Communication adapter ETRANS

Operating manual

Software version 1.6

Communication adapter ETRANS

1 Communication adapter ETRANS

1.1 What is ETRANS

The communication adapter ETRANS is destined for connection of CNC machines equipped with serial or parallel interface to Ethernet/Internet network. The adapter performs transmitting of NC programs via FTP protocol to/from FTP intranet/internet server, through parallel or serial interface. In some control systems the transmitting can be controlled directly from CNC machine's control panel . In other systems the transmitting is performed from ETRANS through integrated keyboard and display.

The ETRANS control depends on the presence of keyboard and display. Versions with keyboard and display can be used in all procedures destined for non display/keyboard versions

Using of ETRANS is particularly convenient in the older versions of the CNC systems where most common medium for recording of NC programs (partprograms) is a punched tape or (less frequently) an magnetic tape. It is obvious that using this older media is unreliable and non effective.

The modern solution were performed usually by connecting of control system and computer through serial interface . The creating , archive or other partprogram treating is performed in computer via standard procedures Although even here a lot problems arise . Next some most important ones are listed:

- Non unified solutions – every manufacturer uses usually a different proprietary communication protocol and hence a specific software even for different models of one manufacturer is needed. It can cause problems particularly in enterprises where a bigger amount of CNC systems from various manufacturers are used . It brings additional costs due to specific hardware (connection of each machine must be uniquely solved) Other additional costs recruit from maintenance and operator training.
- Because way of operation sometimes is necessary place a "communication " computer close to control system. (for example so called non-protocol transmitting requests the operator's attendance of control system as well as of communication computer). In other case it might be due to some hardware restrictions (limited lengths of communication cables).
- The high price or transmitting inability . The manufacturers of control systems usually offer some kind of computer or network connection but the solution is expensive and even impossible for old "exotic" control systems.

The communication adapter ETRANS on the contrary allows placing of older systems to a modern enterprise infrastructure and eliminate most difficulties of older procedures
The main advantages of ETRANS are:

- Low cost, high and high reliability. ETRANS is designed to use a smallest number of parts Because of this a very reasonable price together with a high reliability were obtained .
- During ETRANS construction were used in a maximum scale existing and wide spread standards (Ethernet, TCP/IP, FTP, …). This also decreases the whole price, give us a possibility of easy integration to a current enterprise infrastructure, removes communication computer software dependability and last but not least decreases additional operator training costs
- Versatility. By changing the configuration and a connection cable between ETRANS and communication computer only is possible to match ETRANS to almost any CNC machine. Thus ETRANS can work either with control systems equipped with a serial interface (RS232) either with most control systems equipped with parallel interface originally destined for punched tape readers
- Unified ETRANS construction performs uniformed procedure of integrating practically any CNC to the enterprise infrastructure. From the hardware point of view it means using of unified cabling and unified network devices (hubs switches, routers, …) for ETRANS connection as well as for computers or other devices connection. From the software point of view it means possibility of using the same

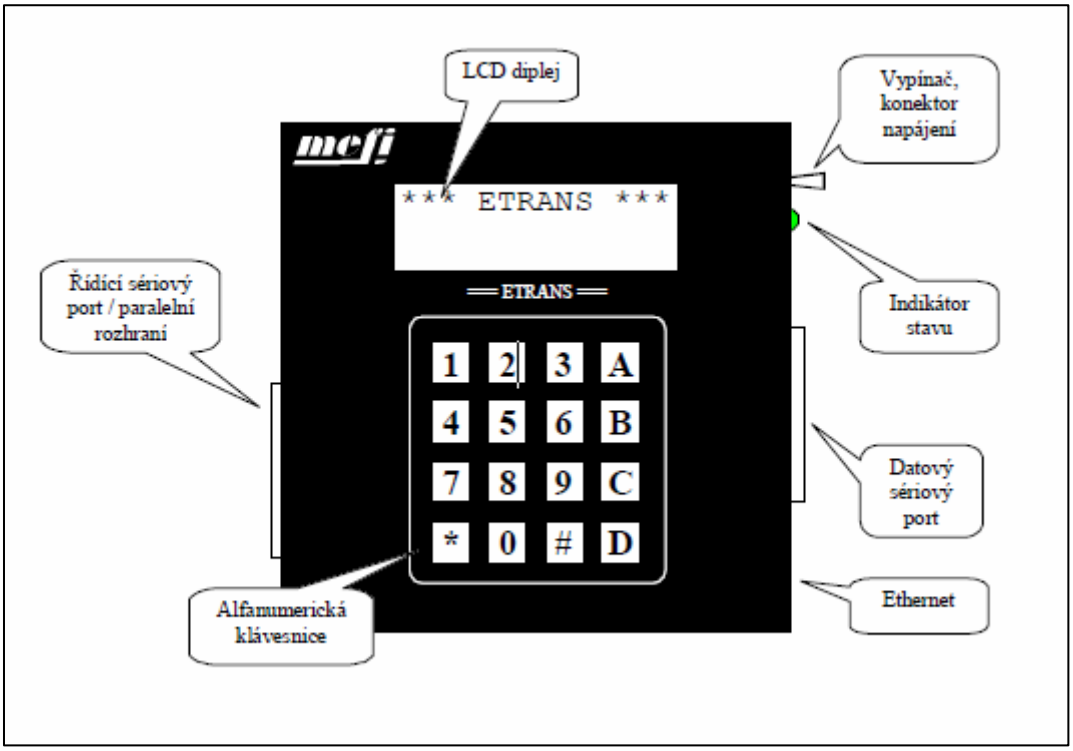
software for administration and archiving of NC programs and hence for unified control of all CNC in the enterprise.

- Easy operation. Operation of ETRANS (except of initial configuration) is performed in accordance with three basic scenarios. The first one is used when ETRANS is connected to control system with serial interface protocol Heidenhain. The whole operation is provided via system's control panel and an operator doesn't know that ETRANS is in use. The second scenario is useful when the control system has serial interface though an non-protocol transmitting can be used only. Control is provided again from a control system's operating panel however so called control programs must be used . The third scenario is used in all other cases – for transmitting control must be used the control panel together with ETRANS keyboard and display. ETRANS is designed in such a way that for basic function selection only a few hits of keyboard keys are necessary .

1.2 Package content

- Communication adapter ETRANS with/without integrated keyboard and LCD display
- Power supply (only in CR).
- Cable K15 for terminal or control system serial interface connection
- CD with software and manuals.
- Operating manual.

1.3 ETRANS picture



*** ETRANS ***
Switch power
connector
State indicator
Control serial port /parallel interface
Ethernet
LCD display
Data serial port
Alphanumeric keyboard

1.3.1 LCD display and keyboard

ETRANS can be delivered optionally with a16-key alphanumeric keyboard and with a two rows LCD display. The display and the keyboard make simplify ETRANS configuration (need no terminal) and are must for controlling of some file transmitting procedures (non-protocol transmitting, parallel simulation).

1.3.2 Serial data port

Serial data port serves for ETRANS to system's serial interface connection for this connection is destined cable K15 (part of ETRANS delivery) or cable K1.

Notice: The cable K15 can not be used without modification when system's serial interface connector pinning is non-standard !

1.3.3 control serial port / parallel interface

To decrease ETRANS dimensions, only one connector is used for serial port/parallel interface . This pin sharing doesn't rep[resent any problem from operating point of view. When a parallel ETRANS interface to be used it is principally necessary using of ETRANS option with the keyboard and display and hence no terminal connection through serial port is needed

Connection ETRANS - terminal is provided via cable K15 (part of ETRANS delivery) or cable K17. During communication a fixed set of communication parameters is used :: 19200 b/s, no parity, 8 data bits, 1 stop bit, no flow control.

The connection cables between system and parallel interface vary according to control system. For detail information contact the manufacturer.

1.3.4 State indicator

The state indicator serves for quick and simple monitoring of adapter's state and for error indication. It is useful particularly in option without display when it represents the only way of adapter's state indication. The current states are indicated by GREEN LED blinking, where each state is distinguished by blinking manner (see table, black = LED on, gray = LED off):

Gate finding / FTP serve. This state is normally indicated maximally 5 seconds after ETRANS power up (If ETRANS is connected to network and properly configured)

.

non-operating state, ETRANS is not logged to FTP server.
Non-operating state, ETRANS is logged to FTP server.
Communication with FTP server.
File transmission FTP -> ETRANS.
File transmission ETRANS -> FTP.

The error states are indicated by red color. By blinking manner an error code can be determined. The error code consists of two numbers in range 1 to 10, where first number determines a group and second one an error number in the group. During error indication a number of group is indicated (number of blinks corresponds to group number]) after a short pause an error number is indicated (number of blinks corresponds to error number) followed by a long pause.
The error code is indicated three times. After indication of error the indication basic mode (indication of ETRANS status)takes place.

1.4 Specification

Interface:

- One serial port RS232 destined for ETRANS configuration by the terminal (control serial port).
- One serial port RS232 destined for ETRANS connection to a serial port of CNC machine control system (data serial port).
- One parallel port destined for ETRANS connection to a machine control system parallel interface
- A control serial port shares with a parallel port one connector.
- Connector RJ45 10BASE-T for connection of ETRANS to Ethernet network

Supply:

- External power supply 12V dc

Keyboard and display:

- Keyboard and display are optional.
- Alphanumeric LCD display, 2 rows, 16 characters per row.
- Alphanumeric keyboard with 16 keys. Characters are selected by multiple key pressing

Protocols (interface Ethernet):

- ARP, ICMP – subset (echo – ping client), TCP/IP, FTP – client (authorization by name and password, directory listing, server directory browsing , bi-directional file transfer).

