# **MAGIC TH6**

System Configuration SW Version 2.300

Version V1.2 (18.01.2017) © 2016 by AVT Audio Video Technologies GmbH



# **Basic Settings**

Starting the Windows PC Software Line interface settings Operating Mode Audio lines Hold Signal Signal Processing Database Connection

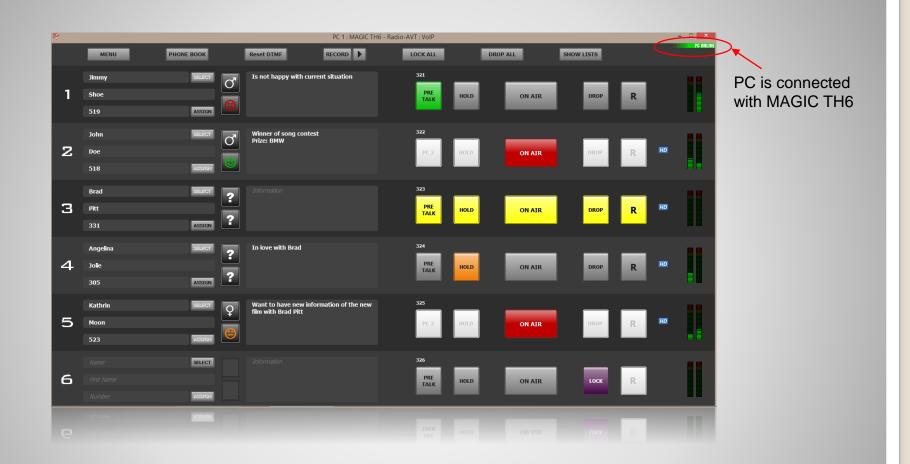


- Install the MAGIC TH6 Software with administrator rights from the CD and start the software afterwards also with administrator rights (right mouse click -> "Execute as administrator...")
- Your PC must be connected with the LAN interface of MAGIC TH6
- Select UDP as interface under MENU → CONFIGURATION → CONTROL INTERFACE
- Select <DEFAULT> under PARAMETER → INTERFACE
  - If you have more than one network interface in your PC, please select the one you would like to use
- Enter the IP address of the system and the control port you use under IP ADDRESS and PORT
  - PC and MAGIC TH6 must be in the same subnet
  - Press the right telephone button on the front panel of the system twice (in disconnected state) to see the currently allocated IP address of the system

Comr	munication Inter	face Parameter		×
	Interface : Parameter	UDP	•	
	Interface :	<default></default>		-
	IP Address :	192.168.50.21		
	Port :	10000		
		ОК	Cancel	
Γ		ОК	Cancel	
	Port :	10000		

#### **Starting the Windows PC Software**





#### **MAGIC TH6 Windows PC Software**



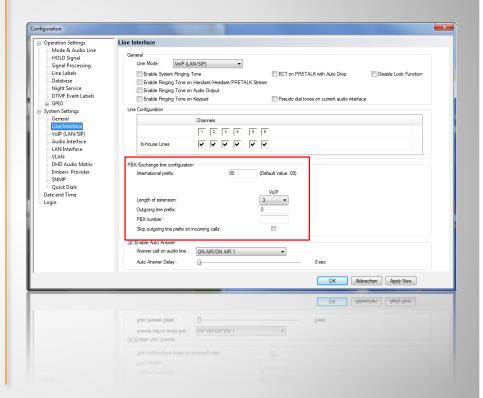
- Under SYSTEM SETTINGS → LINE INTERFACE the line interface settings are configured
- Select under LINE MODE which interfaces you want to use
  - POTS (only for MAGIC TH6 POTS)
  - ISDN (only for MAGIC TH6 ISDN, discontinued product)
  - VoIP (LAN/SIP) (for MAGIC TH6 VoIP or also optionally available for MAGIC TH6 POTS and ISDN)
- If you are working with an ISDN mode, please select the ISDN PROTOCOL
- Under LINE CONFIGURATION you must select for each caller line if it is connected with a PBX (IN-HOUSE LINES)

Configuration		×
- Operation Settings	Line Interface	
Mode & Audio Line HOLD Signal Signal Processing Line Labels Database Night Service	General Line Mode : VoIP (LAN/SIP) Table System Rnging Tone Enable Rnging Tone on Handset/Headset/PRETALK Stream Enable Rnging Tone on Handset/Headset/PRETALK Stream	
DTMF Event Labels     GPIO	Enable Ringing Tone on Keypad Pseudo dial tones on current audio interface	
	Une Configuration  Channels  1 2 3 4 5 6	
- Audio Interface - LAN Interface - VLAN	Inhouse Lines 🔽 🔽 🔽 🔽 🔽	
DHD Audio Matrix Ember+ Provider SNMP Ouick Dials	PBX-Exchange line configuration     International prefix: 00 (Default value: 00)	
Date and Time	VolP Length of extension: 3  Outgoing line prefix: 9 EX number: Skip outgoing line prefix on incoming calls:	
	Cenable Auto Answer     Answer call on audo Ine : ON AIR/ON AIR 1     Auto Answer Delay :      O sec	
	OK Abbrechen Apply Now	
	OK Abbrachen Apply Now	
	Auto Answer Delay : 0 sec	
	Enable Auto Anteret Answer     Answer     Answer     ON AIR/ON AIR 1	

# Line interface settings (1)



- If the system is connected to a PBX, you must enter the settings for the PBX/EXCHANGE LINE CONFIGURATION
- Select the length of your internal telephone
   numbers under LENGTH OF EXTENSION
  - The outgoing line prefix is dialled automatically if you dial a number that is longer than indicated here
  - If you work with main lines, please enter 0
- Enter the OUTGOING LINE PREFIX, e.g. 0
- Enter your PBX NUMBER if you are working with a PBX
- Optional function SKIP OUTGOING LINE PREFIX ON INCOMING CALLS if the phone number is display in the software with outgoing line prefix
  - The outgoing line prefix is deleted and the displayed telephone number can be saved directly to the phone book



# Line interface settings (2)



- Depending on your settings under SYSTEM SETTINGS → LINE INTERFACE → Line Configuration the register cards POTS INTERFACE: PABX and/or POTS INTERFACE: OUTSIDE LINE are displayed
  - In this way, POTS In-house lines connected to a PBX and main lines can be configured separately
- COUNTRY SETTING
  - If you use main lines: country of your location
  - If you use a PBX: country of origin of the PBX
- Measurement of BUSY/DROP TONE
  - Call a busy line and press MEASURE VALUES
  - With the correct settings the system recognises when a caller drops the line or if the line is busy

Mode & Audio Line	S Interface : PABX	
- HOLD Signal - Signal Processing - Line Labels - Nghat Service - Database - Diff Event Labels - Relay/TLL - General - Line Interface - POTS Interface: PAXS - POTS Interface: DAXS - Marking Line Line - Audio Interface - LAN Interface - UAN Interface - UAN Interface - UAN Interface - Date and Time - Login	Courty Setting : Germany  Courty Setting : Germany Courty Setting : Germany Courty Setting : Germany Court Setting : Germany Court Setting : Germany Court Setting : Germany BusyChOP Tree : Tone Duration : Germany Pause Duration : Germany Court Setting : Germany Court Se	300 msec 200 msec 0 msec 0 msec Default Settraps
4 [] Þ		OK Abbrechen Apply Now
C m P		OK Abbrechen Apply Now

## **POTS Mode – Country settings**



 If you use analogue telephone lines (POTS), please enter the telephone number for each POTS line under SYSTEM SETTINGS → POTS PHONE NUMBERS

	OTS Phone Num	bers	
Mode & Audio Line HOLD Signal	POTS Phone Numb	ers	
Signal Processing	Line	POTS Phone Numbers	
Line Labels	1	12	
Database Night Service	2	13	
DTMF Event Labels	3	14	
Relay / TTL	4	15	
- System Settings	5	16	
General	6	17	
Line Interface POTS Phone Numbers			
POTS Interface : Outside Lin			
- Audio Interface			
LAN Interface			
VLAN			
Quick Dials			
Login			
5			
4 III •			
			OK Abbrechen Apply Now
			OK Abbrechen Apply Now
			OK Abbrachan Book Now
< III →			

#### **POTS Mode - POTS Phone Numbers**



 If you use the ISDN mode, please configure the MSN (Multiple Subscriber Number) for each B channel under SYSTEM SETTINGS → MSN

Operation Settings	MSN		
Mode & Audio Line	- MSN		
HOLD Signal Signal Processing			
- Line Labels	Line	MSN	
Database	1	12	
Night Service	2	13	
DTMF Event Labels	3	14	
- Relay / TTL - System Settings	4	15	
General	5	16	
- Line Interface	6	17	
MSN			
Audio Interface			
LAN Interface			
VLAN Quick Dials			
- Date and Time			
Login			
< III.	•		
			OK Abbrechen Apply Now
			OK Abbrechen Apply Now
< m			
< ni	,		

