

Inhaltsverzeichnis

1. TCE Tinycore Linux Project englisch	16
2. Benutzer:OE2WAO	8
3. Geeignete Soundkarten	11
4. TCE Tinycore Linux Projekt	22

TCE Tinycore Linux Project englisch

[Versionsgeschichte interaktiv durchsuchen](#)

[Visuell Wikitext](#)

Version vom 30. April 2013, 10:28 Uhr (Quelle anzeigen)

[OE2WAO](#) ([Diskussion](#) | [Beiträge](#))
([→Hardware](#))

[← Zum vorherigen Versionsunterschied](#)

Aktuelle Version vom 8. Januar 2023, 15:01 Uhr (Quelle anzeigen)

[OE2WAO](#) ([Diskussion](#) | [Beiträge](#))
Markierung: [Visuelle Bearbeitung](#)

(12 dazwischenliegende Versionen desselben Benutzers werden nicht angezeigt)

Zeile 1:

==Intro==

[[Bild:PPC.jpg|thumb|500MHz LowPower industrial PC]]

This hamradio software project is based on [http://www.tinycorelinux.com TCE - Tinycore Linux], an embedded software system used on platforms like industrial pc, ALIX and others, and offers **services and possibilities like**

– ***packet radio,**

– ***APRS,**

– ***lightning log,**

– ***small webserver,**

– ***SVX-Link (Echolink)**

Zeile 1:

[[Datei:Deutschland-flagge.gif]] Für die deutsche Version dieses Projekts [[TCE Tinycore Linux Projekt | >>hier klicken<<]]

==Intro==

[[Bild:PPC.jpg|thumb|500MHz LowPower industrial PC]]

This hamradio software project is based on [http://www.tinycorelinux.com TCE - Tinycore Linux], an embedded software system used on platforms like industrial pc, ALIX and others, and offers

*** Packet Radio - (multichannel /multibaud e.g. 1k2 2k4 4k8 9k6..)**

***APRS - UDPGATE (IGATE, also multibaud, e.g. 1k2 and 9k6)**

***LoRa APRS (NEW!) incl. Mic-E**

***SAMNET**

***lightning detection**

***Radiosondes RX (weather balloon tracker)**

***small web servers**

***Weather station with different sensors**

	+ + + +	*SVX Link (Echolink) *WINLINK Global Radio Email (RMS Packet) *Switching and measuring center
especially in networks like HAMNET and similar. 		especially in networks like HAMNET and similar.
One goal is a minimum on material expenditure and also a minimal current consumption, followed by a maximum of features		One goal is a minimum on material expenditure and also a minimal current consumption, followed by a maximum of features
More information on the hamradio TCE - tinycore linux project coming here soon		More information on the hamradio TCE - tinycore linux project coming here soon
-		
==Hardware==		==Hardware==
[[Bild:12v-anschluss.jpg thumb polarity industrial PC]]		[[Bild:12v-anschluss.jpg thumb polarity industrial PC]]
DH2IW Wolfgang, OE2WAO Mike and OE5DXL Chris are doing first experiments with discarded industrial pc hardware, a 500MHz AMD Geode CPU with up to 256MB of RAM, and a minimal power input of <5Watt (for remaining stock ask [http://www.oe2wao.info OE2WAO]). 	+ + + +	DH2IW Wolfgang, OE2WAO Mike and OE5DXL Chris are doing experiments with discarded industrial pc hardware, a 500MHz AMD Geode CPU with up to 256MB of RAM, and a minimal power input of <5Watt (for remaining stock ask [http://www.oe2wao.info OE2WAO]).
The operating system is placed on a CF memory card (>32MB). 		
A USB soundcard is used for AFSK mods. One special character of working devices is a 3rd connector beside microphone and line out, the line in. Because these device are real stereo and make it possible to operate two separate channels on one sound card.	+ + + +	But every other hardware platform like ALIX, Raspberry Pi or similar will do.

+

The operating system is placed on a CF /SD memory card (>32MB).

===Connections and conversion of the used industrial pc===

+

If available the internal, or in other cases an USB soundcard is used for operating AFSK/FSK modulation. One special character of working devices is a 3rd connector beside microphone and line out, the line in. Because these device are real stereo and make it possible to operate two separate channels even on one sound card.

+

+

===Connections and conversion of **our** used industrial **PC**===

[[Bild:12v-umbau.jpg|thumb|power supply conversion 12V]]

[[Bild:12v-umbau.jpg|thumb|power supply conversion 12V]]

There are several connectors (COM, USB, network) on the frontside of our panels, as you can see. For correct polarity it is important to connect the + pole to the right pin of the 3pol power supply connector, the pin which is closer to the USB ports. The negative pole is the left pin.

There are several connectors (COM, USB, network) on the frontside of our panels, as you can see. For correct polarity it is important to connect the + pole to the right pin of the 3pol power supply connector, the pin which is closer to the USB ports. The negative pole is the left pin.

Zeile 27:

That we can use it with our 12V power supply, we have to do a little modification. Just add a 270k Ohm resistor on the bottom side of the power supply as shown in the picture.

Zeile 37:

That we can use it with our 12V power supply, we have to do a little modification. Just add a 270k Ohm resistor on the bottom side of the power supply as shown in the picture.

===soundcard===

+

===Soundcard===

If there is no onboard sound available, you can use a USB soundcard instead. Suggested types you can find [\[\[Geeignete Soundkarten|here\]\]](#).

If there is no onboard sound available, you can use a USB soundcard instead. Suggested types you can find [\[\[Geeignete Soundkarten|here\]\]](#).

