# DAVID
GmbH

Management Data Group

# DigAS

## DigaStudio

*Installation Notes*
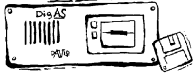
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> *THIS DOCUMENT COVERS THE CURRENT SYSTEM CONFIGURATION AND LATER CHANGES AND/OR EXTENSIONS TO THIS SPECIFICATION CAN BE MADE WITHOUT PRIOR NOTIFICATION.*
>
> *DATE: 17.03.03*

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# 1 General Information

## 1.1 Safety information

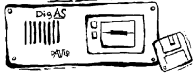| | *Please read the enclosed safety information before turning on the system for the first time!*<br><br>*No liability will be accepted for any damage of any kind caused by incorrect use.* |
|---|---|

## 1.2 Supplied components

- **DigaStudio Box** or **DigaStudio Box Pro** (19" system unit)
- **DigaStudio Desk** (mobile desktop unit)
- **Power cable**
- **Connection cable** DigaStudio Box    DigaStudio Desk
- **Adhesive labels** for user-specific labeling of input selection and function keys
- 1 set alternative **fader buttons** red/blue
- **PC connection kit**  comprising:
  - RS422 PC-slot blanking-plate adapter
  - power-supply cable
  - RS422 connection cable DigaStudio Box    PC adapter (5 m),
  - connection cable RS232 interface PC    PC adapter (short, 25-pol D-sub connector)
  - connection cable RS232 interface PC    PC adapter (2m, 9-pol D-sub connector)
- **Safety information**
- **PC software** for configuration and remote-control

## 1.3 Accessories

The following optional extras are available:

- **Audio connection cable** DigaStudio Box    PCX card (analog)
- **Gooseneck microphone** AKG C 580-1
- **Adhesive labels** for input selection and function keys with customer-specific text
- **PC software**  for central administration over the network (available 1Q99)

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# 2 Installation

## 2.1 DigaStudio

1. Make sure that the power switch on the front of the DigaStudio Box is in the Off position

2. Plug the supplied power cable into the rear of the DigaStudio Box and then connect to a correctly grounded power socket.

   **Note: The supply voltage can be in the range 100 ~ 240 Volt / 50 ~ 60 Hz.**

3. Use the separately packaged cable to connect the DigaStudio Box with the DigaStudio Desk. Attach the cable to the socket marked **DESK** on the DigaStudio Box and the socket marked **MIXER** on the DigaStudio Desk.

4. Attach the required audio sources or sinks to the respective inputs. Analog symmetrical sources/sinks are connected to the paired XLR sockets, analog asymmetrical sources/sinks (**LINE 1, LINE 2**, and **Σ OUT**) via the respective cinch connectors.

   A special 15-pol sub-D socket is available for direct analog connection of an PCX card (**PCX**). The necessary audio cable is available as an optional extra (make sure that the cable is connected the right way around as indicated by the cable markings).

   There are also special 15-pol sub-D sockets for telephone hybrids, ISDN codec, and for the insert path, whose connections are separately labeled.

   For digital sources (DigaStudio Pro only) 2 AES/EBU inputs/outputs in XLR format are available.

   A 6.3 mm stereo headphone connector is available on both the DigaStudio Box and the DigaStudio Desk.

## 2.2 RS-422 adapter

The DigaStudio Box is connected to a PC via a RS-422 interface. Use the supplied connection kit in accordance with the following instructions and note the safety information:

> *The following work should only be carried out by qualified personnel! No liability will be accepted for damage caused by failure to follow the following instructions correctly!*

> *Before opening the PC case disconnect the power cable! Do not allow any metal objects to fall into the PC!*

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> *Before you come into contact with any electronic components make sure that you are grounded and have discharged any static electricity!*

1. Turn the PC off and open the case so that you have access to the rear slot-covers.

2. Select any free slot and remove its slot-cover. (Note: no ISA slot will be required).

3. Mount the slot-adapter in the space left by the slot-cover.

4. Attach an internal power cable to the adapter. Use the supplied Y-cable if no spare power cables are available.

5. Make sure that there are no loose parts (screws, washers, etc) inside the PC and close the cover.

6. Connect the slot-adapter to a free RS-232 interface (COM port). Use either the 25 pol sub-D connector or the long (2m) cable with the 9 pol sub-D connector depending on how the RS-232 interfaces are configured. Use the **lower** connector on the slot-adapter.