#### **ISDN Mode - MSN**



- For each caller line of the system the following parameters can be set individually under SYSTEM SETTINGS
   → VoIP (LAN/SIP)
  - SIP Server
  - Use STUN
    - Only if required by your SIP Provider
    - In this case a STUN Server (see below) must be configured
  - User Name
  - User Authentication
  - Password
  - Audio UDP Port
    - Change only if necessary
  - Displayed Name
    - Name is only displayed at the receiving side, subject to the condition that the function is supported by the telephone

peration Settings Mode & Audio Line	VoIP (LAN	l/SIP)						
- HOLD Signal	Line	SIP Server	Use STUN	User Name	User Authenticati	Password	Audio UDP Port	Display Name
Signal Processing Line Labels	Line 1	172.16.20.3		321		avt	5004	
Database	Line 2	172.16.20.3		322		avt	5005	
Night Service DTMF Event Labels	Line 3	172.16.20.3		323		avt	5006	
Relay / TTL	Line 4	172.16.20.3		324		avt	5007	
/stem Settings General	Line 5	172.16.20.3		325		avt	5008	
Line Interface	Line 6	172.16.20.3		326		avt	5009	
– Audio Interface – LAN Interface – VLAN – Quick Dials ate and Time ogin	STU NAT - VoIP Pa Payl	Server Parameters IN Server: F Keep Alive Message rrameters oad Time: A-Law/µ-Law Signallin	: Time:	Û		1	20 sec 10 msec	
				ISCP: 46dec ISCP: 26dec			Default Settings	
	Quality of Voic	e: 184 (				OK		pply Now
	Quality of Voic	e: 184 (					Abbrechen A	pply Now
	Quality of Voic	e: 184 () 104 ()	0255) EF C			ОК	Abbrechen A	
	Quality ( Voic SIP: 216	.e: 184 () 104 ()	0.255) EF C	ISCP: 26dec		ОК	Abbrechen A	

# VoIP Mode - VoIP (LAN/SIP) (1)



- If your network offers Quality of Service (QoS), please enter the correct values under QUALITY OF SERVICE
  - The values entered by pressing the DEFAULT SETTINGS button are the ones which are usually used for VOICE and SIP packets
- To avoid Audio dropouts VoIP usually uses a payload (= packet size) of 20 ms
  - In the system the payload is set to 10 ms by default to minimise the basic delay
  - If you experience problems in the form of dropouts, you should increase the payload to 20 ms

peration Settings Mode & Audio Line	VoIP (LAN	I/SIP)						
HOLD Signal	Line	SIP Server	Use STUN	User Name	User Authenticati	Password	Audio UDP Port	Display Name
Signal Processing Line Labels	Line 1	172.16.20.3		321		avt	5004	
Database	Line 2	172.16.20.3	Ĺ	322		avt	5005	
- Night Service - DTMF Event Labels	Line 3	172.16.20.3	Γ	323		avt	5006	
Relay / TTL	Line 4	172.16.20.3	Г	324		avt	5007	
stem Settings - General	Line 5	172.16.20.3	Г	325		avt	5008	
Line Interface	Line 6	172.16.20.3		326		avt	5009	
- Quick Dials ite and Time gin	VoIP Pa	Keep Alive Message rameters oad Time:	e Time:	Û			20 sec	
		A-Law/µ-Law Signallin of Service (DiffServ) ee: 184	(0255) EF	722 calls DSCP: 46dec DSCP: 26dec		ОК	10 msec Default Settings Abbrachen A	pply Now
	Quality of Voic	A-Law/µ-Law Signallin of Service (DiffServ) ee: 184	(0255) EF	DSCP: 46dec		ОК	Default Settings Abbrechen A	pply Now
	Quality of Voic	V-Law Xignalin of Service (DiffServ) e: 184 104	(0.255) EF (0.255) EF	DSCP: 46dec			Default Settings Abbrechen A	

# VoIP Mode - VoIP (LAN/SIP) (2)



- If you use an external VoIP Provider or a SIP Server which is not part of your network, you need to enter a DEFAULT GATEWAY under SYSTEM SETTINGS
   → LAN INTERFACE
- Please enter the IP address of your DNS Server if you use host names

peration Settings	LAN Interface				
Mode & Audio Line HOLD Signal Signal Processing	Primary IP Address		Second IP Add	tress	Third IP Address
Line Labels	IP Address:	172.16.50.15	172.16.50.1	6	172.16.50.17
– Database – Night Service	Sub Net Mask:	255.255.0.0	255.255.0.0		255.255.0.0
- DTMF Event Labels	Default Gateway:	172.16.1.1	192.168.1.3		192.168.1.3
GPIO	DNS Server:	192.168.1.2			
Relay Ember+	Control UDP Port Addre	sses			
Input	PC 1:	10000	PC 5:	10004	
Output em Settings	PC 2:	10001	PC 6:	10005	
General	PC 3:	10002			
Line Interface VoIP (LAN/SIP)	PC 4:	10003			
SNMP Quick Dials and Time	Port 3:	5023	Port 6:	5026	
in				ок	Abbrechen Apply Now
	-			ОК	Abbrechen Apply Now

#### **VoIP Mode – Standard Gateway and DNS Server**



- In the menu OPERATION SETTINGS → MODE & AUDIO LINES you need to select the operating mode of the system
  - One Fader
  - Two Faders
  - Six Faders
- Decide if you want to allow caller conferences in Pretalk and On Air
- Define which and how many caller lines you want to use

figuration								
- Operation Settings M	ode & Audio	Line						
Mode & Audio Line HOLD Signal Signal Processing Line Labels Database	Mode Operation Studio 1 fir	Mode : st channel :		P     Voice Disguise	RE TAL		ON AIR Conference ON AIR Sharing	ce 📄 Anonymous Calling
Night Service DTMF Event Labels = GPIO	- Audio Line Ass	ianment						
E- GPIO	Studio	Name	Audio Line	Audio Interface		No Input Alarm	ON AIR Access	Custom Label
Relay	1	PRE 1	PRE TALK Keypad 1	not used	¥	No inpot viaim		Coatonii Eaboi
Ember+	1	PRE 2	PRE TALK Keypad 2	not used	- -		~	
System Settings General	1	PRE 3	PRE TALK PC 1	IP Audio Stream 1	-		~	
Line Interface	1	PRE 4	PRE TALK PC 2	Handset 1	•		¥	
VoIP (LAN/SIP)	1	PRE 5	PRE TALK PC 3	not used	-		v	
Audio Interface	1	PRE 6	PRE TALK PC 4	Dynamic	•		V	
- LAN Interface	1	PRE 7	PRE TALK PC 5	Dynamic	-		~	
VLAN DHD Audio Matrix	1	PRE 8	PRE TALK PC 6	Dynamic	-		¥	
Ember+ Provider	1	AIR 1	ON AIR	XLR Analogue 1	•			0
SNMP Quick Dials Date and Time ogin	1	HLD	HOLD/Monitoring	not used	•			
	Caution: In	valid setting	is are red! Setting	gs for this client have da	k gray t	background colour.		Default Settings
						ОК	Abbrechen	Apply Now
						ОК	Abbrechen	Apply Now
	Caution: In	valid setting	is are red! Setting	js for this client have dar	k gray t	ackground colour.		Default Settings

# **Configuration of the Operating Mode**



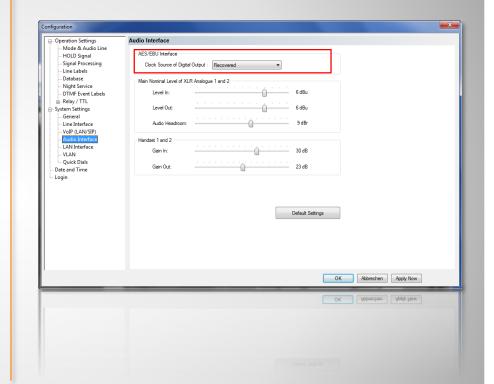
- In the menu OPERATION SETTINGS → MODE & AUDIO LINES the Audio interfaces are assigned to the Audio lines (Pretalk, Hold, On Air)
- Assigning the Audio interfaces
  - All available AUDIO INTERFACES (e.g. Handset, analogue Audio) as well as the available, optional IP Audio Streams (Pretalk Streaming) can be assigned to the Audio lines Pretalk, Hold und On Air (FUNCTION)
- Individual settings
  - For Pretalk Audio lines you ,must decide if they are allowed to put the caller to On Air (ON AIR ACCESS)
  - The input alarm (no Audio signal) can be disabled for each digital Audio interface (NO INPUT ALARM)
- You can assign customized labels for your Pretalk, Hold and On Air buttons (CUSTOM LABEL)

Operation Settings	Mode & Audio	Line						
<mark>Mode &amp; Audio Line</mark> HOLD Signal	Mode							
Signal Processing	Operation	Mode :	1 Studio: One Fader	• 🕅 P	RE TAI	K Conference	ON AIR Conferen	ce 📃 Anonymous Calin
- Line Labels	0	st channel :	1 3 channels	<ul> <li>Voice Disguise</li> </ul>			ON AIR Sharing	
Database	Studio 1 fi	st channel :	o channels	• Voice Disguise			ON AIN Shaling	
- Night Service								
- DTMF Event Labels	_							
E GPIO	Audio Line Ass	signment						
TTL	Studio	Name	Audio Line	Audio Interface		No Input Alarm	ON AIR Access	Custom Label
Relay	1	PRE 1	PRE TALK Keypad 1	not used	•		~	
System Settings	1	PRE 2	PRE TALK Keypad 2	not used			~	
General	1	PRE 3	PRE TALK PC 1	IP Audio Stream 1	•		~	
- Line Interface	1	PRE 4	PRE TALK PC 2	Handset 1	•		~	
- VoIP (LAN/SIP)	1	PRE 5	PRE TALK PC 3	not used	-		~	
- Audio Interface	1	PRE 6	PRE TALK PC 4	Dynamic	•		~	
LAN Interface	1	PRE 7	PRE TALK PC 5	Dynamic			~	
VLAN DHD Audio Matrix	1	PRE 8	PRE TALK PC 6	Dynamic	•		~	
Ember+ Provider	1	AIR 1	ON AIR	XLR Analogue 1	•		1.	0
	1	HLD	HOLD/Monitoring	not used	-			v
Quick Dials		neo	Troco/ Monitoring	Hot bacu				
Date and Time								
Login								
	Caution: In	valid setting	ps are red! Setting	gs for this client have da	k gray l	background colour.	[	Default Settings
								Derdak Settings
						OH	Abbrechen	Apply Now
								)()
		_			-	OK	Abbrechen	Apply Now
						UR	Abbrachan	Acobi Mow
								Default Settings
	Caution: In	valid setting	is are red! Setting	gs for this client have dar	k aray t	background colour.		

