of the system in accordance with IEC 950/EN60950 is guaranteed only if the housing cover is mounted (cooling, fire protection, RFI suppression).
- Repairs to the device should only be made by authorized specialists.
- Unauthorized opening and inadequate repairs may put the user at considerable risk. Unauthorized opening of devices invalidates the warranty and excludes Siemens AG from liability.
- Before opening the system unit, switch off the device and then pull out the power plugs.
- Batteries should be replaced by qualified personnel only.
- When installing and deinstalling peripherals, components and expansion boards, follow the instructions given in the technical description in the system units product manual.
- If you install additional controllers that use fiber optics, never look directly into the fiber optic cable or connector. The laser beams used in fiber optics can cause **eye damage**.

Notes on the RM 19-Inch Rack



- For safety reasons at least two people are required to install the system unit into your rack because of its weight and size.
- When connecting and disconnecting cables, observe the comments in the “Important Notes” chapter in the “RM 19-Inch Rack Operating Manual”.
- Ensure that the anti-tilt bracket is correctly mounted when you set up the rack.
- For safety reasons, no more than one unit may be withdrawn from the rack at any one time during installation and maintenance work.
- If more than one unit is withdrawn from the rack at any one time, there is a danger that the rack will tilt forward.
- The CEE socket for connecting the power supply to the rack must be installed by an authorized specialist (electrician).
- The temperature in the rack environment can be higher than at the room ambient. The unit is intended for a max. ambient rack temperature of 32°C.
- The airflow could be reduced when the equipment is installed in the rack. Installation of equipment should be such that the amount of air flow required for safe operation is not restricted.
- Reliable earthing of the rack-mounted equipment shall be provided.

Notes on batteries

There are batteries on the system's motherboard, in the uninterruptible power supply (UPS, optional) and in the monitors.



Do not attempt to open, pierce or crush batteries. Never throw batteries into a fire.

When disposing of used batteries, observe local regulations on the disposal of hazardous waste.

Notes on monitors

Only trained specialists are authorized to open monitors.



Unauthorized intervention, particularly involving changes to the high voltage supply or installation of a different type of tube, may cause a considerable increase in x-ray emissions. Devices modified in this way no longer comply with the terms of the license and must not be operated.

Further information on safe installation and operation is provided in the operating manual for your monitor.

Compliance with EU regulations



This device complies with the requirements of EU directive 89/336/EEC "Electromagnetic Compatibility" and LVD 73/23/EEC (low voltage declaration), as indicated by the CE (Communauté Européenne) mark on the back of the device.

ESD label

Systems and components which might be damaged by electrostatic discharge (ESD) can be marked with the following label:

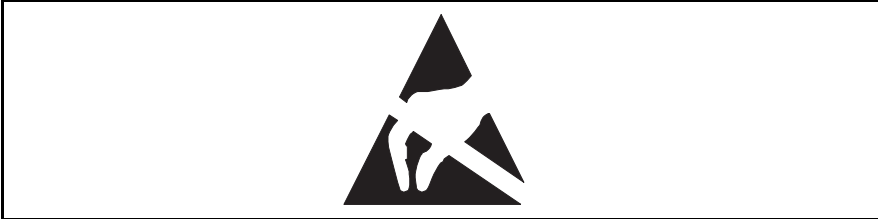


Figure 1: Label indicating electrostatic-sensitive devices

When handling ESDs, it is essential that you observe the following guidelines:

- You must electrostatically discharge yourself (e.g. by touching a grounded object) before handling such components.
- Any devices or tools that are used must be free from electrostatic charge.
- Pull out the power plug before mounting or dismounting ESDs.
- Touch ESDs only at the edges.
- Do not touch any connectors or conduction paths on an ESD.
- Use the wrist-band for connecting your body to the cabinet frame of the system unit.
- Place all components on a pad which is free from electrostatic charge.