Protocols (data serial interface):

- Non-protocol transfer
- „Pseudoprotocol“
- Heidenhain (FE1, FE2)
- MDTP1 (for systems MEFI)
- Parallel (simulation of various punched tape readers)

Serial interface:

- Baud rate in range 600 to 57600 b/s (600 b/s, 1200 b/s, 2400 b/s, 4800 b/s, 9600 b/s, 19200 b/s, 38400 b/s, 57600 b/s).
- no parity, odd or even parity
- 7 or 8 data bits
- 1 or2 stop bits
- Maximally 10 bits per character transferred (data bits + stop bits + parity bits).
- Flow control: XOn/XOff, RTS, CTS, DSR, DTR

Simulation of parallel peripherals :

- Simulation of common types of tape readers. For more details contact the manufacturer.

Firmware:

- Saved in EEPROM 128 kB
- Upgrade possible by FTP or by programming device connected to parallel PC port

1.5 Firmware variants

The ETRANS firmware exists in variants which differ in group of supported protocols
. Firmware can content a multiple variant simultaneously . The following table consists a list of variants. For each variant the supported protocols are marked (‚x'):

	Non-protocol	Pseudoprotocol	Heidenhain	MDTP1	Parallel
H	x	-	x	x	-
S	x	x	-	-	-
P	x	-	-	-	x

2 Operating manual

2.1 Operation of ETRANS

The ETRANS control depends on the presence of keyboard and display . Versions with keyboard and display can be used in all procedures destined for non display/keyboard versions

2.1.1 Non display/keyboard option

Control is provided via terminal connected to ETRANS control serial port The control serial port communication parameters are fix set to 19200 b/s, no parity, 8 data bits, 1 stop bit.

Esc - Menu access / menu up level return / input canceling
Space - selection of menu items.
Enter - menu or input selection confirmation.
0 to 9 - quick menu item selection.

2.1.2 Option with keyboard and LCD

Control is provided through integrated keyboard the ETRANS inputs are displayed on integrated LCD display Typing of characters is provided via integrated display similarly as in mobile phones by multiple key pressing The single key pressing usually corresponds to a character printed on the key . Multiple pressing sequentially corresponds to characters indicated in bottom of the key. The control keys (Menu/C, Enter, …) the multiple pressing is implemented as a multiple selection (every single press is followed by requested action) Control keys:

Menu / C - Menu access / menu level up return / clear last character / input canceling /transmission interrupt.
^ ,v , — move in menu items.
Enter - menu or input selection confirmation .
0 to 9 quick menu item selection

2.2 Install procedures

2.2.1 Ethernet configuration TCP/IP and FTP

Hub / Switch
Server 192.168.0.1
ETRANS 1 192.168.0.50
PC 2 192.168.0.11
PC 1 192.168.0.10
ETRANS is connected to the same LAN as Server
.
Hub / Switch
Gate 40.16.0.1
ETRANS 1 40.16.0.50
PC 2 40.16.0.11
PC 1 40.16.0.10

Internet
IP ETRANS address 40.16.0.50
IP FTP address 132.50.30.28
IP gate address 40.16.0.1

Server 132.50.30.28

ETRANS is not connected to a same Ethernet network segment as Server. Example. ETRANS configuration:

ETRANS 2 192.168.0.51
MAC address For Ethernet Is not necessary to provide
ETRANS side no configuration The only configurable parameter for Ethernet network is so called . MAC address that is preset by manufacturer

By this address

ETRANS 2 40.16.0.51
are identified devices connected to Ethernet network. Only exceptionally when some other devices uses the same address as ETRANS is necessary to modify MAC address of ETRANS to be unique in LAN

IP address
Next is necessary to set IP address of ETRANS, FTP server and gate. For ETRANS in LAN must be determined a unique IP address. As an IP address of FTP server must be set the IP address of computer where runs the FTP server

In case when ETRANS shares the same local Ethernet network in ETRANS must be set the same IP gate address and IP server address In case when ETRANS doesn't share the same Ethernet network then in ETRANS must be set a different IP gate address through which will the IP packets be redirected outside current Ethernet network segment

To keep configuration save it in ETRANS.!

Name and password for FTP server log in

To allow ETRANS log in to the FTP server a user name and a password must be established
The User name and the password must correspond to FTP server configuration
According to FTP server configuration the password can be omitted

2.2.2 Configuration of serial interface and communication protocol

On ETRANS must be selected a communication protocol between ETRANS and control system . Also the parameters of serial interface must correspond to connected control system and its configuration

2.3 Summary of menu selection

MAC address
IP of FTP server
IP of gate
FTP - name
FTP - password
Non-protocol
Pseudoprotocol
Heidenhain
Parallel
Rate
Parity
Number of data bits
number of Sop bits
Flow control
suffix STX
suffix WTX
suffix 1
suffix 2
delay – send.
delay – rec.
Timeout 1. character
Timeout next char,
Czech
English
Deutsch
Length DATA PLAT.
Delay of sim. length.
ret. DPL after START
Del.0 between characters
Shift of origin
Blank after end
Shift during run-out
Program cycle.
view
Save
Ethernet, IP,FTP
Protocol
Serial port
Parallel port
Others
language
Firmware
Default config.
Parameters 1
Parameters 2
Parameters 3
Load
Save
Read file
Save file
Directory list

Current directory
Change directory
Supervisory directory
Settings
Sim.short START
Sim. GRIESHEIM
D.PLAT.during wait.
Att..TALLY-C30
0 during wait
FER203 sim -C30
pict. DATA PLAT.
Sim.CONSUL backward
reverse START
reverse DATA
sim direction for C30
Bck.- last char..
clear CRDY
insert blank
FER 202
XOn/XOff
RTS
CTS
DSR
DTR

2.3.1 ETRANS main menu read file

Transfer file from FTP server to control system.
The statement is valid only when" non-protocol "or "pseudoprotocol" mode is set " (the file will be send in non-protocol mode to ETRANS serial or parallel interface. The file is transferred immediately after typing and confirmation its name. A whole name must be typed i.e. including extension (if the file name contents this extension on FTP server).

Write file File transfer from FTP server to control system
This statement is valid only when "non-protocol" or" pseudoprotocol" mode is set. In both cases ETRANS sends to FTP server data obtained from serial port without any protocol treatment . ETRANS starts reading from serial port immediately after typing and confirmation its name. If the first character is not received within time-out (see. configuration „Setting" – „Other" – „Timeout 1st character") the transfer is finished and file is not saved. The file receiving is finished if a last character is followed by delay greater then set in : „Settings" – „Other" – „Timeout next char.". A whole name must be typed i.e. including extension (if the file name to be saved contents this extension on FTP server).

Directory list.
List of current directory of FTP server. When controlled from ETRANS keyboard the listing is displayed after pressing key „", When controlled from terminal listing is displayed after pressing "space" key Pressing key „Enter" immediately starts transferring of selected file from FTP server (only non-protocol transfer or parallel simulation).

Current directory
A path to FTP server current directory is displayed

Change directory
Serves for changing of FTP server current directory. This change is temporarily valid only (until FTP server is disconnected) (ETRANS is automatically disconnected from FTP server after certain time of inactivity).

Supervisory directory
Change current directory of FTP server to supervisory directory which correspond to a current directory
If the current directory is a root directory no change occurs.

Setting
Menu access „Settings“.

2.3.2 Menu „Settings“

View
displays a current ETRANS configuration In option with a keyboard and LCD display is possible to move through items via keys „ˇ“ and „^“,browsing is finished by pressing „Esc“ key. When operation is done from the terminal is possible an unidirectional move only via “space” key

Attention: *Current (i.e. just viewed) configuration doesn't match to configuration saved in EEPROM. ETRANS transfers during every power up the configuration from EEPROM to RAM where can be viewed and possibly edited. Changes in configuration must be always saved to keep them for next ETRANS power up. Some configuration changes take place after storing only*

Save
Saves current ETRANS configuration to EEPROM from where RAM is loaded after each power up. Configuration must be saved after every change is done. Some configuration changes take place after storing only. Non saved changes are lost after ETRANS shutdown

Ethernet, IP,FTP
Access to menu „Ethernet, IP,FTP“ where the ETRANS MAC address can be changed ETRANS IP address , FTP server address, gate address, name and password for FTP server log in.

Protocol.
Setting of communication protocol for serial port. Following options are available: „Non-protocol“, Pseudoprotocol“, „Heidenhain“ and „Parallel“.

Serial port
Access to menu „Serial port“ which serves for setting of data serial port parameters

Parallel port
Access to menu „Parallel port“ which serves for setting of parallel simulation parameters

Other
Access to menu „Other“ that provides setting of suffixes for protocols „Heidenhain“ and „pseudoprotocol“ and values of delays and time-outs for „pseudoprotocol“ and non-protocol transfers.

Language
Language setting in which all ETRANS text will be displayed. Optional languages are: Czech, English and Deutsch.

Firmware
Access to menu „Firmware“ serves for ETRANS software upgrade or backup

Default config.
Return to default ETRANS configuration.
Attention*: This option sets all configurable parameters to their default values. This statement requires confirmation For confirmation type text „ANO“ (in upper case letters).*

2.3.3 Menu „Settings“ -„Ethernet ,IP,FTP“

MAC address
Setting of ETRANS MAC address. Address setting is provided byte sequentially , each byte in decimal form! (Commonly the MAC address requests a sextuple of hexadecimal numbers. Separated by colon. ETRANS uses decimal notation not only for settings although also for display). The change of MAC address is permitted after confirmation of question "change MAC? Only. If change is requested the answer must be typed „ANO“ (in upper case letters).

***Attention**: This option is for experienced users only !*
MAC address must be unique in one ETHERNET segment In most cases the default ETRANS MAC address is OK. This address has notation 2:2:2:x:y:z, where the second address part (x:y:z) correspond to ETRANS serial number.

ETRANS IP
Setting of ETRANS IP address. IP address is set as standard i.e. as four decimal numbers in range 0 to 255 separated by comma

FTP server IP
Setting of FTP server IP address. IP address is set as standard i.e. as four decimal numbers in range 0 to 255 separated by comma.