## **Configuration of the Audio lines**



- If the digital Audio interface is used, only the clock source for the <u>digital output</u> needs to be configured
  - Recommendation: RECOVERED
- For the analogue Audio and the Handset interfaces the Audio levels and the headroom can be adjusted under SYSTEM SETTINGS → AUDIO INTERFACE



#### **Audio Interface**



- Under OPERATION SETTINGS → HOLD SIGNAL you can configure the HOLD Signal
  - ON AIR signal
  - Recorded HOLD signal
  - External HOLD signal via Audio interface (defined under MODE & AUDIO LINE)
- Recording of the signal
  - Select an Audio interface as RECORD SOURCE
  - START starts the recording and STOP ends it
  - With SAVE you can store the recorded signal
- Test the recorded HOLD signal with START
  - The same Audio interface is used as for the recording

Operation Settings	HOLD Signal	
Mode & Audio Line HOLD Signal	General settings	
Signal Processing Line Labels	HOLD signal source : Recorded Hold Signal 💌	
Database Night Service DTMF Event Labels	Pause between repetition : 3 sec	
😥 Relay / TTL	HOLD signal recording	
<ul> <li>System Settings</li> <li>General</li> </ul>	Record source : XLR Analogue 1	
Line Interface VoIP (LAN/SIP) Audio Interface	Start Stop Save	
LAN Interface VLAN		
Quick Dials	HOLD signal duration : 6,95 sec	
- Date and Time Login		
5	Test recorded HOLD signal	
	Start Stop	
	OK Abbrechen Apply Now	
	OK Abbrechen Apply Now	

## **Configuration of the HOLD signal**



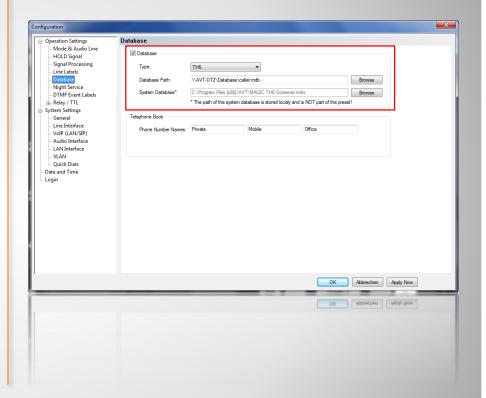
- Under OPERATION SETTINGS → SIGNAL PROCESSING the following settings can be configured:
- EXPANDER on/off
  - We recommend to switch the Expander on to eliminate background noise
- AGC (Automatic Gain Control) on/off
  - We recommend to activate the AGC as default
  - In this case the user can activate/deactivate the AGC dynamically for each line by clicking on the level meter
  - Via THRESHOLD, LEVEL and SPEED you can adjust the behaviour of the AGC
- The controller VOLUME CONTROL defines the default position of the manual level control
- Remark: The echo cancelling is implemented via a hardware chip per channel and is always active. The Activation/deactivation and the sending of a test tone (as in the old system) is no longer necessary
- For very high delays (>120ms), which can occur especially with VoIP, an additional LINE BASIS DELAY can be configured

- Line Labels       1       ON       ON         - Database       - ON       ON       Speed:       Sp	Operation Settings	Signal Proces	sing		
Image: Service Conception Free Automatic Gain Control Expander         Inc. Labels         Inc. Automatic Gain Control Expander         Inc. Markets         Inc. Markets <th></th> <th>Line Settings</th> <th></th> <th></th> <th>Automatic Gain Control Settings (AGC) / Expander</th>		Line Settings			Automatic Gain Control Settings (AGC) / Expander
Database       1       ON       ON         Night Service       2       ON       ON         OTMF Event Labels       3       ON       ON         FTTL       4       ON       ON         Berbare       5       ON       ON         System Settings       6       ON       ON         General       5       ON       ON         Line Interface       0       ON       ON         Value       0       ON       ON         Audio Interface       0       ON       ON         OHD Audio Matrix       0       ON       Set AGC on/off for all lines       Set Expander on/off for all lines         Set AGC on/off for all lines       Set Expander on/off for all lines       Volue       Ptch:       Ub         Default Settings       0       Off       Image: Im	Signal Processing	Line	Automatic Gain Control	Expander	Threshold :
- Might Service       2       ON       ON         - OTMF Event Labels       3       ON       ON         - GPLO       3       ON       ON         - Belay       3       ON       ON         - Belay       5       ON       ON         - Grenal       6       ON       ON         - Grenal       6       ON       ON         - Audio Interface		1	ON	ON	1 evel :
GPD     3     ON     ON       - Ratay     3     ON     ON       - State at Time     5     ON     ON       - General     - General     - General     - General       - Value     - General     - General     - General       - Audio Interface     - General     - General     - General       - VAR     - General     - General     - General       - Audio Interface     - General     - General     - General       - VAR     - General     - General     - General       - DHD Audio Matrix     - General     - General     - General       - DHD Audio Matrix     - General     - General     - General       - DHD Audio Matrix     - General     - General     - General       - Duck and Time     - General     - General     - General       - Cogin     Set AGC on/off for all lines     Set Expander on/off for all lines     - General       - Login     - General     - General     - General     - General	- Night Service	2	ON	ON	
Allow     4     ON     ON     ON       Betwee+ System Settings     5     ON     ON     OH       - General - Une Interface - Val (LAN/SIP)     6     ON     ON     OH       - Audio Interface - UAN     - General     Image: Constraint of the set		3	ON	ON	Speed : Slow -
System Settings     System Settings     Soveral     Une Interface     UAN Interface     UAN     ON     Set AGC on/off for all lines     Set Expander on/off for all lines     Set Expander on/off for all lines     Set AGC on/off for all lines		4	ON	ON	Volume control default value
Ceneral     Ceneral     Control Contro Control Contecontrol Contecontrol Control Control Control Control	Ember+	5	ON	ON	0 dB
Link Michael Control C		6	ON	ON	
	- Audio Interface - LAN Interface - VLAN - DHD Audio Matrix - Ember+ Provider - SNMP - Quick Dials	Set AGC	on/off for all lines Set	Expander on/off for all lines	Line Level Offset Attenuation (Send):         -9 dB           Voice Disguise         -           Pitch:         Up           Ratio:         1 (low)           Auto Ducking of Caller         -
		-			OK Abbrechen Apply Now
Def DefauX Satings					Orfault Settings OK Abbrechen Apply Now
Are buong a Galer			_		Oil
0					Ado Dudong d Caler Off * Default Settings OK Abbrachen Apply Now

## **Signal Processing**



- To activate the database function, go to OPERATION SETTINGS → DATABASE and select DATABASE
- Under TYPE select TH6
- Enter the DATABASE PATH manually or use the BROWSE button
  - When the MAGIC TH6 software is installed you will find an empty database in the installation folder; you should store your database somewhere in the network so that your PC can access it
- The path of the SYSTEM DATABASE is usually entered automatically (installation directory)
  - If you do not have a write permission for the installation directory, you must change the path of the System Database to a directory for which you have write permission



#### **Database Connection**



# **Advanced Settings**

Line Labels Auto Answer Night Service Voice Disguise Pretalk Streaming VLAN DTMF Analyser Two Studios Mode Presets



- Under OPERATION SETTINGS → LINE LABELS you will find several options for the labelling of the caller lines
  - {INDEX}: Line index (1 to 6)
  - {LINEID}: Depends on your operating mode
    - ISDN: MSN
    - POTS: POTS Phone Number entered in the "POTS Phone Number" submenu
    - VoIP: SIP Client
  - SIPSRV: SIP Server address
  - SIPAUT: SIP authentication
  - Enter your own name
- The line label can be defined for each caller line separately

Operation Settings	Line Labels		
Mode & Audio Line HOLD Signal	Line Labels		Constants
Signal Processing Line Labels	Line	Label	{index} Line index (1 based)
Database	1	{ineid}	(ineid) - SIP user in case of VoIP - POTS phone number
Night Service	2	(ineid)	when using POTS
DTMF Event Labels	3	{ineid}	{sipsrv} Used SIP server
👜 - Relay / TTL	4	(ineid)	(sipaut) Used SIP authentication
System Settings General	5	{ineid}	(spauly used Sir autientication
Line Interface	6	{ineid}	
VoIP (LAN/SIP)			
Audio Interface			
LAN Interface			
VLAN			
Quick Dials			
Login			
Login			
		Default Settings	

#### **Line Labels**



- The MAGIC TH6 system can accept incoming calls automatically; to enable the auto answer function, go to SYSTEM SETTINGS → LINE INTERFACE
- Under ANSWER CALL ON AUDIO LINE you can select on which Audio line the caller is put when the call is accepted by the system
- Via AUTO ANSWER DELAY you can define a delay in accepting calls