For detailed instructions on handling ESD modules read the „Richtlinie zur Handhabung von elektrostatisch gefährdeten Bauelementen und Baugruppen (EGB)“ or „ITS-Rundschreiben Nr. 4/95“.



An ESD kit can be ordered from Siemens sales or an authorized distributor under the order number 8501 and storage number 06431046.

RFI suppression

Any other devices which are attached to this product must likewise comply in respect of RFI suppression with EU directive 89/336/EEC.

Products which meet this requirement are accompanied by a certificate to that effect issued by the manufacturer and/or bear the CE mark.

Important notice concerning power cable selection

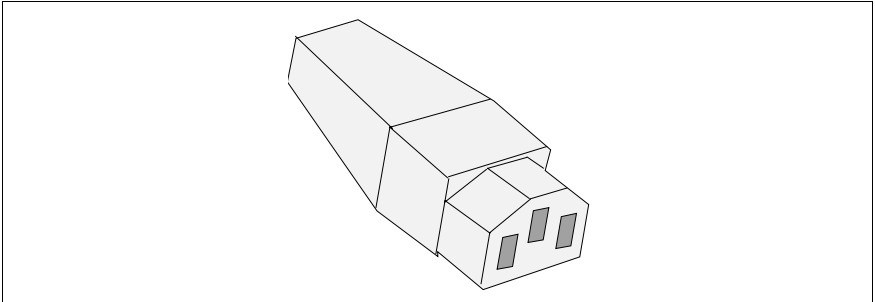


Figure 2: Female connector

The power cable for this unit has been packed separately. It has been selected according to the country of destination and must be used to prevent electric shock. Use the following guidelines to replace the original cable set if necessary. The female receptacle of the cable set must meet CEE-22 requirements.

For the USA and Canada

Use a UL-listed and CSA-labeled cable set consisting of a three-conductor cable with a maximum length of 15 feet.

For desktop units, type SVT or SJT cable sets must be used. For floor units, only SJT type cable sets can be used.

The cable set must be selected according to the current rating for your device. Please consult the table below for the selection criteria for power cables used in the USA or Canada.

Cable type	Size of conductors in cable	Maximum current rating of device
SJT	18 AWG	10 amps
	16 AWG	12 amps
	14 AWG	12 amps
SVT	18 AWG	10 amps
	17 AWG	12 amps

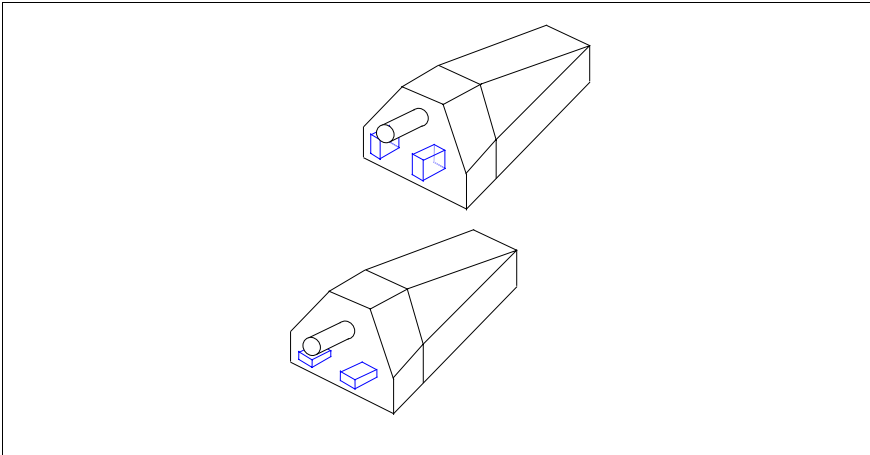


Figure 3: Parallel blade plug, tandem blade plug

For units set at 115 V:

Use a parallel blade, grounding type attachment plug rated at 15 A, 125 V (above).

For units set at 230 V (domestic use):

Use a tandem blade, grounding type attachment plug rated at 15 A, 250 V (below).

