

Klingeltöne für dein Handy

Charts

	monophon	polyphon
1 Never Gonna Give You Up	00616	00618
2 Monkey Island	00076	00677
3 Nyan Cat	00090	00316
Still Alive	00678	00361
Outrun	00078	00284
Jeopardy	00073	00615
Popcorn	00064	00359
DOOM E1M1	00648	00675
Boom Boom Dollar	00674	00283
Butterfly	00617	00276
Great Giana Sisters	00066	00679
Delta	00676	00320

Logos

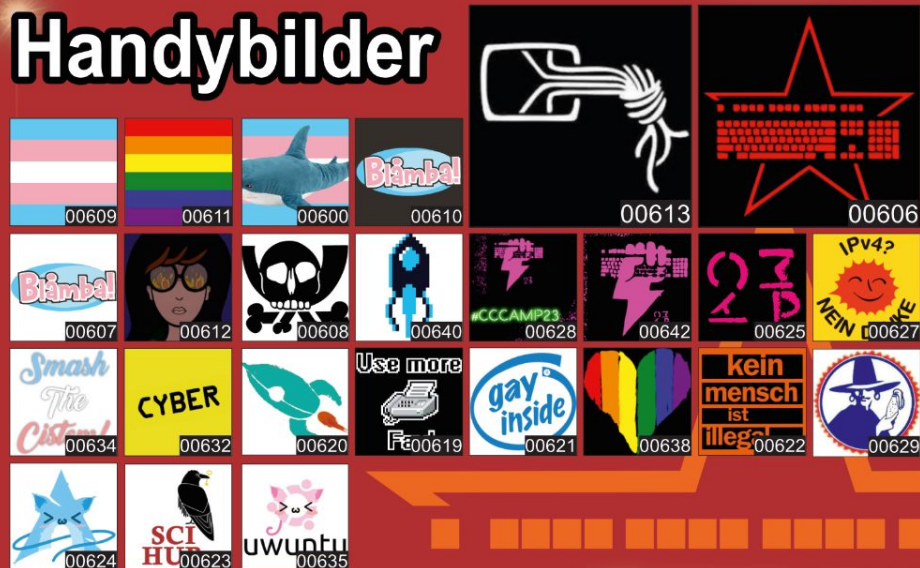
Linux	JAVA™	WITCH
00523	00540	00558
CAUTION	This side up.	C: \>
00541	00528	00727

252622*

Im C3GSM Netz verfügbar

Blämba!

Handybilder



Für Handybilder

z.B.



Sende
„00613“
an

252622*

Im C3GSM Netz verfügbar



Behind the scenes of a ringtone provider

Deep Dive into WAP, SMS, monophonic ringtones and 1-bit graphics



Manawyrn / kittenlabs.de

www.blamba.de



Blamba!



Folgen

Manaworm | Sarah

@manaworm [chaos.social](#)

nyaa~~

your friendly neighborhood infrastructure cat, late-20s, 🏳️‍🌈 🇩🇪 🐱

posts may contain old computers, networking, arm64 or ham radio, will bite :3



Manaworm / [kittenlabs.de](#)

[www.blamba.de](#)



Welcome to KittenLabs!

[Projects](#)



[Blog](#)



DC UPS - 60W



5V
USB

5V
1.7A
18.15V

ON

DC
Out 3

DC
Out 2

DC
Out 1

DC output voltage selection

1V

5V

Projects

Hacks

- Router overclocking
- Real gaming router
- 2.5GbE PCIe NIC mod board
- Typewriter Teletype
- ATAPI Audio-CD player
- TCP/IP for Casio calculators
- Programmable logic in PHP
- GPIO PATA/IDE on Linux

Tools

- 20 port USB-C charger
- Thermal camera macro
- Gigaset DECT debug adapter

Computing

- NVMe BIOS Option ROM
- M.2 NVMe -> miniPCIe



Manawyrn | Sarah

@manawyrn [chaos.social](#)

nyaa~~~

your friendly neighborhood infrastructure cat, late-20s,   

posts may contain old computers, networking, arm64 or ham radio, will bite :3



Tobs Miner | tsys

@Tobs_Miner [chaos.social](#)

Blinkekatzenmom | AS208340 | Linux | Electronics, Software, Networks, Open Source | Kitten of [@manawyrn](#) | DO4TOB