==Software==

==Software==

-	A ready-to-use software image is located on the [http://www.oe2wao.info/tce OE2WAO Server] (e.g. tc455x-128.zip means version 4.55 with GUI on 128MB data drive)	+	A ready-to-use software image is located on the [http://www.oe2wao.info/tce OE2WAO Server] (e.g. tc455x-128.zip means version 4.55 with GUI on 128MB data drive)

		+	There is also a version for raspberry pi hardware in test, and available soon.
		+	
		+	DL1NUX has created a wiki on installation and operating the dxlToolchain http://dxlwiki.dl1nux.de/ (german)
		+	===Software schematic===
		+	[[Datei:Udpboxs.jpg]]
	==Help==		==Help==
-	If you need help on configuring the software packages you can contact OE5DXL on packet radio convers channel 4 or 4711.	+	If you need help on configuring the software packages you can contact OE5DXL on packet radio convers channel 5 01.

Aktuelle Version vom 8. Januar 2023, 15:01 Uhr



Für die deutsche Version dieses Projekts >>[hier klicken](#)<<

Inhaltsverzeichnis

1	Intro	20
2	Hardware	20
2.1	Connections and conversion of our used industrial PC	20
2.2	Soundcard	21
3	Software	21
3.1	Software schematic	21
4	Help	21

Intro

This hamradio software project is based on [TCE - Tinycore Linux](#), an embedded software system used on platforms like industrial pc, ALIX and others, and offers

- Packet Radio - (multichannel/multibaud e. g. 1k2 2k4 4k8 9k6..)
- APRS - UDPGATE (IGATE, also multibaud, e. g. 1k2 and 9k6)
- LoRa APRS (NEW!) incl. Mic-E
- SAMNET
- lightning detection
- Radiosondes RX (weather balloon tracker)
- small web servers
- Weather station with different sensors
- SVX Link (Echolink)
- WINLINK Global Radio Email (RMS Packet)
- Switching and measuring center

especialy in networks like HAMNET and similar.

One goal is a minimum on material expenditure and also a minimal current consumption, followed by a maximum of features

More information on the hamradio TCE - tinycore linux project coming here soon



500MHz LowPower industrial PC

Hardware

DH2IW Wolfgang, OE2WAO Mike and OE5DXL Chris are doing experiments with discarded industrial pc hardware, a 500MHz AMD Geode CPU with up to 256MB of RAM, and a minimal power input of <5Watt (for remaining stock ask [OE2WAO](#)).

But every other hardware platform like ALIX, Raspberry Pi or similar will do.

The operating system is placed on a CF/SD memory card (>32MB).



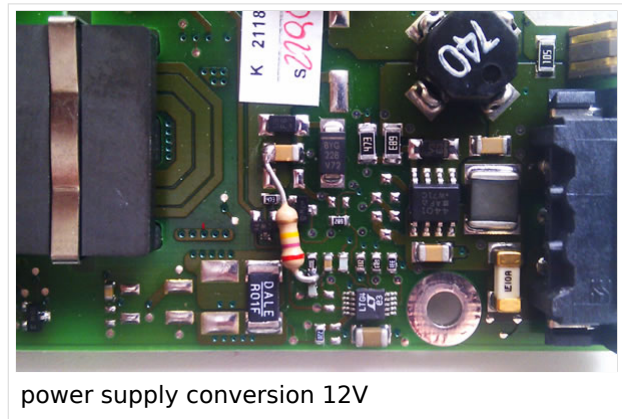
polarity industrial PC

If available the internal, or in other cases an USB soundcard is used for operating AFSK/FSK modulation. One special character of working devices is a 3rd connector beside microphone and line out, the line in. Because these device are real stereo and make it possible to operate two separate channels even on one sound card.

Connections and conversion of our used industrial PC

There are several connectors (COM, USB, network) on the frontside of our panels, as you can see. For correct polarity it is important to connect the + pole to the right pin of the 3pol power supply connector, the pin which is closer to the USB ports. The negative pole is the left pin.

The normal board supply is 24V. That we can use it with our 12V power supply, we have to do a little modification. Just add a 270k Ohm resistor on the bottom side of the power supply as shown in the picture.



Soundcard

If there is no onboard sound available, you can use a USB soundcard instead. Suggested types you can find [here](#).

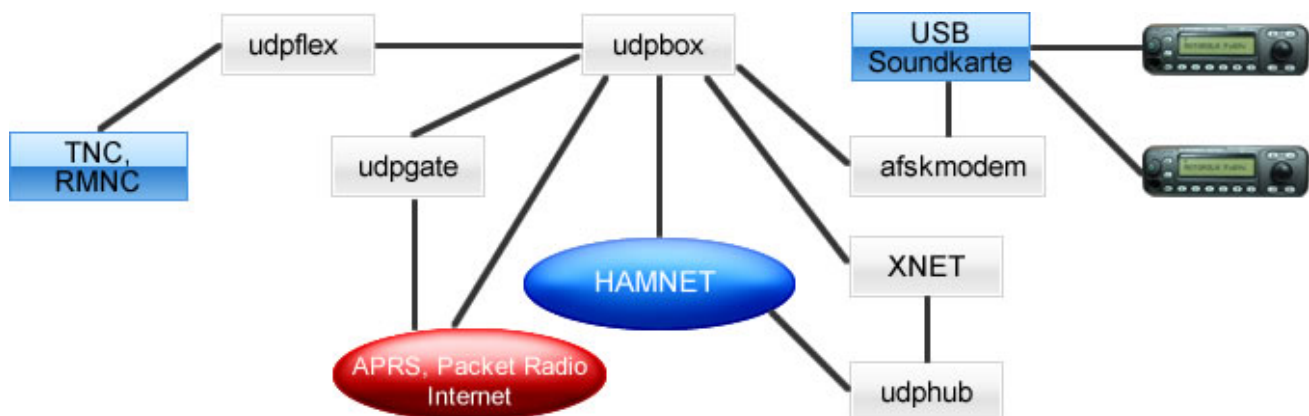
Software

A ready-to-use software image is located on the [OE2WAO Server](#) (e.g. tc455x-128.zip means version 4.55 with GUI on 128MB data drive)

There is also a version for raspberry pi hardware in test, and available soon.