7. Now use the long (5m) connection cable to attach the slot-adapter with the DigaStudio Box. On the slot-adapter use the **upper** connection, on the DigaStudio Box use the connection labelled **PC**.


## 2.3  PC software

The necessary software is included on diskette or will be sent via email[1]. The software is comprised of the two files DSINTERFACE.EXE and DIGASTUDIO.EXE.

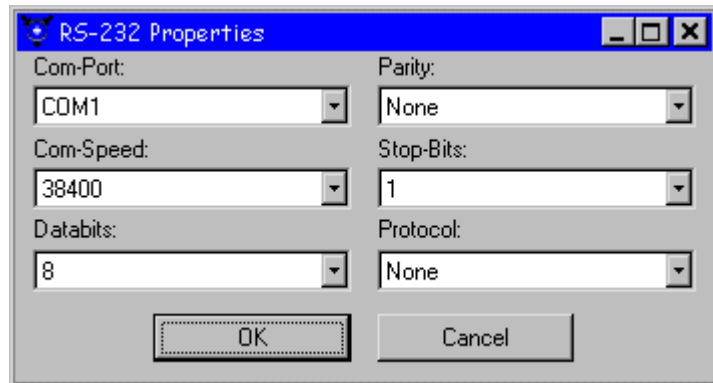Proceed as follows to install the software:

1. Copy the two files into any directory on your computer. If the DigAS system is already installed on your system then copy the two files into the DigAS system root.

2. First start the interface driver DSINTERFACE.EXE. In the system tray this program's icon should be visible.

3. Click with the right mouse button on this icon and from the context menu select the option SHOW. This brings up a larger window with the name DigaStudio Interface Manager.

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[1]    In the future the latest updates can be downloaded from our mailbox. Information concerning updates is available in our ISDN mailbox and on our internet homepage http://www/david-gmbh.de.

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4. Click on the COM port button. A window for RS-232 properties appears. Enter the paramters as shown here. Make sure that you choose the correct COM port, that is, the one on the PC to which the interface cable is connected. As a rule this will be either COM1 or COM2. When you have finished entering all the necessary parameters click on the OK button.

| RS-232 Properties | |
|---|---|
| Com-Port: | Parity: |
| COM1 | None |
| Com-Speed: | Stop-Bits: |
| 38400 | 1 |
| Databits: | Protocol: |
| 8 | None |
| OK | Cancel |

5. If the correct COM port has been selected then immediately after clicking on the OK button you should receive the message „Serial thread started!„ in the output area of the DigaStudio Interface Manager. If this is not the case then either the false COM port was selected or a resource conflict exists (another application is using the COM port). If necessary correct the situation by repeating step 4.

6. Close the window by clicking on the HIDE button. The icon should still be visible in the system tray.

7. If required you should put a shortcut to the DigaStudio Interface Manager in the Windows Autostart folder so that the program is started automatically when the PC is started. Follow the instructions in the Windows manual if you do not know how to do this.

8. The DigaStudio Interface Manager can also be shut down via the CLOSE button in the context menu (see step 3) should, for example, the serial interface be required by another program.

The PC software is now installed and ready for operation. Also, if you require, you can put a shortcut to the DigaStudio Manager (program file DIGASTUDIO.EXE) on your desktop. This makes starting the DigaStudio Manager more convenient.

# 3  Beginning of Operation

## 3.1  DigaStudio

Switch on the DigaStudio Box by means of the power switch on the front panel. Box and Desk will then perform a short initialization sequence (about 5 seconds) and when completed the last operational configuration is automatically loaded. The DigaStudio can now use all the DigaStudio Desk supported functions independently of the PC.

## 3.2  PC software

1. First start the interface driver DSINTERFACE.EXE if this has not already been done via the Autostart folder. The respective icon should be visible in the system tray.

2. Start the actual application DIGASTUDIO.EXE. In the upper left corner the DigaStudio Manager appears.

3. Clicking on the middle button brings up the DigaStudio Configuration Manager (DigaStudio Parameter Setup screen). Here you can configure all necessary settings.[2]

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[2]  Note: depending on when the software was delivered it is possible that some functions are not available (e.g. TimeStamps etc.). Updates will be available at a later date. Information about the latest software releases is available in our ISDN mailbox and on our internet homepage http://www/david-gmbh.de.

