AV-Controller

# BASIX

# User Manual


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# BASIX

## General Information

BASIX is a compact dissolve control device for up to 2 projectors. BASIX advanced offers the additional possibility of using digital control signals and digital signals merged into audio files.

## Introduction

This handbook is divided into three parts:

Part one "The first steps" will show you how to connect BASIX to your projectors and will introduce the basic functions to you. You'll be able to do you first manual dissolves after this chapter.

Part two "Using BASIX" shows you typical combinations with other devices such as personal computers, CD- or DAT-Players. In this part you'll also find detailed information about the functions and modes of the IR Remote Control and the use of MIDI commands.

Part three "Configuring BASIX" is a reference including all possible configurations. For normal use you won't need to configure more that the projector ports, but if you're an advanced user you'll find all the possibilities you need here. Even if you are a beginner you may find theses chapters interesting or even inspiring.

This handbook is completed by an technical appendix, where you'll find information about the wiring of the buses.

Freiburg, Germany, May 1999

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- Notes -

# The first steps

Let's start by connecting BASIX to your slide projectors.

Be sure to switch of the projectors before connecting !

There are two different types of projectors: 24V Projectors with build in Triacs and projectors with serial bus (RS-232). These projectors need different cables and port configurations to be connected to BASIX:

## Projectors with 24V lamp and build in Triac

Most of theses projectors have a 10/14 pin socket, for example Braun Paximat, LEICA P600, Zett Royal AV, KINDERMANN, etc. If your projector has such a socket it should be able to be connected to BASIX. The 10/14 pin socket is always wired the same; there are 6/8 pin sockets with different wiring as well.

(Projectors that don't have a build in Triac (for example: carousel projectors by Kodak (S-AV-series), ELMO and SIMDA) have to be connected using the BAESSGEN TA-4001 Triacadaptor.)

With all these projectors BASIX gets its power from the projector, no additional power supply is needed. BASIX will even work if only one projector is switched on.

## Projectors with serial bus (RS-232)

These Projectors have a build in microprocessor that is controlling the lamp.

Projectors with serial bus are for example KODAK EKTAPRO (4010 and higher), LEICA RT projectors (using carousel trays), SIMDA (with RS-232, software Rev. 3.3 and higher), Rollei MSC 300 P and Rollei Dual 66 P. The Rollei 66 P can as well be used as a 24V projector.

The serial bus provides now power for BASIX, in this cases you need the additional power supply AC-24. (Using Simda projectors you can get power from the serial bus using cable Q-4! If you are using the Rollei Dual 66 P as a 24V projector you don't need an extra power supply either.)

Now we will configure the ports for the projectors:

## The IR remote control

All configurations are done via the IR remote control. Insert the batteries into the IR Remote Control. A yellow LED inside the BASIX display will start blinking if basics is receiving commands from the IR Remote Control.

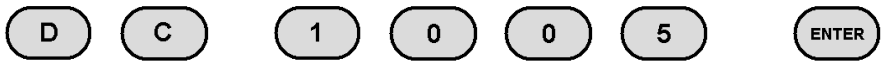
## Configuring the projector Ports (A & B)

If you are using 24V projectors you don't have to change the configuration at this point. The default setting will enable you to make some simple dissolvings. But maybe you won't be able to move the slidetray backwards. Even wrong settings of the slide transport speed can lead to malfunction.

Please refer to the third part of this handbook "Configuring BASIX" after your first steps for proper settings of port A & B.

### KODAK EKTAPRO

Connect the "PBUS IN" with the BASIX ports. Connect the external power supply AC-24. Turn on the system. Than enter DC 1005 "Enter" on the IR Remote Control.




BASIX will accept this setting by blinking three times.

### SIMDA

Connect the Projectors (software 3.3 and higher !) RS-232 bus via cable Q-4 with port A & B. Turn on the projectors. Then enter DC 1006 "Enter" on the IR Remote Control.


BASIX will confirm this setting by blinking 1006 three times.

### ROLLEI

Rollei 66 Dual P

Enter DC 1007 "Enter" on the IR Remote Control.

Rollei MSC 300 P

Enter DC 1008 "Enter" on the IR Remote Control.

In both cases you need cable Q-3 and a AC-24 power supply.

The Rollei 66 Dual P can, as mentioned above, also be connected as a 24v projector using cable Q-1, then you won't need the AC-24.

## The first dissolving

To do your first dissolving you simply have to enter a number between 0 and 9 on the IR Remote Control. The exact times equalled by 0 to 9 are listed in the chapter "Manual Operation with IR Remote Control ". By pressing "Enter" BASIX will use the standard dissolve time, that can be set as show in "Configuring BASIX". After dissolving BASIX will automatically transport the slidetray of the inactive projector.

## The line-up button

The Line Up Button has got 3 functions:

1.

If you are installing your system, you can turn on the projectors lamps by pressing Line Up to adjust focus and orientation of the projectors without needing the IR Remote Control . If you press Line Up projector A lights up and you can be focussed. By pressing again projector B will light up. By pressing Line Up the third time A and B will light up a the same time to adjust the orientation of the projectors. Pressing Line Up for the fourth time turns off both lamps again.

2.

By pressing Line Up for more than 1 second you will set both slidetrays to 0 again.

3.

By pressing Line Up for more than 5 seconds BASIX will perform a hardware reset, equal to switching it off and on again.

## Summary

Now you've learned the basic use of BASIX via the IR Remote Control. You'll find more information about the IR Remote Control in the chapter "Manual Operation with IR Remote Control". In the second part "Using BASIX" you'll learn about all the possibilities you have using BASIX with other devices such as DAT-Players and personal computers.

