

**F.A. BERNHARDT GMBH  
TELETEXT & SUBTITLING GROUP**



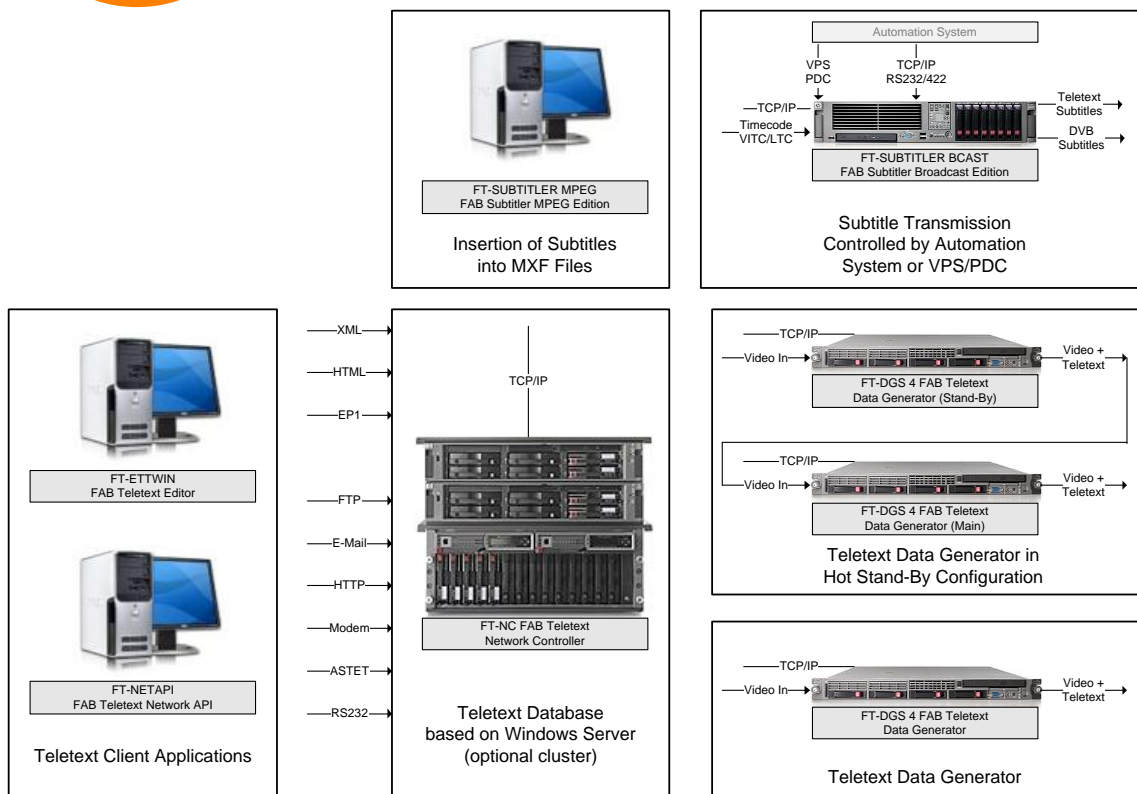
# **FAB TELETEXT SYSTEMS OVERVIEW**

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# FAB TELETEXT SYSTEM OVERVIEW



## FAB Teletext System consists of following components:

- Teletext Data Generator (Transmission with Hot-Standby Possibility)
- Teletext Network Controller (Database with Automatic Internet Interfaces)
- Teletext Editor
- Teletext Network API for creating 3<sup>rd</sup> party (interactive) applications
- Teletext Subtitling Preparation, Live/News Subtitling and Transmission

## The system is currently used by following major broadcasters:

- ZDF/WDR/BR Germany, France 2/3/5 Paris, TVE Madrid, ORF Vienna, TVP Warsaw, RTP Lisbon, RTBF Brussels...

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## TELETEXT & SUBTITLING

# FAB TELETEXT DATA GENERATOR

**FAB Teletext Data Generator is delivered as a 19" 1U unit with analogue & SDI video in/out BNC connectors for broadcast quality teletext insertion. A client/server database is included and can be accessed from Teletext Editing terminals via TCP/IP.**