For units set at 230 V (outside the USA and Canada):

Use a cable set having the minimum AWG as indicated in the table above and a grounding type attachment plug rated at 15 A, 250 V. The cable set should be marked HAR and have the appropriate safety approvals for the country in which the equipment is to be installed.

For the United Kingdom:

If the plug type on the flexible cable is not suitable for your power outlets, do not use an adapter; instead, remove the plug from the cord and discard. Carefully prepare the end of the power cable and fit it with a suitable plug.



This appliance must be earthed.

Important:

The wires in this power supply cable are colored in accordance with the following code:

Green and Yellow:	Earth
Blue:	Neutral
Brown:	Live

As the colors of the wires in the power cable for this device may not correspond with these colored markings identifying the terminals in your plug, proceed as follows:

- The wire which is colored green and yellow must be connected to the terminal in the plug which is marked with the letter E or by the earth symbol or colored green or green and yellow.
- The wire which is colored blue must be connected to the terminal which is marked with the letter N or colored black.
- The wire which is colored brown must be connected to the terminal which is marked with the letter L or colored red.

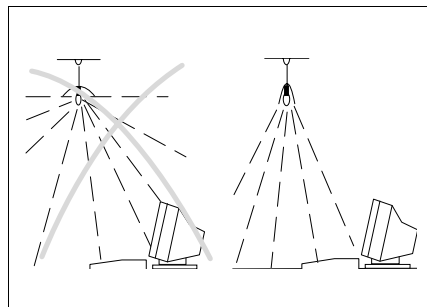
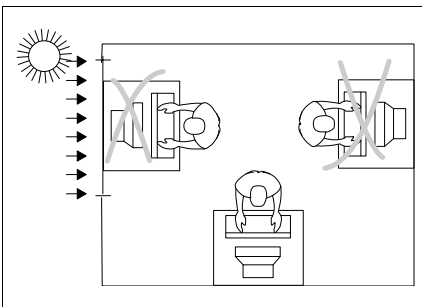
FCC notices (Federal Communications Commission)

Class A digital device

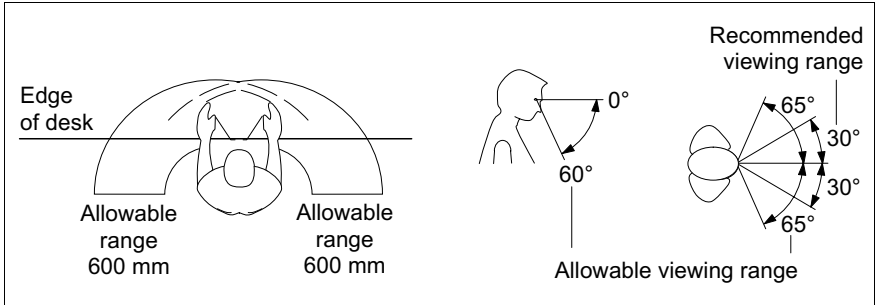
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Ergonomics

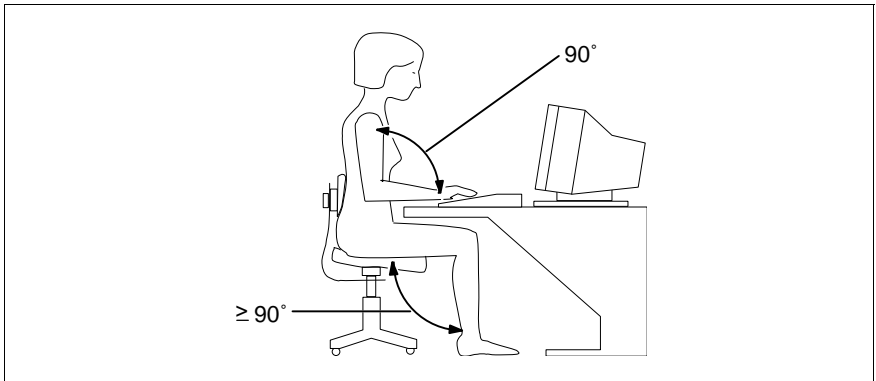
Before setting up your system you should select a location which is suitable for working at the monitor.