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# 4 Configuration

In this section a few important configuration steps are described which can only be performed via the PC software. A more extensive description will be contained in the DigaStudio User Manual, which will be available at a later date.

As a general rule the last active system configuration prior to the system being turned off is retained and is loaded unchanged when the system is turned back on.

## 4.1 Manual configuration

Manual configuration is performed by means of the DigaStudio Parameter Setup. This can be started by clicking on the second button of the DigaStudio Manager.
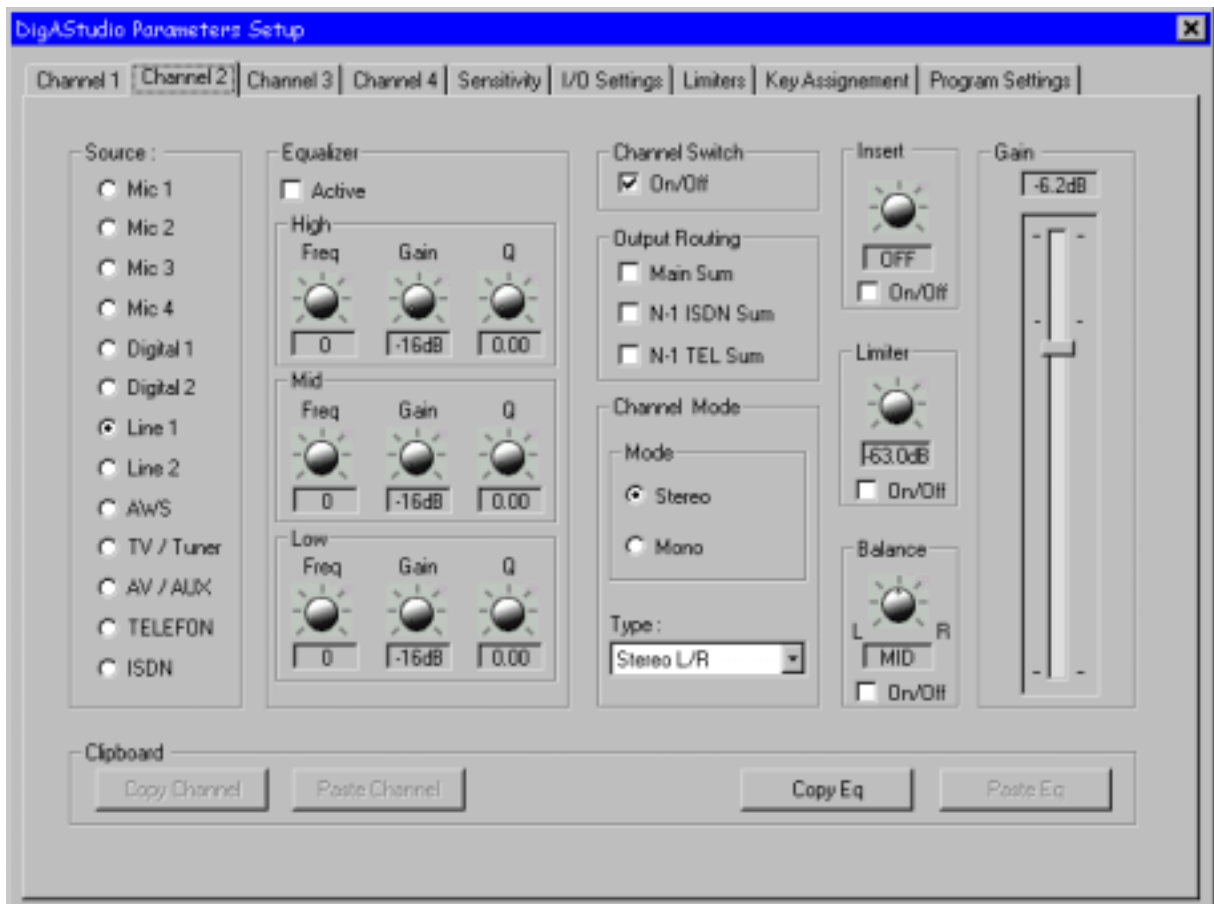
By clicking on the relevant tab the page for those settings is displayed and the settings can then be modified.