Folgen



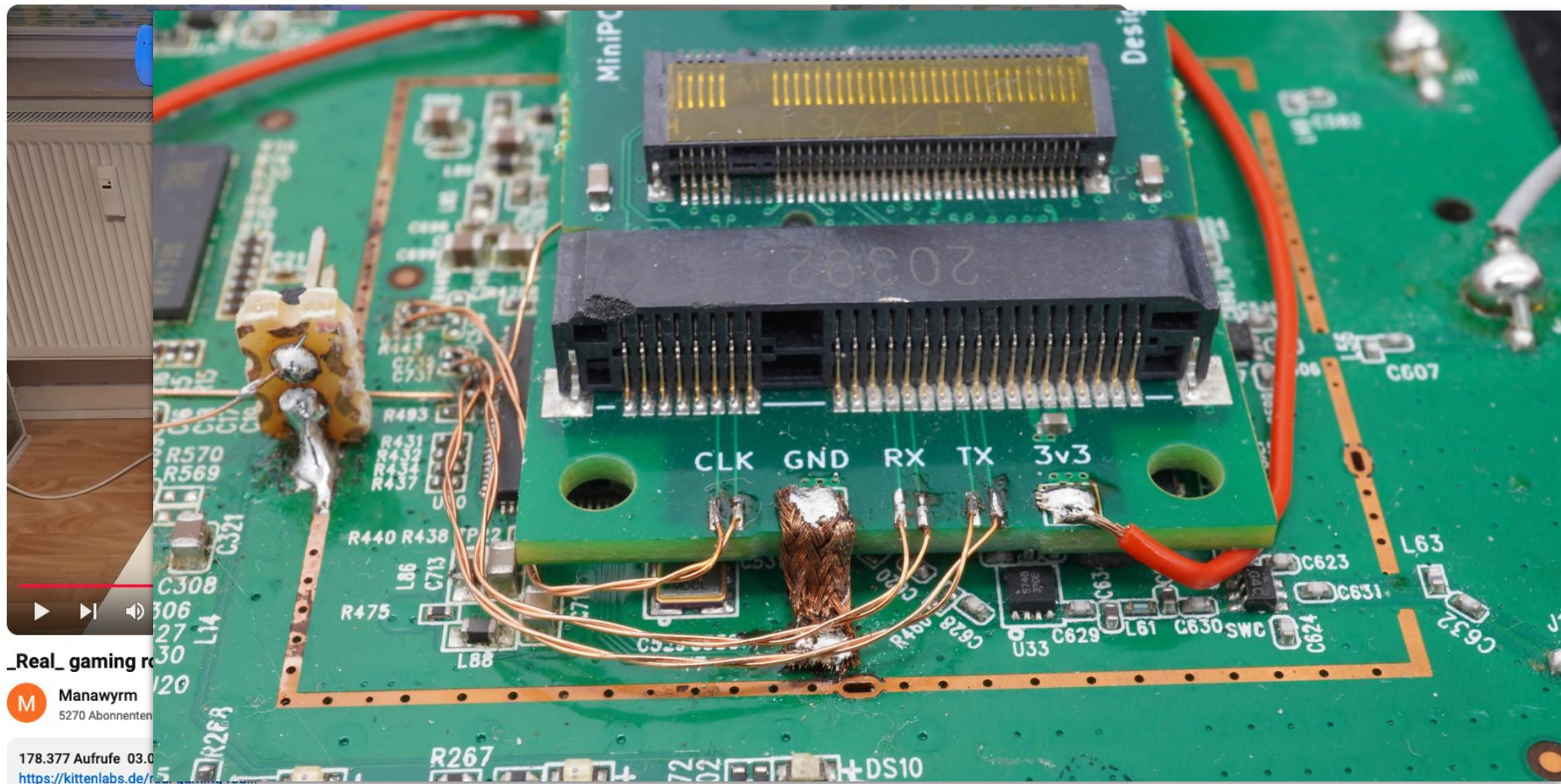
Real gaming router - GTA Vice City on a TP-Link router

M Manawyrn
5270 Abonnenten

Abonnieren

👍 10.553 💬 ➦ Teilen 📌 Speichern ⋮

178.377 Aufrufe 03.03.2024
<https://kittenlabs.de/real-gaming-rou...>



Real gaming re

M Manawyrm
5270 Abonnenten

178.377 Aufrufe 03.0
<https://kittenlabs.de/>

Projects

Hacks

- Router overclocking
- Real gaming router
- 2.5GbE PCIe NIC mod board
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- ATAPI Audio-CD player

TCP/IP for Casio calculators

- Programmable logic in PHP
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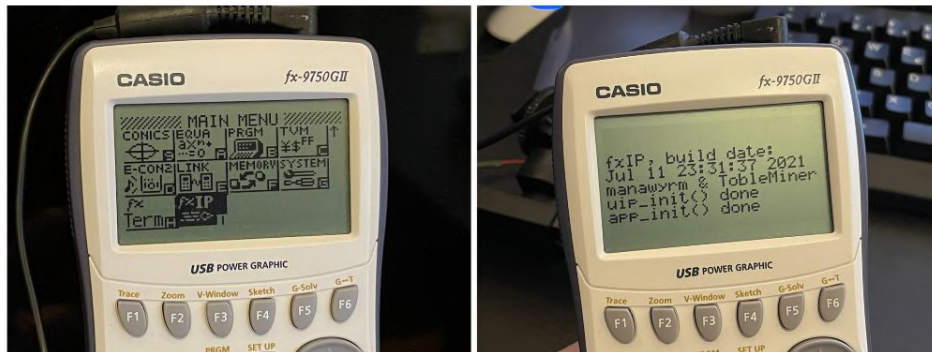
Computing

- NVMe BIOS Option ROM
- M.2 NVMe -> miniPCIe

TCP/IP for Casio calculators

Webserver & IRC client on Casio fx-9750GII graphical calculators

By [Manawrym](#) and [tSYS](#) | Monday, July 12, 2021



What is it?

fxIP is a port of uIP 1.0 to Casio fx-9750/fx-9860 calculators. It requires calculators with a SuperH SH4a CPU, needs quite a bit of SRAM.

fxIP connects to IP networks via SLIP encapsulation over the 3-pin 2.5mm 5V serial port/UART.

Webserver



What is it?
Webserver
Chatting on IRC
Links

Projects

Hacks

- Router overclocking
- Real gaming router
- 2.5GbE PCIe NIC mod board
- Typewriter Teletype
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TCP/IP for Casio calculators

- Programmable logic in PHP
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Computing

- NVMe BIOS Option ROM
- M.2 NVMe -> miniPCIe



Casio fx-9750GII Webserver

← → ↻ 🔍 <http://fxip.as203478.net/> ⬇️ 📄 ☰

Casio fx-9750GII Webserver

Welcome! This page is hosted on an Casio fx-9750GII graphical calculator, running a SuperH SH4 processor. It's running a port of the uIP TCP/IP stack, using SLIP over the 3pin 2.5mm serial port.