- ▶ Avoid direct and reflected glare.



- ▶ Place the keyboard within optimum reach.
- ▶ Place the monitor in the recommended viewing range.



- ▶ Make sure you adopt the correct posture.

Environmental protection

Environmentally friendly product design and development

This product has been designed in accordance with the Siemens standard “environmentally friendly product design and development”.

This means that the designers have taken into account decisive criteria such as durability, selection of materials and coding, emissions, packaging, the ease with which the product can be dismantled and the extent to which it can be recycled.

This saves resources and thus reduces the harm done to the environment.

Note on saving energy

Devices that do not have to be switched on permanently should not be switched on until they are used and should be switched off during long breaks and on completion of work.

Notes on packaging

We recommend that you do not throw away the original packaging in case you need it later for transporting your system unit. If possible, the system unit and the devices should only be transported in their original packaging.

Note on dealing with consumables

Please dispose of printer consumables and batteries in accordance with local government regulations.

Note on labeling plastic housing parts

Please avoid sticking your own labels on plastic housing parts wherever possible, since this makes it difficult to recycle them.

Take-back, recycling and disposal

For details on take-back and reuse of devices and consumables within Europe, contact your Siemens branch office/subsidiary or our recycling center in Paderborn:

Siemens AG
Recycling Center
33094 Paderborn

Tel. +49 5251 8180-10
Fax +49 5251 8180-15

Further information on environmental protection

The Siemens AG representative for environmental protection will be pleased to answer any further questions you may have concerning environmental protection.

Siemens AG
Environmental Protection
Werner von Siemens Straße 6
86159 Augsburg

Tel. +49 821 599-2999
Fax +49 821 599-3440

IT service

If you have questions on placement or operation or if problems occur, please contact your local service office.

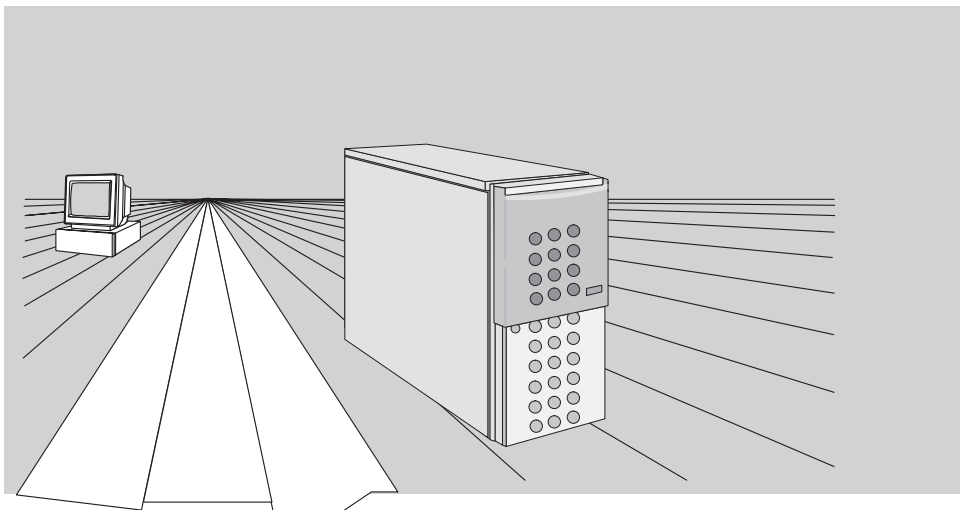
The Siemens IT service can be reached in the Internet (<http://www.siemens.de/servers>) under the heading "Products & Services".