Operation Settings	Line Interface
Mode & Audio Line     HOLD Signal     Signal Processing     Line Labels     Database     Night Service     DTMF Event Labels     GPIO	General Line Mode : VolP (LAN/SIP)  Erable System Rhrping Tone Fable Ringing Tone on Handset/PRETALK system Erable Ringing Tone on Handset/PRETALK Stream Erable Ringing Tone on Audo Output Erable Ringing Tone on Keypad
System Settings	Line Configuration
General	Channels
Line Interface VoIP (LAN/SIP)	1 2 3 4 5 6
Audio Interface LAN Interface	
VLAN DHD Audio Matrix	PBX/Exchange line configuration
Ember+ Provider SNMP	International prefix: 00 (Default value: 00)
Quick Dials	VoIP
Login	Length of extension: 3
-	Outgoing line prefix: 0
	PBX number:
	Skip outgoing line prefix on incoming calls:
	- 📝 Enable Auto Answer
	Answer call on audio line : ON AIR/ON AIR 1
	Auto Answer Delay : 0 sec

#### **Auto Answer**

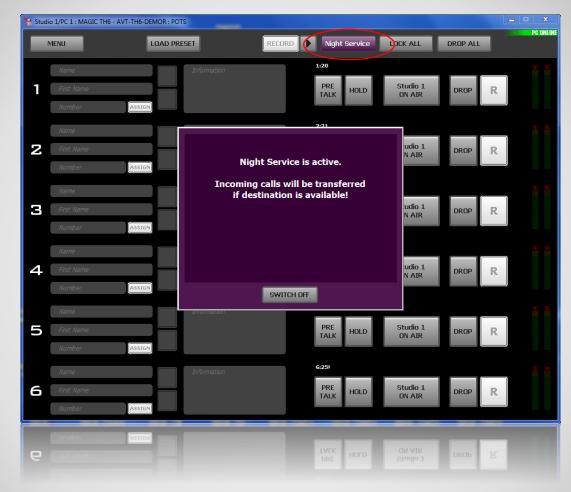


- The Night Service function can be configured under OPERATION SETTINGS → NIGHT SERVICE
  - When the Night Service function is activated, incoming calls are transferred automatically to a pre-defined number
- Select TRANSFER INCOMING CALL under FUNCTION
- Define up to six numbers which are then available for call forwarding
- You can also create your own label for the button via which the Night Service can be activated as well as a message that is displayed while the Night Service function is activated

onfiguration						<b>—</b> ×
Operation Settings Mode & Audio Line HOLD Signal	Night Service All Studios					
Signal Processing Line Labels	Function:	Transfer incom	ing call	•	•	
Database Night Service		#	Phone N	umbers	Phone Numb	er Alias
DTMF Event Labels		1	505		Ich bin die 50	
👜 Relay / TTL		2	506		ich bin die 50	)6
System Settings		3	210		Bespr. Groß	
Line Interface		4 5				
VoIP (LAN/SIP)		6				
- Audio Interface						
LAN Interface VLAN		Button Label:		night mode	7	
Date and Time		Active Night Se	rvice Message:		weiterfeitung OK	Constarts (rumber) Selected number for cal transfer (name) Alas of the selected number elected number
					OK	Abbrechen Apply Now

# **Night Service (1)**





#### **Night Service (2)**



 Under OPERATION SETTINGS → MODE & AUDIO LINE you can activate the Voice Disguise function

Operation Settings	Mode & Audio	Line						
Mode & Audio Line	Mode							
HOLD Signal	Operation	Mode ·	1 Studio: One Fader	• P	RE TAI	K Conference	ON AIR Conferen	ce Anonymous Callin
- Signal Processing - Line Labels					٦		hand the second s	
Database	Studio 1 fir	st channel :	1	<ul> <li>Voice Disguise</li> </ul>	J .		ON AIR Sharing	
- Night Service								
- DTMF Event Labels								
🖨 GPIO	Audio Line Ass	ignment						
TTL	Studio	Name	Audio Line	Audio Interface		No Input Alarm	ON AIR Access	Custom Label
Relay Ember+	1	PRE 1	PRE TALK Keypad 1	not used	-		~	
System Settings	1	PRE 2	PRE TALK Keypad 2	not used	-		~	
General	1	PRE 3	PRE TALK PC 1	IP Audio Stream 1	-		~	
Line Interface	1	PRE 4	PRE TALK PC 2	Handset 1	-		~	
VoIP (LAN/SIP)	1	PRE 5	PRE TALK PC 3	not used	-		~	
- Audio Interface	1	PRE 6	PRE TALK PC 4	Dynamic	-		~	
LAN Interface VLAN	1	PRE 7	PRE TALK PC 5	Dynamic	-		~	
	1	PRE 8	PRE TALK PC 6	Dynamic	-		~	
Ember+ Provider	1	AIR 1	ON AIR	XLR Analogue 1	-			0
SNMP	1	HLD	HOLD/Monitoring	not used	-			
Quick Dials								
Date and Time								
Login								
	Caution: In	valid setting	are red! Setting	gs for this client have dar	k gray i	background colour.	· [	Default Settings
								-
						01	K Abbrechen	Apply Now
							K Abbrechen	Apply Now
	CRITICAL IN	valid setting	is are rea: Setting	gs for this client have dar	c được (	раскагоцпа союцг.		Default Settings
			Colline					

# Voice Disguise (1)



- Under OPERATION SETTINGS → SIGNAL PROCESSING you can configure the Voice Disguise function
  - PITCH UP or PITCH DOWN
  - RATIO (1-4)

Operation Settings	Signal Proces	sing		
- Mode & Audio Line	Line Settings			Automatic Gain Control Settings (AGC) / Expander
HOLD Signal Signal Processing	Line	Automatic Gain Control	Expander	Threshold :
Line Labels	1	ON	ON	
Database Night Service	2	ON	ON	Level :
DTMF Event Labels	3	ON	ON	Speed : Slow -
GPIO				Volume control default value
Relay	4	ON	ON	
Ember+     System Settings	5	ON	ON	
General	6	ON	ON	Echo Canceller
VolP (LAN/SIP) Audio Interface UAN Interface VLAN DHD Audio Matrix Ember+ Provider Quick Dials Date and Time Login	Set AGC	ion/off for all lines Set E	kpander on/off for all lines	Line Basis Delay: 60 msec (0.120) Line Level Offset Attenuation (Send): Voice Disguise Pech: Up Ratio: 1 (low) v Auto Ducking of Cafer
		_		Default Settings OK (Abbrechen) (Apply Now OK (Yppacpear) (Apply Jpak) Delaring Settings

# **Voice Disguise (2)**



MENU	LOAD PRESET	RECORD Night Service	LOCK ALL	DROP ALL	PC OI
		1:201			<b>1</b>
First Name		PRE TALK HOLD	Studio 1 ON AIR	DROP R	VD
	ASSIGN				
		2:202			
2 First Name		PRE TALK HOLD	Studio 1 ON AIR	DROP R	VD
	ASSIGN				
Name		3:203	Studio 1		S
E First Name Number	ASSIGN	TALK	ON AIR	DROP	VD
		4:204			
A. First Name		PRE HOLD	Studio 1	DROP R	VD
Number	ASSIGN	TALK	ON AIR		
		5:205!			5
5 First Name		PRE TALK HOLD	Studio 1 ON AIR	DROP R	VD
	ASSIGN				
		6:206!			
6 First Name		PRE TALK HOLD	Studio 1 ON AIR	DROP R	VD
Number	ASSIGN				
	ASSTON				
6 For Name		PRE HOLD		DROP R	
		rans.			
	olce D	isguis	<b>e</b> (	31	



- If you want to use Pretalk Streaming, please select IP AUDIO STREAM 1...6 in the column AUDIO INTERFACE for the corresponding AUDIO LINE (e.g. PRE TALK PC 1) in the menu OPERATION SETTINGS → MODE & AUDIO LINE
  - The number of the available IP Audio Streams depends on how many licences you have purchased (max. 6)
- You can assign customized labels for your Pretalk buttons (CUSTOM LABEL)

HOLD Signal Signal Processing Line Labels Database Night Service	Mode Operation Studio 1 fir	Mode : st channel :		Voice Disguise	RE TAL		ON AIR Conferenc	e 📄 Anonymous Calling
DTMF Event Labels	Audio Line Ass	ignment						
	Studio 1	Name PRE 1	Audio Line PRE TALK Keypad 1	Audio Interface not used	•	No Input Alarm	ON AIR Access	Custom Label
System Settings	1	PRE 2 PRE 3	PRE TALK Keypad 2 PRE TALK PC 1	IP Audio Stream 1	•		<b>v</b>	
General Line Interface	1							
VoIP (LAN/SIP)	1	PRE 4 PRE 5	PRE TALK PC 2 PRE TALK PC 3	Handset 1 not used	•		V V	
- Audio Interface	1	PRE 5	PRE TALK PC 3	Dynamic	•		~	
LAN Interface	1	PRE 6	PRE TALK PC 4	Dynamic	•		<ul> <li>✓</li> </ul>	
VLAN	1	PRE 8	PRE TALK PC 6	Dynamic	- -		v V	
DHD Audio Matrix Ember+ Provider	1	AIR 1	ON AIR	XLR Analogue 1	•		v	0
SNMP Quick Dials Date and Time Login	1	HLD	HOLD/Monitoring	not used	•			
	Caution: In	valid setting	s are red! Setting	gs for this client have da	k gray t	background colour.		Default Settings
			_		_	0	Abbrechen	Apply Now
						Ok	Abbrechen	Apply Now
	Caution: In	valid setting	s are red! Setting	gs for this client have dar	k gray b	background colour.		Default Settings