DL1NIX has created a wiki on installation and operating the dxlToolchain <http://dxlwiki.dl1nux.de/> (german)

Software schematic



Help

If you need help on configuring the software packages you can contact OE5DXL on packet radio convers channel 501.

TCE Tinycore Linux Project englisch und Benutzer:OE2WAO: Unterschied zwischen den Seiten

VisuellWikitext

Version vom 30. April 2013, 10:28 Uhr (Quelltext anzeigen)
OE2WAO (Diskussion | Beiträge)
(→Hardware)

Aktuelle Version vom 9. August 2020, 23:41 Uhr (Quelltext anzeigen)
OE2WAO (Diskussion | Beiträge)
(Die Seite wurde neu angelegt:
„https://oe2wao.info“)

Zeile 1:

– **==Intro==**

– **[[Bild:PPC.jpg|thumb|500MHz LowPower industrial PC]]**

– **This hamradio software project is based on [http://www.tinycorelinux.com TCE - Tinycore Linux], an embedded software system used on platforms like industrial pc, ALIX and others, and offers services and possibilities like**

– ***packet radio,**

– ***APRS,**

– ***lightning log,**

– ***small webserver,**

– ***SVX-Link (Echolink)**

– **especialy in networks like HAMNET and similar.
**

– **One goal is a minimum on material expenditure and also a minimal current consumption, followed by a maximum of features**

–

– **More information on the hamradio TCE - tinycore linux project coming here soon**

–

–

Zeile 1:

+ **https://oe2wao.info**

- **==Hardware==**
- **[[Bild:12v-anschluss.jpg|thumb|polarity industrial PC]]**
- **DH2IW Wolfgang, OE2WAO Mike and OE5DXL Chris are doing first experiments with discarded industrial pc hardware, a 500MHz AMD Geode CPU with up to 256MB of RAM, and a minimal power input of <5Watt (for remaining stock ask [<http://www.oe2wao.info> OE2WAO]).
**
- **The operating system is placed on a CF memory card (>32MB).
**
-
- **A USB soundcard is used for AFSK mods. One special character of working devices is a 3rd connector beside microphone and line out, the line in. Because these device are real stereo and make it possible to operate two separate channels on one sound card.**
-
- **===Connections and conversion of the used industrial pc===**
- **[[Bild:12v-umbau.jpg|thumb|power supply conversion 12V]]**
- **There are several connectors (COM, USB, network) on the frontside of our panels, as you can see. For correct polarity it is important to connent the + pole to the right pin of the 3pol power supply connector, the pin which is closer to the USB ports. The negative pole is the left pin.
**
-
- **The normal board supply is 24V.
**

– That we can use it with our 12V power supply, we have to do a little modification. Just add a 270k Ohm resistor on the bottom side of the power supply as shown in the picture.

–

– ===soundcard===

– If there is no onboard sound available, you can use a USB soundcard instead. Suggested types you can find [[Geeignete Soundkarten|here]].

–

– ==Software==

– A ready-to-use software image is located on the [http://www.oe2wao.info/tce OE2WAO Server] (e.g. tc455x-128.zip means version 4.55 with GUI on 128MB data drive)

–

–

– ==Help==

–

– If you need help on configuring the software packages you can contact OE5DXL on packet radio convers channel 44 or 4711.

Aktuelle Version vom 9. August 2020, 23:41 Uhr

<https://oe2wao.info>

TCE Tinycore Linux Project englisch und Geeignete Soundkarten: Unterschied zwischen den Seiten

VisuellWikitext

Version vom 30. April 2013, 10:28 Uhr (Quelltext anzeigen)
OE2WAO (Diskussion | Beiträge)
(→Hardware)

Aktuelle Version vom 19. September 2014, 15:15 Uhr (Quelltext anzeigen)
OE2LSP (Diskussion | Beiträge)
(→Einkanal Karten (Mono))

Zeile 1:		Zeile 1:	
-	==Intro==	+	Nachfolgend eine Auflistung geeigneter USB Soundkarten für das TCE Projekt.
-	[[Bild:PPC.jpg thumb 500MHz LowPower industrial PC]]	+	Der Begriff Mono bzw. Stereo bezieht sich in unserem Fall auf den Line-In Eingang der Soundkarte.
-	This hamradio software project is based on [http://www.tinycorelinux.com TCE - Tinycore Linux], an embedded software system used on platforms like industrial pc, ALIX and others, and offers services and possibilities like	+	"The term MONO or STEREO in our case refers to the line-in input of the soundcard."
-	*packet radio,		
-	*APRS,		
-	*lightning log,		
-	*small webserver,		
-	*SVX-Link (Echolink)		
-	especialy in networks like HAMNET and similar. 		
-	One goal is a minimum on material expenditure and also a minimal current consumption, followed by a maximum of features		
-	More information on the hamradio TCE - tinycore linux project coming here soon	+	==Einkanal Karten (Mono)==

			+ Diese Karten sind geeignet für Anlagen mit nur einer geplanten Betriebsart am TCE.