**- Notes -**

# Using BASIX

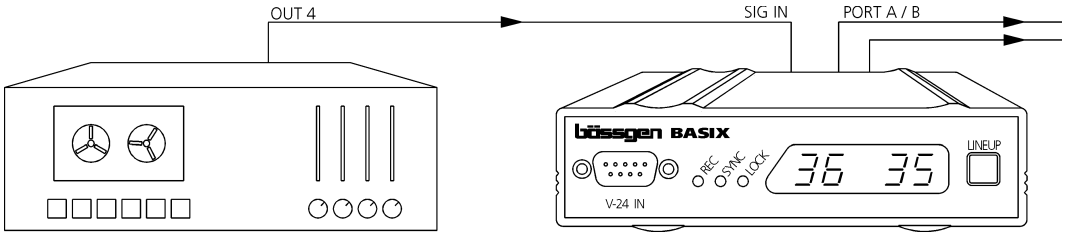
In this part of the handbook we will show you the different combinations with CD-Player, personal computer or tape decks. We will as well explain the use of 2 or more BASIX devices and the combination of BASIX with other dissolve controls. The first two possibilities (Manual Operation and programmed show with analogue sources) can be used with all BASIX versions. The other modes require BASIX advanced. (BASIX can be easily upgraded to BASIX advanced using KEY-codes.)

## Manual operation

For Manual Operation you just have to connect BASIX to your projectors. You control the whole system via the IR Remote Control. There are three modes, described at the end of this part, but in the most cases you'll only need the standard mode.

## Slideshow with analogue source (analog audio cassette)

If you have an already existing slideshow, you just have to connect the "signal out" of the tape deck with the SIG IN port. The dissolve show starts by starting the tape. The green LED marked with SYNC will indicate the presence of a valid control signal.



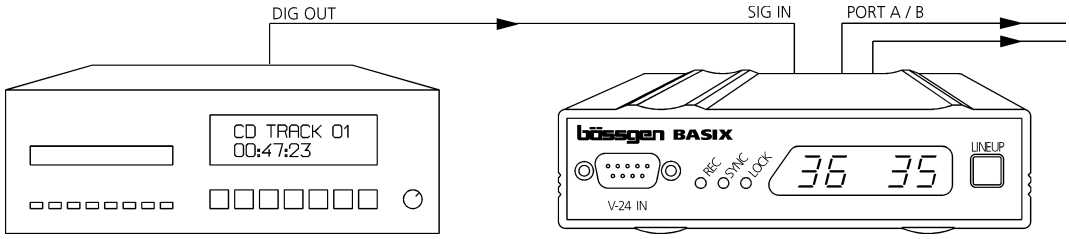

This mode works even with the standard version of BASIX. For digital sources, usage of more than one BASIX you'll need BASIX advanced.

If you are using more than 2 projectors you can connect another slide control unit via the SIG OUT port. In this cases you'll have to set addresses for each unit.

# Slideshow with digital source (CD or DAT)

Analogue sources are more and more replaced by digital ones. The first digital source used to control slideshows was the DAT tape, but DAT itself is more and more replaced by CDs.

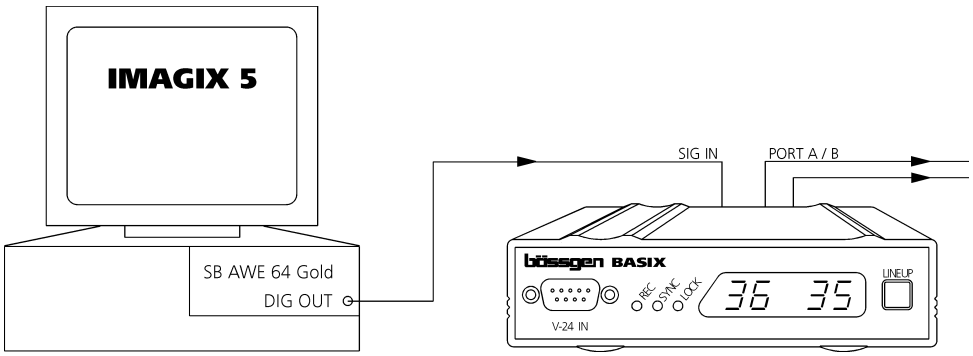
*As the CD has only two channels there was no channel for the control signal. So we developed a method to use the last of the 16bits, used for the sound recording, for the control signal. Our programming software IMAGIX 5 is able to merge audio-files including the control signals. Using a CD-writer you can produce a CD that is containing both audio and control signal.*




To show the slideshow you connect the digital out of your CD-Player with the SIG IN and BASIX will decode the control information from the audio data.

# PC-Programming with digital sound card

If your personal computer is equipped with a sound card with digital S/PDIF-Out (for example SoundBlaster AWE 64 Gold) you can connect BASIX during programming the slideshow.

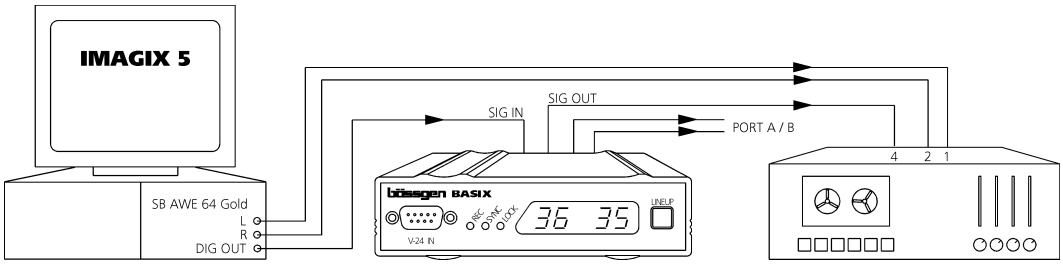



Imagix 5 will add the control data to the sound while playing the show. This enables you to test your slideshow before writing it to CD.

All this works with both "FreeTrac" and "Digital PlusTrac" available in IMAGIX 5.

# PC-Programming with digital soundcard and analogue recording

If you have a soundcard with digital S/PDIF-OUT and want to record your show on an analogue 4 channel tape, you can although use the digital out. Connect your devices as shown below.