Projects

Hacks

- Router overclocking
- Real gaming router
- 2.5GbE PCIe NIC mod board
- Typewriter Teletype
- ATAPI Audio-CD player
- TCP/IP for Casio calculators
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Tools

- 20 port USB-C charger
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Computing

- NVMe BIOS Option ROM
- M.2 NVMe -> miniPCIe



Photo by Martin Müller (@mot@chaos.social) - CC BY 2.0



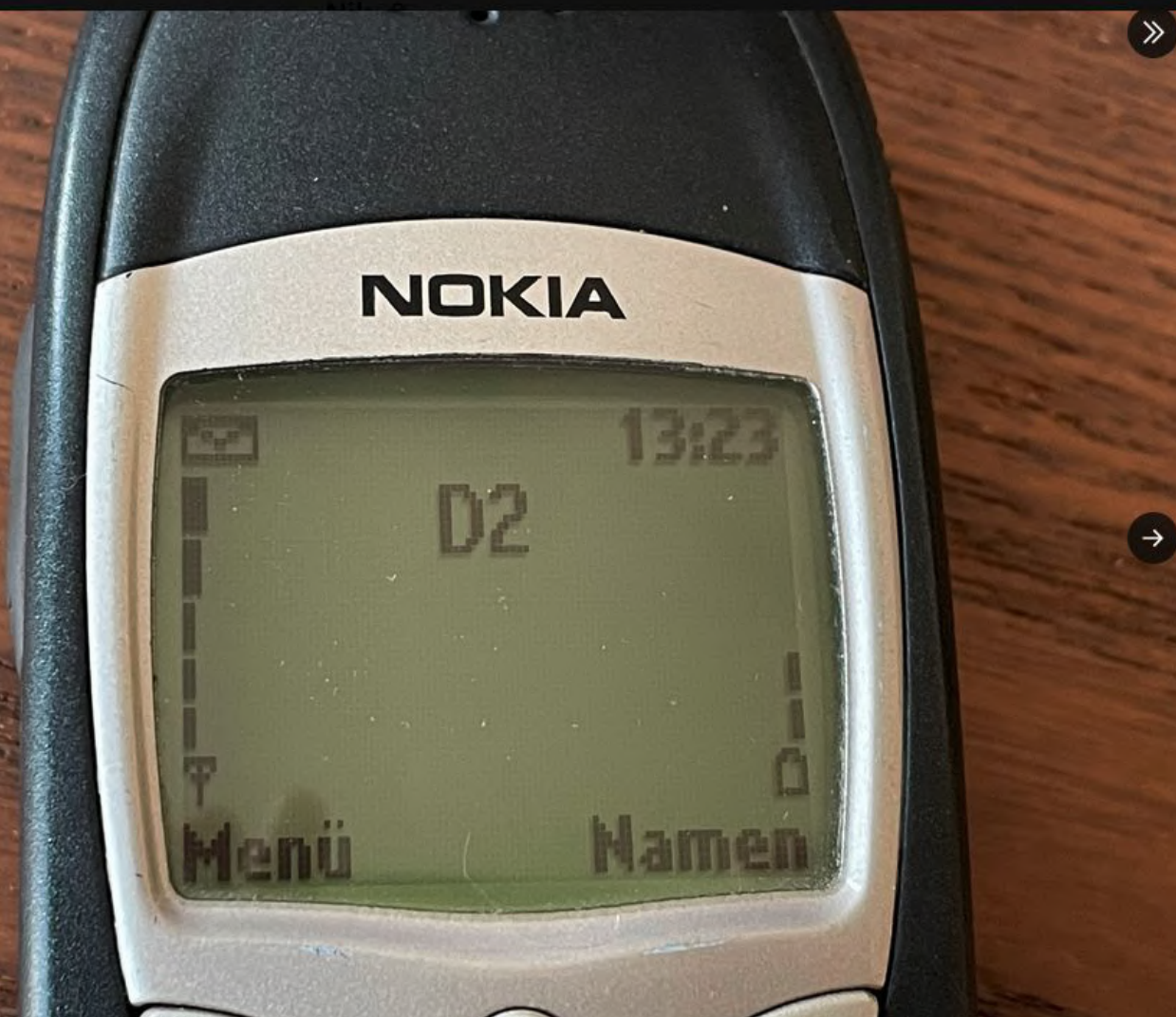
How did we get here?



Manaworm / kittenlabs.de

www.blamba.de





Nik.  **@NikTheDusky**

YOO

1:37 pm · 5 Feb 2021

 1   5  

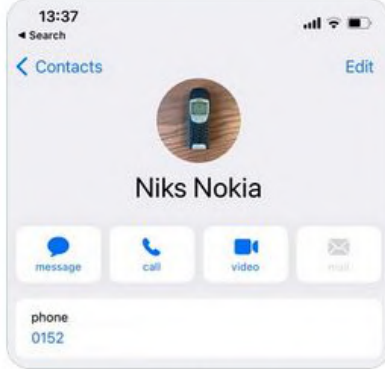
 **Post your reply** [Reply](#)

Nik  **@NikTheDusky** · 5 Feb 2021 ...

Ihr wisst, was zu tun ist.

+49 152


Ruft oder schreibt mich auf dem Teil an und wenn ihr mögt mach ich ein Foto und lade es hier hoch



13:37

Search

Contacts Edit



Niks Nokia

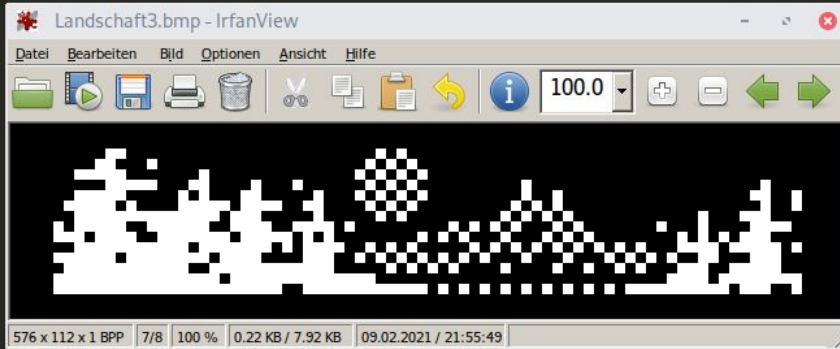
message call video mail

phone 0152



The first operator logo

```
1 //SCKL1582 0B05041582000000030103013062F2200A00480E010600000140000000000C400002A0000000003E020005500000000007C61102A0040000083E0A3045500480
2
3 //SCKL1582 0B050415820000000301030200197D0FBCC2A00A8000093FFF70414015400238BE7E79E802A8A0221EEF3FBEA01511500AB83FFBFAF2A0AAAA8F7DFDFEF0E555
4
5 //SCKL1582 0B05041582000000030103034445531C7FF9FFE0AA10928E7CFFFF7FFE0000001EFFFFFFCFFF55555FFB900
6
7
```





Nik. 
@NikTheDusky



Oh, ein neues Betreiberlogo!