The Call Management Center (CMC) can be reached in Germany under the following numbers:

Tel. ++ 049 1805 4040
Fax ++ 049 1805 336779

Electronic orders can be placed in the Internet under the following address:
<http://www.siemensnixdorf.com/icm>

Reference Section



Glossary

Abbreviations

Related publications

Index

Glossary

American National Standards Institute (ANSI)

An organization dedicated to developing and publishing standards to make products more compatible (which means they are interchangeable or can be combined with one another).

asynchronous data transmission

A form of data transmission in which synchronization between sender and receiver is established for a series of bits. Start and stop bits form the beginning and end of each character. The time interval between the transferred characters can vary. Also known as start/stop transmission.

asynchronous transfer mode (ATM)

ATM is a transmission procedure for high-speed data transfer, both in *LANs* and in *WANs*. The data is transferred in cells with a fixed length of 53 bytes. This procedure can be used on various different cables (fiber optic cable, copper cable) and at a variety of speeds (e.g. 155 Mbit/s or 25.6 Mbit/s).

Bitronics interface

The Bitronics interface carries bidirectional communications between the system and a printer. It is based on the *Centronics* interface standard, but it transfers data faster. Printers which have a standard *Centronics* interface can also be operated via the Bitronics interface.

booting

The term "booting" refers to the process of switching on or starting up a computer and loading the operating system.

bus

The term "bus" is used in computing, by analogy with an electrical bus-bar, to refer to a system of parallel hardware lines and corresponding connection points which is used to transfer signals, data and power. An example is the set of lines carrying control signals in a CPU or a microprocessor. Any device or system which is connected to the bus can receive any transmitted signal or character which is addressed to it.

cache

A cache is a temporary storage area with very short access times between primary storage (RAM) and other parts of the *central processing unit*. It is used to shorten the access times to RAM. It also speeds up access times to *peripherals*.

cartridge

A cartridge is a housing which contains magnetic tape and protects it against dust and mechanical damage. It also makes tape easier to handle. The available tape formats are quarter-inch (QIC), 4 mm and 8 mm.

central processing unit (CPU)

The CPU of a computer consists of a set of components responsible for handling logical and arithmetical operations and data transfer between resources.

Centronics interface

The Centronics interface provides 8-bit parallel *data transmission* to the system printer.

configuration

The configuration of a computer system is the sum of its hardware components. The predefined base configuration can be expanded up to a maximum configuration.

console

The *terminal* via which a computer system can be operated. The console displays all system messages and provides the user with direct access to the system. A color monitor may also function as a console.

controller

A controller is an intelligent control unit for *peripherals* or data lines. It more or less independently controls data input and output between the central processing unit and a peripheral device.

data transmission

Data transmission refers to the exchange of data via cables between systems which are at different locations. Data transmission is used wherever data interchange on data storage media (such as magnetic tape or floppy disk) is not suitable, typically because it would take too long.

display workstation

See *terminal*

electromagnetic compatibility (EMC)

Any electrical device emits electromagnetic interference and is itself affected by electromagnetic interference. Electromagnetic compatibility refers to a condition in which this interference remains within prescribed limits. These limits are defined in EU directive 89/336/EEC “Electromagnetic Compatibility (EMC)”.

Ethernet

A local area network specification developed by DEC[®], Intel[®] and Xerox[®] and published in 1979. As one of the first *LANs*, it became the de facto standard and was adopted as an official standard by the *IEEE*. Ethernet is currently the most frequently used local area network. It carries data on yellow coaxial cables (known as Yellow Cable or 10 base 5 cabling).

fan-out unit

A fan-out unit is an interface multiplier which allows a system to be attached to a *LAN*.