IMPORTANT

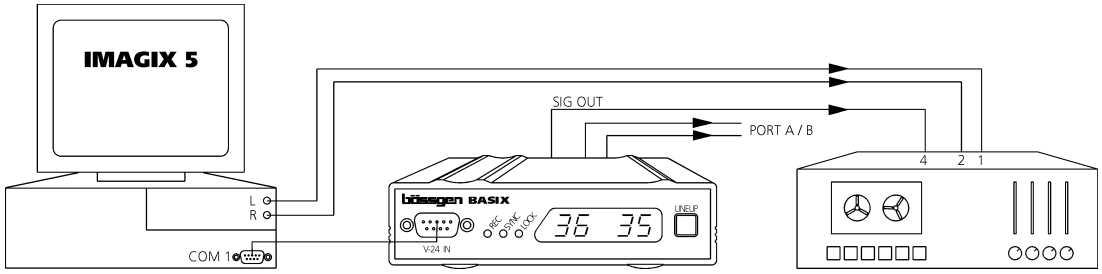
In this case IMAGIX 5 has to be set to "Digital PlusTrac" and the BASIX SIG OUT bus has to be configure in the right way (DC 1401 "Enter" !!!).

BASIX is now decoding the digital signal into an analogue PlusTrac signal that is recorded on the tape via the SIG OUT bus.

*This method has the advantage of a complete synchronicity between sound and control signal. Using the COM port and the soundcard, as show in the next paragraph might lead to problems with the synchronicity due to driver problems.*

# PC-Programming with analogue recording connecting BASIX via COM-Port

If you don't have a soundcard with a digital output, you can connect BASIX via your computers COM port (COM 1, 2...). BASIX will now produce the PlusTrac signal internally and send it to the SIG OUT port. Now you can record the sound via your soundcard and BASIX will at the same time deliver the PlusTrac signal.




IMAGIX 5 has to be set to "Digital PlusTrac" ! This way of recording the control signal can although be done with IMAGIX 2 and 3 !!!

# PC-Timecode-programming

With BASIX advanced you can also record your slideshow using an 4 channel tape and SMPTE-Timecode. You'll need IMAGIX 2 (DOS) or IMAGIX 3 (WINDOWS). Refer to the IMAGIX handbook for further information.

# Manual operation with IR remote control

The IR Remote Control has three modes, in the most cases the standard mode will be sufficient. The three modes are activated using the Codes DC 1961 to 1963.

## IR remote control mode standard (DC 1961)

### 0...9

Dissolve with slide change. The dissolve times are shown in the following table:

| Taste | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| Zeit in sec. | 0 | 1 | 2 | 3 | 4 | 6 | 8 | 12 | 16 | 20 |

### Enter

Dissolve using standard dissolve time (1 to 20 sec.). The standard dissolve time is set using the Codes DC 1800 to 1820. (refer to CONFIGURING BASIX for more information).

### ESC

Dissolve backwards. Always with 0 sec. dissolve time.

### F+ and F-

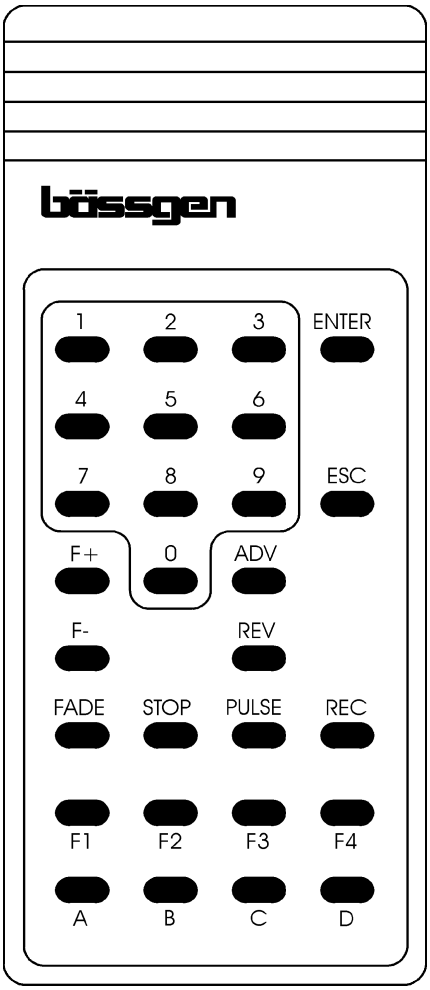
Focussing the active projector. Only available with EKTAPRO, LEICA RT and SIMDA.

### A and B

The projectors lamp is switched on or off.

### C and D

only used to enter Device Control codes (DC xxxx "Enter")



#### F1...F4

Not used.

#### ADV

By pressing ADV and A/B the projector will transport the slide tray one slide forward without any effect to the lamp.

#### REV

Like ADV, but leading to backward transport.

By pressing REV three times BASIX will set both projectors to slide 0.

#### REC

REC is activating the PlusTrac signal on the SIG OUT. By this function you can record a slideshow live. This way of producing an slideshow is only seldom used nowadays due to the fact that you have to perform the slideshow in real-time without any mistake. On the other hand it's a very fast and easy way to record a slideshow using a 4channel tape.

The three following buttons are only active in REC-mode. But you can activate the REC-mode although if you are not recording, so you can use these effects in an manual show too.

#### STOP

Freezes the dissolve till you press STOP again.

#### PULSE

Pressing PULSE and A/B will make the projector blink (every 0.3 sec). If you press PULSE followed by an number between 0...9 before pressing A/B the projector will blink every 0.05 to 0.9 sec. Pressing PULSE again will stop the blinking.