# **Pretalk Streaming (1)**



 Under System Settings → LAN Interface you can assign the Pretalk Streaming UDP Ports or you use the default values 5021 – 5026

Line Labels Line Line Labels Line Line Labels Line Line Line Line Line Line Line Line	50.16	Third IP Address 172:16:50.17 255:255:0.0 152:168:1.3
FNOLD Signal Processing         DHCP           Line labels         DHCP           Line labels         IP Addesses:         172.16.50           Diff Event labels         Default Gateway:         1256.255.0.0           DTMF Event labels         Default Gateway:         172.16.50           CPIO         DMS Server:         121.01.1           Pellay         DNS Server:         121.68.1           Ember+         Control UDP Pot Addresses         PC 5:           Line Interface         PC 2:         10000         PC 5:           ValP (LAN/SIP)         PC 4:         10003         -           - Audio Interface         PRETALK Streaming UDP Pots         -         -           - DDH Audio Matrix         PRETALK Streaming UDP Pots         -         -           - DMB Audio Matrix         Pont 1:         5021         Pot 4:           Pont 2:         5002         Pot 5:         -           - Quick Dials         Pont 3:         5023         Pot 5:	50.16 10.0 11.3 10004 10005 5024 5025	172.16.50.17 255.255.0.0
Implication         IP Address:         172:16:50:15         172:16:50:15           Database         Sub Net Mask:         255:255:0.0         125:255:0.0           DTMF Event Labels         Default Gateway:         172:16:11         192:168:1           OTMF Event Labels         Default Gateway:         172:16:11         192:168:1           OTMF Event Labels         Default Gateway:         172:16:11         192:168:1           ITL         DNS Server:         192:168:12         192:168:1           Input         PC 1:         10000         PC 5:           Output         PC 2:         10001         PC 6:           General         PC 3:         10002         PC 4:           VLNN         PRETALK Streaming UDP Ports         Port 4:           VLNN         PRETALK Streaming UDP Ports         Port 4:           Port 2:         5022         Port 5:           SMMP         Port 3:         5023         Port 6:	0.0 1.1.3 10004 10005 5024 5025	255.255.0.0
Database         Prictes         Prictes         Prictes         Prictes           Night Service         Sub Net Mask:         255 255 0.0         125 255 0.0         125 255 0.0           OTIM Event Labels         Default Gateways:         172 16 1.1         125 255 0.0         152 168.1           OTIM Fernice         Diff Server:         192 168.1         125 168.1         152 168.1           Final Control UDP Pot Addresses         PC 1:         10000         PC 5:         PC 6:           Central         PC 2:         10001         PC 6:         PC 6:           Central         PC 3:         10002         PC 6:           Value (LANVSIP)         PC 4:         100003         PC 4:           VAUD (LANVSIP)         Port 1:         5021         Port 4:           Port 2:         5022         Port 5:         Port 5:           Quick Dials         Port 3:         5023         Port 6:	0.0 1.1.3 10004 10005 5024 5025	255.255.0.0
Nght Sankie         Sub Met Maak:         255.255.0         255.255.0           DTMF Event Labels         Default Gateway:         172.16.1.1         152.168.1           DTM F Event Labels         Default Gateway:         172.16.1.1         152.168.1           TTL         DNS Server:         192.168.1         152.168.1           Brits         Control UDP Pot Addresses         10000         PC 5:           Output         PC 1:         10000         PC 6:           General         PC 3:         10002         10003           Audio Interface         PC 4:         10003         1000           VUR Nutrifier C         Pet 1:         5021         Pet 4:           SNMP         Pet 2:         5022         Pet 5:           Quick Dials         Pet 3:         5023         Pet 5:	1.1.3 10004 10005 5024 5025	
GPIO         Dot Server         192 168 12           TTL         DNS Server         192 168 12           Inster+         Control UOP Pot Addresses         PC 5:           Output         PC 1:         10000         PC 5:           Output         PC 2:         10001         PC 6:           General         PC 3:         10002         PC 4:           Audio Interface         PC 4:         10003         PC 4:           OHD Andro Matrix         PC 1:         5021         Pot 4:           Finder Frovider         Pot 1:         5021         Pot 4:           Out 2:         5022         Pot 5:         Pot 5:           Quick Dials         Pot 3:         5023         Pot 6:	10004 10005 5024 5025	192 168 1.3
TTL         DNS Server:         192.168.12           Entbe+         Input         PC 5:           Dutput         PC 1:         10000           Vetm Settings         PC 2:         10001           Central         PC 3:         10002           Line Interface         PC 4:         10003           Audio Interface         PC 4:         10003           VAIP (LAN/SIP)         PRETALK Streaming UDP Pots           OHD Audio Matrix         Pot 1:         5021           Ember+ Provider         Pot 2:         5022           Quick Dials         Pot 3:         5023	10005 5024 5025	
Interver         Control UDP Por Addressee           Imber-         Control UDP Por Addressee           Imput         PC 1:           Output         PC 2:           General         PC 3:           Interfrace         PC 4:           Audio Interfrace         PC 4:           VUP (ANVSP)         PC 4:           DAM Interfrace         PRETALK Steaming UDP Ports           VIDP Addio Matrix         Pont 1:         5021           Pont 2:         5022         Pont 5:           Quick Dials         Pont 3:         5023	10005 5024 5025	
Ember- Upput         Control UDP Pot Addresse           Output         PC 1:         10000         PC 5:           Output         PC 2:         10001         PC 6:           General         PC 3:         10002           Line Interface         PC 4:         10003           Audio Interface         PC 4:         10003           ValV         PRETALK Streaming UDP Pots         Pot 4:           OPHD Audio Matrix         Pot 1:         5021         Pot 4:           SNMP         Pot 2:         5022         Pot 5:           Quick Dails         Pot 3:         5023         Pot 6:	10005 5024 5025	
Input         PC 1:         10000         PC 5:           Output         PC 2:         10001         PC 5:           - General         PC 3:         10002           - Unit Interface         PC 4:         10003           - VulP (LANVSIP)         PC 4:         10003           - VulP (LANVSIP)         PC 4:         10003           - VAID (Interface         PRETALK Streaming UDP Ports         -           - UNN         -         PRETALK Streaming UDP Ports         -           - UNN         -         Foot 1:         5021         Pot 4:           - SINNP         Pot 2:         5022         Pot 5:         -           - Quick Dials         Pot 3:         5023         Pot 6:	10005 5024 5025	
Output         PC 1.         10000         PC 3.           ystem Settings         PC 2:         10001         PC 6:           General         PC 3:         10002           Line Interface         PC 4:         10003           Audio Interface         PC 4:         10003           Audio Interface         PRETALK Streaming UDP Ports         Pret 4:           DHD Audio Matrix         Pont 1:         5021         Port 4:           SNMP         Pont 2:         5022         Port 5:           - Quick Dials         Pont 3:         5023         Port 6:	10005 5024 5025	
ystem settings         PC 3:         10002           Line Interface         PC 4:         10003           - Audio Interface         PRETALK Streaming UDP Ports           - UAN         PRETALK Streaming UDP Ports           - OHD Audio Matrix         Port 1:         5021           - SNMP         Port 2:         5022           - Quick Dials         Port 3:         5023           - Quick Dials         Port 3:         5023	5024 5025	
Line Interface         PC 4:         10002           VolP (LAN/SP)         PC 4:         10003           Vadio Interface         PRETALK Streaming UDP Pots         PRETALK Streaming UDP Pots           VNAN         PRETALK Streaming UDP Pots         Pot 4:           Ember - Provider         Pot 1:         5021         Pot 4:           SIMP         Pot 2:         5022         Pot 5:           Quick Date and Time         Pot 3:         5023         Pot 6:	5025	
VolP (LAN/SIP)         PC 4:         10003           - Audio Interface         PRETALK Streaming UDP Ports         PRETALK Streaming UDP Ports           - VLAN         PRETALK Streaming UDP Ports         Port 4:           - OHD Audio Matrix         Port 1:         5021           - SNMP         Port 2:         5022           - Quick Dials         Port 3:         5023           - Det and Time         Port 3:         5023	5025	
Voir (LIN) Sign           Audio Interface           LAUdio Interface           VLAIN           PRETALK Streaming UDP Pots           VLAN           PHD Audio Matrix           Pot 1:           5021           Pot 2:           Foot 2:   Pot 5:	5025	
OHD Audio Matrix         Pot 1:         5021         Pot 4:           Ember- Provider         Pot 2:         5022         Pot 5:           SNMP         Pot 2:         5022         Pot 5:           - Quick Dials         Pot 3:         5023         Pot 6:	5025	
Ember+ Provider         Font 1:         SUL1         Font 4:           SNMP         Pot 2:         5022         Pot 5:           Quick Dials         Pot 3:         5023         Pot 6:           ate and Time         Pot 5:         Pot 5:         Pot 6:	5025	
Date and Time	5026	
ogin		
	0	DK Abhechen Apply Nor DK Vephechen Abhi yo

# **Pretalk Streaming (2)**



- For each PC Client which uses Pretalk Streaming, you need to adjust the local settings. Under MENU → CONFIGURATION → LOCAL SETTINGS → PRETALK STREAMING you must select which Audio input and which Audio output you want to use.
- Testing the Pretalk Streaming functionality:
  - To test if the Audio input is selected correctly, you can stream a test signal to the MAGIC TH6.
  - To test if the Audio output is selected correctly, you can play a test signal on the Audio output.
- Each Client that uses Pretalk Streaming can record the caller signal during the conversation (in Pretalk). Please enter the Recording Path for each Client/PC.
  - The recorded files will be saved as .wav files.

