

# TU Studio Documentation

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*None*

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# 1. Introduction

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This documentation enables students, researchers and composers to work in the TU Studio with their own computer. The TU Studio consists of two separate studios:

- **E-N 324:** for production, classes and workshops
- **E-N 325:** for sound field synthesis and multichannel research and production

## 2. EN324

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### 2.1 E-N 324 Class Mode

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The *Large Studio* is used for production, classes and workshops.

#### Using The screen

- Connect with HDMI, set input with the remote
- Internal functions like drawing are not available or
- Download [EShare Pro](#)
- Connect Ethernet Cable to Laptop
- In EShare connect to CTOUCH Display-EN324
- Share Screen
- Drawing with overlays are possible

## 2.2 E-N 324 Intro

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The *Large Studio* is used for production, classes and workshops. The setup consists of two K&H o300 for stereo, 12-channel Neumann KH120 and a DB-Subwoofer.

## 2.3 E-N 324 Multichannel Mode

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### 2.3.1 Important

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- Make sure the power is turned off (power key 0) when leaving the studio
- Leave the place tidy (e.g. move table back, move chairs to the back)

### 2.3.2 Quickguide with Studio Interface

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1. Turn the power key to I (beside the door)
2. Turn on the rack below the [midas mixer](#) (switch is on the bottom left)
3. Load the desired scene with the [midas mixer](#)
  - a. Press scenes
  - b. Press right-arrow key
  - c. scroll with left knobs to the scene
  - d. load the scene by pressing the left knob
4. Press DCA Button which shows the master fader
5. Roll the white table to the desired position (be careful not to roll over cable)
6. Connect to the AES50-USB interface
  - Linux and Mac work without driver
  - [Windows user can download a driver](#)
  - The Mixer can be [remote controlled](#) when connected to ethernet.
7. Turn on the speaker by pressing "Lautsprecher 1" and "Lautsprecher 2" on the control panel
  - The Neumann speaker should now glow slightly
  - Also turn on the subwoofer amplifier
8. Volume adjustment
  - DCA-4 for all speakers
  - Main for K&H speakers

### 2.3.3 Volume adjustment

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Volume adjustment is done with the DCA faders.

### 2.3.4 Scenes

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- 12-channel standard
- in 1-12 -> KH120 1-12
- with crossover to sub
- in 13 -> Sub
- in 15-16 -> A&H Mixer -> K&H Stereo
- 12+1-channel
- same as above but no crossover

### 2.3.5 Tips and troubleshooting

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## 2.4 E-N 324 Stereo Mode

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### 2.4.1 Important

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- Make sure the power is turned off (power key 0) when leaving the studio
- Leave the place tidy (e.g. move table back, move chairs to the back)

#### **Easymode**

1. Turn the power key to I (beside the door)
2. Place the brown table at desired position
3. Connect your Laptop to the mixer using the jack cable
4. Adjust the volume of the corresponding channel
5. Adjust the main volume
6. Start playing

#### **TIPS AND TROUBLESHOOTING**

- If you don't hear anything
- make sure the K&H speakers are turned on
- If the fan noises are irritating
- the rack can be turned of with the switch on the bottom of it
- the subwoofer amplifier can be turned off too.

## 3. EN325

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### 3.1 E-N 325 Intro

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The *Small Studio* is equipped with a combined WFS/Ambisonics sound field synthesis system for production and research, alongside an eight channel loudspeaker setup for regular production. The Octa Mode can be used by regular guests with their own computer and an interface provided by the studio. The sound field synthesis system involves additional TU machines and can only be used by instructed users.



## 3.2 E-N 325 Octa Mode

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### 3.2.1 Important

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- Make sure the power is turned off (power key 0) when leaving the studio
- Leave the place tidy (e.g. move table back, move chairs to the back)

### 3.2.2 Quickguide Octachannel System

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1. Turn the power key to I (beside the door)
2. Plugin USB-MADIface
  - Options -> Reset Mix -> Straight Playback (when connected the first time)
  - Outputfader can be linked to create a "masterfader"
  - Make sure the faders are not set to 0 dB. This is very loud! Start from low levels!
3. In the machineroom set MADI-Bridge
  - Out 8 <- In 7 (Madiface Direct)
4. Turn on the speakers by pressing "Lautsprecher 1" and "Lautsprecher 2" on the control terminal
5. Play back audio through the MADIface USB
  - The HEDD speakers are on channel 25-32

## 3.3 E-N 325 Seamless Mode

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### 3.3.1 Important

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- Turn off the WFS-Panels when leaving
- Make sure the power is turned off (power key 0) when leaving the studio
- Leave the place tidy (e.g. move table back, move chairs to the back)

### 3.3.2 Quickguide Seamless System

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1. Turn the power key to I (beside the door)
2. Plugin USB-MADIface
  - Options -> Reset Mix -> Straight Playback (when connected the first time)
  - Outputfader can be linked to create a "masterfader"
3. In the machineroom turn on
  - Riviera: OscRouter, Ambisonics, WFS 1-64
  - Wintermute: WFS 65-192
  - Taunus: Dante-Madi Conversion
4. In the machineroom set MADI-Bridge
  - Out 8 <- In 7 (Madiface Direct)
  - Out 8 <- In 1 (seamless mode)
5. Turn on
  - Ambisonics speaker with switch besides the door
  - WFS-Panels with switches under the Dante-Network switch
6. The seamless system is controled via OSC e.g. with the seamless plugins
  - ip-address: xxx.xxx.xxx.24
  - port (oscrouter): 4455
  - port (reverb/master): 57120
7. play audio through madiface
  - 1-32 Sources
  - 33-36 Ambisonics 1st Order
  - 37-52 Ambisonics 3rd Order
  - 53 LFE direct

## 4. Templates and Configs

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### 4.1 Config Files

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#### 4.1.1 IEM Decoder

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[http://ringbuffer.org/download/config/TU\\_Studio/](http://ringbuffer.org/download/config/TU_Studio/)