#### FADE

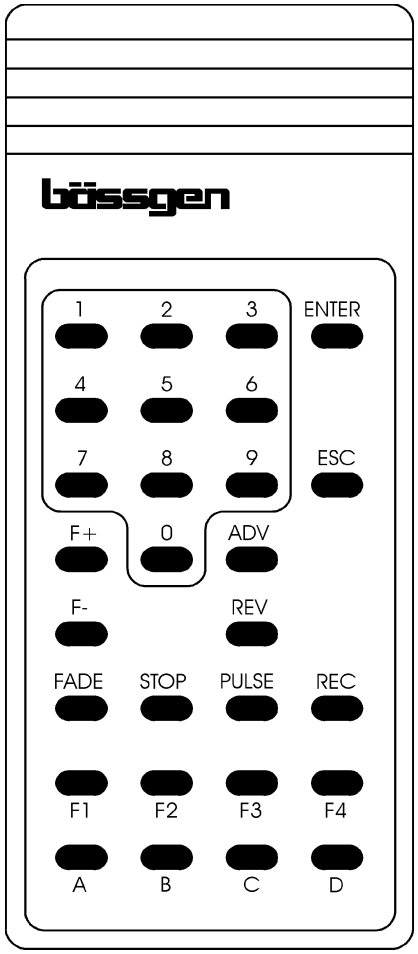
Pressing FADE followed by A/B will set the projectors lamp to 50%. Pressing FADE followed by 0...9 before pressing A/B sets the lamp to 10..100%.

### Using one projector

BASIX will automatically detect if there is only one projector connected (not with Simda serial). Enter and ESC do not lead to dissolves but to forward and backward slide transport in this case. The lamp is activated with the first command. This enables you to use BASIX (without changing the configuration) as an IR Remote Control for your projector.

## IR remote control mode random access (DC 1962)

This mode allows to access the slides in the tray in any order. This will only work with projectors that support random access!




**0...9**

Entering the slide number (max. 3 digits). The Number will be used on the next action.

**A and B**

Chooses the projector. For example entering "45 A" will set projector A to slide 45 and will activate the projectors lamp and deactivate the other projector.

**ADV and REV**

The active projector will show the next/last slide.

**ENTER**

The last number entered (between 0...160) is used to choose projector and slide. Slide 1...80 are assigned to projector A, 81...160 to B.

**ESC**

Switches off both lamps of the projectors. A second key-press will set the projectors to home position.

**F+ and F-**

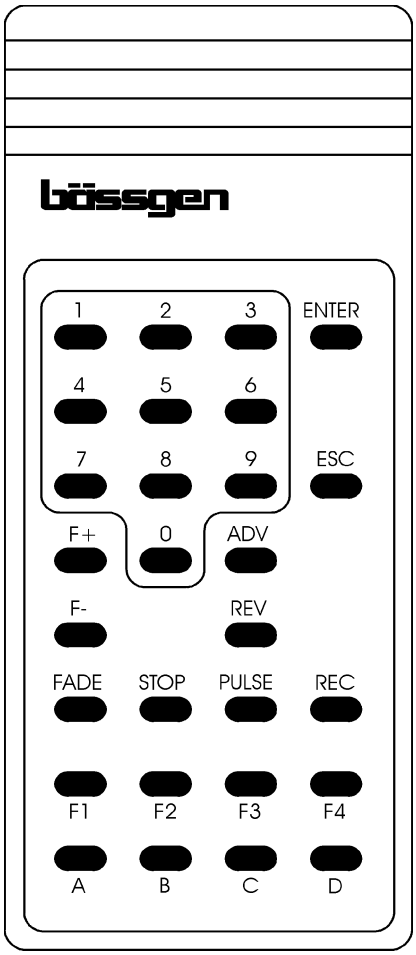
Focussing the active projector. Only available with EKTAPRO, LEICA RT and SIMDA.

**REC, FADE, PULSE, STOP, F1...F4**

Not active !

## IR remote control mode parallel access (DC 1963)

This mode is used to project two slides next to one another. For comparison of the two picture the two projectors can be separately manipulated, both lamps are active.




**0...9**

Enter slidenumbers (max. 2 digits). Value is used for next action

**A and B**

If a number was entered projector A/B will go to that slidenumber. This has no effect on the lamps. If no number was entered the lamp of projector A/B will change status.

**ENTER and ADV**

All active projectors move one slide forward. If no projector is active the BASIX will go to the status before pressing ESC.

**REV**

All active projectors move one slide backwards.

**ESC**

Both projectors lamps are turned off. By pressing ESC again all projectors will move to slide 0.

**F+ and F-**

Focussing the active projector. Only available with EKTAPRO, LEICA RT and SIMDA.

**REC, FADE, PULSE, STOP, F1...F4**

Not active !

# BASIX and MIDI

MIDI is a control protocol used in stage technology. You will only need this to use BASIX with MIDI-devices (for example: Synthesisers). We proceed on the assumption that you are familiar with the basics of the MIDI protocol. If you are not, please refer to literature.

You don't have to set BASIX to a special mode. The Sync-LED will indicate, if basic receives a MIDI signal.

## MIDI Adressing

The MIDI standard uses 16 MIDI channels. With BASIX these Channels equal the chosen address. The standard setting AB means that BASIX is working on MIDI channel 1 and 2. The addresses can be changed as described in "Configuring BASIX". The PlusTrac addresses A...P equal MIDI channel 1...16.

## Allocation of MIDI commands

The lamps brightness is controlled via the "control change" command using ID01. This equals the command "modulation change". The value 1...127 is converted into 0...100% brightness by BASIX. The number of the slide is set via a "program change" command. The value of the new program number 0....80 equals slide 0...80.

The mechanical shutter *(only with EKTAPRO, LEICA RT, ROLLEI 66 DUAL P, and SIMDA !)* and some special functions are supported as well. You'll find these commands in the table below. The shutter is a mechanical part of the projector that switches off the projectors light flow instantly, without dimming the lamp.

### MIDI Commands

| Command | MIDI-Command |
|---|---|
| brightness | Modulation control 0...127 converted to 0...100% |
| slide access | program change 0..80 equals slide 0...80 |
| shutter close | Note On cis 1 (note 37) |
| shutter open | Note On dis 1 (note 39) |
| slide fwd | Note On d1 (note 38) |
| slide back | Note On c1 (note 36) |
| both projectors slide 0 | Note on g1 (note 43) |

MIDI IN has no separate Bus and is using the two free pins of V24 IN. See technical appendix for wiring. Apart from this MIDI IN complies with MIDI standards (opto-coupled input).

# Displays

## The LED'S

### REC

Lights up red if BASIX is generating a PlusTrac signal.