10:00 pm · 9 Feb 2021



Post your reply

Reply

Blamba!



Manawyrm

@Manawyrm



Glorious monophonic melody, sent via SMS!

EU followers, remember "Jamba"?

"Receive 4 ringtones for your mobile, for only 4,99€!

Call now, 0900-manawyrm!" (just kidding).



Manawyrm / kittenlabs.de

www.blamba.de





Manawyrm

@Manawyrm

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6310i



9110



3510i



6220



6233



6300i



5800



Early capabilities

RTTTL, Logos, J2ME, etc.



- Operator logos (72x14 pixel, black & white only)



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Early capabilities

RTTTL, Logos, J2ME, etc.



- Operator logos (72x14 pixel, black & white only)



- Monophonic ringtones (1 note at a time, square wave)



Early capabilities

RTTTL, Logos, J2ME, etc.



- Operator logos (72x14 pixel, black & white only)



- Monophonic ringtones (1 note at a time, square wave)
- J2ME / Java apps & games



Full capabilities

PNG, MIDI, MP3, etc.



- Polyphonic ringtones (MIDI files)



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Full capabilities

PNG, MIDI, MP3, etc.

- Polyphonic ringtones (MIDI files)
- PNG graphics (full color)



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Full capabilities

PNG, MIDI, MP3, etc.

- Polyphonic ringtones (MIDI files)
- PNG graphics (full color)
- MP3 / AMR audio files



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Full capabilities

PNG, MIDI, MP3, etc.

- Polyphonic ringtones (MIDI files)
- PNG graphics (full color)
- MP3 / AMR audio files
- Video files (3GP, H.261/H.263)



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SMS special features

User Data Header



- optional binary header in short messages
- TLV (tag-length-value encoded)
- total length byte at the beginning

- can contain a number of
“UDH Information Elements” (IEs)



UDH Information Element Tags

(commonly used)



IEI (hex)	Meaning	Length	May repeat
00	Concatenated short messages, 8-bit ref. number	3	no
04	Application port addressing scheme, 8 bit address	2	no
05	Application port addressing scheme, 16 bit address	4	no
08	Concatenated short message, 16-bit ref. number	4	no
0E	Large Animation (16*16 times 4 = 32*4 =128 bytes)	129	yes
0F	Small Animation (8*8 times 4 = 8*4 =32 bytes)	33	yes



Common UDH use case

Overlong text SMS / Concatenated SMS



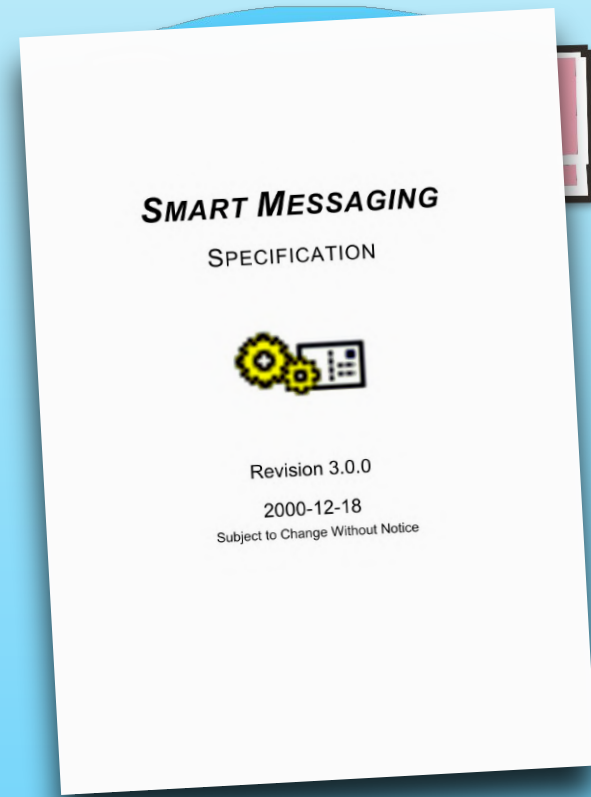
- Text is split into multiple SMS, each SMS with UDH
- TP-UDHI bit is set
Transfer Protocol User Data Header Indicator
- IE Tag 0x00
Concatenated short messages, 8-bit reference number



Another UDH use case

Nokia Smart Messaging

- TP-UDHI bit is set
- IE Tag 0x05
Application port addressing scheme, 16 bit address
- 16 bit port numbers



Nokia Smart Messaging

Ringing Tones (Rev. 3.0.0, page 34)

“The ringing tone reader is listening to on NBS port 5505 decimal (1581 hexadecimal).”

Payload includes:

- Ringtone (monophonic)
- Name (ISO-8859-1)

3.6 RINGING TONES

The ringing tone format enables ringing tones to be sent to a wide variety of handsets. Depending on the handset implementation, it may be possible for the user to create ringing tones and then send them to other handsets. The ringing tone format is handset independent, and describes only the audio related information. It enables transmission of both basic songs and temporary songs. A basic song is intended to be saved in a handset while the temporary songs can be used together with an alert router to implement message notification with a special ringing tone.

The ringing tone reader is listening to on NBS port 5505 decimal (1581 hexadecimal).

Ringing tones are designed to use an 8-bit communication channel. If only a 7-bit communication channel is available, the ringing tone format must be converted to 7-bit format. The conversion is 7-bit communication channel dependent and is not included in this specification.

The default character set, if not otherwise indicated, is ISO 8859-1 (ISO_8859).

The building blocks of the ringing tone messages are expressed as bit strings (base-2 values). These are concatenated and the resulting bit string is transferred in octets (8 bits in each byte).

An informative example can be found in Appendix B.

3.6.1 Syntax

```
<ringing-tone-programming-language> ::= <command*>  
<command> ::= <command-length> <command-part*> | <command-end>
```

<command-length> ::= binary [00000001 .. 11111111], indicates how many command parts there are in the command. If necessary, filler bits are added to the end of each command part to ensure that the <command-part> is always octet-aligned.