Gate IP
Setting of GATE IP address. If the FTP server shares the same Ethernet network The Gate IP address must be equal, to FTP server IP address IP address is set as standard i.e. as four decimal numbers in range 0 to 255 separated by comma

FTP name.
Name setting for login to FTP server. ETRANS allows maximal user name with length 16 characters
Depending on type and configuration of FTP server the name can be omitted

***Attention**: Some FTP servers are upper/lower case sensitive but integrated ETRANS keyboard is only for upper case letters*.

FTP password
Password setting for FTP server login. ETRANS Allows a maximum password length 16 characters. Depending on type and configuration of FTP server the name can be omitted.

***Attention**: Some FTP servers are upper/lower case sensitive as for password checking but integrated ETRANS keyboard is only for upper case letters*

2.3.4 Menu „Settings“ -„Serial port“

Rate
Transmission rate of serial port. The transmission rate can be set in range 600 up to 57600 b/s.
***Notice**: ETRANS is designed to allow transmission rate setting of serial port in steps 600 b/s, 1200 b/s, 2400 b/s, 4800 b/s, 9600 bs, 19200 b/s, 38400 b/s and 57600 b/s. The other rates are also available but in unwarranted rate accuracy .*

Parity
Data serial port parity. This parity can be set as non, odd or even parity

Number of data bits
Number of data bits used by data serial port. The options are 7 or 8 data bits.

Number of Stop bits
Number of Stop bits used by data serial port. The options are 1 or 2 Stop bits

Flow control
Flow control Access to menu „Flow control“, where is established mode of software and hardware transmission control of data serial port

***Attention**: number of bits for one character transferred i.e. sum of data bits, start bits, stop bits and parity bit can be 10 or 11 This give us following combinations of parity, data and stop bits:*

Parity	none	none	yes	yes	yes
Number of data bits	7	8	7	7	8
Number of stop bits	2	1	1	2	1

2.3.5 Menu „Settings“ – „Serial port“ - „Flow control“

XOn/XOff
On (1) or Off (0) of data serial port software control

RTS
determines if ETRANS will use for flow control signal RTS (Request to Send) (1 – Yes, 0 – No).

CTS
determines if ETRANS will use for flow control signal CTS (Clear to Send) (1 – Yes, 0 No).

DSR
determines if ETRANS will use for flow control signal DSR (Data Send Ready) (1 – Yes, 0 – No).

DTR
determines if ETRANS will use for flow control signal DTR (Data Transfer Ready) (1 – Yes, 0 – No

2.3.6 Menu „Settings“ – „Parallel port“

Parameters 1
Parameters 2
Parameters 3
The parameters setting is divided into three groups Items Parameters 1 up to Parameters 3 allow access to submenu for setting of parallel simulation parameters
***Notice**: Detailed description of each setting of parallel simulation is in Chapter „Parallel simulation“ (including explaining picture)..*

2.3.7 Menu „Settings“ – „Parallel port “ -„Parameters 1“

Length DATA PLAT.
C61 Time when signal RDY is non active. Signal RDY is in log. 0 for time= number set x5ms
.
Delay of sim. length.
C62 Time when signal RDY is active before waiting for start. Signal RDY is in log 1for time = number set x 5mikro sec. After this time waiting for active signal STR2 takes place

Ret. DPL after START
C63 Time when signal F9 is active after data change . Signal F9 is in log 1 after data change for time = number set x 5mikro sec.
.
Del.0 between characters
C127 Clearing time during data transfer. Data are in log. 0 for time= number set x 5mikrosec.

Shift of origin
C137 Shift in file origin in range 0 to 255 characters. During parallel simulation of the file is "omitted" on the file beginning a number of characters equal to number set.

Blank after end
C176 Number of blank at file after file end. After simulation of whole file is still a set number of blanks

Shift during run-out
C177 Shift in file beginning in range 0 to 255 characters The same meaning as "Shift of origin "
but this parameter is used when a new file simulation started because of too long receding during previous.

Program cycle.
C67Cycling of program. If enabled (1), a new simulation of the same program starts after previous simulation ends.

2.3.8 Menu „Settings“ – „Parallel port“ -„Parameters 2“

Sim. short START
C30 Short start 1 – Change signal F9,F9/ and RDY response (see pict.). Causes waiting for non-active level of signal STR2 on the beginning
.
Sim. GRIESHEIM
C69 attribute GRIESHEIM 1 – Change signal F9 response/(see pict..). Causes waiting for non-active level of signal STR2 on the beginning and a signal edge before end.

Data valid during wait
C121 steady signal RDY 1 – Change signal F9 and RDY response (see pict..) att.

TALLY-C30
C125 attribute Tally 1 - Change signal F9 and RDY response (see pict..)

0 during wait
C128 Data clear at the character transfer end. 1 – data are cleared after character transfer (tape between holes)

FER203 sim -C30
C171 attribute FER203 1 -Signals F9 and RDY end already before waiting for Start stage .

Inverse DATA PLAT.
C132 Inverse RDY 1 –Response of signal RDY is reverse than on picture

Simulation CONSUL backward
C36 Inverse F9 1 - Response of signal F9 is reverse than on picture

Inversed START C64 Inverse of START 0 -Log. 1 on the input STR2 causes a statement go to next character.
1 -Log. 0 on input STR2 means performing step to next character statement

Inverse DATA
C65 data inversion
0 – Hole on punched tape corresponds to log1 on ETRANS output
1 –Hole on punched tape corresponds to log.0 on ETRANS output

2.3.9 Menu „Settings“ – „Parallel port“ -„Parameters 3“

Simulation direction for C30
C123 Inversion SMER
0 –If value log. 1is on input SMER the simulation runs forward
1 - If value log. 1is on input SMER the simulation runs backward.

Back -previous char..

Clear CRDY
C136 Clearing CRDY outside simulation.
1 – on CRDY output is log. 1when reader simulation is active only
0 – Permanent log.1 output of CRDY.

Blank insert
C178 Number of leading blanks at file beginning. Before start of file simulation itself the corresponding number of blanks is simulated

FER 202
C134 provides simulation of tape reader FER202 with triple phase control of a step motor.

2.3.10 Menu „Settings“ – „Other“

Suffix STX
For file transfer from FTP server. This suffix is used together with pseudoprotocol.
In the control program is possible to write a file name without suffix.
The suffix is added directly behind the name hence it should have a form ”xxx“, where x is a random character or cipher .

Suffix WTX
serves is for file transfer to FTP server. The suffix is used together with pseudoprotocol. The suffix is added directly behind the name hence it should have a form “xxx“, where x is a random character or cipher.

Prefix 1
Prefix that is added directly before the file name during transfer request by pseudoprotocol. This prefix is used with statements 74, 75, 76 and 77. Maximal prefix length is 5 characters

Prefix 2
Prefix that is added directly before the file name during transfer request by pseudoprotocol. This prefix is used with statements 78, 79, 80 and 81. Maximal prefix length is 5 characters

Delay – send.
Delay before sending data to serial port of ETRANS during data transfer from FTP server by pseudoprotocol Delay is set in seconds and determines time between request to send and transmission start. Delay is destined for operator to have enough time to prepare control system to file receiving.

Delay – receive. Delay before receiving data from serial port of ETRANS during data transfer to FTP server by pseudoprotocol. Delay is set in seconds and determines time between data transfer request and accepting of first character on ETRAN’s serial port Delay forces ETRANS to “discard” the control file characters after request.

Timeout 1st. character
Time of ETRANS serial port is waiting for the first character after pseudoprotocol or non-protocol transfer to FTP server is enabled. If none character is received in this time the transfer is finished and no information is transferred to FTP server. This time is set in seconds

Timeout next char
The maximum delay between adjacent characters on serial port. If none character is received within this time the transfer is finished. It is used in pseudoprotocol or non-protocol transfers. Time is set in seconds

2.3.11 Menu „Settings“ – „Firmware“

Load .
Load a new software from designed FTP server file to ETRANS. File must have a software binary form for ETRANS . Software is accepted after ETRANS restart

***Attention**: Error during transfer or loading wrong file can cause ETRANS inoperability ! In this case ETRANS software must be reloaded by parallel programming device*

Save
Save under designed name to FTP server whole contents of ETRANS EEPROM including current configuration. Loading this file to ETRANS means restoring ETRANS software including

2.4 Error codes

The error information consists of following parts::

- Number of Error group. On the LCD display or terminal it is first cipher displayed. On the state indicator is this number “blinked” first (Three times sequence: Group number, short pause, error number longer pause).
- Error number in group. On the LCD display or terminal it is a second cipher in error information (number of group : error number). On the state indicator is this number “blinked” after group number .
- Text viewed on LCD display. The error description on LCD is a short maximally 16 characters long. It is displayed after error number
- Text viewed on terminal. Similar to LCD version

The error grouping give us possibility to indicate error number by LED “blinking”. From that reason a detailed error description is not provided here and is restricted to description of specific errors

.

2.4.1 Error group „Hardware“

No	Text on LCD	Whole text /description, possible reason
1:1	Parameters COM	"Incorrect parameters of serial port." Incorrect parameters for serial port control unacceptable for ETRANS Possible reasons: • Unsupported transmission rate • Unacceptable combination of data, stop and parity bits More see 2.3.4.