### SYNC

Lights up green if BASIX is receiving a control signal (PlusTrac, FreeTrac, MIDI, SMPTE-Timecode etc.)

### LOCK

Indicates a digital audio signal. Some CD-Players provide such a signal even if they are not in the Play mode (digital silence). Only available with BASIX advanced.

### IR-Indicator

There is a LED inside the LED-Display window, which indicates every received IR-Command.

## The LED-Display

During normal operation the display shows the actual slide-numbers of the two projectors. Using Timecode, the display shows the actual time in min: sec. If BASIX is not able to "find " a projector on the port it will display two lines.

During Configuration the Device Control Codes are shown in the display. Refer to "Configuring BASIX".

In the LED-Display you will as well find a LED that lights up if BASIX is receiving signals from the IR Remote Control.

# Configuring BASIX

## General

BASIX offers a variety of possibilities, controlled via the IR Remote Control. All settings are stored instantly into BASIX internal memory and stay there even if it is switched off. If you can't remember what settings you have changed, you can return to the default setting by typing DC 9999 "Enter" on the remote control.

NOTICE:

| |
|---|
| Whenever you suspect a malfunction of BASIX, set BASIX to defaults using the DC 9999 code before contacting our product service. In most cases malfunctions are caused by wrong settings. |

The possible settings and the default settings will be described later on.

## Entering command codes

For every setting you'll have to type in 7 digits via the IR remote control. All commands codes have the following format:


After pressing the buttons D and C (Device Control) on the remote control the Display will show four lines.

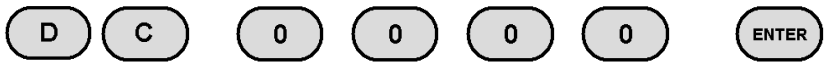

D and C are followed by 4 numbers containing the command code information. These four numbers are shown on the display. If the numbers on the display are correct, you confirm by pressing "ENTER". If the numbers are blinking three times the Command Code was accepted. If there are 4 lines blinking in the display you entered an invalid code.

If you don't want to enter the code you typed in, you can erase it by pressing "ESC". If there is a delay of more the 30 sec. between the numbers BASIX will cancel the programming. This means that it is not possible to go on a holiday during programming, unless the trip takes less than 30 sec.

# Command codes

## Hardware reset (DC 0000)

After entering




on the IR Remote Control, BASIX will perform a hardware reset. You can do the same by switching BASIX off and on again or pressing "Line Up" for more than 5 seconds.

Notice

*When being switched on, BASIX assumes that all projectors are set to slide number "0". Not all Projectors offer the possibility of random access. In these cases BASIX is calculating the actual position of the slide tray by counting the slide transports. Therefore the start position of the slide tray must always be the same and you are not allowed to transport slides by using the projectors control panels, because BASIX will not be able to notice this.*

## Configuration of the projector ports

This configuration is very important. Assure yourself that these settings are correct before using the system.

All port settings can be done for one or either for both ports at one time. Codes starting with DC 10xx work on both ports, codes starting DC 11xx work on port A and codes starting with DC 12xx define the settings of port B.

### SETTING THE PROJECTOR TYPE

Use the following Code


Y equals

| Y | |
|---|---|
| 0 | settings for both ports |
| 1 | settings for port A |
| 2 | settings for port B |

X equals

| X | |
|---|---|
| 1 | Projektor Typ STANDARD 1 |
| 2 | Projektor Typ STANDARD 2 |
| 3 | Projektor Typ STANDARD 3 |
| 4 | Projektor Typ STANDARD 4 |
| 5 | Projektor Typ Kodak EKTAPRO, LEICA RT |
| 6 | Projektor Typ SIMDA seriell, Rev. 3.3 |
| 7 | Projektor Typ ROLLEI 66 Dual P, seriell |
| 8 | Projektor Typ ROLLEI MSC 300 P, seriell |

Use the value from the tables. In most cases X will be 0. You only need to set different settings for the ports if you are using different types of projectors.

If you are using Simda projectors you need cable Q-4. Using other serial projectors you need cable Q-3 and the power supply AC-24!

You need the setting STANDARD 1 - 4 for projectors specified in the following table. These projectors are connected using cable Q-1, Q-2 or Q-5 and Triac adapter TA-4001.

| projector type | |
|---|---|
| STANDARD 1 | For all projectors with linear trays, but not Zett Royal AV, |
| STANDARD 2 | All projectors with Carousel Tray and projektors with linear tray, but not Zett Royal AV |
| STANDARD 3 | Zett Royal AV projectors, Slideshows with less than 80 slides per projector |
| STANDARD 4 | Zett Royal AV projectors, Slideshows with more than 80 slides per projector |

Default setting is Standard 2!

Using the settings standard 3 and 4 the "backward transport" command is done by an impulse extended from 0,3 sec to 0,8 sec and both relays are used. Some projectors can only do backward transports by receiving the 0,8sec. impulse (ZETT, and some older LEICA Pradovit). Apart from this standard 3 & 4 are the same as 1 & 2.

### SETTING THE TIME FOR A SLIDE CHANGE

*Only for standard 1...4 projectors.*

This setting defines the time the projector needs to change the slide. BASIX will send no command to the projector during this time. This enables the projector to finish the slide change properly. If there should be a command coming from the CD or tape during this time, BASIX will wait till the slide change is finished before giving the command to the projector. As this time can be although programmed in Imagix, the case, that there is a delay caused by BASIX waiting on the projector, that would lead to a loss of the synchronicity of audio and video is rather impossible. But if you are using BASIX manual, this prevents the projector from lighting up before the slide change is finished.

It is better to use a time 0.2 sec. longer than the one in the projectors users manual.

The default setting is 1,5sec (DC1040).