- Transmission of teletext EBU system B Level 1, Level 1.5 and Level 2.5 according to international standard ETS 300706
- Broadcast quality inserter for analogue and SDI video, BNC in/out with bypass relay in case of power, hardware or software failure
- Monitor output with teletext only
- Delivered with 19" 1U HP ProLiant DL360 Server with 2 hard disks as RAID-1
- Insertion of VBI lines 6 to 22, software selectable for odd/even fields
- Insertion of VITS, VPS, WSS (Wide Screen Signalling), VI (Video Index)/AFD (Active Format Description), 4 GPI control inputs
- 8000 Teletext Pages for transmission
- Transmission of FASTEXT, TOP, PDC
- Transmission of teletext packets 0-31
- TCP/IP connection
- Operation failure indication - automatic page transmission from pre-programmed static page generator
- Hot Standby operation possible
- Historic archive for 1 million teletext pages
- Automatic execution of commands at specified times and days
- Multilingual subtitles on multiple pages
- Compatible with FT-DGS 2.5 NET, external data providers do not have to be modified
- After switching off and on FT DGS 4 will transmit the same information as before switching it off (i.e. after power failure)



*FAB Teletext Data Generator is delivered with 19" 1U HP ProLiant DL360 Server with RAID-1 mirrored hard disk and PCI Express Teletext Inserter Card for SDI and analogue video*



## Models & Specifications

### **FT-DGS 4**

FAB Teletext Data Generator  
With TCP/IP, integrated broadcast quality teletext inserter for analogue and SDI video with bypass relay, for transmission of teletext pages and teletext subtitles, includes 19" 1U HP ProLiant DL360 server with 2 hard disks in RAID-1 configuration

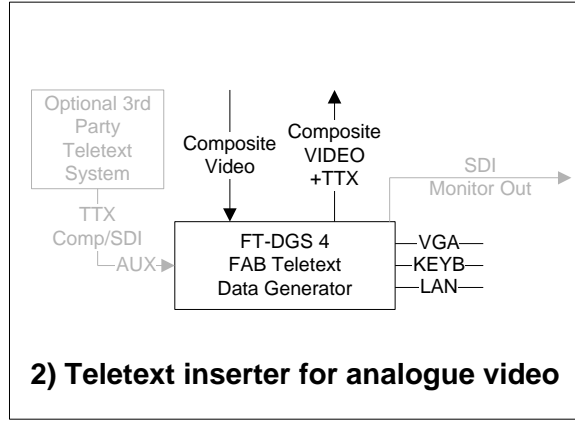
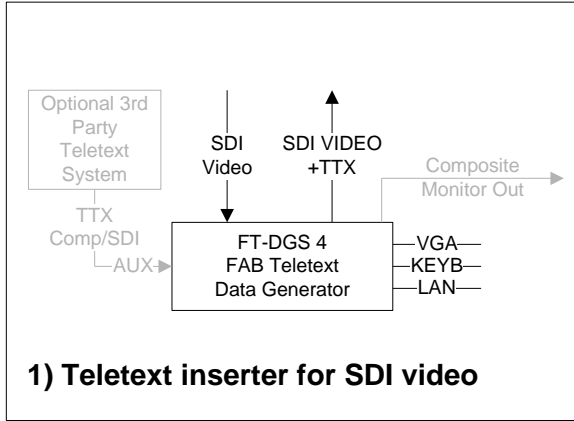
### **FT-RTT 4**

FAB Real Time Teletext Decoder  
Option for FT-DGS 4, allows reception and retransmission of teletext pages in real time from external video signal (analogue and SDI)

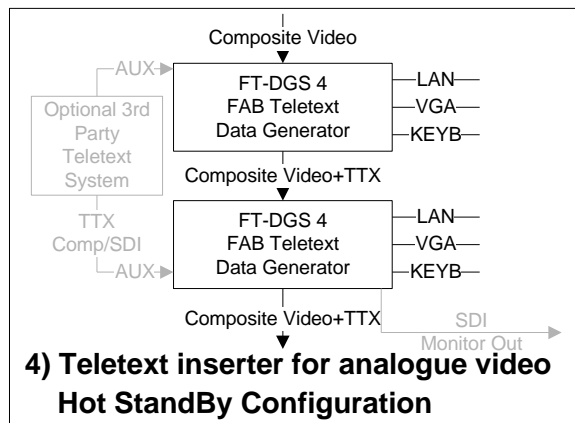
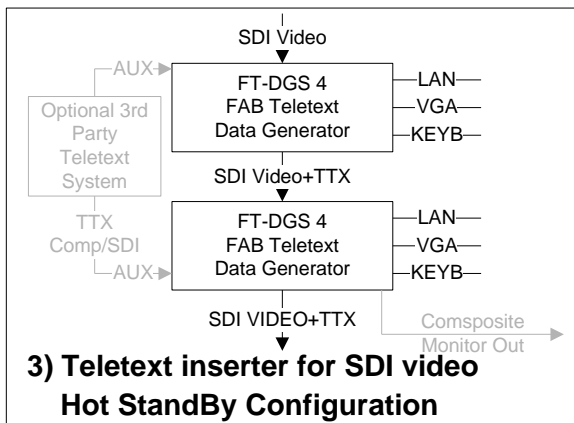
# FAB TELETEXT DATA GENERATOR