### 4.1.1 Channels 1..4

These tabs allow a number of channel-specific settings to be performed:

- Source - choice of required input source
- Equalizer - filter parameter settings
- Channel on/off
- Channel Mode - selection of the mono/stereo parameters depending on source selected
- Insert configuration
- Output routing - not yet supported
- Limiter - not yet supported
- Panorama/balance setting
- Gain setting

The COPY/PASTE EQ buttons allow the current EQ settings to be quickly copied to other channels:
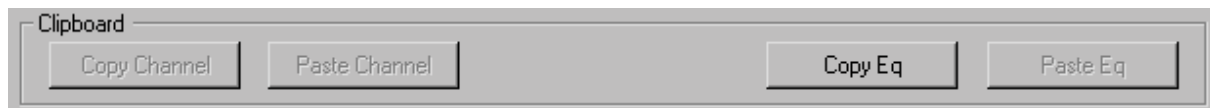


### 4.1.2 Sensitivity

The input sensitivity for each analog source can be set here.

### 4.1.3 I/O Settings

A number of parameters can be set here, for example:

- 48V phantom supply and low-pass filter for the microphone channels
- Sync mode for the AES/EBU output
- Selection of the talkback microphone
- Source selection for the playback channels as well as playback parameters

### 4.1.4 Limiters

This section allows limiter parameters to be set. The assignment of the limiters can either by to the input channels or to the sums. A mixed-mode is not possible.

### 4.1.5 Key assignments

This page allows the assignment of the channel 2 and 3 input-selection matrix keys to any required source.
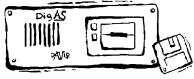
### 4.1.6  Program Settings

This page is for generating and loading profiles as described in the following section.

## 4.2  Configuration via profiles

Profiles are „snapshots„ of particular system settings. Any system state can be saved and reloaded at any time. In this way any number of general or user-specific profiles can be generated.

### 4.2.1  Creating and saving profiles

The „Program Settings„ page in the DigaStudio Configuration Manager (DigaStudio Parameter Setup) allows for the saving and loading of user or global profiles.

To create a profile simply enter any name for the profile in the title field, then click on the SAVE button, and the current state of the DigaStudio will be saved in the current section (user or global).

To load a profile mark the required profile from either the user or global section on this page and then click on the LOAD button.

### 4.2.2  Loading profiles

By clicking on the left button of the DigaStudio Manager the profile selection window is started. Select a profile from either the user or global section and then click on OK to load and activate it.
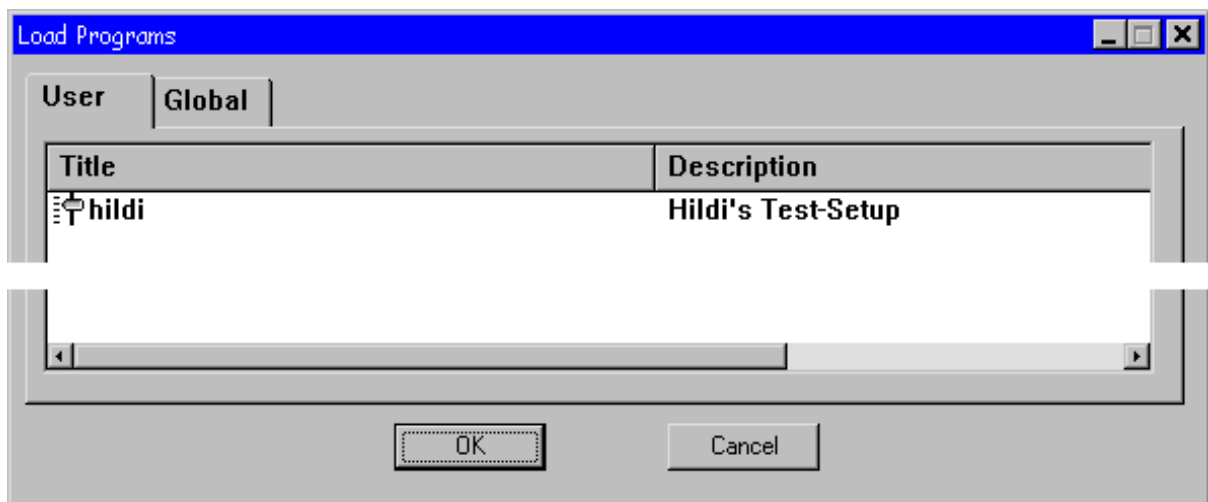
## 4.3 Downloading the operating software

The operating software for DigaStudio consists of three parts:

- Operating software for the DigaStudio Box
- Operating software for the DigaStudio Desk
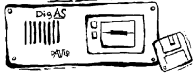- DSP software for the PUMA chip in the DigaStudio Box

The operating software is resident in the respective devices and is automatically activated when the device is turned on. Downloading the operating software is normally only required to resolve problems or for function updates (e.g. DSP software). The three software modules can be separately downloaded as required.