The Codes for the other times are show in the table below:

| Code | Time | Code | Time |
|---|---|---|---|
| DC 1030 | 0.5 sec | DC 1040 | 1.5 sec |
| DC 1031 | 0.6 sec | DC 1041 | 1.6 sec |
| DC 1032 | 0.7 sec | DC 1042 | 1.8 sec |
| DC 1033 | 0.8 sec | DC 1043 | 2.0 sec |
| DC 1034 | 0.9 sec | DC 1044 | 2.2 sec |
| DC 1035 | 1.0 sec | DC 1045 | 2.5 sec |
| DC 1036 | 1.1 sec | DC 1046 | 3.0 sec |
| DC 1037 | 1.2 sec | DC 1047 | 3.5 sec |
| DC 1038 | 1.3 sec | DC 1048 | 4.0 sec |
| DC 1039 | 1.4 sec | | |

### SETTING THE AUTO STANDBY TIME

(Only with EKTAPRO and LEICA RT)

This Command defines the delay after which the projector is switched to standby. Autostandby can be deactivated using DC 1060!

Autostandby delay times:

| Code | Auto-Standby-Time |
|---|---|
| DC 1060 | off |
| DC 1061 | 2 sec |
| DC 1062 | 5 sec |
| DC 1063 | 10 sec |
| DC 1064 | 25 sec |
| DC 1065 | 1 min |
| DC 1066 | 2 min |
| DC 1067 | 5 min |
| DC 1068 | 10 min |

If the projector is set to standby it is automatically switched on again by any slide change or dissolve command.

*Don't set the projector manually to standby or switch it on manually using the projectors control panel! BASIX will not notice this and commands could get lost.*

| Default setting is one minute! |
|---|

**- Space for notes -**

| | | | |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## SIG OUT bus modes

Only available with BASIX advanced !

The SIG OUT BUS has only to be configured if BASIX is used together with additional control units.

In the REC mode the SIG OUT BUS is used as Signal out for recording control signals this configuration has no effect in REC mode !

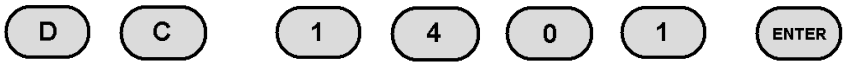
### Standard


Standard setting, SIG IN = SIG OUT.

*Note:*

*The signal intensity on the SIG OUT can be lower than on the SIG IN. Especially with SYNCODE signal by DATATON (Sweden) the intensity can be to low for the other control unit on the SIG OUT bus. In this case it is better to use an T-cable that provides the original signal to both units.*

### Decode digital signal




BASIX will decode the signal from an digital source an will provide an analogue signal on the SIG OUT bus for the other control unit. This setting is for the use of BASIX and a digital signal source with older units that can only read analogue signals.

### Read Timecode from digital signal


BASIX will decode a (eventually available) SMPTE-Timecode out of the digital source an will provide it on the SIG OUT bus.

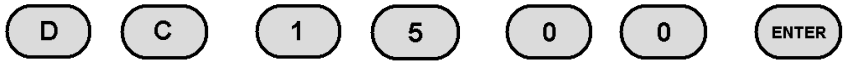
## THE TIMER

The timer can be used to show slides with the same dissolve time without programming. BASIX can be configured to start showing the slides when it is turned on or if the timer is started using the start code.

### Timer Start


This code is starting the timer.

### Timer Stop

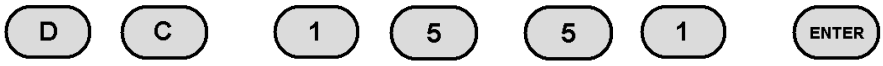



This code is turning the timer of again.

### No automatic start


(Default setting) BASIX will not start the timer when being turned on.

### Automatic timer start




If BASIX is turned on it will automatically start showing the slides using the timer. For example in an Museum. If BASIX is connected to serial projectors it will set the slide trays to 0 before starting.

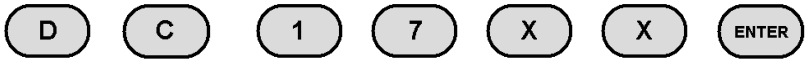
### Number of slides in the trays


If the projector has shown the number of slides you entered will return to 0 to start again. This function makes it possible to run an infinite show even if there are less than 80 slides in the tray. With random access projectors there will be no delay when going back to 0.

### Endless projection


(Default Setting) With this code the projectors will run endlessly, only transporting forward. Suitable with full trays.

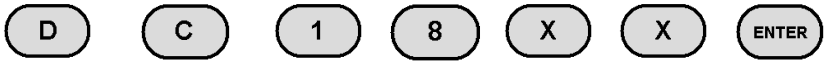
### Time between dissolves




Sets the time a slide is shown before the next dissolve starts. XX equals 02...60sec.

Default time is 10sec.

### Dissolve time




Sets the dissolve time in the timer mode. XX equals 00...20sec.

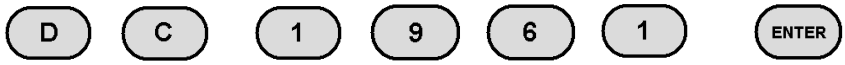
Default setting is 1sec.

## THE IR REMOTE CONTROL

### Turning the IR Remote Control off

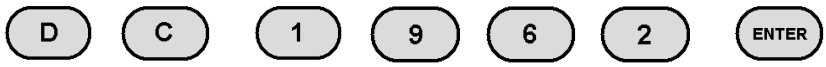

This codes deactivates the IR Remote Control. DC-Commands are still active (otherwise you wouldn't be able to activate the IR Remote Control again). This setting is needed to avoid problems if you are using more than one bässgen device in the same room. The IR Remote Control modes are explained in "Manual Operation with IR Remote Control ".

**IR Remote Control standard mode**




Activates the standard mode.

**IR Remote Control random access mode**




Activates the random access mode.

**IR Remote Control parallel access mode**


Activates parallel access mode.

## BASIX addressing

All addressing features are only available with BASIX advanced. These options are designed to assign addresses to more than two projectors if you are using more than one BASIX device. If you are only using one use standard settings.

| Default settings are AB (standard). |
|---|

As there are different systems on the market BASIX is able to deal with three addressing systems:

1.

PlusTrac and FreeTrac with Addresses from A...P.