<command-end> ::= binary [00000000]. This indicates the end of the ringing tone programming language.

```
<command-part> ::= <ringing-tone-programming> | <unicode> | <cancel-command> <cancel-command-specifier> | <guard> <command-specifier>
```

The Ringing Tone programming requires that the order of the command parts is as follows: <ringing-tone-programming>; [<unicode>;] <command-end>.



Nokia Smart Messaging

Graphical logos (Rev. 3.0.0, page 41)

“The Operator Logo Reader is listening on NBS port 5506 decimal (1582 hexadecimal).”

Payload includes:

- Operator logo (1-bit black/white bitmap)
- MCC / MNC pair

3.7 GRAPHICAL LOGOS AND ICONS

The OTA bitmap format enables graphical information to be sent to a wide variety of handsets. Depending on the handset implementation, it may be possible for the user to create graphical objects and then send them to other handsets. Various applications can use this information to create a more illustrative and attractive outlook for the application.

The OTA bitmap format is handset independent, and describes only the graphical information. In addition to the OTA bitmap format two different applications using OTA bitmap format are specified here:

The Calling Line Identification (CLI) icon is a bitmap, which can be attached to some number or numbers in the handset's phonebook (a caller group). When the caller is identified, the attached CLI icon is shown alongside other appropriate information such as the name and/or number of the caller. The CLI icon format doesn't contain any phonebook information so the linking between the phonebook entry and the CLI icon must be done in the handset.

The CLI Icon Reader is listening to on NBS port 5507 decimal (1583 hexadecimal).

The Operator Logo is a bitmap, which can be shown alongside the operator identification when the display of the handset is in idle mode. The Operator Logo format contains operator identification information. It is up to handset implementation how to this information is used.

The Operator Logo Reader is listening on NBS port 5506 decimal (1582 hexadecimal). Both the CLI icon and Operator Logo require an 8-bit communication channel. If only a 7-bit communication channel is available, the message formats must be converted to 7-bit format. The conversion is 7-bit communication channel dependent and is not included in this specification.

The default character set is ISO 8859-1.

The OTA bitmap is usually used as a building block in other Smart Messages. As the OTA bitmap may contain palette information whose length cannot be known in advance, the encapsulating short message should either place the OTA bitmap at the end of the Smart Message or have a length field which can be utilised using parsing to determine the end of the OTA bitmap.

Informative examples of the OTA bitmap, CLI icon and Operator Logo can be found in Appendix B.

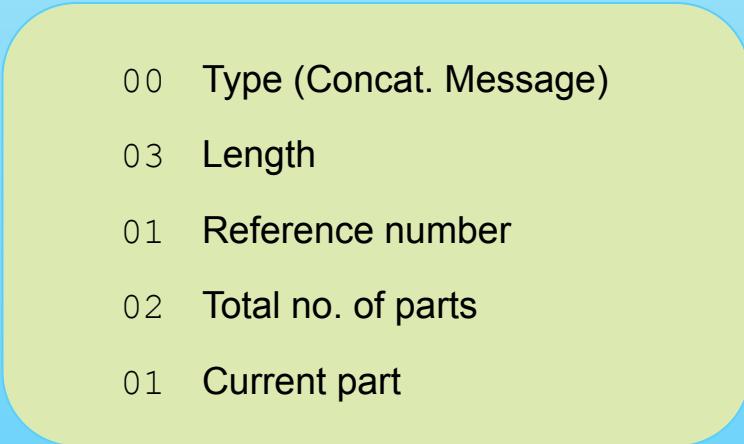
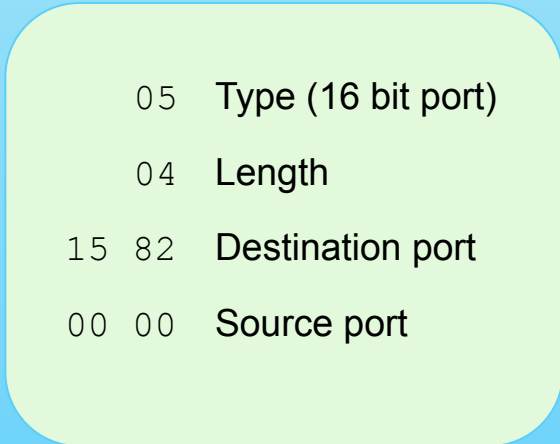
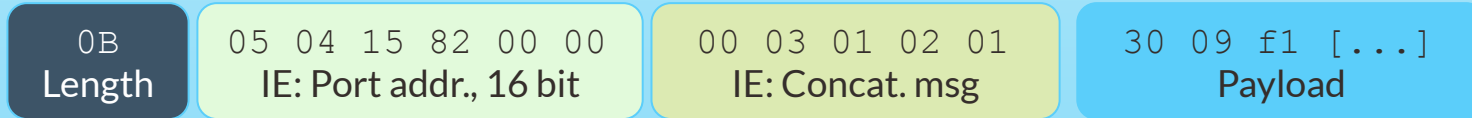
3.7.1 OTA Bitmap Syntax

```
<ota-bitmap> ::= <header> <image-data> [<palette>]
<header> ::= <infofield> [<extfield>] <width> <height> <depth>
<infofield> ::= Octet which is defined in Table 3.7-2
<extfield> ::= Octet which is defined in Tables 3.7-3 and 3.7-4
<width> ::= <common-hex-digit> <common-hex-digit>
           [ <common-hex-digit> <common-hex-digit> ]
           ; Horizontal width of the bitmap in pixels. Field width depends on <infofield>-bit 4.
<height> ::= <common-hex-digit> <common-hex-digit>
           [ <common-hex-digit> <common-hex-digit> ]
           ; Vertical height of the bitmap in pixels. Field width depends on <infofield>-bit 4.
<depth> ::= <common-hex-digit> <common-hex-digit> ; Number of colours or grey shades
```