			+ "These cards are suitable for systems with only one mode of operation envisaged in the TCE."
			+ [[Bild:Usb-sound1.jpg USB Soundkarte]]
			+ [[Bild:Usb-sound2.jpg USB Soundkarte]]
-	==Hardware==	+	==Zweikanal Karten (Stereo)==
	[[Bild:12v-anschluss.jpg thumb polarity industrial PC]]		Diese Karten sind geeignet für Anlagen mit einer geplanten Betriebsart auf zwei unterschiedlichen Geräten, oder generell für zwei verschiedene Betriebsarten (APRS + Packet Radio) am TCE. So wird dann bspw. auf dem linken LS Kanal Packet Radio mit 1k2 und 9k6 gearbeitet, und der rechte LS Kanal ist für APRS (analog dazu der stereo Line-In).

-		+	
-	DH2IW Wolfgang, OE2WAO Mike and OE5DXL Chris are doing first experiments with discarded industrial pc hardware, a 500MHz AMD Geode CPU with up to 256MB of RAM, and a minimal power input of <5Watt (for remaining stock ask [http://www.oe2wao.info OE2WAO]). 	+	"These cards are suitable for systems with a planned operation on two different devices, or generally for two different modes (APRS + Packet Radio) on TCE. So then, for example, on the left speaker channel packet radio with 1k2 and 9k6, and on the right speaker channel APRS (analogous the stereo line-in)."
-	The operating system is placed on a CF memory card (>32MB). 		
			[[Bild:Usb-sounds1.jpg USB Soundkarte]]

- A USB soundcard is used for AFSK mods. One special character of working devices is a 3rd connector beside microphone and line out, the line in. Because these device are real stereo and make it possible to operate two separate channels on one sound card.	+	
	+	[[Bild:Usb-sounds2.jpg USB Soundkarte]]
- ===Connections and conversion of the used industrial pc===	+	==Nicht geeignete Karten==
- [[Bild:12v-umbau.jpg thumb power supply conversion 12V]]	+	Diese Karten sind aufgrund der unzureichenden Eingangskreise nicht bzw. nur bedingt nach Umbau verwendbar.

- There are several connectors (COM, USB, network) on the frontside of our panels, as you can see. For correct polarity it is important to connent the + pole to the right pin of the 3pol power supply connector, the pin which is closer to the USB ports. The negative pole is the left pin.
	+	"These cards are NOT suitable due to insufficient input circuits."
- The normal board supply is 24V.
	+	[[Bild:Usb-sound0.jpg USB Soundkarte]]
- That we can use it with our 12V power supply, we have to do a little modification. Iust add a 270k Ohm resistor on the bottom side of the power supply as shown in the picture.	+	[[Bild:Usb-sound3.jpg USB Soundkarte]]
- ===soundcard===		
- If there is no onboard sound available, you can use a USB soundcard instead. Suggested types you can find [[Geeignete Soundkarten here]].		

-
- **==Software==**
- **A ready-to-use software image is located on the [http://www.oe2wao.info/tce OE2WAO Server] (e.g. tc455x-128.zip means version 4.55 with GUI on 128MB data drive)**
-
-
- **==Help==**
-
- **If you need help on configuring the software packages you can contact OE5DXL on packet radio convers channel 44 or 4711.**

Aktuelle Version vom 19. September 2014, 15:15 Uhr

Nachfolgend eine Auflistung geeigneter USB Soundkarten für das TCE Projekt.
Der Begriff Mono bzw. Stereo bezieht sich in unserem Fall auf den Line-In Eingang der Soundkarte.

The term MONO or STEREO in our case refers to the line-in input of the soundcard.

Einkanal Karten (Mono)

Diese Karten sind geeignet für Anlagen mit nur einer geplanten Betriebsart am TCE.
These cards are suitable for systems with only one mode of operation envisaged in the TCE.



Zweikanal Karten (Stereo)

Diese Karten sind geeignet für Anlagen mit einer geplanten Betriebsart auf zwei unterschiedlichen Geräten, oder generell für zwei verschiedene Betriebsarten (APRS + Packet Radio) am TCE. So wird dann bspw. auf dem linken LS Kanal Packet Radio mit 1k2 und 9k6 gearbeitet, und der rechte LS Kanal ist für APRS (analog dazu der stereo Line-In).

These cards are suitable for systems with a planned operation on two different devices, or generally for two different modes (APRS + Packet Radio) on TCE. So then, for example, on the left speaker channel packet radio with 1k2 and 9k6, and on the right speaker channel APRS (analogous the stereo line-in).



Nicht geeignete Karten

Diese Karten sind aufgrund der unzureichenden Eingangskreise nicht bzw. nur bedingt nach Umbau verwendbar.

These cards are NOT suitable due to insufficient input circuits.