2.

Dataton Syncode with Addresses from 10...77.

3.

The m.links mode by m.objects.

As long as you are working with bässgen equipment and software only, you'll only need Plus- and FreeTrac.

*Note:*

*The addresses can be set for each or for both projectors at one time. If you set the address for both projectors, the projector connected to port B will automatically get the address following projector A.*

### PLUSTRAC AND FREETRAC ADDRESSES

Use the following command


Y equals:

| Y | |
|---|---|
| 0 | Setting for Port A & B |
| 1 | Setting for Port A only |
| 2 | Setting for Port B only |

XX equals the PlusTrac or FreeTrac address:

| XX | Adress | | XX | Adress |
|---|---|---|---|---|
| 00 | A | | 08 | I |
| 01 | B | | 09 | J |
| 02 | C | | 10 | K |
| 03 | D | | 11 | L |
| 04 | E | | 12 | M |
| 05 | F | | 13 | N |
| 06 | G | | 14 | O |
| 07 | H | | 15 | P |

**Example:**

DC 2002 set BASIX to the addresses C and D.


### DATACON SYNCODE ADDRESSES

Use the following command


Y equals:

| Y | |
|---|---|
| 3 | Setting for Port A & B |
| 4 | Setting for Port A only |
| 5 | Setting for Port B only |

XX equals the dataton address:

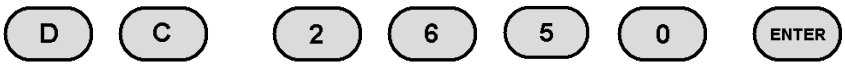
*Dataton addresses are in an octal system which means that not all numbers between 10 and 77 are valid addresses. Invalid addresses are automatically rejected.*

### m.objects

BASIX is although able to read the signals of m.objects software. This requires to set BASIX in the m.link mode. Please note, that no other signals are decoded in this mode. To return to an bässgen environment you have to deactivate this option.

### Turning on m.link mode


### Turning of m.link mode

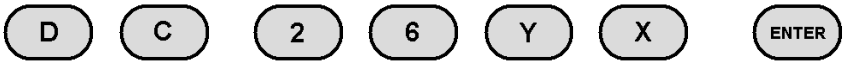



In the m.link mode the display will not show the right slide numbers!

*Note:*

*If you are using m.objekts BASIX is only used as a kind of interface. All configurations have to be done in m.objects, configurations in BASIX (port config., slide change time, etc.) have no effect. For further information refer to the m.objects handbook.*

### Setting the m.link addresses




| Y | |
|---|---|
| 0 | data is encoded in the left channel |
| 1 | data is encoded in the right channel |

X is the m.link channel/address number (0…7).

Settings are effective for port A. Port B is automatically assigned to the following address.

## Special functions

### Changing the right and the left channel of the digital signal


This code is only needed if your soundcard is changing the channels due to a malfunction of the sounddriver. Of course it is the best way to get a new sound-driver, but with this function you can test if this is the cause for the missing signal.

### Set channels back to defaults.


### "No Cue -> No Lamp" On


This feature turns off of all the lamps if the control signal is missing for more than a second. This is useful if you are using the BASIX while programming with IMAGIX 5. If you turn off the SYNC mode in Imagix, all lamps are turned off.

### "No Cue -> No Lamp" OFF


(Default setting) Sets BASIX back to standard mode.

**slide transport mode "soft"**


With this feature activated IMAGIX will dim the lamp with each slide change. As in the most cases the dimmed projector is doing the transport this has only an effect with the Arion System, where this option can lead to a more precise reading of the control signal.

**slide transport mode "normal"**


(Default setting) Return to standard mode.

**PlusTrac step delay**


values between 50 and 80 equal 0.0 to 3.0 seconds.

Step delay defines the time between dimming the projector and transporting to the next slide. With PlusTrac this time is fixed to 0.9 sec. If you need to change this time you can do this with this command.

Using FreeTrac and IMAGIX 4 and higher this setting has no effect.

Default setting is DC 3059.

**“Cue Play Offset”**


XX has to be between 00...80.

With this function BASIX is adding the value XX to all slidenumbers in the control signal. This is useful if all the numbers are shifted. For example if there are two slideshows in one tray that are to be shown one after another at a festival. If an offset is set the slide numbers in the display are blinking.

Turn off the offset mode with DC 3100!

## Software

BASIX can be updated easily. You can download the latest version of software at http://www.baessgen.de.

### Checking the actual software version.

D C 9 0 0 0 ENTER

The Display will show the actual Software Version for 3 seconds.

If you have a standard BASIX the display will show for example 1 00 which means version 1.00. If you have a BASIX advanced you'll find an A in front of the number.


*Note:*

*There are no different software updates for BASIX and BASIX advanced!*

### Displaying the BASIX ID

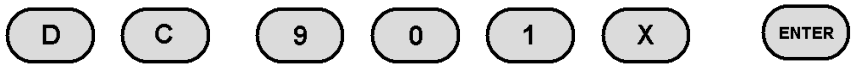
Every BASIX has his own ID-number consisting of three four digit IDs, called ID1, ID2 and ID3.

Please write these numbers down. To display the numbers use the following codes, After entering the code BASIX will display the ID for 3 seconds.

D C 9 0 0 X ENTER

| ID | Display with | Value |
|---|---|---|
| ID 1 | DC 9001 | |
| ID 2 | DC 9002 | |
| ID 3 | DC 9003 | |

If you have a BASIX advanced you'll although find three four digit KEYs (KEY 1-3). You can display them by entering:




### Upgrading to BASIX advanced

If you bought the upgrade from BASIX to BASIX advanced you'll get the three KEYs for your BASIX. Now you simply have to enter the KEYs and your BASIX becomes a BASIX advanced.

You have to enter the three KEY in the following sequence:


x equals the number of the KEY

The display will show 4 lines. Enter the KEY and press "Enter". Do this with all three KEYs.

When you've entered all three KEYs you have to turn BASIX off and on again. If all KEYs were correct BASIX has turned into a BASIX advanced. You can check this by entering DC 9000. If there is an A in front of the version number the update has been successful.