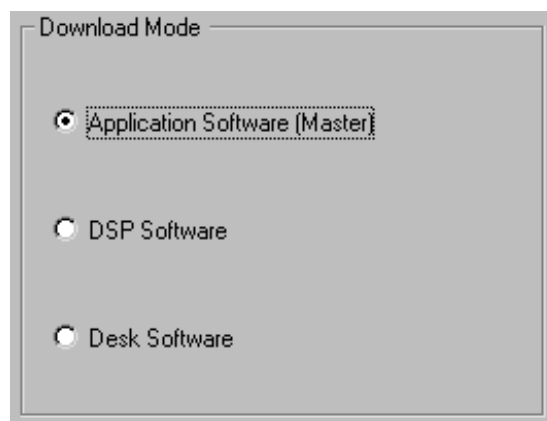### 4.3.1 Download procedure

1. Activate the download page via the DigaStudio Manager (third button). A password must be entered at this point. This password is currently fixed and is supplied on request[3].



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3   The access rights to the download pages will later be coupled to the system administrator rights.
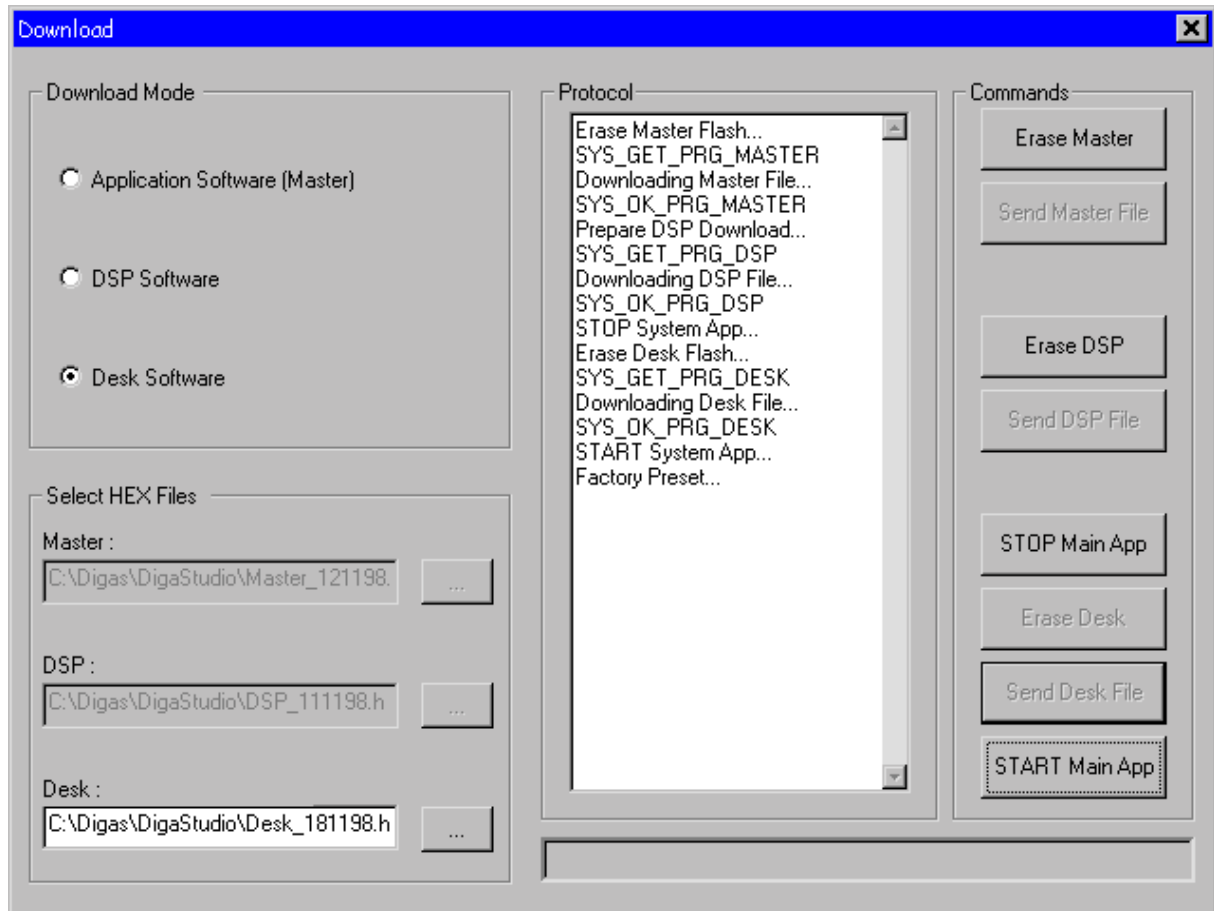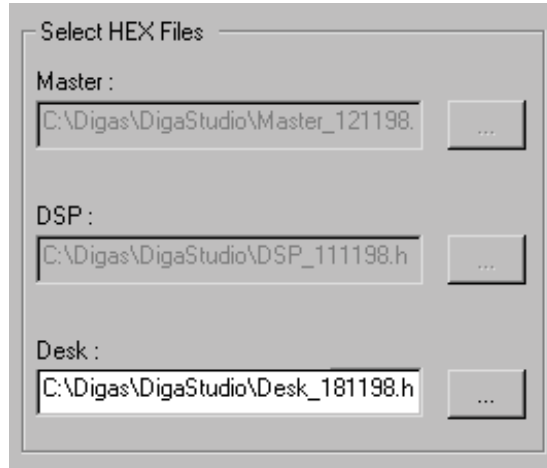
2. Select the required module to be downloaded.