TCE Tinycore Linux Project englisch: Unterschied zwischen den Versionen

[Versionsgeschichte interaktiv durchsuchen](#)

[Visuell Wikitext](#)

Version vom 30. April 2013, 10:28 Uhr (Quelltext anzeigen)

[OE2WAO](#) ([Diskussion](#) | [Beiträge](#))
([→Hardware](#))

[← Zum vorherigen Versionsunterschied](#)

Aktuelle Version vom 8. Januar 2023, 15:01 Uhr (Quelltext anzeigen)

[OE2WAO](#) ([Diskussion](#) | [Beiträge](#))
Markierung: [Visuelle Bearbeitung](#)

(12 dazwischenliegende Versionen desselben Benutzers werden nicht angezeigt)

Zeile 1:

==Intro==

[[Bild:PPC.jpg|thumb|500MHz LowPower industrial PC]]

– This hamradio software project is based on [http://www.tinycorelinux.com TCE - Tinycore Linux], an embedded software system used on platforms like industrial pc, ALIX and others, and offers **services and possibilities like**

– ***packet radio,**

– ***APRS,**

– ***lightning log,**

– ***small webserver,**

– ***SVX-Link (Echolink)**

Zeile 1:

[[Datei:Deutschland-flagge.gif]] Für die deutsche Version dieses Projekts [[TCE Tinycore Linux Projekt | >>hier klicken<<]]

==Intro==

[[Bild:PPC.jpg|thumb|500MHz LowPower industrial PC]]

+ This hamradio software project is based on [http://www.tinycorelinux.com TCE - Tinycore Linux], an embedded software system used on platforms like industrial pc, ALIX and others, and offers

+ *** Packet Radio - (multichannel /multibaud e.g. 1k2 2k4 4k8 9k6..)**

+ ***APRS - UDPGATE (IGATE, also multibaud, e.g. 1k2 and 9k6)**

+ ***LoRa APRS (NEW!) incl. Mic-E**

+ ***SAMNET**

+ ***lightning detection**

+ ***Radiosondes RX (weather balloon tracker)**

+ ***small web servers**

+ ***Weather station with different sensors**

					+ *SVX Link (Echolink)
					+ *WINLINK Global Radio Email (RMS Packet)
					+ *Switching and measuring center
					+
	especialy in networks like HAMNET and similar. 				especialy in networks like HAMNET and similar.
	One goal is a minimum on material expenditure and also a minimal current consumption, followed by a maximum of features				One goal is a minimum on material expenditure and also a minimal current consumption, followed by a maximum of features
	More information on the hamradio TCE - tinycore linux project coming here soon				More information on the hamradio TCE - tinycore linux project coming here soon
-					
	==Hardware==				==Hardware==
	[[Bild:12v-anschluss.jpg thumb polarity industrial PC]]				[[Bild:12v-anschluss.jpg thumb polarity industrial PC]]
-	DH2IW Wolfgang, OE2WAO Mike and OE5DXL Chris are doing first experiments with discarded industrial pc hardware, a 500MHz AMD Geode CPU with up to 256MB of RAM, and a minimal power input of <5Watt (for remaining stock ask [http://www.oe2wao.info OE2WAO]). 				DH2IW Wolfgang, OE2WAO Mike and OE5DXL Chris are doing experiments with discarded industrial pc hardware, a 500MHz AMD Geode CPU with up to 256MB of RAM, and a minimal power input of <5Watt (for remaining stock ask [http://www.oe2wao.info OE2WAO]).
-	The operating system is placed on a CF memory card (>32MB). 				
-	A USB soundcard is used for AFSK mods. One special character of working devices is a 3rd connector beside microphone and line out, the line in. Because these device are real stereo and make it possible to operate two separate channels on one sound card.				But every other hardware plattform like ALIX, Raspberry Pi or similar will do.

+

The operating system is placed on a CF /SD memory card (>32MB).

===Connections and conversion of the used industrial pc===

+

If available the internal, or in other cases an USB soundcard is used for operating AFSK/FSK modulation. One special character of working devices is a 3rd connector beside microphone and line out, the line in. Because these device are real stereo and make it possible to operate two separate channels even on one sound card.

+

+

===Connections and conversion of **our** used industrial **PC**===

[[Bild:12v-umbau.jpg|thumb|power supply conversion 12V]]

[[Bild:12v-umbau.jpg|thumb|power supply conversion 12V]]

There are several connectors (COM, USB, network) on the frontside of our panels, as you can see. For correct polarity it is important to connect the + pole to the right pin of the 3pol power supply connector, the pin which is closer to the USB ports. The negative pole is the left pin.

There are several connectors (COM, USB, network) on the frontside of our panels, as you can see. For correct polarity it is important to connect the + pole to the right pin of the 3pol power supply connector, the pin which is closer to the USB ports. The negative pole is the left pin.

Zeile 27:

That we can use it with our 12V power supply, we have to do a little modification. Just add a 270k Ohm resistor on the bottom side of the power supply as shown in the picture.

Zeile 37:

That we can use it with our 12V power supply, we have to do a little modification. Just add a 270k Ohm resistor on the bottom side of the power supply as shown in the picture.

===soundcard===

+

===Soundcard===

If there is no onboard sound available, you can use a USB soundcard instead. Suggested types you can find [\[\[Geeignete Soundkarten|here\]\]](#).

If there is no onboard sound available, you can use a USB soundcard instead. Suggested types you can find [\[\[Geeignete Soundkarten|here\]\]](#).

==Software==

==Software==

A ready-to-use software image is located on the [http://www.oe2wao.info/tce OE2WAO Server] (e.g. tc455x-128.zip means version 4.55 with GUI on 128MB data drive)	A ready-to-use software image is located on the [http://www.oe2wao.info/tce OE2WAO Server] (e.g. tc455x-128.zip means version 4.55 with GUI on 128MB data drive)

	There is also a version for raspberry pi hardware in test, and available soon.
	DL1NUX has created a wiki on installation and operating the dxiToolchain http://dxlwiki.dl1nux.de/ (german)
	===Software schematic===
	[[Datei:Udpboxs.jpg]]
==Help==	==Help==
If you need help on configuring the software packages you can contact OE5DXL on packet radio convers channel 4 or 4711.	If you need help on configuring the software packages you can contact OE5DXL on packet radio convers channel 5 01.