## APPLICATION EXAMPLES

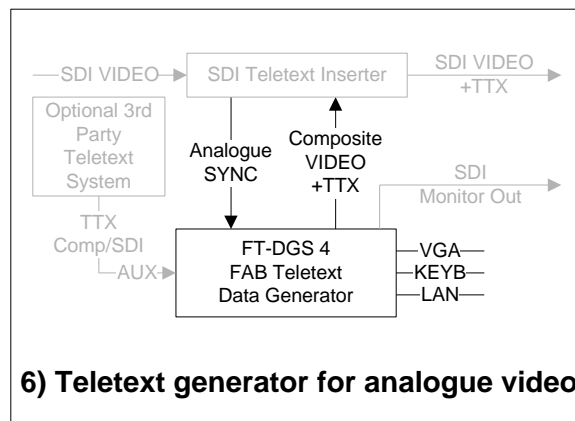
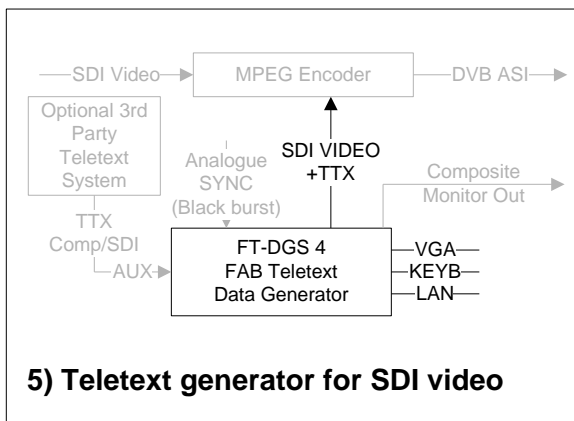
Using FAB Teletext Data Generator to insert teletext directly into SDI or analogue video:



Using two FAB Teletext Data Generators (Hot-StandBy configuration) to insert teletext into SDI or analogue video:



Using FAB Teletext Data Generator to provide teletext to a DVB encoder or to an external SDI teletext inserter:





## TELETEXT & SUBTITLING

# TELETEXT EDITOR FOR WINDOWS

FAB Teletext Editor is a Windows based program for preparation of teletext pages and transfer of teletext pages to the teletext system.

- Runs under Windows 2000 and Windows XP
- Supports all west, central and east European scripts including Greek and Cyrillic
- Supports editing of Teletext Level 1, Level 1.5 and Level 2.5 excluding bitmaps and palettes. FAB HiLevel Editor is required for creation of bitmaps and palettes
- Supports numerous file formats that enables preparation of teletext pages for teletext systems of other manufacturers: \*.TTP, \*.EP1, \*.WSP, \*.OVL, \*, \*.BIN, \*.PGW, \*.VTX, \*.TPG, \*.TTI, \*.DTA, \*.PAG, \*.VTS, \*.TED, \*.TTV. \*.TT, \*.FIL
- All texts and menus in German, English, French and Spanish
- Export of pages in JPEG and BMP format for direct use in the Internet
- Multiple windows with teletext pages can be open at the same time
- Undo / Redo function for 20 steps for each window
- Word wrap and page wrap function. Page wrap is a word wrap function that works over multiple subpages
- Select and move lines/blocks with mouse or keyboard. Cut, copy and paste text
- Cut & Paste is supported. Texts from other windows applications can be imported into a teletext page. If the text is too long it is automatically distributed to more subpages



*Screen appearance of FAB Teletext Editor*

- Easy drawing of teletext graphics with the mouse. Lines, rectangles and circles can be drawn
- Import of graphics in following formats: PCX, BMP, GIF, JPG, TGA
- All Windows fonts can be used for drawing of large size text
- Compatible with FAB and also teletext systems of other manufacturers
- Communication over serial lines, modem, ISDN and network
- Printing of teletext pages on all colour and black and white printers supported by Windows
- Teletext attributes can be selected by mouse or by pressing function keys. The keyboard layout is configurable

## Models & Specifications:

### FT-ETTWIN 2.5

FAB Teletext Editor for Windows, Full Version

### FT-ETTWIN 2.5 LITE

FAB Teletext Editor for Windows, Lite Version, does not support TCP/IP connection to Teletext System