FDDI

FDDI (Fiber Distributed Data Interface) is a standard for networks using fiber-optic transmission media and operating at speeds of up to 100 Mbit/s. It requires two fiber-optic double-circuit lines, which are used to transmit opposite signals. FDDI is based on an *ANSI* standard, and owing to its high data throughput it can be used as a link between *Ethernet* segments.

firmware

The firmware starts up automatically after you switch on the system. It checks the hardware and logs the results on the console. After this base-level initialization of the system, the firmware monitor starts up. The firmware monitor provides system configuration commands which are available even if the operating system has not been loaded.

hard disk drive

Data is stored on an external storage medium that can accommodate large quantities of data and enable fast data access. This storage medium contains one or more magnetic disks which rotate continuously. The data is written to or read from the magnetic disk by means of read/write heads.

high availability

High system availability means that errors/faults which can lead to breaks in system operation are avoided or are bypassed by the system using automatically initiated procedures. A system configuration, for example, comprising two or more systems using one or more shared peripherals cabinets could be

described as having high availability. If one of the systems fails, operation continues with the same data on the other system. This minimizes downtimes for the entire system, thus providing high availability.

IHSS multipoint controller

The IHSS multipoint controller allows up to four terminals to be connected to an IHSS line (approx. 2000 m cable length). The maximum *synchronous data transmission* speed is 64 Kbits per second. An HDLC (High-Level Data Link Control) protocol safeguards *data transmission*

inhouse interface (IHSS)

This is an interface in a local network which allows *peripherals* to be connected via standard telephone lines.

Institute of Electrical and Electronics Engineers (IEEE)

An organization responsible for setting electrical and electronics standards.

jukebox

A jukebox, also known as a disk or tape changer, is a device which holds more than one volume of a storage medium and can switch between the volumes under software control, thereby virtually multiplying the capacity of a storage medium.

local area network (LAN)

A LAN is a local communications network linking systems, not necessarily all of the same type, which are within a limited area and use shared resources.

modem

A modem (short for modulator/demodulator) is a communications device which converts data signals from digital to analog and vice versa. It allows data signals to be sent on communications channels which do not carry d.c. signals. In public telecommunication networks, modems are provided by the PTT and mark the limit of the PTT's area of responsibility to the user. Modems have internationally standardized interfaces for the connection of data terminal equipment.

OD drive

An OD drive is a multifunction drive for *WORM* and *ROD* magneto-optical media.

OD jukebox

An OD jukebox is a fully automated disk changer subsystem for *WORM* and *ROD* magneto-optical media for the RM200. Disk access is controlled by software.

Open Systems Interconnection (OSI)

An interface standard for communications between systems from different vendors.

OSI Ethernet protocols

A reference model for networks, developed by ISO. It defines interface standards for the hardware and software requirements of different vendors.

peripherals

All the devices connected to a system are known as peripherals. A distinction is made between internal and external peripherals.

rewritable optical disc (ROD)

Like the CD-ROM, the rewritable optical disc is an optical storage medium (an MO or magneto-optical disc). Unlike a CD-ROM, though, a ROD can be erased and rewritten (repeatedly).

SCSI controller

A SCSI controller is used to connect *peripherals* such as hard disk drives, cartridge tape drives and jukeboxes, OD drives and jukeboxes, and CD-ROM drives to the system.

serial interface

An interface for serial data transmission. The bits are transmitted one at a time down a single line (see also *V.24 interface*, *X.21 interface*).

start/stop mode

When a cartridge tape drive is operating in start/stop mode, the tape keeps stopping in the course of read/write operations even though the head drum keeps rotating. Compared to streaming mode this greatly increases the wear on the head drum.

streaming mode

A cartridge tape drive is operating in streaming mode when data is written or read without the tape halting.

synchronous transmission

A form of data transmission in which data bits are transmitted from the sender to the receiver at regular time intervals. Thus there is no need for start and stop bits. The time intervals are set by special synchronizing characters sent before the start of *data transmission* proper. Synchronous transmission is faster and more efficient than *asynchronous transmission*.

system unit

The system unit is the central unit of the system. It comprises the system cabinet, the processor board, the *controllers*, and those *peripherals* which are installed in the system cabinet.

terminal

Terminal is another name for a *display workstation*. It is the end device in a system for *data transmission*, which is set up for sending and/or receiving data. It consists of a screen and a keyboard.

terminal attachment concentrator (TAK)