Aktuelle Version vom 8. Januar 2023, 15:01 Uhr



Für die deutsche Version dieses Projekts >>hier klicken<<

Inhaltsverzeichnis

1	Intro	20
2	Hardware	20
2.1	Connections and conversion of our used industrial PC	20
2.2	Soundcard	21
3	Software	21
3.1	Software schematic	21
4	Help	21

Intro

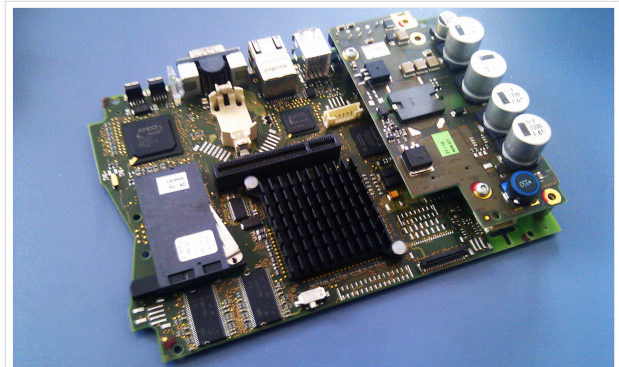
This hamradio software project is based on [TCE - Tinycore Linux](#), an embedded software system used on platforms like industrial pc, ALIX and others, and offers

- Packet Radio - (multichannel/multibaud e. g. 1k2 2k4 4k8 9k6..)
- APRS - UDPGATE (IGATE, also multibaud, e. g. 1k2 and 9k6)
- LoRa APRS (NEW!) incl. Mic-E
- SAMNET
- lightning detection
- Radiosondes RX (weather balloon tracker)
- small web servers
- Weather station with different sensors
- SVX Link (Echolink)
- WINLINK Global Radio Email (RMS Packet)
- Switching and measuring center

especialy in networks like HAMNET and similar.

One goal is a minimum on material expenditure and also a minimal current consumption, followed by a maximum of features

More information on the hamradio TCE - tinycore linux project coming here soon



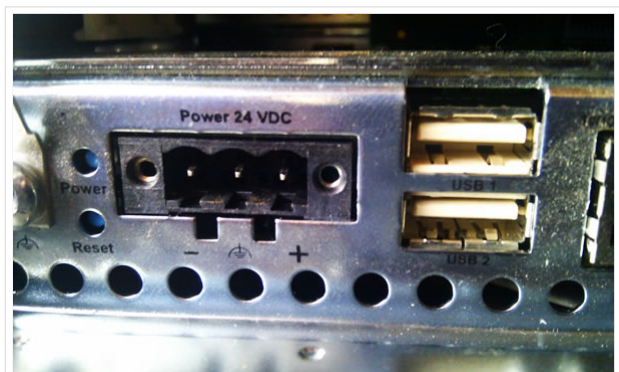
500MHz LowPower industrial PC

Hardware

DH2IW Wolfgang, OE2WAO Mike and OE5DXL Chris are doing experiments with discarded industrial pc hardware, a 500MHz AMD Geode CPU with up to 256MB of RAM, and a minimal power input of <5Watt (for remaining stock ask [OE2WAO](#)).

But every other hardware platform like ALIX, Raspberry Pi or similar will do.

The operating system is placed on a CF/SD memory card (>32MB).



polarity industrial PC

If available the internal, or in other cases an USB soundcard is used for operating AFSK/FSK modulation. One special character of working devices is a 3rd connector beside microphone and line out, the line in. Because these device are real stereo and make it possible to operate two separate channels even on one sound card.

Connections and conversion of our used industrial PC

There are several connectors (COM, USB, network) on the frontside of our panels, as you can see. For correct polarity it is important to connect the + pole to the right pin of the 3pol power supply connector, the pin which is closer to the USB ports. The negative pole is the left pin.

The normal board supply is 24V. That we can use it with our 12V power supply, we have to do a little modification. Just add a 270k Ohm resistor on the bottom side of the power supply as shown in the picture.



Soundcard

If there is no onboard sound available, you can use a USB soundcard instead. Suggested types you can find [here](#).

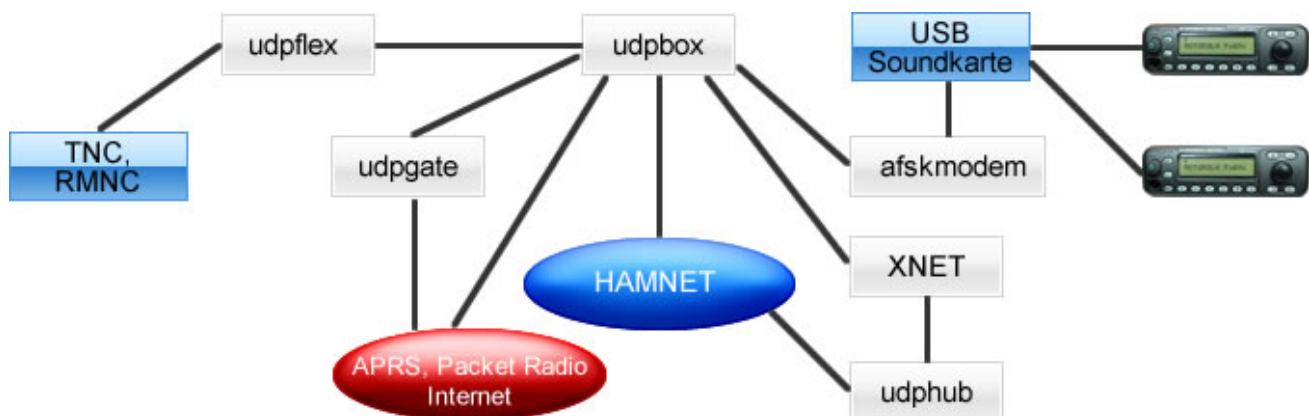
Software

A ready-to-use software image is located on the [OE2WAO Server](#) (e.g. tc455x-128.zip means version 4.55 with GUI on 128MB data drive)

There is also a version for raspberry pi hardware in test, and available soon.