3. Select the relevant HEX file.

```
┌─ Select HEX Files ──────────────────────────┐
│                                             │
│  Master :                                   │
│  ┌──────────────────────────────┐  ┌─────┐  │
│  │C:\Digas\DigaStudio\Master_121198.│  │ ... │  │
│  └──────────────────────────────┘  └─────┘  │
│                                             │
│  DSP :                                      │
│  ┌──────────────────────────────┐  ┌─────┐  │
│  │C:\Digas\DigaStudio\DSP_111198.h│  │ ... │  │
│  └──────────────────────────────┘  └─────┘  │
│                                             │
│  Desk :                                     │
│  ┌──────────────────────────────┐  ┌─────┐  │
│  │C:\Digas\DigaStudio\Desk_181198.h│  │ ... │  │
│  └──────────────────────────────┘  └─────┘  │
│                                             │
└─────────────────────────────────────────────┘
```

The selection buttons next to the file name fields call up a standard windows file-selection dialog in order to select the respective HEX file. In general the following file names are assigned to the respective download targets:

- Master (DigaStudio Box):        MASTER_$ddmmyy$.HEX
- Desk (Operating unit)           DESK_$ddmmyy$.HEX
- DSP (Puma chip)                 DSP_$ddmmyy$.HEX,

where $ddmmyy$ represents the creation date of the respective software module[4].

4. By means of the respective Erase button the load procedure (in this example the Master software) is initiated. This procedure erases the relevant area of the FLASH ROM.
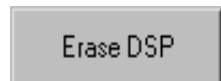
    `Erase Master`

5. When the message SYS_GET_PRG_MASTER appears the actual load procedure can be started by means of the start button.

    `Send Master File`
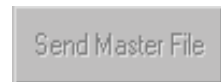
6. When the SYS_OK_PRG_MASTER message appears the load process is complete.

7. Follow the same procedure for the DSP and Desk software if required.

    `Erase DSP`

    `Send DSP File`

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4    The creation dates of the individual module must not necessarily all be the same.

To download new Desk software first the control software must be halted by clicking the STOP button, and after the download procedure is complete, re-started by means of the START button.

STOP Main App

Erase Desk

Send Desk File

START Main App

8. After completion of the download procedure the DigaStudio has to be turned off and on, after which the system is ready for
   7. operating software for DigaStudio consists of three parts:

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