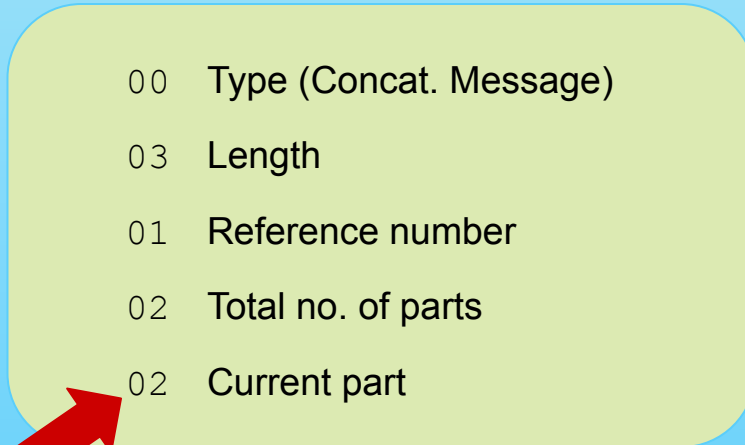
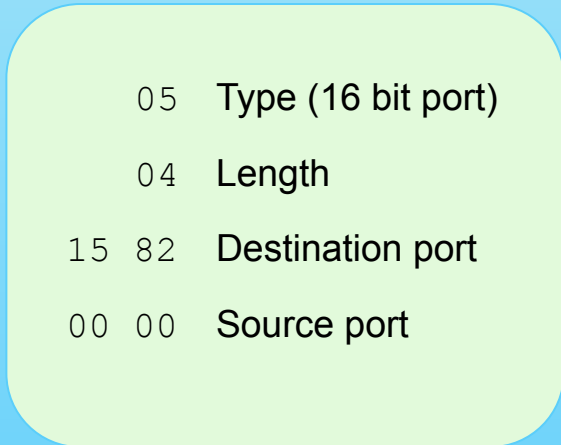
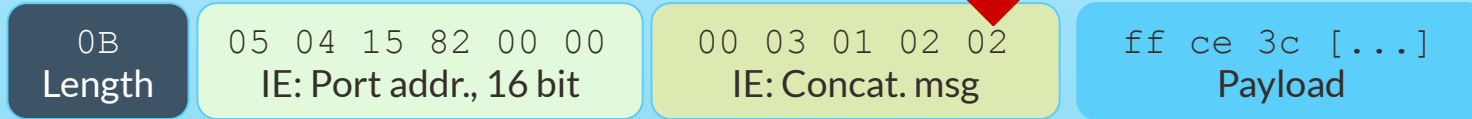
Operator logo

Smart Messaging Example (SMS 1/2)

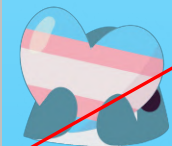


Operator logo

Smart Messaging Example (SMS 2/2)



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SCKL

More Nokia hacks!

- SMS wasn't always 8-bit binary safe!
- Some operators couldn't set the UDH indication bit
- Workaround: Use plain text hex encoding
`//SCKL1581 024A3A6509[...]`
- Very inefficient (2 characters/byte)



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NokRing / RTTTL

Ring Tone Text Transfer Language



- Text-based ringtone format
- Monophonic
- Name, Settings (duration, octave, tempo), Notes

Example:

```
delta:d=4,o=5,b=80:8d#6,8a#,2d#6,a#6,8f6,8a#,2f6,a  
#6,8d#6,8g#,2d#6,b6,a#6,b6,a#6,16f#6,16f6
```



Ringtone Tools

Unix tool to encode ringtones and logos

- Written by Mike Kohn in C (~2001)
- Source available, non-commercial license (not FOSS)

https://www.mikekohn.net/file_formats/ringtonetools.php



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Ringtonetools 3.00alpha5 (April 2, 2006)
Convert and create ringtones/logos for mobile phones.
Copyright 2001-2006 - Michael Kohn (mike@mikekohn.net)

THIS MAY NOT BE USED IN COMMERCIAL ENVIRONMENTS WITHOUT
PERMISSION OF THE AUTHOR. PLEASE READ THE LICENSE.

Usage: ringtonetools [options] <input filename> <output filename>

-intype <input type> [3210/bmp/emelody,emy/ems/gif/ico,icon/imelody,imy/kws/midi,mid/morse/nol,ngg/nokia,sckl,ott,rng/rtttl/rtx/siemens/text,txt/wav/wbmp]

-outtype <output type> [3210/bmp/dsp/emelody,emy/ems/gif/ico,icon/imelody,imy/kws/midi,mid/mot/nol,ngg/nokia,sckl,ott,rng/pdb/rtttl/rtx/samsung1/samsung2/siemens/se

-name <song name>

-t <tempo [default: 140]>

-quiet

iMelody options:

-noheaders [no headers]

-melheaders [melody header only <default>]

-lessheaders [begin,melody,end headers only]

-mostheaders [begin,melody,end,name,tempo headers on iMelody]

-stdheaders [begin,melody,end,name,tempo,style headers on iMelody]

-fullheaders [full headers on iMelody]

-ems [force EMS]

Kyeocera KWS options:

-pause <number of quarter notes added to end of song [default: 2]>

Motorola options:

-keypress [Make keypress sequence for phones like v60t]

wav output options:

-b <bits 8 or 16 for wav only [default: 16]>

-f <sampling frequency for wav only [default: 44100]>

graphics options:

-h <height> [Height of Logo (default 14)]

-w <width> [Width of Logo (default 72)]

-l <MCC> <MNC> [Operator Logo (requires MCC and MNC)]

-m <message> [Send a picture message]

-r [reverse black n white]

-c [use full color if possible]

-trans <0xrrggbb> [make this hex code a transparent color]

-bmptrans [Use BMP's transparency]

nokia options:

-x [exclude //SCKL header]

-u [only user-data-header (8bit)]



How do we actually send these?



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SMS transmission

Historic 80s tech

From a mobile phone / GSM device:

AT commands!



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SMS transmission

Historic 80s tech



From a mobile phone / GSM device:

AT commands!

AT+CMGF=0 switches into raw SMS PDU mode

AT+CMGS= [Length] <CR> [Payload] <ctrl-Z/ESC> sends a message

Raw SMS PDUs need to include the full SMS header, including destination number, numbering plans, etc.