DL1NIX has created a wiki on installation and operating the dxlToolchain <http://dxlwiki.dl1nux.de/> (german)

Software schematic



Help

If you need help on configuring the software packages you can contact OE5DXL on packet radio convers channel 501.

TCE Tinycore Linux Project englisch und TCE Tinycore Linux Projekt: Unterschied zwischen den Seiten

VisuellWikitext

Version vom 30. April 2013, 10:28 Uhr (Quelltext anzeigen)
OE2WAO (Diskussion | Beiträge)
(→Hardware)

Aktuelle Version vom 8. Januar 2023, 14:52 Uhr (Quelltext anzeigen)
OE2WAO (Diskussion | Beiträge)
Markierung: Visuelle Bearbeitung

Zeile 1:	Zeile 1:
- ==Intro==	+ [[Kategorie:Digitaler Backbone]]
- [[Bild:PPC.jpg thumb 500MHz LowPower industrial PC]]	+ [[Kategorie:Digitale_Betriebsarten]]
- This hamradio software project is based on [http://www.tinycorelinux.com TCE - Tinycore Linux], an embedded software system used on plattformen like industrial pc, ALIX and others, and offers services and possibilities like	+ [[Kategorie:APRS]]
- *packet radio,	+ [[Kategorie:Packet-Radio und I-Gate]]
- *APRS,	+
- *lightning log,	+ [[Datei:Englisch.jpg]] For english version on this project [[TCE Tinycore Linux Project englisch >>click here<<]]
- *small webserver,	+
	+ ==Einleitung==
	+ [[Bild:PPC.jpg thumb 500MHz LowPower Industrie PC]]
	+ Hierbei handelt es sich um eine Amateurfunk Toolchain, welche bpsw. unter Einsatz von [http://www.tinycorelinux.com TCE - Tinycore Linux] auf Embedded System wie Industrie PC, ALIX u.d.g. Services wie
	+
	+ *[[[:Kategorie:Packet-Radio und I-Gate Packet Radio]] - "(Multibaud bspw. 1k2 2k4 4k8 9k6..)"

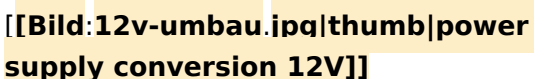
- | | | |
|---|--|---|
| | *SVX-Link (Echolink) | + *[:Kategorie:APRS APRS] -
UDPGATE "(IGATE, ebenfalls
Multibaud bspw. 1k2 und 9k6)" |
| - | especialy in networks like HAMNET
and similar.
 | + *LoRa APRS (NEU!) inkl. Mic-E |
| - | One goal is a minimum on material
expenditure and also a minimal
current consumption, followed by a
maximum of features | + *[[SAMNET SAMNET]] |
| - | | + *Blitzortung |
| - | More information on the hamradio
TCE - tinycore linux project coming
here soon | + *Radiosonden RX (Wetterballon) |
| | | + *kleine Webserver |
| | | + *Wetterstation mit unterschiedlichen
Sensoren |
| | | *SVX-Link (Echolink) |
| | | + *[:Kategorie:WINLINK WINLINK
Global Radio E-Mail (RMS Packet)] |
| | | + *Schalt- und Meßzentrale |
| | | |
| | | + u.v.m. unter anderem im HAMNET
anbindet.
 |
| | | + Ziel ist ein minimaler Aufwand und
minimale Stromaufnahme, bei
maximalem Funktionsumfang. |
| | | |
| - | ==Hardware== | + ==[[TCE Hardware Hardware]]== |
| - | [[Bild:12v-anschluss.
jpg thumb polarity industrial PC]] | + [[TCE Hardware]] -> Informationen zur
benötigten Hardware |

- DH2IW Wolfgang, OE2WAO Mike and OE5DXL Chris are doing first experiments with discarded industrial pc hardware, a 500MHz AMD Geode CPU with up to 256MB of RAM, and a minimal power input of <5Watt (for remaining stock ask [<http://www.oe2wao.info> OE2WAO]).

- The operating system is placed on a CF memory card (>32MB).

- A USB soundcard is used for AFSK mods. One special character of working devices is a 3rd connector beside microphone and line out, the line in. Because these device are real stereo and make it possible to operate two separate channels on one sound card.

- ===Connections and conversion of the used industrial pc===

-  power supply conversion 12V]]

- There are several connectors (COM, USB, network) on the frontside of our panels, as you can see. For correct polarity it is important to connect the + pole to the right pin of the 3pol power supply connector, the pin which is closer to the USB ports. The negative pole is the left pin.

- The normal board supply is 24V.

==[[TCE Software | Software]]==

+ DL1NUX hat dankenswerter Weise in Wiki für dieses Projekt erstellt:

+ [<http://dxlwiki.dl1nux.de/> <http://dxlwiki.dl1nux.de/>]

+ ===[[TCE Software | Einstellungen & Bedienung]]===

Informationen zur Installation, Konfiguration und zu den einzelnen Modulen

- That we can use it with our 12V power supply, we have to do a little modification. Just add a 270k Ohm resistor on the bottom side of the power supply as shown in the picture.