2.4.2 Error group „FTP 1“

No	Text on LCD	Whole text /description, possible reason
4:1	Connecting	"Connection to FTP server failed” Unsuccessful connection to FTP server, ETRANS did not receive any packet Possible reasons: • Problem with ETRANS to ETHERNET cabling. • Bad IP address configuration. • Problem with FTP server.
4:2	Connecting, tmo	"Connecting to FTP server – no reply" Unsuccessful connection to FTOP server. No answer Time out passed ETRANS during communication start accepted at least one packet. ETRANS configuration is then probably OK. Possible reasons: • Temporary problem with cabling. • Problem with FTP server.
4:3	Login	"FTP server login rejected." Connecting to FTP server were established but login were rejected Possible reasons: • Number of concurrently login clients to FTP server overflowed • FTP server rejected login from other reason
4:4	Login, tmo	"login to FTP server –no answer” Time out - no answer during login to FTP server
4:5	User name FTP	"FTP server rejected user name"

		Possible reasons: • Incorrect user name in ETRANS configuration • Configuration of user accounts for FTP server do not allow login of user with name configured in ETRANS.
4:6	Login., tmo	"Password check - no response from server " Time out - no answer during waiting for FTP server response to user name.
4:7	Login, ACCT	"login to FTP server – ACCT requested." Server requests „Account“ for login . This option is not supported by ETRANS
4:8	Password	"FTP server- password rejected." FTP server rejected user password. Possible reasons: • Incorrect setting of user name or password in ETRANS configuration • Given account in FTP server not correspond to password configured in ETRANS ***Attention**: Some FTP servers are lower case sensitive in user names and passwords*
4:9	TYPE, tmo	"statement TYPE – server doesn't react." Timeout during waiting for FTP server answer after statement TYPE (set transfer mode to binary).
4:10	TYPE	"FTP server doesn't support binary transfers " FTP server rejected statement TYPE Possible reasons: • FTP server doesn't support binary transfers

2.4.3 Error group „FTP 2“

No	Text on LCD	Whole text /description, possible reason
5:1	Disconnecting , tmo	"Disconnecting -FTP server doesn't react." Timeout during waiting for FTEP server answer when disconnected.
5:2	Disconnecting	"FTP server- disconnecting rejected." FTP server doesn't accept statement QUIT.
5:3	Statement, tmo	"Statement in process -FTP server doesn't react." Timeout during waiting for FTP server response to given statement
5:4	Statement	"FTP server - statement rejected..." Error during processing of given statement Possible reasons: • Directory change request – directory doesn't exist or access rights are insufficient
5:5	PORT, tmo	"Statement PORT -FTP server doesn't react." Timeout during waiting for FTP server response when processing an FTP statement PORT (statement PORT send ETRANS to FTP server before each transfer).
5:6	PORT	"FTP server- statement PORT rejected." (This statement send ETRANS to FTP server before each transfer). Possible reasons : • ETRANS were just previously shut down during file transfer.(When ETRANS is shut down during transfer the connection to FTP server remains opened for some time. Until connection closing after timeout it is not possible to open a new transmission with the same parameters.)

5:7	Transfer FTP, tmo	"Data transmission -FTP doesn't react." Timeout during waiting for FTP server response during data processing
5:8	File/ transf. .FTP	"Access to file rejected. /transmission error FTP." Error occurs during processing of transfer request Possible reasons: • File transfer request from FTP server – File with given name doesn't exist or insufficient file access rights • File transfer request to FTP server – file with given name already exists and is not possible to write into file (access rights are insufficient) or file is temporarily processed by other user). • Inadmissible file name. • Server has no capacity for file storing

2.4.4 Error group „Data“

No	Text on LCD	Whole text /description, possible reason
6:1	Write data	"Error during writing." Error occurs during data transfer from ETRANS to control system through serial/parallel interface and given protocol Possible reasons : • Problem with interconnection of ETRANS and control system. Incorrect configuration of control system or ETRANS • Incorrect operation on control system.
6:2	Target closing	"Error of data target closing." Error occurs during closing transmission from ETRANS to control system. The reason depends on protocol used Possible reasons see Error 6:1.
6:3	Receiver closing	" Error of data source closing.“ Error occurs during closing transmission from control system to ETRANS. The reason depends on protocol used Possible reasons see Error 6:1..
6:4	Cancel	„Cancel…“ Request for transfer canceling, transfer finishing in process . The cancel request can be generated by a couple of ways : • By pressing C key on ETRANS keyboard or (Esc during terminal control) • During transmission processing transfer request when previous request is in process Only when a pseudoprotocol is used . • During receding the appropriate buffer is empty. Only when a parallel protocol is used.
6:5	Transmission canceled	„Transmission cancelled.“ Transmission end after cancel request were finished.

2.4.5 Error group „Other“

No	Text on LCD	Whole text /description, possible reason
9:1	Invalid BIN	„Invalid software file of ETRANSU (file BIN).“ Given file doesn't content a valid firmware. Possible reasons: • Name of other file were selected damaged firmware file.

2.5 Supported protocols

2.5.1 Non- protocol

During non - protocol transfer a raw data between ETRANS and control system are transmitted through serial line without any transmission check. For flow control is possible to use either software (XOn/XOff) or hardware (RTS/CTS, DSR/DTR) instruments or their combination. For transfer control must be used ETRANS with display and keyboard option.

Non- protocol transmission control

Procedure of reading file from FTP server to control system without synchronization:

1. Prepare control system for file receive .The particular way depends on control system used .
2. Start file transfer from FTP server. Select item 0: "file read" in ETRANS main menu. Next give a whole file name (i.e. including suffix.) to be read . Press key „Enter“ to start transmission. The second possibility is to select item 2 from the main menu – „directory list“. Next browse through items using key „—“, After finding requested file press key „Enter“, to start transmission of selected file.

Procedure for reading file from FTP server to control system if hardware or software synchronization is used:

1. Start file transfer from FTP server. Select item 0: "file read" in ETRANS main menu.Next give a whole file name (i.e. including suffix.) to be transferred. Press key „Enter“ to start transmission . ETRANS will wait for control system handshaking .
2. Start file receive on control system. The particular way depends on control system used

Procedure of file save to FTP server without synchronization:

1. Prepare ETRANS for file receive. Select item 1: "write file" in ETRANS main menu. Next give a whole file name (i.e. including suffix) to be saved. After pressing key „Enter ETRANS expected first character. (Is possible to set expected character timeout. When timeout is passed and no character is received transmission is finished).
2. Send („punch“) appropriate control system file o to serial link. The particular way depends on control system used

Procedure of file save to FTP server with hardware or software synchronization :

1. Send („punch“) appropriate control system file o to serial link. The particular way depends on control system used. Control system will wait for ETRANS handshaking .
2. Start file receiving on ETRANS. Select item 1: "write file" in ETRANS main menu “.Next give a whole file name (i.e. including suffix.) to be saved on FTP server. Press key „Enter“ to start transmission.

2.5.2 Pseudoprotocol

Generally it is a variant of non-protocol transmissions . The only difference is that the file transmission is not controlled from ETRANS keyboard but by control program created in control system and transferred to ETRANS. ETRANS evaluates received program and after this starts a common non-protocol transmission.

By pseudoprotocol the following files can be controlled :

- File transfer from FTP server to control system.
- File transfer from control system to FTP server.
- Transfer of FTP server directory listing to control system.

Control system's format

Control system's format is as follows:

```
...
nnn M XX
nnn FILE
...
```

Where „nnn“ is a block number, „XX“ stays for statement number and „FILE is filename in one of two possible formats (see next). The block number may or may not start with character N ; next it can contents any number of ciphers. The block number can be omitted. It is irrelevant to ETRANS. Control program can content a multiple row headline ignored by ETRANS. Headline must be followed by row with statement itself:
If statement is file transfer type a row with filename must follow. The file end can again content a couple of row ignored by ETRANS. (Remark.: Headline length is not restricted, number of end rows is restricted by before-receiving-timeout only). Optionally the beginning of each row can start with a number the rows can be ended by character CR or LF or CRLF combination. Maximal row length with a statement or a filename is 128 characters (including CR/LF).

The pseudoprotocol statement consists of letter „M“ (case non sensitive) and a two cipher statement number. Spaces between letter "M" and ciphers are ignored .
ETRANS supports following statements:

Statement		Description
Prefix 1	Prefix 2	
74	78	File transfer from FTP server to control system. Given filename is followed by suffix according to configuration „ suffix STX“.
75	79	File transfer from control system to FTP server. Given filename is followed by suffix according to configuration „ suffix WTX“.
76	80	File transfer from FTP server to control system.Given filename is followed by suffix according to configuration „ suffix WTX“.
77	81	File transfer from control system to FTP server, Given filename is followed by suffix according to configuration „suffix STX“.
82		FTP server directory list to control system transfer.
83		Detecting of current working directory
84		Changing of current working directory

For filename and directory name two different formats are used. First the whole name is in round brackets, second the name is introduced by character "X". For files is in both cases the name is circumscribed by prefix and suffix according to configuration and statement given (not valid for directory)

Examples

In following examples is supposed that prefix „.STX“ for transfers from FTP server and suffix „.WTX“ for transfers to FTP server are set and that prefix 1 is not set and prefix 2 is set to „PPG“.

Transfer of file 10.STX from FTP server
to control system :
%1000
100 M 74
200 X 10
300 M 30

Transfer of server file BTX.WTX
from control system to FTP server:
%1001
M75
(BTX)

Transfer of file PPG38.WTX from control system to FTP server:	Transfer of directory listing from FTP server to control system:
%1002 M 79 X 38 M 30	N100 m 82

Transfer control by pseudoprotocol

For pseudoprotocol transfer is necessary to prepare in control system a control file („program“). Most convenient is to prepare three control files. One file with transfer FTP to control system statement. The second for reverse transfer statement and third for transfer of FTP directory listing statement one of this pre prepared programs can be later use with filled proper filename for file transfer.

Procedure of loading file from FTP server into control system:

1. On the control system prepare control transfer file. If this file is already prepared modify accordingly the filename
2. Send („punch“) control file to serial link.
3. Prepare control system for file receiving – ETRANS starts transfer automatically after a given time from control file acceptance . The control system must be ready to receive file just before this timeout elsewhere the file transferred can be lost .