Screens and printers can be connected to the *system unit* by means of this connection box for the TACSI attachment concept.

thick Ethernet

Thick Ethernet (also known as 10 base 5) is the conventional type of *Ethernet*, which uses “Yellow Cable” as its transmission medium. This Ethernet variant enables the cable segments to cover longer distances than *thin Ethernet*.

thin Ethernet

Thin Ethernet (also known as Cheapernet or LAN 10 base 2) is a low-cost Ethernet variant, the distinguishing feature being that the cable segments cover shorter distances than those covered by *thick Ethernet*. Thin Ethernet uses coaxial cable which is lighter and less expensive than “Yellow Cable”, and uses BNC-T connectors for physical connections between stations.

transceiver

A word derived from transmitter and receiver denoting a device that both transmits and receives data. Transceivers are used to provide access to *Ethernet* networks. They perform the following functions: forwarding, monitoring (collision detection), receiving, and failure detection.

twisted-pair

Twisted-pair (also known as 10baseT, the T standing for twisted-pair) is a low-cost *Ethernet* variant, the distinguishing feature being that the cable segments cover even shorter distances than those covered by *thin Ethernet*. Twisted-pair cabling uses separately insulated strands of wire twisted together as its transmission medium.

uninterruptible power supply (UPS)

A device connected between the system and the power source to guarantee a steady supply of electricity to the system. It largely protects the system against loss of power (blackouts), power dips and power surges.

V.24 interface

The V.24 interface is a *serial interface* for the functions and electrical properties of the lines connecting data terminal equipment and data communications equipment. CCITT Recommendation V.28 contains specifications for the electrical values of the interface line.

wide area network (WAN)

A network with a greater range than a *LAN*. A WAN generally extends beyond a single set of premises and runs on facilities provided by the local telecommunications authority.

WORM

Like the CD-ROM and the rewritable optical disc, the WORM (Write Once Read Many) disc is an optical storage medium (an MO or magneto-optical disc). Unlike a ROD, though, a WORM disc can only be written once.

X.21 interface

CCITT (Comité Consultatif International Télégraphique et Téléphonique) recommendation for interfaces between data terminal equipment and data circuit-terminating equipment for synchronous procedures in public data networks.

Abbreviations

ANSI	American National Standards Institute
ARC	Advanced Risc Computing
AT	Advanced Technology
ATM	Asynchronous Transfer Mode
AUI	Attachment Unit Interface
BNC-T	Bayonet Norm Connector
CCITT	Comité Consultatif International Télégraphique et Téléphonique
CDE	Common Desktop Environment
CD-ROM	compact disc - read-only memory
CMX	Communication Management under UNIX
CPU	central processing unit
CSA	Canadian Standards Association
CTR	controller
CTRL	Control key
DAT	digital audio tape
DDS	digital data storage
DF	differential (SCSI interface)
DIP	dual in-line package
DLT	digital linear tape
ECCC	European Certification Coordination Committee
EEC	European Economic Community

EISA	Extended Industry Standard Architecture
EMC	electromagnetic compatibility
EN	Europa-Norm (European standard)
E-SIH	EISA-Bus Serial Interface Multiplexer Inhouse
E-SIM	EISA-Bus Serial Interface Multiplexer
EWAN	EISA Wide Area Network
FCC	Federal Communications Commission
FDDI	Fiber Distributed Data Interface
GB	Gigabyte
GCR	Group Coded Recording
HD	high density
HDLC	High-level Data Link Control
ID	identification, identifier
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IHSS	Inhouse interface
IHSS-MP	Inhouse Multipoint (Controller)
IMD	Inhouse Multiplexer data line
I/O	input/output
ISA	Industry Standard Architecture
ISDN	Integrated Services Digital Network
ISO	International Organization for Standardization
ITC	intelligent terminal controller