L	ocal Settings		×
	Window Parameters	PRETALK Streaming Settings Location	
	Audio Input:	Primärer Soundaufnahmetreiber	
	Audio Output:	Primärer Soundtreiber    Play test signal on audio output	
	Recording Path:	C:\Users\ulauterbach.AVT\Documents\AVT\MAGIC TH6\Recordings	Browse
		OK Abbrechen	
		OK Abbrechen	

# **Pretalk Streaming (3)**



#### Start/Stop Recording





- We recommend to separate the VoIP network from the Office network for VoIP applications in general
- The configuration is done under SYSTEM SETTINGS → VLAN
- Before you activate VLAN, please make sure that your administrator has configured the Switch Port correspondingly
  - Activate the 802.1Q Tagging for both services
  - Please select the desired priority (Standard for VoIP = 6 Voice)
  - Under VID you need to enter the VLAN ID which has been allocated to you
- Under the menu LAN INTERFACE, you can set up three different IP Addresses (with Sub Net Mask and Default Gateway) for the physical LAN interface of the system

Operation Settings VLAN								
Line Interface VoIP (LAN/SIP)	VLAN							
- Mode & Audio Line	Service	TPID	Prior	ity	VID	(12-Bit)		
HOLD Signal Signal Processing	PC Control & PRETALK Streaming	none	-					
Line Labels	VoIP	802.1QTag	- 6 (V	pice)	🔻 0 (Pri	ority only)		
Database Night Service								Ш
DTMF								
i⊞- Relay / TTL System Settings							Ĩ.	
General								
Audio Interface LAN Interface								
VLAN								
Quick Dials Date and Time								
Login								
Configuration								
- Operation Settings	LAN Interface							
	Primary IP Address			Second IP Address	5	Third IP Address		
Operation Settings     Mode & Audio Line     HOLD Signal     Signal Processing	Primary IP Address				5			
Operation Settings     Mode & Audio Line     HOLD Signal	Primary IP Address DHCP IP Address:	172.16.50.15		172.16.50.16	ş	172.16.50.17		
Operation Settings     Mode & Audio Line     HOLD Signal     Signal Processing     Line Labels     Database     Night Service	Primary IP Address DHCP IP Address: Sub Net Mask:	255.255.0.0		172.16.50.16 255.255.0.0	5	172.16.50.17 255.255.0.0		
Operation Settings     Mode & Audio Line     HOLD Signal     Signal Processing     Line Labels     Database     Night Service     DTMF Event Labels	Primary IP Address DHCP IP Address: Sub Net Mask; Default Gateway:	255.255.0.0 172.16.1.1		172.16.50.16	8	172.16.50.17		
Operation Settings     Mode & Audio Line     Hodz & Stadio Line     Signal Processing     Line Labels     Database     Night Service     Diff Event Labels     GPI0     TL	Primary IP Address DHCP IP Address: Sub Net Mask:	255.255.0.0		172.16.50.16 255.255.0.0	8	172.16.50.17 255.255.0.0		
Operation Settings     Mode & Audio Line     HOLD Signal     Signal Processing     Une Labels     Otabase     Night Service     OTMF Event Labels     GP0     TIL     Relay	Primary IP Address DHCP IP Address: Sub Net Mask; Default Gateway:	255.255.0.0 172.16.1.1 192.168.1.2		172.16.50.16 255.255.0.0	5	172.16.50.17 255.255.0.0		
Operation Settings     Mode & Audio Line     HOLD Signal     Signal Processing     Unit Labels     Otabase     Otabase     Off Freet Labels     GPD     TTL     Relay     Griber+     Input	Primary IP Address DHCP IP Address: Sub Net Mask: Defaut Gateway: DNS Server:	255.255.0.0 172.16.1.1 192.168.1.2		172.16.50.16 255.255.0.0	10004	172.16.50.17 255.255.0.0		
Operation Settings     Mode & Audio Line     HOLD Signal     Hold Signal     Signal Processing     Line Labels     Other Service     DTMF Event Labels     GPIO     FTU     Relay     Enther-     Indext     Output	Primary IP Address DHCP IP Address: Sub Net Mask: Default Gateway: DNS Server:	255.255.0.0 172.16.1.1 192.168.1.2 ses		172.16.50.16 255.255.0.0 192.168.1.3		172.16.50.17 255.255.0.0		
Operation Settings     Mode & Audio Line     HOLD Signal     Signal Processing     Unter Labels     Otabase     Otabase	Primary IP Address DHCP IP Address: Sub Net Mark: Default aderway: DNS Server: Control UDP Port Address PC 1: PC 2:	255.255.0.0 172.16.1.1 192.168.1.2 ses 10000		172.16.50.16 255.255.0.0 192.168.1.3 PC 5:	10004	172.16.50.17 255.255.0.0		
Operation Settings     Mode & Audo Line     Holde & Audo Line     Hold & Audo Line     Hold Signal     Signal Processing     Une Labels     Orlo     Hight Service     Orlo     Filto     GPI0     Filto     Filto     Filto     Ford     Ford Labels     GPI0     Filto     Ford	Primary IP Address DFCP IP Address: Sub Net Marks: Default Gateway: DNS Server: Control UDP Port Address PC 1: PC 2: PC 3:	255.255.0.0 172.16.1.1 192.168.1.2 10000 10001 10002		172.16.50.16 255.255.0.0 192.168.1.3 PC 5:	10004	172.16.50.17 255.255.0.0		
☐ Operation Settings     ☐ Mode & Audo Line     ☐ Mode & Audo Line     ☐ Hold Signal     ☐ Signal Processing     ☐ Intelefs     ☐ Optimeses     ☐ Optime	Primary IP Address DHCP IP Address: Sub Net Mark: Default aderway: DNS Server: Control UDP Port Address PC 1: PC 2:	255.255.0.0 172.16.1.1 192.168.1.2 ses 10000 10001		172.16.50.16 255.255.0.0 192.168.1.3 PC 5:	10004	172.16.50.17 255.255.0.0		
☐ Operation Settings     ☐ Mode & Audo Line     ☐ Mode & Audo Line     ☐ Hold Signal     ☐ Signal Processing     ☐ Inteleft     ☐ Outbase     ☐ Outf Event Labels     ☐ Off Forent Labels     ☐	Primary IP Address DFCP IP Address: Sub Net Made: Default Gateway: DNS Server: Control UDP Port Address PC 1: PC 2: PC 3: PC 4:	255 255.0 0 172 16 1.1 192 168 1.2 8es 10000 10001 10002 10003		172.16.50.16 255.255.0.0 192.168.1.3 PC 5:	10004	172.16.50.17 255.255.0.0		
Operation Settings     Mode & Audio Line     HOLD Signal     Signal Processing     Unit Labels     Ditabase     Night Service     Of the Event Labels     Office     Office	Primary IP Address DrCP IP Address: Sub Net Mark: Default Gateway: DNS Server: Control UDP Port Address PC 1: PC 2: PC 3: PC 4: PRETALK Streaming UD	255 255 0 0 172 16 1.1 192 168 1.2 10000 10001 10002 10003 PP Pots		172.16.50.16 255.255.0.0 192.168.1.3 PC 5: PC 6:	10004	172.16.50.17 255.255.0.0		
Operation Settings     Mode & Audio Line     HOLD Signal     Signal Processing     Une Labels     Otabase	Primary IP Address DHCP IP Address: Sub Net Mask: Default address; DNS Server: Control UDP Port Address PC 1: PC 2: PC 3: PC 4: PRETALK Streaming UD Port 1:	255 255 0 0 172 16 1.1 192 163 1.2 <b>ses</b> 10000 10001 10002 10003 P Pots 5021		T72:16:50:16 255:255:0:0 192:168:1:3 PC 5: PC 6: Pot 4:	10004 10005	172.16.50.17 255.255.0.0		
<ul> <li>□ Operation Settings         <ul> <li>Mode &amp; Audio Line</li> <li>Holds &amp; Audio Line</li> <li>Holds Settings</li> <li>Signal Processing</li> <li>Line Labels</li> <li>Database</li> <li>Diff Service</li> <li>DTM Forent Labels</li> <li>GPD</li> <li>TTL</li> <li>Pathy</li> <li>Embers</li> <li>Line System Settings</li> <li>General</li> <li>Line Interface</li> <li>TVAMerica</li> <li>Audio Interface</li> <li>TVAMinerace</li> <li>TVAM</li> <li>OHDD Audio Matrix</li> <li>Embers- Provider</li> </ul> </li> </ul>	Primary IP Address DFCP IP Address: Sub Net Made: Default Gateway: DNS Server: Control UDP Port Address PC 1: PC 2: PC 2: PC 3: PC 4: PRETALK Streaming UD Port 1: Port 2:	255 255 0 0 172 16 1.1 192 168 1.2 aes 10000 10001 10002 10003 P Pots 5021 5022		172.16.50.16 255.255.0.0 192.168.1.3 PC 5: PC 6: Post 4: Post 5:	10004 10005 5024 5025	172.16.50.17 255.255.0.0		
Operation Settings     Mode & Audio Line     HOLD Signal     Signal Processing     Une Labels     Other Section     Output     Ou	Primary IP Address DHCP IP Address: Sub Net Mask: Default address; DNS Server: Control UDP Port Address PC 1: PC 2: PC 3: PC 4: PRETALK Streaming UD Port 1:	255 255 0 0 172 16 1.1 192 163 1.2 <b>ses</b> 10000 10001 10002 10003 P Pots 5021		T72:16:50:16 255:255:0:0 192:168:1:3 PC 5: PC 6: Pot 4:	10004 10005	172.16.50.17 255.255.0.0		
Operation Settings     Mode & Audio Line     HOLD Signal     Hould Set Audio Line     Hould Set Audio     Hould Set Audio Line     Hould Set Audio     Hould Audio	Primary IP Address DFCP IP Address: Sub Net Made: Default Gateway: DNS Server: Control UDP Port Address PC 1: PC 2: PC 2: PC 3: PC 4: PRETALK Streaming UD Port 1: Port 2:	255 255 0 0 172 16 1.1 192 168 1.2 aes 10000 10001 10002 10003 P Pots 5021 5022		172.16.50.16 255.255.0.0 192.168.1.3 PC 5: PC 6: Post 4: Post 5:	10004 10005 5024 5025	172.16.50.17 255.255.0.0		