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SMS transmission

Short Message Peer-to-Peer (SMPP)

- Standardized binary protocol
- Used over TCP/IP or X.25 (more dinosaur tech!)

Typical SMPP endpoints:

- GSM network operators (SMSC)
- Commercial SMS providers



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Open-source software to the rescue



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Kannel

Open Source WAP and SMS gateway



Kannel consists of 3 main parts/applications:

- bearerbox (core)
- smsbox
- wapbox

Still packaged in Debian!



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Kannel

smsbox



- Supports various interfaces (SMPP, AT, CIMD, EMI, etc.)
- Integrated SMS queueing
- Accepts HTTP POST requests to send SMS
- Sends HTTP POST requests for incoming SMS (basically webhooks)



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Putting it all together



- ringtonetools generates UDH from bitmap and RTTTL files
- Kannel talks to a modem/provider and sends SMS
- Web interface built using:
 - PHP / Twig (templating)
 - MariaDB (database)
 - ImageMagick (image handling)
 - bubblewrap (sandboxing)





blamba Public

Edit Pins Unwatch 1 Fork 0 Star 5

main 1 Branch 0 Tags

Go to file

Add file

Code

About

Manawyrm	add JSON log output (for Grafana)	98219df · 7 months ago	🕒 40 Commits
📁 assets-int	Add webpage		last year
📁 helper	Add J2ME support		last year
📁 libs	Refactor statistics and add Prometheus endpoint		7 months ago
📁 pages	add JSON log output (for Grafana)		7 months ago
📁 templates	Refactor statistics and add Prometheus endpoint		7 months ago
📁 vendor-native	Port to Debian 12/PHP 8.2/arm64		last year
📄 .gitignore	Port to Debian 12/PHP 8.2/arm64		last year
📄 .htaccess	Fix .git folder being publicly reachable		last year
📄 README.md	Add webpage		last year
📄 bootstrap.php	Add webpage		last year
📄 composer.json	Port to Debian 12/PHP 8.2/arm64		last year
📄 composer.lock	Port to Debian 12/PHP 8.2/arm64		last year
📄 index.php	more feature		last year

Blåmba - 2000's-style media library for vintage cellphones (Nokia, etc.)

- 📖 Readme
- 🔍 Activity
- 📁 Custom properties
- ☆ 5 stars
- 👁️ 1 watching
- 🍴 0 forks

Report repository

Releases

No releases published
[Create a new release](#)

Packages

No packages published
[Publish your first package](#)

Languages



Blamba!

Die coolsten Downloads
für Handy & PC

RINGTONES

Monophonic (RTTTL)

Polyphonic (MIDI)

LOGOS

Operator logos

Color logos

J2ME

Games & Apps

37C3

Fahrplan

WAP Phonebook

Custom content

Manual SMS

File upload

SERVICE

Sourcecode

Media repository

FAQ

Ringtones, Logos, J2ME games!



TOP RINGTONES

00275. [Monkey Island](#)



00276. [DDR Butterfly](#)



00618. [NeverGonnaGiveYouUp](#)



00311. [Wintergatan Marble Machine](#)



00303. [Through the Fire and the Flames](#)



00826. [Wonderful Days](#)



[Show all ringtones!](#)

REGISTRATION

Send a SMS with text "REGISTER
729806" to 252622!

Registered devices:

No device registered yet!

The registration SMS will register a device to your browser session/cookie.

To use an already registered device on a different browser, just re-send the registration SMS with the new registration token.

TOP COLOR LOGOS



[cccamp23 logo](#)



[sprayed-23](#)



[Blahaj](#)



[cyber-yellow](#)

[Show all color logos!](#)

Blamba!

WAP?

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WAP

Wireless Application Protocol



- Stripped down Web for mobile phones
- Regular web servers (HTTP, URLs, GET/POST requests)
- Custom XML-based language (Wireless Markup Language, WML)

```
<?xml version="1.0"?>
<!DOCTYPE wml PUBLIC "-//WAPFORUM//DTD WML 1.1//EN"
  "http://www.wapforum.org/DTD/wml_1.1.xml" >
<wml>
  <card id="main" title="First Card">
    <p mode="wrap">This is a sample WML page.</p>
  </card>
</wml>
```



WAP 1.1

Early mobile internet



- Full TCP/IP stack + XML parsing was too heavy for early phones ->
- Proxy called “WAP Gateway” inbetween HTTP server and phone
- WAP Gateway will parse WML into a WBXML (WAP Binary XML)



WDP

Wireless Datagram Protocol



WAP supports several different transports:

- WAP over GPRS
- WAP over CSD
- WAP over SMS (uncommon)
- WAP over USSD, DECT, CDMA, IS-136, TETRA, etc. (even more exotic)

WAP requests / responses are sent as single WDP packets.



WAP over GPRS

General Packet Radio Service



- Regular IP-based networking (packet-switched)
- WAP packets (WDP) are sent as regular (fragmented) UDP traffic

- Most commonly used transport for Blåmba!



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WAP over CSD

Circuit Switched Data



- Call-based data connections over GSM
- Introduced before packet switching (GPRS) existed
- Virtual modem calls over GSM (nothing analog involved!)

- PPP used to get TCP/IP connectivity over CSD channel
- WDP is then just transmitted as UDP again

- Used by phones without GPRS support (Nokia 3330, etc.)



WAP gateway

Our friend Kannel again!



- Mobile carriers used to provide WAP gateways
-> Those are long gone by 2024
- wapbox is a fully fledged WAP gateway!
- Accepts WDP/UDP packets on port 9200
- Sends HTTP requests to the regular internet
- Does WML -> WBXML compression/parsing as well
- Blamba! runs Kannel as a publicly available WAP gateway



WAP 2.0

Actual mobile internet

- Phones became more powerful
- CSD, GPRS, EDGE, UMTS, WLAN, etc.
- Regular HTTP (over TCP)
- XML-encoded WML pages



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Polyphonic ringtones?

Color logos?