KB/Kbyte	kilobyte
LAN	local area network
LVD	low voltage differential (SCSI interface)
MB	megabyte
MRS	Media Recognition System
MTC	magnetic tape cartridge
NET	Norme Européenne de Télécommunication
NTFS	New Technology File System
OD	optical disk
OLR	Online Replacement
OSI	Open Systems Interconnection
PCI	Peripheral Component Interconnect
PE	phase encoding
PROM	programmable read-only memory
QIC	quarter-inch cartridge
RAID	Redundant Array of Independent Disks
RISC	Reduced Instruction Set Computer
ROD	rewritable optical disk
SAF-TE	SCSI accessed fault - tolerant enclosures
SC	secondary cache
SCSI	Small Computer System Interface
SE	single-ended (SCSI interface)
SLC	second-level cache

SMC	streaming-mode cartridge
SNA	Systems Network Architecture (IBM)
STM	SAF-TE terminator module
STP	shielded twisted-pair
SVGA	Super Video Graphics Array
TACSI	Terminal Attachment Concept in SINIX
TAK	terminal attachment concentrator
TC	terminal controller
TCP/IP	Transport Control Protocol/Interface Program
TS	Teleservice
UL	Underwriters Laboratories
UPS	uninterruptible power supply
UTP	unshielded twisted-pair
VDE	Verband deutscher Elektrotechniker (Association of German Electrical Engineers)
VESA	Video Electronics Standards Association
VGA	Video Graphics Array
VT	video terminal
WAN	wide area network

Related publications

The following manuals are recommended for further reading:

Reliant UNIX 5.44

Commands

Users' Reference Manual

Reliant UNIX 5.44

Introductory Guide

User Guide

Reliant UNIX 5.44

System Administrators Guide

User Guide

Reliant UNIX 5.44

System Administrator's Reference Manual

Reliant UNIX 5.44

Network Administration

System Administrator's Guide

Reliant UNIX 5.44

Networking Reference Manual

Reliant UNIX 5.44

System Administration and HW Configuration with SYSADM

System Administrator Guide

Reliant UNIX 5.44

Hardware Configurierung with Config under SINIX/windows

Product Manual

SINIX/windows V3.1

Documentation Overview

SINIX/windows User Environment V3.0

Introduction to Handling and Configuration

(*SINIX Desktop*)

User Guide

SINIX/windows User Environment V3.0

User's Guide

(Common Desktop Environment)

User Guide

SINIX/windows User Environment V3.0

Guide for Experts and System Administrators

(SINIX Desktop)

System Administrator Guide

SINIX/windows User Environment V3.0

Guide for Experts and System Administrators

(Common Desktop Environment)

System Administrator Guide

SINIX/windows User Environment V3.0

Clients' Reference Manual

(SINIX Desktop)

Reference Manual

SINIX/windows User Environment V3.0

XDCL Desktop Configuration Language

(SINIX Desktop)

Reference Manual

RAIDmaster

Introductory Guide for System Administrators

(SINIX/Windows NT)

User Guide

Xprint V5.0

User and Administrator Guide

Xprint V5.0

Menus

Xprint V5.0

Reference Manual

TACLAN

TACLAN-ADM863 Administrator's Guide

SINIX, IRIX

Licensing Procedure SINIX (LVS)

OLR Festplatten Unit

Operating Manual

Magnetbandkassetten-Laufwerk 8 mm 2,3/5,0 Gbyte

SIDATA Installation Manual

Operating Manual

Reliant UNIX 5.44

Diagnostic and Troubleshooting

User Guide

Peripherals Box for SCSI Devices

Operating Manual

RM Systems

Peripheral Cabinet DU40

(Reliant UNIX)

Optical Disk Library **PXM0 - OS 30/31/32**
 PXM0 - B 10/11/12

Ordering manuals

The manuals listed above and the corresponding order numbers can be found in the Siemens *List of Publications*. New publications are described in the *Druck-schriften-Neuerscheinungen (New Publications)*.

You can arrange to have both of these sent to you regularly by having your name placed on the appropriate mailing list. Please apply to your local office, where you can also order the manuals.

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