#### **VLAN - Virtual LAN**



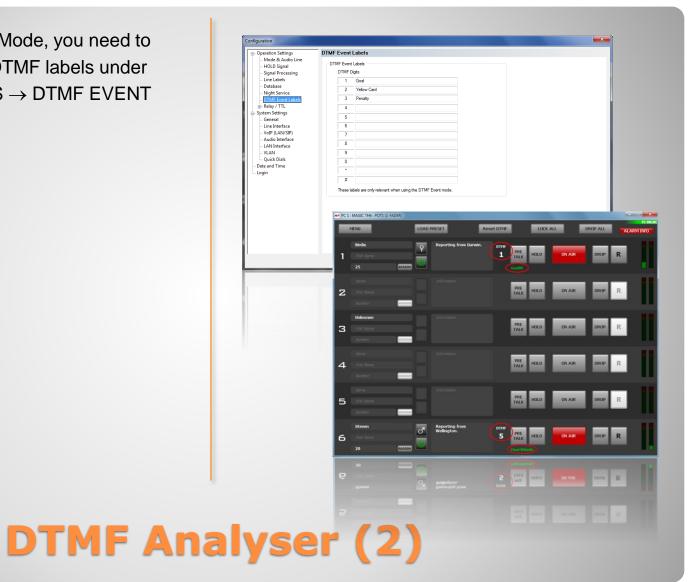
- The DTMF Analyser offers three modes and can be activated under CONFIGURATION → DTMF SETTINGS
  - Standard: The pressed number is displayed for the corresponding caller line
  - Games Show: It is additionally marked which DTMF tone was received first
  - Event Mode: The pre-defined DTMF Event label is also displayed



# **DTMF Analyser (1)**



 To use the DTMF Event Mode, you need to configure the so-called DTMF labels under OPERATION SETTINGS → DTMF EVENT LABELS





- First, select under OPERATION SETTINGS → MODE & AUDIO LINE under OPERATION MODE your desired Two Studio mode
  - Two Studios: One Fader
  - Two Studios: Two Faders
- Select the first channel and the number of channels which you want to use for each studio
  - You can either work with split lines or with shared lines
- Under AUDIO LINE ASSIGNMENT you can select the Audio interfaces which are to be used for Studio 1 and Studio 2
  - Each studio can be operated with maximum two PC workplaces
  - Each studio can only work with its assigned Audio interfaces

Operation Settings	Mode & Audio	Line						
- Mode & Audio Line	Mode							
HOLD Signal	Operation	Mada :	2 Studios: Two Faders			K Conference	ON AIR Conferen	ce 🔲 Anonymous Callin
Signal Processing	Operation	NOUC .	2 Studios: Two Faders	•	THE THE	Contentio	UN AN CONTRIG	
Line Labels	Studio 1 fire	st channel :	1 🔹 3 channels	<ul> <li>Voice Disguise</li> </ul>	Stud	lio 2 first channel :	4 🔹 3 channel	ls 👻 📃 Voice Disguise
Database				_	_			
Night Service DTME Event Labels	2-Studio Sc	creening:	E PC 1 V PC 2	PC 3/Studio 2 P	C1 📃	PC 4/Studio 2 PC	2 PC 5/Studio	1 PC 3 📝 PC 6/Studio 2 PC
O I MF Event Labels     GPIO	Audio Line Ass	ionment						
E GPIO		-						
Relay	Studio	Name	Audio Line	Audio Interface		No Input Alarm	ON AIR Access	Custom Label
Ember+	1	PRE 1	PRE TALK Keypad 1	Handset 1	-		✓	
- System Settings	1	PRE 3	PRE TALK PC 1	IP Audio Stream 1			~	
General	1	PRE 4	PRE TALK PC 2	Dynamic	-		~	
- Line Interface	1	PRE 7	PRE TALK PC 3	Dynamic	•		Í	
VoIP (LAN/SIP)	1	AIR 1	ON AIR 1	XLR Analogue 1				0
Audio Interface	1	AIR 2	ON AIR 2	AES/EBU 1 Left	▼ ▼	<b>V</b>		ő
LAN Interface	2	PRF 2	PRE TALK Keypad 2	not used		1•	✓	9
VLAN	2	PRE 5	PRE TALK PC 1	IP Audio Stream 2	• • •		•	
DHD Audio Matrix					Ĥ		V	
Ember+ Provider	2	PRE 6	PRE TALK PC 2	Dynamic			×	
SNMP Quick Dials	2	PRE 8	PRE TALK PC 3	Dynamic	•		<b>▼</b>	
- Date and Time	2	AIR 3	ON AIR 1	XLR Analogue 2	•	_		0
- Login	2	AIR 4	ON AIR 2	AES/EBU 2 Left	-			0
Login	1, 2	HLD	HOLD/Monitoring	not used	-			
	Caution: In	valid setting	is are red! Setting	gs for this client have da	rk gray b	ackground colour.		Default Settings
						10	Abbrecher	Apply Now
						OK	Abbrechen	Apply Now
	Caution: Inv	valid setting	is are red! Setting	gs for this client have da	rk gray b	ackground colour.		Default Settings
					4			

# **Two Studios Mode (1)**



- If you work in the Two Studios Mode, you can select the option 2-STUDIO SCREENING which means that you can "screen" the caller lines from Studio 1 and Studio 2 from one or several PCs
  - At the selected PCs all caller lines are displayed

Operation Settings	Mode & Audio	Line						
Mode & Audio Line	Mode							
HOLD Signal Signal Processing	Operation	Mode :	2 Studios: Two Faders	• P	RE TAL	K Conference	ON AIR Conferen	nce 📃 Anonymous Cal
- Line Labels	Studio 1 fin	t channel :	1 - 3 channels	Voice Disguise	0	dio 2 first channel :	4 v 3 channe	Is 👻 🔲 Voice Disguise
Database	Scould Thin	s channer.						
Night Service	2-Studio Se	creening:	PC 1 VC 2	PC 3/Studio 2 P	C1 🔳	PC 4/Studio 2 PC	2 V PC 5/Studio	1 PC 3 📝 PC 6/Studio 2 P
DTMF Event Labels     GPIO	Audio Line Ass	ignment						
TTL	Studio	Name	Audio Line	Audio Interface		No Input Alarm	ON AIR Access	Custom Label
Relay	1	PRE 1	PRE TALK Keypad 1	Handset 1	-	No apor Aum	V	Custom Educa
Ember+	1	PRE 3	PRE TALK PC 1	IP Audio Stream 1	•		·▼ ·	
- System Settings General	1	PRE 4	PRE TALK PC 2	Dynamic	•		▼	
	1	PRE 7	PRE TALK PC 2	Dynamic	•		V	
VoIP (LAN/SIP)	1	AIR 1	ON AIR 1	XLR Analogue 1			1•	0
Audio Interface	1	AIR 2	ON AIR 2	AES/EBU 1 Left	•	<b>v</b>		ő
LAN Interface	2	PRE 2	PRE TALK Keypad 2	not used	-	1.	✓	Ū
VLAN DHD Audio Matrix	2	PRE 5	PRE TALK PC 1	IP Audio Stream 2	-			
Ember+ Provider	2	PRE 6	PRE TALK PC 2	Dynamic	•		<b>&gt;</b>	
SNMP	2	PRE 8	PRE TALK PC 3	Dynamic	•			
Quick Dials	2	AIR 3	ON AIR 1	XLR Analogue 2	•			0
Date and Time	2	AIR 4	ON AIR 2	AES/EBU 2 Left	•			0
Login	12	HLD	HOLD/Monitoring	not used	-	1		Ŵ
	1, 2	nuu	HOLD/Monitoling	not used				
	Caution: In	valid setting	gs are red! Settin	gs for this client have dar	rk gray b	background colour.	[	Default Settings
							l	bordak ookarigo
						OF	Abbrecher	Apply Now
						UP	Abbrecher	
		_			_	OK	Abbrecher	Apply Now
							Abbachas	- Acobi Monu
	Caution: In	valid setting	ps are red! Settin	gs for this client have dar	k gray b	packground colour.		Default Settings
					A			

#### **Two Studios Mode (2)**



- Under SYSTEM SETTINGS → LAN
   INTERFACE you can enter the UDP control ports for the PCs for Studio 1 and 2 or you can use the default settings 10000 -10005
- Please make sure you enter the correct Control Port for the PC workplaces in Studio 1 and Studio 2 when connecting the Windows PC Software to the system