Procedure of storing file from control system to FTP server:

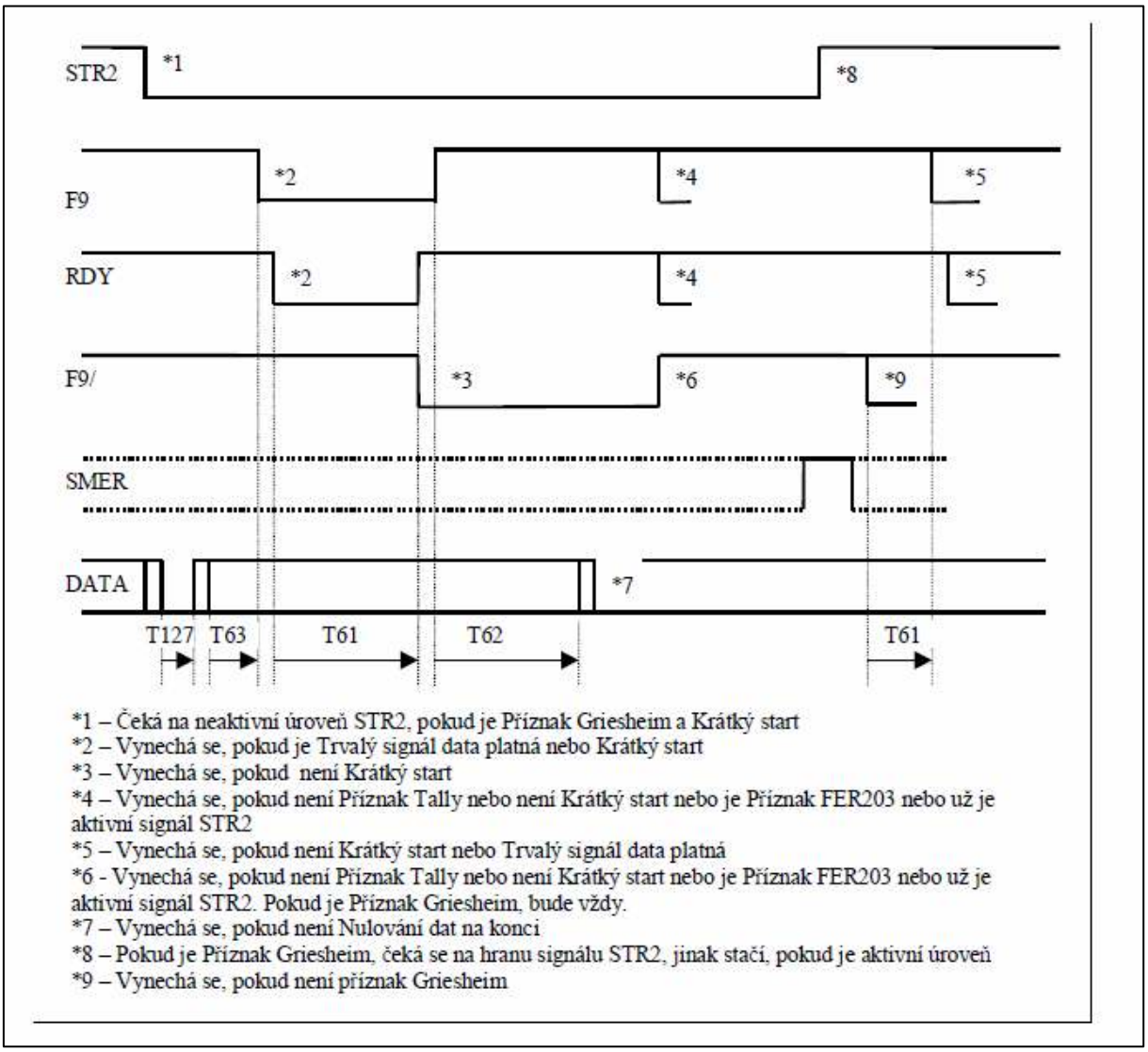
1. On the control system prepare control transfer file. If this file is already prepared modify accordingly the filename
2. Send („punch“) control file to serial link.
3. Send („punch“) appropriate file to serial link.

2.5.3 Protocol „Heidenhain“

Protocol Heidenhain is destined for communication with Heidenhain control systems with mode setting to FE1 or FE2. In this case ETRANS need not be equipped with keyboard and display because all control is provided from control system operation panel. (However is convenient to use ETRANS with keyboard and display option to simplify configuration and possible error diagnostic). Control is alike as in case when control system is connected to computer with original Heidenhain software., or with diskette recorder Heidenhain.
.

2.5.4 Parallel simulation

The parallel simulation mode is used in case when a tape reader or other peripheral with parallel interface is simulated by ETRANS. The control is like in non- protocol serial transfers. ETRANS supports transmission from FTP server to control system only.



*1 – Čeká na neaktivní úroveň STR2, pokud je Příznak Griesheim a Krátký start
*2 – Vynechá se, pokud je Trvalý signál data platná nebo Krátký start
*3 – Vynechá se, pokud není Krátký start
*4 – Vynechá se, pokud není Příznak Tally nebo není Krátký start nebo je Příznak FER203 nebo už je aktivní signál STR2
*5 – Vynechá se, pokud není Krátký start nebo Trvalý signál data platná
*6 - Vynechá se, pokud není Příznak Tally nebo není Krátký start nebo je Příznak FER203 nebo už je aktivní signál STR2. Pokud je Příznak Griesheim, bude vždy.
*7 – Vynechá se, pokud není Nulování dat na konci
*8 – Pokud je Příznak Griesheim, čeká se na hranu signálu STR2, jinak stačí, pokud je aktivní úroveň
*9 – Vynechá se, pokud není příznak Griesheim

STR2
F9
RDY
F9/
DIRECTION
DATA
T63 T61 T62 T127 T61

*1 – Wait for non-active level of STR2 if attributes Griesheim and Short start are true
*2 – Skip if permanent signal data valid or true Short start
*3 – Skip if false Short start
*4 – Skip if no attribute Tally or no Short start is true or attribute FER203 exists or active signal STR2
*5 – Skip if no Short start or permanent signal Data valid
*6 -Skip if false attribute Tally or false Short start or true attribute FER203 or signal STR2 is already active . Always set if attribute Griesheim is true.
*7 – Skip if no Data clear et the end
*8 –If true attribute Griesheim, wait for edge of signal STR2, otherwise wait for active level
*9 – Skip if false attribute Griesheim

2.6 Firmware

Control program ETRANSu („firmware“) is saved in EEPROM. With capacity 128 kb. Firmware can be loaded to ETRANS either from FTP server. Either by parallel programming device.

2.6.1 Firmware versions

ETRANS firmware is released with variants according to protocols supported. The current firmware version is displayed on ETRANS display or on connected terminal. In steady state(i.e. (when no transfer is in process and no menu displayed …) is on display /terminal a message in format:

*** ETRANS ***
SW. VER. 1.3 H

The numbers determines a version and subversion number. The letters behind version determine which protocols are supported. Assigning of protocols group is in table (one firmware variant can support multiply protocols):

Assignment	**Protocols**
H	Heidenhain and MDTP1
S	Pseudoprotocol
P	Parallel simulation

***Notice**.: Non- protocol serial transfers are supported by all firmware variants.*

Firmware Is distributed with suffix bin (destined for loading from FTP server) and suffix bst (destined for loading from programming device). The filename is in format „ETRN1_3H.*“, so it contents firmware version

2.6.2 Firmware load

Loading firmware from FTP server

Place the appropriate firmware file with suffix bin on FTP server (i.e. into relevant directory of computer with running FTP server application). Load this firmware to ETRANS using option „6 setting“ – „8 Firmware“ – „0 load". After loading whole file restart ETRANS to activate new firmware

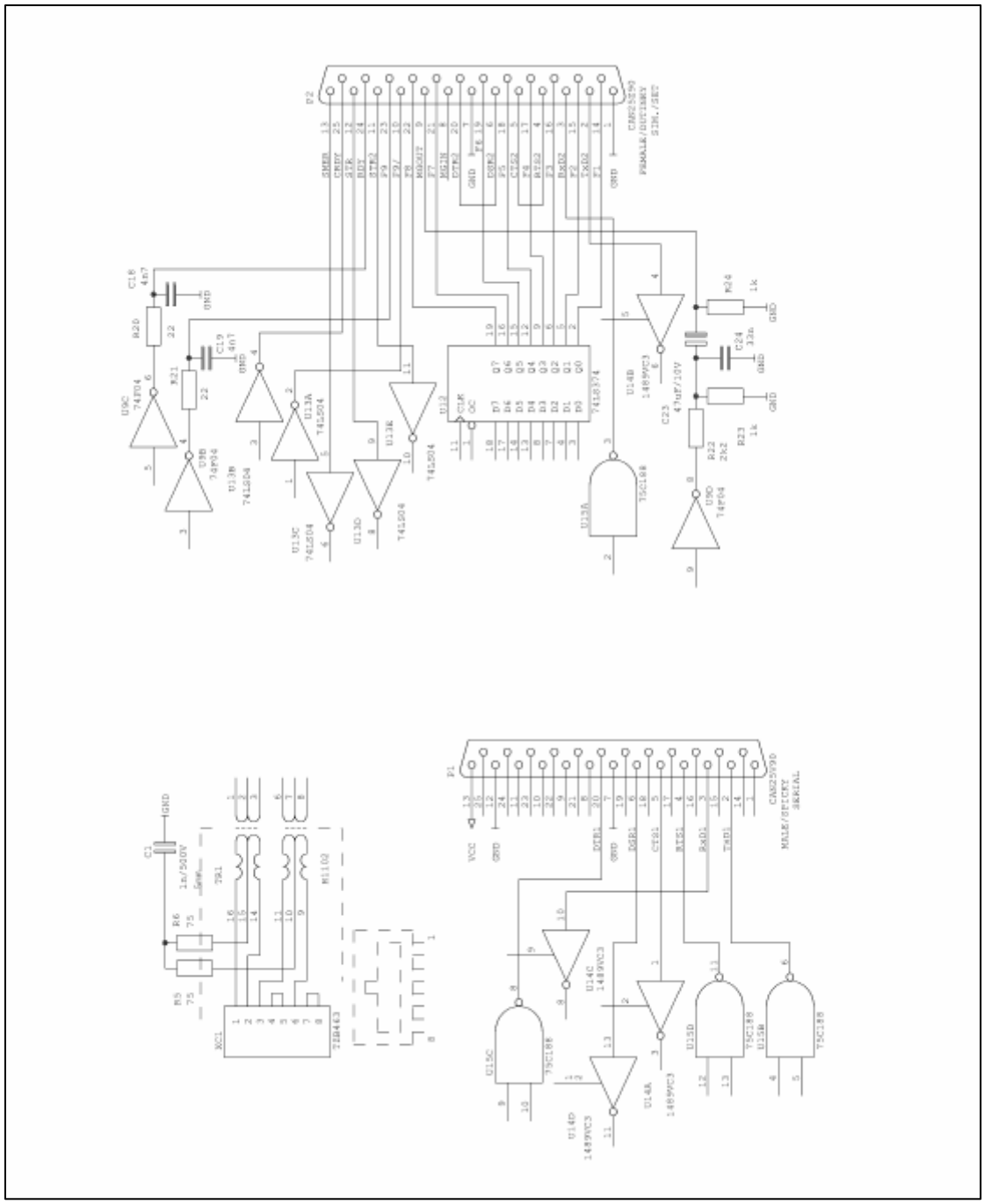
***Attention**:*
Firmware transfer to ETRANS must not be interrupted! If only a part of firmware is loaded ETRANS will be probably non functional l and is necessary to load firmware by programming device.