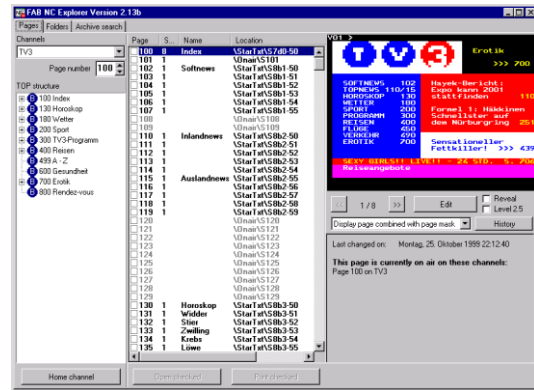


**TELETEXT &  
SUBTITLING**

# TELETEXT NETWORK CONTROLLER

The Teletext Network Controller is a Windows Server based multi-channel teletext database with numerous input and output interfaces. Main features include:

- Windows Cluster based solution available for highest availability applications
- Documented, standard and open interfaces & file formats
- Up to 50 teletext outputs
- HTML export for teletext pages
- Automatic import of text files and enhanced text files
- Support for up to 32 serial ports, modems and ISDN
- Integrated FTP server
- Automated FTP/POP client for regular file transfer GET/PUT/Email
- User database with teletext access restrictions, based on NTFS file access rights and additional page based access rights
- Teletext command sets with compatibility to older teletext systems
- Macros for teletext commands
- Teletext decoders for automatic import of teletext pages from other teletext services
- Archive for transmitted teletext pages with full text search capability
- Easy backup and restore
- Web based editor available



*Screen appearance of FAB Network Controller Client*

## Models & Specifications:

### FT-NC 2.5 SE

FAB Teletext Network Controller Standard Edition, without hardware, limited to 5 outputs

### FT-NC 2.5 SE HPS

FAB Teletext Network Controller Standard Edition, limited to 5 outputs, incl. HP 19" Server, RAID disk storage, Windows Server with 5 clients

### FT-NC 2.5 PE

FAB Teletext Network Controller Professional Edition, without hardware

### FT-NC 2.5 PE HPS

FAB Teletext Network Controller Professional Edition, incl. HP 19" Server, RAID disk storage, Windows Server with 5 clients

### FT-NC 2.5 CLUSTER

FAB Teletext Network Controller, incl. archive database, excl. hardware & Windows Server, Windows Cluster enabled

### FT-ARCHIVE 1

FAB Teletext Archive Database, add-on for FT-NC 2.5 SE / FT-NC 2.5 PE

### FT-NCWA 5

FAB Teletext Network Controller Web Access Add-on for 5 webclient access licenses



## TELETEXT & SUBTITLING

# FAB TELETEXT NETWORK API

**FAB Teletext Network API has been designed for developers that would like to access the Teletext Data Generator or Network Controller over TCP/IP, modem or ISDN.**

The API can be used under any WIN32 programming language like Visual Basic, VBScript, C++, Delphi, Word, Perl, PHP and others. The functions are easy to use and have the following functionality:

- Load and save teletext pages in a large number of file formats.
- Support file formats for loading:  
\*.TTP, \*.EP1, \*.WSP, \*.OVL, \*, \*.BIN, \*.PGW, \*.VTX, \*.TPG, \*.TTI, \*.DTA, \*.PAG, \*.VTS, \*.TED, \*.TTV, \*.TT, \*.FIL
- Read/write text and graphics to the teletext page.
- Communicate to teletext data generator and teletext network controller over TCP/IP, serial line, modem and ISDN.
- Protocols supported on serial lines: FAB, ASTET, Row 24 and OBC.

Among others following applications can be realized by using FAB Teletext Network API and FAB Teletext Data Generator:

- Teletext file format conversion
- Transfer of teletext pages from and to Teletext Data Generator or Network Controller
- Interactive teletext like SMS Chat
- Teletext subtitling transmission
- Data broadcast transmission
- IP over VBI transmission

The NETAPI also includes the description of the TCP/IP protocol that is used for communication to Teletext Data Generator or Teletext Network Controller.

## Models & Specifications:

### FT-NETAPI 2.5

FAB Teletext Network API

**The following example for VBScript will show how the most important functions can be used to transfer pages to the FAB Teletext Data Generator:**

```
dim MyApi

set MyApi = CreateObject ("FABNetApi.ETT")
MyApi.WriteLine 4, 8, "{Yellow}WriteLine call from VBScript"
MyApi.WriteLine 4, 10, "{Green}Close this window to continue"
MyApi.WriteLine 11, 11, "{Green}with the script"
MyApi.Connection = "192.168.0.12"
MyApi.SendCommand ("REG username,password")
MyApi.SendCommand ("PUT 123")
```