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TCE Tinycore Linux Project englisch

[Versionsgeschichte interaktiv durchsuchen](#)

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Version vom 7. August 2020, 09:52 Uhr (

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Markierung: [Visuelle Bearbeitung](#)

(2 dazwischenliegende Versionen desselben Benutzers werden nicht angezeigt)

Zeile 2:

==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,**

– ***BBS,**

– ***APRS,**

– ***lightning log,**

– ***small webserver,**

– ***SVX-Link (Echolink)**

Zeile 2:

==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
Zeile 16:		Zeile 23:
==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]).
But every other hardware plattform like ALIX, Raspberry Pi or similar will do. 		But every other hardware plattform like ALIX, Raspberry Pi or similar will do.
- The operating system is placed on a CF memory card (>32MB). 	+	The operating system is placed on a CF/ SD memory card (>32MB).
- A 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 on one sound card.	+	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 the used industrial pc ===	+	===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 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.

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Zeile 36:

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.

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DL1Nux has created a wiki on installation and operating the dxlToolchain <http://dxlwiki.dl1nux.de/> (german)

===Software schematic===

===Software schematic===

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



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

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Intro

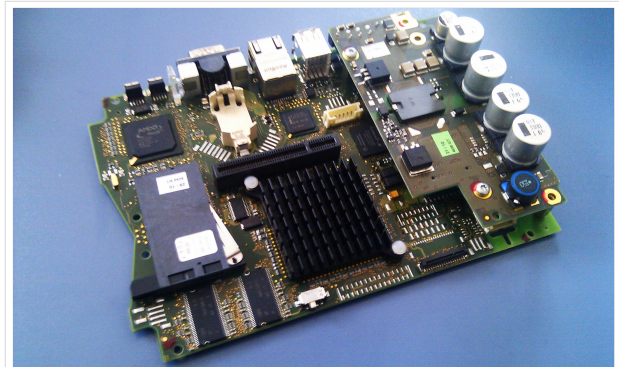
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More information on the hamradio TCE - tinycore linux project coming here soon



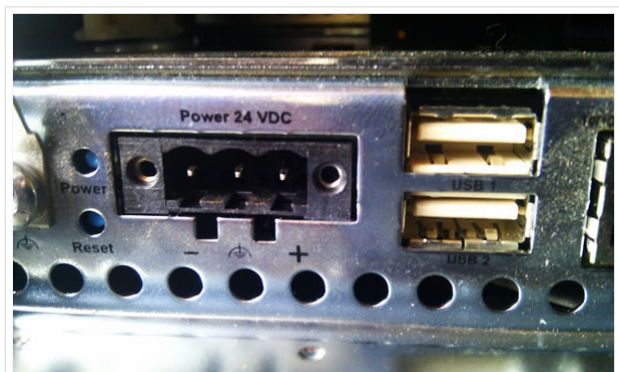
500MHz LowPower industrial PC

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polarity industrial PC

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Connections and conversion of our used industrial PC

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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](#).

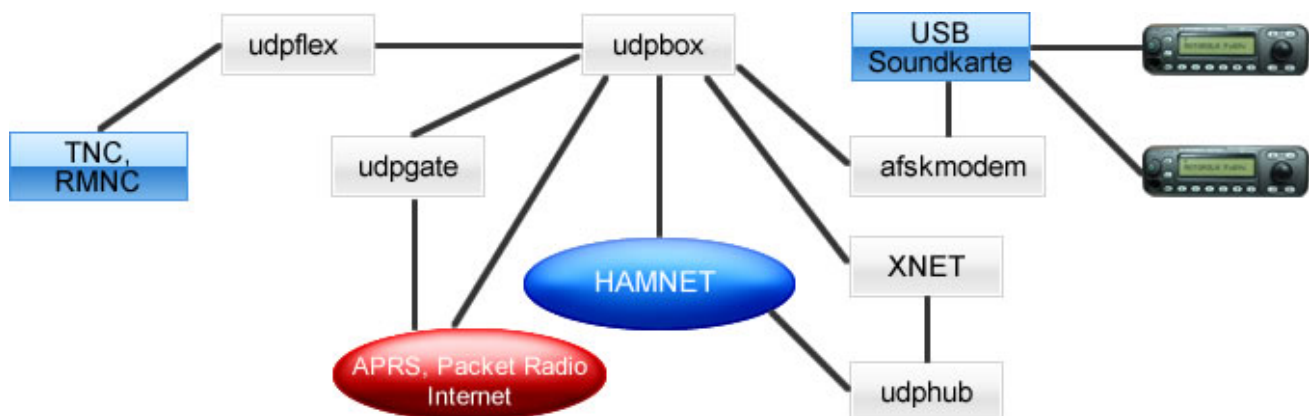
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Software schematic



Help

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