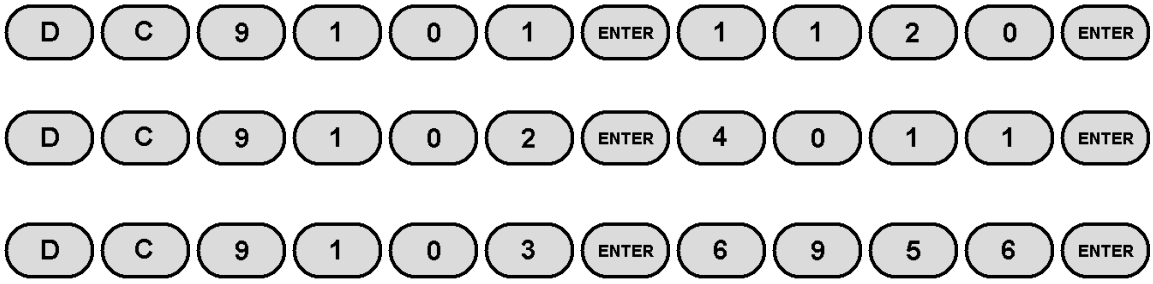
### A complete example

If your BASIX has the following IDs and you get the three KEYs:

ID1 = 1905 ID2 = 3245 ID3 = 6456

KEY1 = 1120 KEY2 = 4011 KEY3 = 6956

Enter the following:




Now you'll have to turn BASIX off and on again. after this it'll be BASIX advanced.

Please fill in your KEYs here.

| ID | Display with | Value |
|---|---|---|
| KEY 1 | DC 9011 | |
| KEY 2 | DC 9012 | |
| KEY 3 | DC 9013 | |

## Setting BASIX to defaults (DC 9999)


By entering DC 9999 "ENTER" you can set BASIX back to the original settings.

*NOTICE:*

*Whenever you suspect a malfunction of BASIX, set BASIX to defaults using the DC 9999 code before contacting our product service. In most cases malfunctions are caused by wrong settings.*

## Summary

In this part of the handbook you learned about the many possibilities of BASIX. You won't need to change configuration often, but if you'll have to, you'll find all the information you need her.

## Summary of all DC-Codes

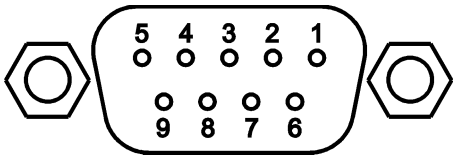
| DC Code | Effect |
|---|---|
| 0000 | Hardware reset |
| 1001..1008 | Projector type for both Ports |
| 1030..1048 | Cycle-time for both projectors |
| 1060..1068 | Auto standby time for both projectors |
| 1101..1108 | Projector type for Port A |
| 1130..1148 | Cycle-time for projector A |
| 1160..1168 | Auto standby time for projector A |
| 1201..1208 | Projector type for Port B |
| 1230..1248 | Cycle-time for projector B |
| 1260..1268 | Auto standby time for projector B |
| 1400..1402 | Output select (only BASIX advanced) |
| 1500 | Stop Timer |
| 1501 | Start Timer |
| 1550 | Timer don't start after power-on |
| 1551 | Timer starts after power-on |
| 1600 | Timer mode endless |
| 1601..1680 | Slides per projector in timer-mode |
| 1702..1760 | Wait time in timer-mode |
| 1800..1820 | Standard Dissolve Rate |
| 1960..1963 | Infrared mode |
| 2000..2015 | PlusTrac adresses for both projectors (only BASIX advanced) |
| 2100..2115 | PlusTrac adresses for projector A (only BASIX advanced) |
| 2200..2215 | PlusTrac adresses for projector B (only BASIX advanced) |
| 2310..2377 | Syncode adresses for both projectors (only BASIX advanced) |
| 2410..2477 | Syncode adresses for projector A (only BASIX advanced) |
| 2510..2577 | Syncode adresses for projector B (only BASIX advanced) |
| 2600..2617 | m.link adresses (only BASIX advanced) |
| 2650 | Switch off m.link mode (Standard) |
| 2651 | Switch on m.link mode |
| 3000 | Channel Toggle Digital Audio normal (only BASIX advanced) |
| 3001 | Channel Toggle Digital Audio invers (only BASIX advanced) |
| 3002 | Lamps remain constant after signal fail |
| 3003 | Lamps go down, 1 sec after signal fail |
| 3004 | Slide Advance standard |
| 3005 | Slide Advance „smooth“ |
| 3050..3080 | PlusTrac „Step-delay“ |
| 3100..3180 | „Cue play offset“ |
| 9000 | Display Software Revision |
| 9001..9003 | Display ID 1 – ID 3 |
| 9011..9013 | Display KEY 1 – KEY 3 |
| 9101..9103 | Input KEY 1 – KEY 3 |
| 9999 | Setting BASIX to defaults |

- Notes -

# Wiring

## V24 IN bus

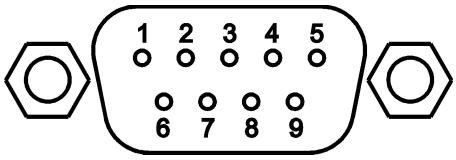
2 TxD (data in)
3 RxD (data out)
4 MIDI
5 Ground BASIX
7 MIDI




PIN 1, 6, 8, 9 not used.

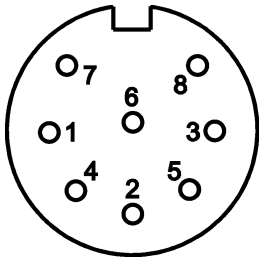
## Port A and B

1 not used
2 RxD (data in (serial projectors))
3 TxD (data out (serial projectors))
4 Gate Triac
5 Ground Basix
6 + transport (shared)
7 AC-24 input for 24V AC
8 Transport fwd
9 Transport back




## AC-24

2 Ground BASIX
5 24 V power supply



- Notes -