Loading firmware by programming device

This utility uses for software transfer to ETRANS the programming device wired between PC parallel port ETRANS XC2 connector. This connector is accessible only after removing of ETRANS upper cover; Connect cable when ETRANS is switched off. The programming itself is provided by program CPS located on attached CD.

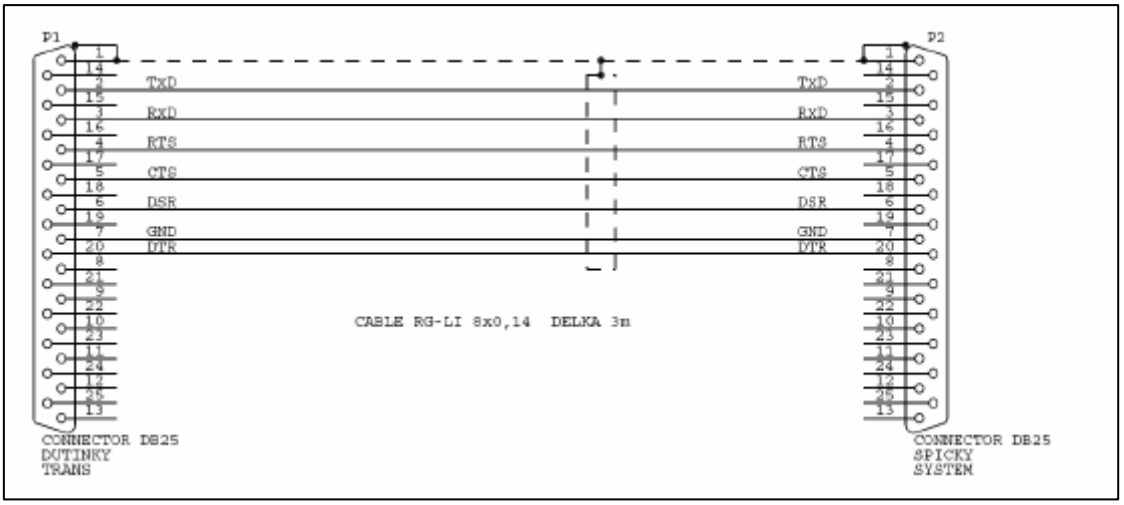
***Attention**:*
This procedure is destined for experienced users only . Incorrect manipulation can cause ETRANS inoperability.

2.7 Connector wiring

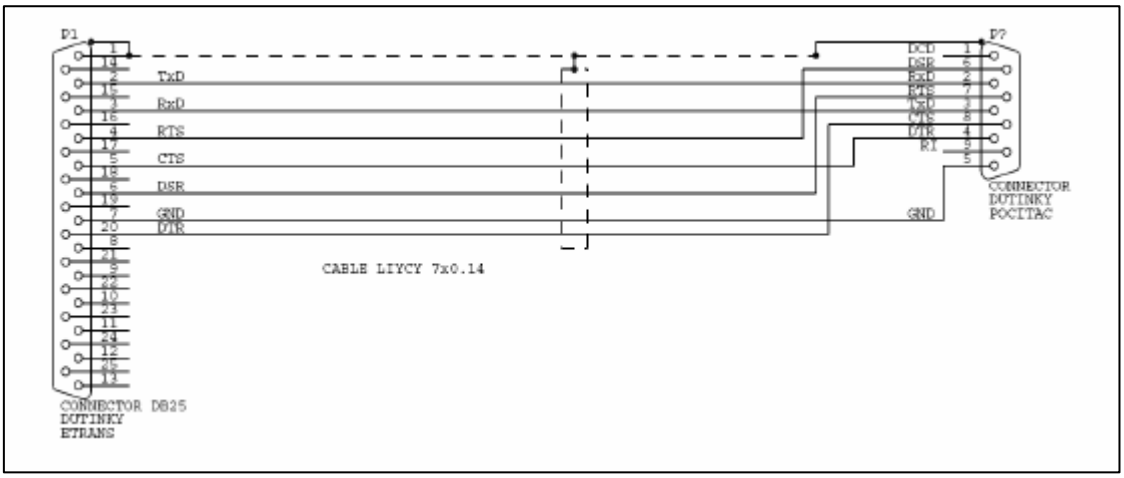


2.8 Cable wiring

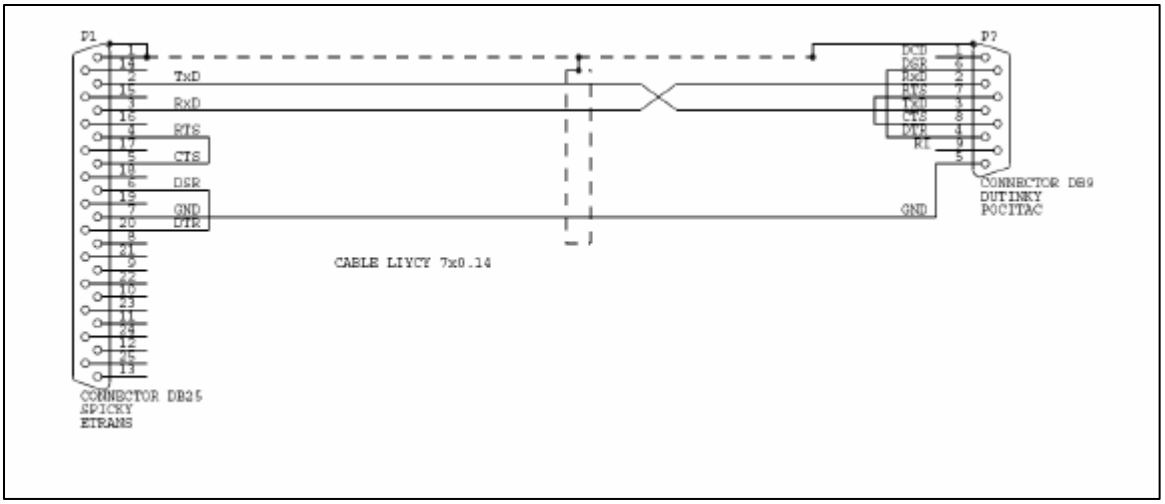
2.8.1 K15 (cable for serial transfer ETRANS – system



2.8.2 K16 (cable for serial transfer ETRANS – computer DB9, data channel)



2.8.3 K17 (cable for serial transfer ETRANS computer DB9, statement channel)



3 Software

Company MEFI doesn't deliver any software attached to ETRANS shipment. Because of standards used during design ETRANS is not destined for particular FTP server or terminal only. Currently the FTP server can run on all common operating systems and often FTP server is integrated to given operating system.

This manual contents selected information concerning with third party programs. Thit information should simplify installation and later administration of network with ETRANS adapters.

Information presented here are only informative. For more detailed description please read documentation delivered with given or contact directly the manufacturer.

On CD attached are some free share programs. Please read the license text for all this product carefully. Company MEFI is not responsible for program functionality and cannot provide any license to use them.

3.1 Network configuration in Windows

Network configuration depends on Windows versions so it has no meaning to describe it here in detail Detailed information please find in Windows integrated Help. For running FTP server application on any Windows version is necessary to install drivers of Ethernet cards and configure TCP/IP protocol for given card. The others protocols are not needed for running of FTP server.

3.2 TYPSoft FTP Server

TYPSoft FTP Server is a freeware FTP server running on Windows platform (Windows 9x/ME/NT/2000/XP). Its installation needs a small capacity (less then 800 kB) . This program offers all instruments needed for running network with ETRANS adapters.

3.2.1 Installation

Installation file is on CD attached To ETRANS delivery. The updated version can be downloaded from WWW pages of authors: www.typsoft.com. Here are also next information about program together with contact to authors.
Run installation program ftpserv.exe to start installation. In most cases all offered settings can be accepted otherwise follow installer instructions

3.2.2. Basic configuration

Before first program execution a network configuration together with proper protocol and driver should be established (protocol TCP/IP and drivers for relevant network adapter). Next check if no other FTP server is running on computer. Generally it is possible to run on computer several applications with FTP server option but it is usually not necessary and some special settings are requested.
In case attempting execution of TYPSoft FTP server when the other FTP server is already in process the program reports execution inability because requested port is already used.