+

===[[TCE Software Installation | Installation & Download]]===

+

Dieses Kapitel erklärt die Installation vom TCE Image unter dem jeweilig verwendeten Betriebssystem

+

- ===soundcard===

+

==Einsatz==

- If there is no onboard sound available, you can use a USB soundcard instead. Suggested types you can find [[Geeignete Soundkarten|here]].

- ==Software==

+

[[Bild:Db0wqs-aprs-k.jpg|thumb|DB0WGS APRS & PR Digi]]

- A ready-to-use software image is located on the [http://www.oe2wao.info/tce OE2WAO Server] (e.g. tc455x-128.zip means version 4.55 with GUI on 128MB data drive)

+

Eingesetzt wird das System in verschiedenen Konfigurationen und Varianten bereits bspw. bei OE1XAR, OE1XUR, OE2XAP, OE2XGR, OE2XWR, OE2XZR, OE3XAR, OE3XER, OE5DXL, OE5FHM, OE5HPM, OE5XAR, OE5XBR, OE5XDO, OE5XGR, OE5XUL, OE7XGR sowie bei DB0FFL, DB0KLI, DB0WGS, DC9RD, DH2IW, DL3RCG, DL8RDL, DK5RV und IQ3AZ.

+

Weitere Tests laufen unter anderem in weiteren Teilen von OE, sowie in IK, DL und PA.

- ==Help==

+

==Hilfe==

– **If you need help on configuring the software packages you can contact OE5DXL on packet radio convers channel 44 or 4711.**

+

Wer Hilfe bei der Konfiguration der Softwarekomponenten benötigt, kann Fragen direkt im Packet Radio Convers auf Kanal 501, oder per PR Mail an OE5DXL stellen.

Aktuelle Version vom 8. Januar 2023, 14:52 Uhr



For english version on this project >>[click here](#)<<

Inhaltsverzeichnis

1	Einleitung	27
2	Hardware	27
3	Software	27
3.1	Einstellungen & Bedienung	27
3.2	Installation & Download	27
4	Einsatz	27
5	Hilfe	28

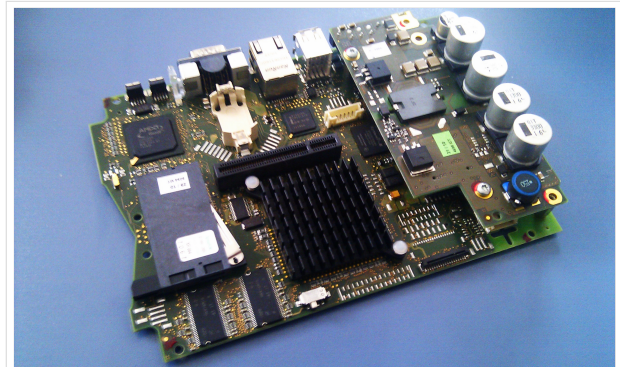
Einleitung

Hierbei handelt es sich um eine Amateurfunk Toolchain, welche bspw. unter Einsatz von [TCE - Tinycore Linux](#) auf Embedded System wie Industrie PC, ALIX u.d.g. Services wie

- [Packet Radio](#) - (Multibaud bspw. 1k2 2k4 4k8 9k6..)
- [APRS](#) - UDPGATE (IGATE, ebenfalls Multibaud bspw. 1k2 und 9k6)
- LoRa APRS (NEU!) inkl. Mic-E
- [SAMNET](#)
- Blitzortung
- Radiosonden RX (Wetterballon)
- kleine Webserver
- Wetterstation mit unterschiedlichen Sensoren
- SVX-Link (Echolink)
- [WINLINK Global Radio E-Mail \(RMS Packet\)](#)
- Schalt- und Meßzentrale

u.v.m. unter anderem im HAMNET anbindet.

Ziel ist ein minimaler Aufwand und minimale Stromaufnahme, bei maximalem Funktionsumfang.



500MHz LowPower Industrie PC

Hardware

[TCE Hardware](#) -> Informationen zur benötigten Hardware

Software

DL1INUX hat dankenswerter Weise in Wiki für dieses Projekt erstellt:

<http://dxlwiki.dl1nux.de>

Einstellungen & Bedienung

Informationen zur Installation, Konfiguration und zu den einzelnen Modulen

Installation & Download

Dieses Kapitel erklärt die Installation vom TCE Image unter dem jeweilig verwendeten Betriebssystem

Einsatz

Eingesetzt wird das System in verschiedenen Konfigurationen und Varianten bereits bspw. bei OE1XAR, OE1XUR, OE2XAP, OE2XGR, OE2XWR, OE2XZR, OE3XAR, OE3XER, OE5DXL, OE5FHM, OE5HPM, OE5XAR, OE5XBR, OE5XDO, OE5XGR, OE5XUL, OE7XGR sowie bei DB0FFL, DB0KLI, DB0WGS, DC9RD, DH2IW, DL3RCG, DL8RDL, DK5RV und IQ3AZ.

Weitere Tests laufen unter anderem in weiteren Teilen von OE, sowie in IK, DL und PA.



DB0WGS APRS & PR Digi

Hilfe

Wer Hilfe bei der Konfiguration der Softwarekomponenten benötigt, kann Fragen direkt im Packet Radio Convers auf Kanal 501, oder per PR Mail an OE5DXL stellen.