**Two Stu** 

Confi	guration						
P	Operation Settings	LAN Interface					
	Mode & Audio Line HOLD Signal	Primary IP Address		Second IP Address	ш., сп.,	hird IP Address	
	- Signal Processing	DHCP					
	Line Labels Database	IP Address:	172.16.50.15	172.16.50.16		172.16.50.17	
	Night Service	Sub Net Mask:	255.255.0.0	255.255.0.0		255.255.0.0	
	DTMF Event Labels	Default Gateway:	172.16.1.1	192.168.1.3		192.168.1.3	
	GPIO	DNS Server:	192.168.1.2				
	TTL Relay						
	Ember+	Control UDP Port Addre	sses				
	Input	PC 1:	10000	PC 5:	10004		
	Output System Settings	PC 2:	10001	PC 6:	10005		
	General	PC 3:	10002				
	Line Interface	PC 4:	10003				
	VoIP (LAN/SIP) Audio Interface	104	10005				
	VLAN	PRETALK Streaming U	DP Ports				
	DHD Audio Matrix Ember+ Provider	Port 1:	5021	Port 4:	5024		
	SNMP	Port 2:	5022	Port 5:	5025		
	Quick Dials	Port 3:	023	Port 6:	5026		
	Date and Time Login	TOK 0.	010	TOR U.	0020		
	Parame Interfa IP Ad Port :	ace : <defa< th=""><th>8.50.21</th><th></th><th></th><th>•</th><th></th></defa<>	8.50.21			•	
			OK	Cance			×
			OK	Cance	1		
00	M O Port:	10000	(3				



- You can save all OPERATION SETTINGS in a Preset
  - MODE & AUDIO LINE
  - HOLD SIGNAL
  - SIGNAL PROCESSING
  - LINE LABELS
  - DATABASE
  - NIGHT SERVICE
  - DTMF EVENT LABELS
  - RELAY/TTL
- To get to the Preset menu, go to CONFIGURATION  $\rightarrow$  PRESETS
  - Create new Presets
  - Edit Presets
  - Delete Presets
  - Select a Preset
  - Import/Export Presets
- You can also select a Preset directly via the main window of the PC software with the button LOAD PRESET



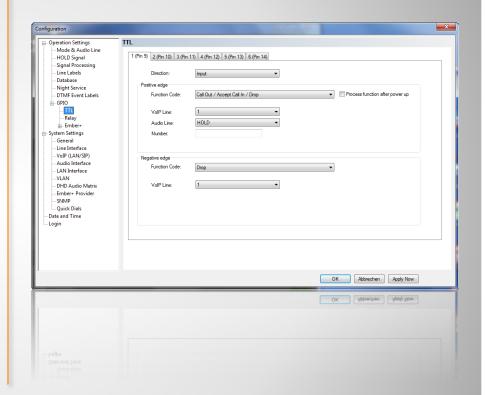


# External signalling and remote control

TTL Relay Ember+ DHD Set Logic



- The MAGIC TH6 offers six TTL contacts which can be programmed with pre-defined functions for external control via or signalling to e.g. a mixing console
- Select the desired TTL PIN by clicking on the corresponding tab
- Under DIRECTION you can select if you want to use the TTL contact as INPUT or OUTPUT
- If you are using a TTL INPUT, you can define a FUNCTION CODE for the POSITIVE EDGE as well as for the NEGATIVE EDGE (see example in Screenshot)
- If you are using a TTL OUTPUT, you can define a FUNCTION CODE for the POSITIVE EDGE







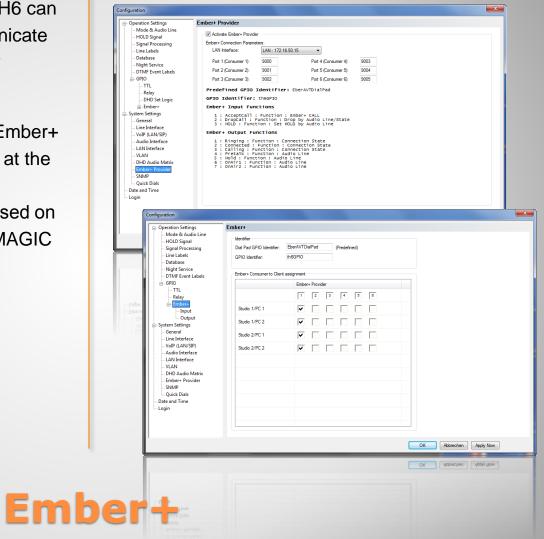
- The MAGIC TH6 offers four Relay contacts which can be programmed with pre-defined functions for external signalling to e.g. a mixing console
- Select the desired Relay Pin by clicking on the corresponding tab
- Under FUNCTION CODE you can select which status you want to signal

onfiguration	and the second se	×
	I (Pin 6+7) [2(Pin 8+15) [3(Pin 1+2)] 4 (Pin 3+4)] max 200 mA / 43 V Function Code: Cammedian Status   Uap Line: Any  Connection State: Incoming Cal	
Date and Time Login	OK Apprechen Apply Now	



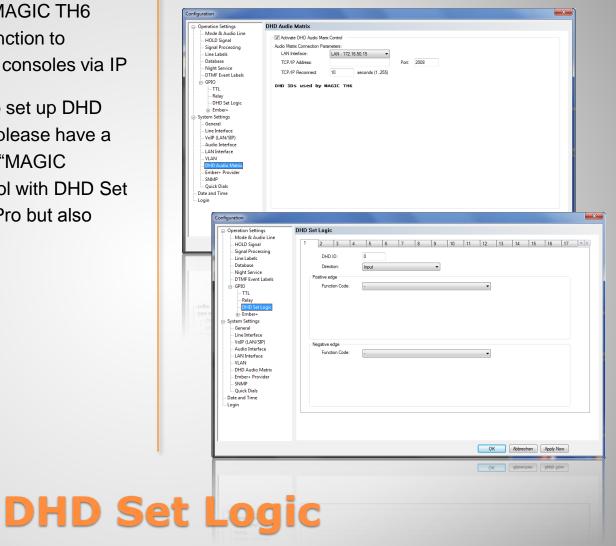


- From Software Version 2.300 MAGIC TH6 can be used as Ember+ Provider to communicate with e.g. Lawo mixing consoles or other consoles supporting Ember+ via IP
- For detailed instructions how to set up Ember+ for the MAGIC TH6, please have a look at the separate document "MAGIC THipPro – Signalling and control with Ember+" (based on MAGIC THipPro but also accounts for MAGIC TH6)





- From Software Version 2.300 MAGIC TH6 supports the DHD Set Logic function to communicate with DHD mixing consoles via IP
- For detailed instructions how to set up DHD Set Logic for the MAGIC TH6, please have a look at the separate document "MAGIC THipPro – Signalling and control with DHD Set Logic" (based on MAGIC THipPro but also accounts for MAGIC TH6)





# Maintenance

Firmware Update Activate Software Option System Monitor



- New software can be downloaded from <u>www.avt-nbg.de</u> under Downloads/Software
- A new software release usually consists of PC software and Firmware
- PC Software and Firmware are installed by executing the SETUP program
- The Firmware file TH6.SSW needs to be loaded on the MAGIC TH6 via the menu ADMINISTRATION → FIRMWARE DOWNLOAD
- The Firmware only works correctly with the corresponding PC Software
- The software versions can be displayed under VERSION

#### **Firmware Update**



Firmware Download	
th6.ssw	Browse
Start	Cancel
Progress :	
Start downloading	
	Close
	Close

- If you open the menu ADMINISTRATION → REGISTRATION you will find the serial number of the system
- You need this number if you want to purchase additional software options later on
- You will receive a licence with password which you need to enter under ENTER PASSWORD to enable the software option



Registration

Hardware

Year :

Features

Main

Subject Number : Factory Number :

Hardware Version : 2.00 MAC Address : 00-01

Software Options

V DTMF

✓ VolP
 ✓ HD Voice
 ✓ Number of PC licenses

Enter software option password

Password :

123456abcd

OK.

MAGIC TH6 Basic Functionality

Number of PRETALK Audio Streams 4

Enter password

Cancel

x

MAGIC TH6 POTS

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00-06-98-02-03-8C

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- The System Monitor shows you various possible system and application alarms
  - To open the system Monitor, double-click on the PC Online symbol in the upper right corner of the PC Software or go to the menu EXTRAS → SYSTEM MONITOR
  - GREEN = No alarm
  - YELLOW = Past alarm
  - RED = Current alarm

system	alarms			
•	0 LCA	•	0 Overheate	d
•	0 Time Keeper		0 MAIN EEPR	.OM
•	0 Temperature Sensor		0 Display Cor	ntrast DAC
•	0 FLASH EPROM	•	0 VCXO	
•	0 Ethernet MAC			
pplicat	ion alarms			
9	1 AES/EBU Framing Input 1	9	1 AES/EBU Fr	aming Input 2
ystem	State			
System	Temperature: 37 °C			
therne	t state	Abs. d	lata rates	
LAN 1	Link 100 MBit/s, full duple	ex TX:	9,7 kBit/s RX	: 6,0 kBit/s
P Audio	Streams			
•	Studio 1/PC 1		IP Stream 2	2
•	IP Stream 3	•	IP Stream 4	4
onnect	ed PCs			
Studio 1	/PC 1: 172.16.141.1			
	Alarm Counter Reset		Clo	se
	Alarm Counter Reset		Clo	
	Alarm Counter Reset		Clo	
			Clo	
	./PC 1: 172.16.141.1		CC0	
onnect	./PC 1: 172.16.141.1		Qo	

#### **System Monitor**



# Email: <u>support@avt-nbg.de</u>

# Telephone: +49 911 5271-160

# **Support requests**