The basic configuration is accessible from option „Setup" item „FTP". Then dialog is displayed to set configuration parameters of FTP server . Recommended setting follows when adapters ETRANS are connected:

- FTP Port to value 21 (initial setting).
- Max. of User- set to value 0 – number of users is not limited and depends only on number of connected ETRANS or other clients.

- Select item „ Disable message on exit“, in other case the program during finishing asks for user confirmation. This is a little inconvenient specially when program end is requested when computer is switched off only (typical situation).
- Set items „Launch FTP server on Windows Startup“ and „ Start in Systray “ – FTP server will be automatically launched after Windows startup
- Language – select communication language.
- Other settings can remain unchanged.
- Before closing of configuration dialogue save the changes by pressing key "Save"

To start ETRANS operation the user accounts must be established .

3.2.3 User's account administration

Dialogue for user's account administration is accessible through selection „Users“ in menu„ Setup“. In the left part of window is a list of users and bottom are keys for adding, erasing or changing of user names (TYPSoft FTP Server doesn't support grouping of users). The other dialogue items (i.e. dialogue's middle and right part.) is dedicated to selected user. If some items are changed save them before selection other user or closing the dialogue!

Add user procedure and setting of basic parameters:

1. Add a new user. After pressing key „New User“ fill in displayed dialogue user name and confirm it by pressing "OK"
2. Set password for a new user. The password is optional. If no password is set in ETRANS must be password set as a blank string. The password is case sensitive!
3. Set Root directory. It is a local computer directory (computer on which FTP server is executed). This directory must be accessible to given user via FTP. It is convenient to select item "Virtual directory showing“ then on ETRANS (FTP client) the root directory will be displayed as „\“.
4. Options „Max. of users per account“ and „Max . of simultaneous user per account /per IP " “ set to 0 – No restriction of login users
5. Set Time-Out (min) (max:600 min) out for user log- out during inactivity . It is not recommended to leave value 0= No time limit because after ETRANS shutdown when logged to FTP server the current connection should never end
6. Set access right to directory. In window "Directory Access" the access must be set al least for root directory. If a root directory is not listed add a new directory by pressing key „Add“. If through given user account only ETRANS will be connected choose „Download“ and „Upload“ to allow ETRANS read and write files to/from relevant directory.
7. Other options need not be modified usually.
8. Save configuration for given user by pressing key „Save“.

3.2.4 Other program options

In most cases for proper functioning of ETRANS network no additional settings are needed. Nevertheless program give possibility to configure login level („Setup“ – „FTP“) to create log view („Setup“ – „Color definition“) to select user login from certain IP addresses („Setup“ – „IP access“) etc.
The program itself can display either a log (press key „Main“in upper part of program window) or info about current users (press key „User info“).Both option are useful during network problem diagnostic particularly.

3.3 GuildFTPd

GuildFTPd (Guild File Transfer Protocol Daemon) is a freeware FTP server for Windows platform (Windows 9x/ME/NT/2000/XP). Even if this code is compact it offers a basic FTP server functions only but among others also a wide configuration possibilities or advanced administration of accounts and groupse.

3.3.1 Installation

Installation file is a part of CD delivered with communication adapter ETRANS. The current version can be downloaded from http://www.guildftpd.com. Here find also additional information about program or authors Launch program GuildFTPd.exe to start installation. In most cases is enough to accept all settings offered. In other cases follow installator 's instructions

3.3.2 Basic configuration

Before first program execution a network configuration together with proper protocol and driver should be established (protocol TCP/IP and drivers for relevant network adapter). Next check if no other FTP server is running on computer. (Generally it is possible to run on computer several applications with FTP server option but it is usually not necessary and some special settings are requested in this case. In case of GuildFTPd launching is other FTP server in process the proper message is generated (FTP server is a standard part of operating systems Windows NT/2000/XP.)

Despite of large configuration (accessible from menu „Amin" – „Options") for most parameters the default values can be accepted. The only parameter to be modified as for ETRANS configuration view is password case sensitivity. (ETRANS has no lower case option) Hence cancel in a configuration dialogue in menu „Admin" – „Options… ". on folder „General" selection „Case sensitive passwords" and confirm it by key „OK".

In program setup is not possible to set automatic program launching after Windows startup. If yes it is necessary to set file representative into folder „After start "

3.3.3 User and group administration

Program GuildFTPd provide a hierarchical parameter settings for all server, groups of users and for individual user . It means that all parameters not explicitly assigned to particular user are taken from group settings to which user belongs.
Analogically all parameters not explicitly assigned to group of users are taken from server setting.

Adding group of users:

1. Click right mouse button on „System" and in unwrapped menu select „Add Group".
2. Window „Group Name" is displayed where set a name of a new group
3. Confirm group name by „OK".

The group name can be edited by clicking a right mouse button on given group and select option „Edit Group".

Add a user :

1. Click right mouse button on group where a new user to be added and in menu displayed choose „Add User" (in GuildFTPd every user must belong to some group).
2. Windows „Add/Edit User" is displayed where set a user name („Name") an password („Password", password confirmation „Retype Password").
3. Finish user adding by „OK".

The user name and password can be edited by clicking right mouse button on given user and choosing option „Edit User".

The user is uniquely identified by its user name („Name") , the password is optional . Set in ETRANS a relevant user name and password to allow ETRANS logon as a appropriate user. It is recommended to set for every ETRANS different username.

The global server options, the groups and the users are divided to two cards – „Options" and „Paths". Options on card „Options" can be usually accepted without modification. The most important is a path setting on card „Paths".

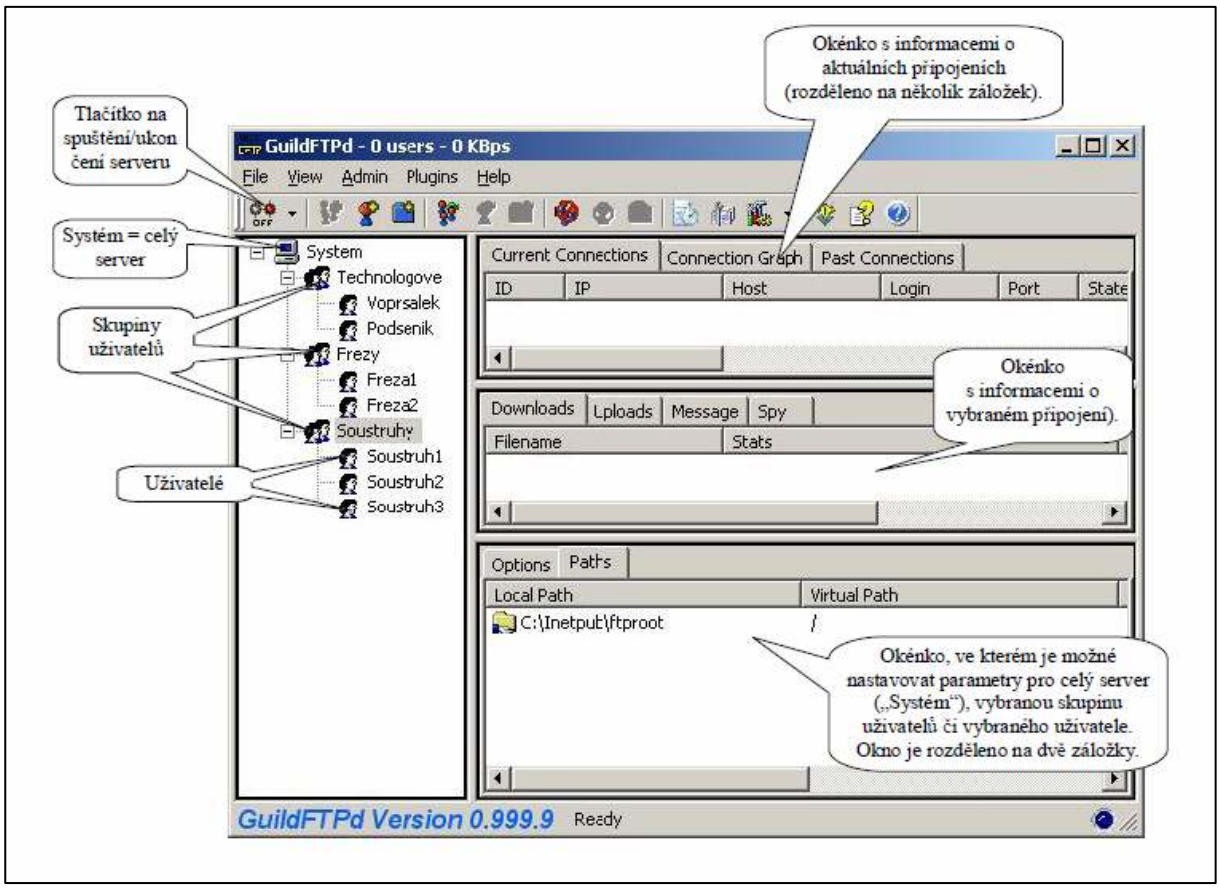
For give group of users or individual user (system = all users) is possible to set one or more local paths and corresponding virtual paths. The local path points to actual file allocation on PC disk. For one local path is possible to create more virtual paths. The virtual path is used by FTP client (e.g.. ETRANS) for access to files saved in corresponding directory on PC disk

Add/change path procedure:

1. Select user type for path setting („System“ – All users /Users group/ individual user).
2. Add new path: right click card „Paths“ in menu viewed select item „Add Path“. Modifying of existing path: Right click on path selected , choose item „Edit Path“. In both cases the same dialogue occurs . Change existing path or set a new one.
3. Set local path („Local Path“) and virtual path („Virtual Path“).
4. Set attributes (access rights) for path given:

Read	Allows reading (transfer)files from given path and its subdirectories
Write	Allows file writing to given path and its subdirectories
Create	allows directory creating (ETRANS itself can't create directory hence this option do not affect ETRANS operation).
List	Allows directory listing
Append	allows attaching data to existing files on FTP server (ETRANS itself can't append data to existing file hence this option do not affect ETRANS operation).
Delete	Delete files (ETRANS itself can't delete filee hence this option do not affect ETRANS operation).

5. Confirm changes by „OK“.



Server Start/Stop button
System = whole server
Groups of users Users

Information window - current connections (divided into several flaps).
Information window-(selected connection).
Window - whole server parameters settings

(„System“), selected group of users, individual user. Windows is divided into two flaps

3.4 Cesar FTP

Cesar FTP is a contemporary freeware FTP server for Windows platform (Windows 9x/ME/NT/2000/XP). In Windows 95 is necessary install some upgrades (Winsock 2 and IE 4or higher), which can be downloaded on Microsoft web pages. There is an author notice not to support freeware versions in the future

Like in GuildFTPd, the Cesar FTP server offers lot of options and easy configuration. It offers some extra possibilities like remote administration or running in service mode of Windows NT/2000/XP.

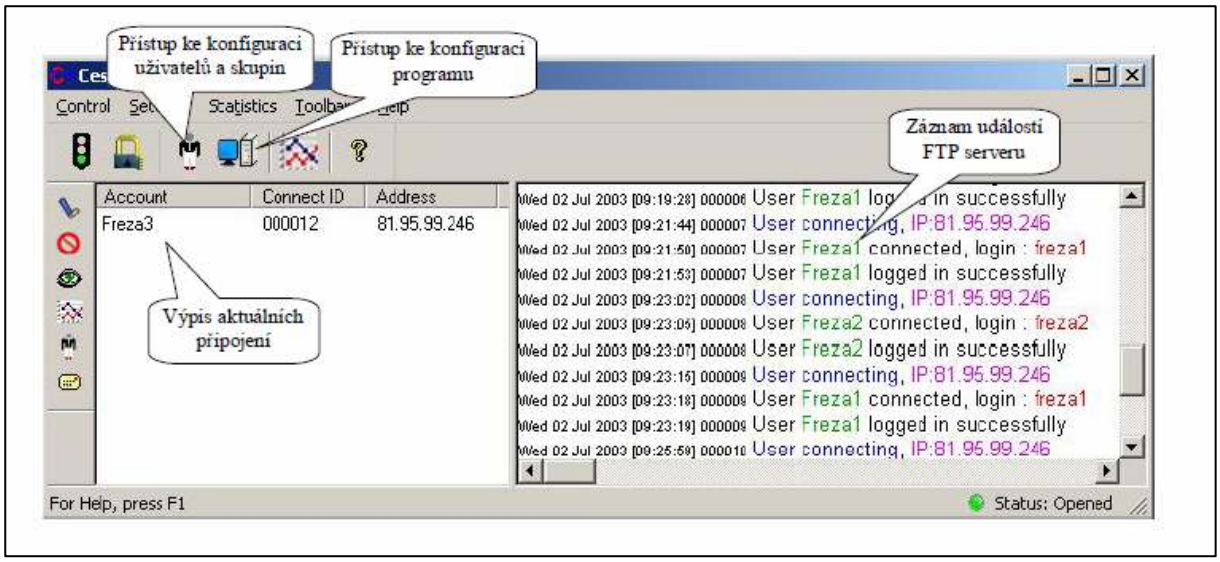
3.4 1.Installation

Installation file is a part of CD delivered with communication adapter ETRANS The current version can be downloaded from http://www.aclogic.com. Here find also additional information about program or authors
Launch program Cesar FTP.exe to start installation. In most cases is enough to accept all settings offered
In other cases follow installator 's instructions

3.4.2 Basic configuration

Use all guides of Guild FTPd basic configuration accordingly, See chapter „GuildFTPd“ – „Basic configuration“.

The configuration dialogue is executed from menu „Settings“ – „Edit Server Options“. Most default parameters can be accepted. Probably the one modification provided is an option of automatic server launching after Windows startup . on the card „General“ . Of configuration dialogue select option „Launch on system start / install as a service (NT only)“. Save configuration by pressing „OK“.

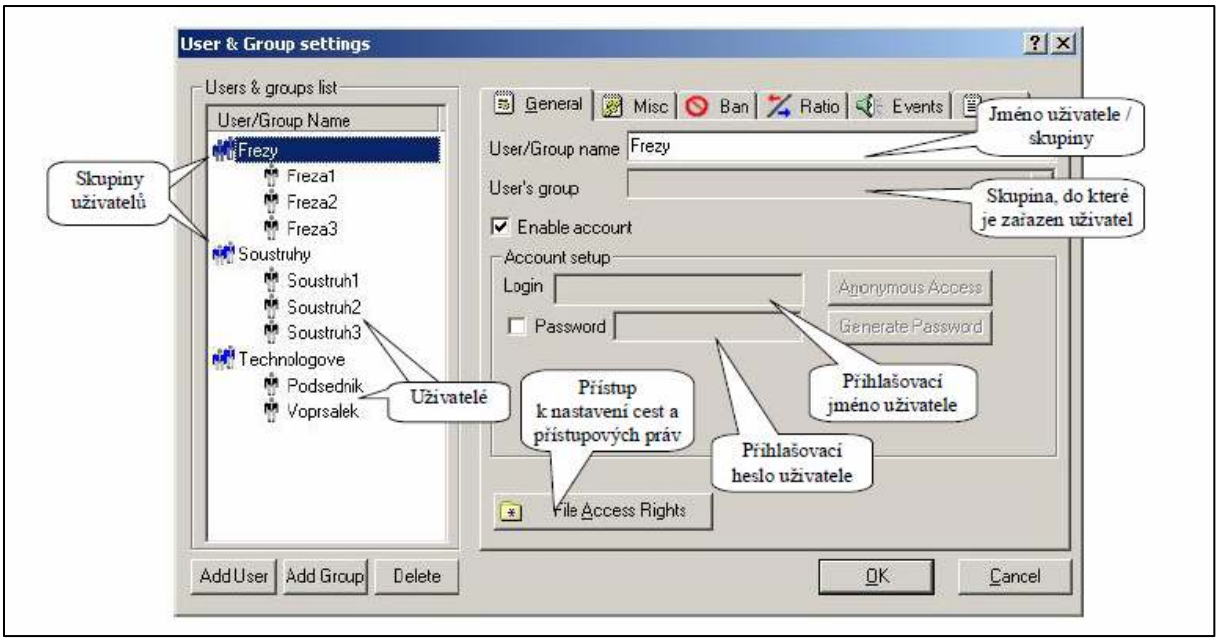


List of actual connections
Event log of FTP server
Access to program configuration
Access to users group configuration

3.4.3 Users and Group administration

program Cesar FTP permits detailed setting of user parameters. The users can be grouped and global group parameters can be established. Possibility to modify individually some user parameters remains unaffected The particular user can/can't be a member of some group

The user is uniquely identified by its login name („Login“) its password is voluntary. Set in ETRANS a relevant user name and password to allow ETRANS logon as a appropriate user. It is recommended to set for every ETRANS different username



Users groups
Usernamee / group
The group to which user belongs
Users
Login username
Login user password
Access to path and rights setting

Recommended procedure of User and Group configuration:

1. Create requested groups (without users).
2. Set parameters for all groups created.
3. Create users and classify them into relevant groups .
4. If needed modify parameters for particular users (if different from appropriate group parameters).

Group creation and setting of group's parameters :

1. View user and groups configuration dialogue – for instance by choosing „Edit Users & Groups“ from menu "Settings "
2. Add a new group via button „Add Group“.
3. Fill group name to window „User/Group Name“.
4. By pressing button „File Access Rights“ open„ CesarFTP Browser“, and set paths and access rights.
5. In upper part select directory to be used for file saving for given users group and by left mouse button drag it to bottom part of window
6. Set given directory as a default for particular user –click right mouse button given directory and in window's bottom part select item „Set as default directory“.
7. Set directory access rights for given group. In bottom window's part choose root directory (named equal to group name) and in frames „File access rights“ and „Directories access rights“ set requested

access rights. For subdirectory is recommended to leave default setting when access rights are inherited from main directory

8. Save changes by closing window „CesarFTP Browser“and by pressing" OK" button of dialogue „User & Group settings“.

Creation of User:

1. View user and groups configuration dialogue – for instance by choosing „Edit Users & Groups“ from menu "Settings "
2. Add a new user via button „Add User“.
3. Fill user name to window „User/Group Name“.
4. In list „User’s Group“ select group to which User should be classified. If user is not grouped select „No group“.
5. In frame „Account setup“ fill username („Login“), and if requested password („Password“).
6. If user is classified to particular group leave remain parameters unfilled – they are taken from group settings. In other case set at least paths and access rights for given user. The procedure is similar to group one
7. Save changes by pressing button „OK“.

ETRANS Configuration

Fill following table after ETRANS configuration and checking

Parameter Configuration Configuration modification
MAC address (= manufacturing number)
IP address of ETRANS
IP address of FTP server
IP gate address
FTP username
Password
Protocol
Serial port
Baud rate
Parity
Number of data bits
Number of stop bits
SW flow control (XOn/XOff)
HW flow control RTS CTS DSR DTR RTS CTS DSR DTR
Suffix STX/WTX
Prefix 1 Prefix 2
Delay sending/ receiving:
Timeout 1. char/next chars:
Length DATA VALID
Delay of simulation length
Delay DPL after START
Length 0 between characters
Shift of origin
Blanks after end
Shift after run -out
Program cycling

Simulation short START
Simulation GRIESHEIM
DATA VALID during Wait
Attribute TALLY-C30
0 during wait
FER203 simulation –C30
reversed DATA VALID
Simulation CONSUL backward
Reversed START
Reversed DATA
Simulation direction for C30
backward– previous character
Clear CRDY
Insert blanks

CONTENS