- Just regular files served over HTTP
- Either directly or through WAP Gateway (WDP/UDP)
- MIDI files for polyphonic ringtones
- PNG (or GIF) files for color logos
- JAR files for J2ME apps & games
- Download can be started manually by visiting URL



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WAP Push

SI / SL / CO

- Small WBXML push messages to a phone
- Typically sent via Push Proxy Gateway (PPG)

3 main types:

- Service Indication (SI)
- Service Load (SL)
- Cache Operation (CO)



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WAP Push

Service Indication (SI)



- SMS-based (or any other WDP transport)
- Application Port Addressing -> Port 2948 (WAP Push/MMS)

```
1 <?xml version="1.0"?>
2 <!DOCTYPE si PUBLIC "-//WAPFORUM//DTD SI 1.0//EN" "http://www.wapforum.org/DTD/si.dtd">
3 <si>
4   <indication
5     href="http://wap.blamba.de/wp/iCEEc6W-ElRWrw2jxCRTaw/23.mid"
6     created="2024-12-01T19:57:10Z">
7     23
8   </indication>
9 </si>
```



WAP Push SI

WAP Binary XML strikes again!



06
Length

05 04 0b 84 23 f0
IE: Port addr., 16 bit

01 06 04 03 ae 81 ea 02 05 6a [...]
Payload

05 Type (16 bit port)

04 Length

0b 84 Destination port (2948 / WAP Push)

23 f0 Source port (9200 / WDP)



WAP Push SI

WAP Binary XML strikes again!

06
Length

05 04 0b 84 23 f0
IE: Port addr., 16 bit

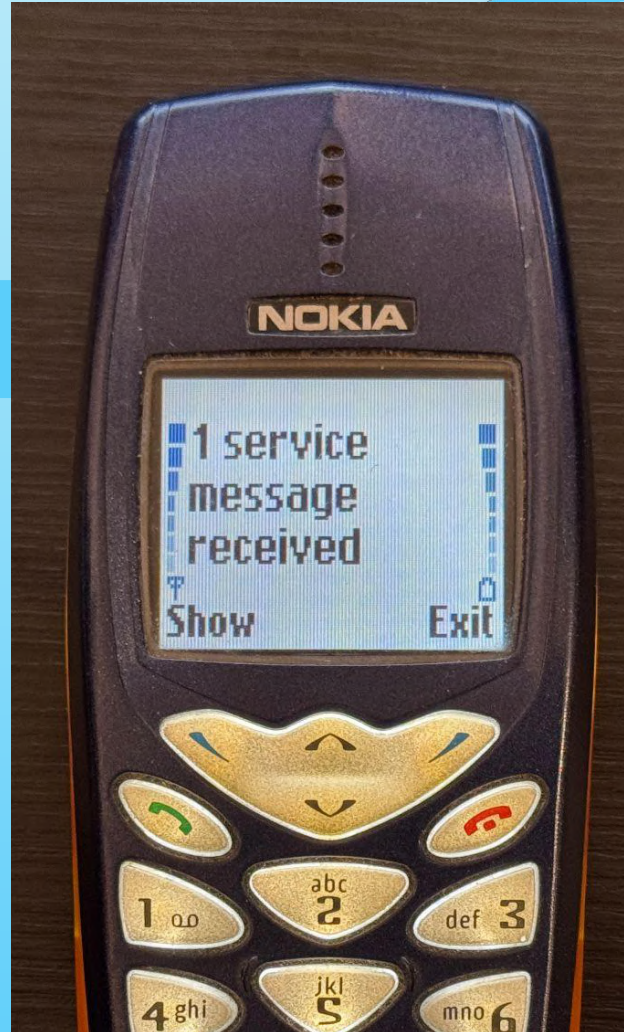
01 06 04

05 Type (16 bit port)

04 Length

0b 84 Destination port (2948 / WAP Push)

23 f0 Source port (9200 / WDP)



mba!

mba.de



User Agent Profiles

More XML!



X-Wap-Profile: "http://nds1.nds.nokia.com/uaprof/N6220r200.xml"

- MIME types / file format support
- display resolution
- color depth
- TLS/SSL support
- character encodings
- transport layers (CSD, GPRS, etc.)



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User Agent Profiles

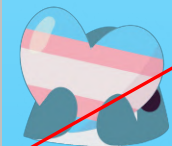
More XML!



```
<rdf:Description rdf:ID="Profile">
  <prf:component>
    <rdf:Description rdf:ID="HardwarePlatform">
      <prf:ColorCapable>Yes</prf:ColorCapable>
      <prf:ImageCapable>Yes</prf:ImageCapable>
      <prf:Model>6220</prf:Model>
      <prf:ScreenSize>128x128</prf:ScreenSize>
      <prf:Vendor>Nokia</prf:Vendor>
    </rdf:Description>
  </prf:component>
  <prf:component>
    <rdf:Description rdf:ID="SoftwarePlatform">
      <rdf:li>application/java</rdf:li>
      <rdf:li>application/java-archive</rdf:li>
      <rdf:li>application/x-nokia.settings</rdf:li>
      <rdf:li>audio/mid</rdf:li>
      <rdf:li>audio/midi</rdf:li>
      <rdf:li>audio/x-mid</rdf:li>
      <rdf:li>audio/x-midi</rdf:li>
      <rdf:li>audio/sp-midi</rdf:li>
      <rdf:li>text/css</rdf:li>
      <rdf:li>text/html</rdf:li>
      <rdf:li>text/plain</rdf:li>
    </rdf:Description>
  </prf:component>
</rdf:Description>
```



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Die coolsten Downloads
für Handy & PC

RINGTONES

Monophonic (RTTTL)

Polyphonic (MIDI)

LOGOS

Operator logos

Color logos

J2ME

Games & Apps

38C3

Fahrplan

WAP Phonebook

Custom content

Manual SMS

File upload

SERVICE

Sourcecode

Media repository

FAQ

Ringtones, Logos, J2ME games!



Custom SMS transmission

You can use this tool to send custom SMS with 8-bit binary data to your registered devices.
Example invocations for [ringtonetools](#):

```
ringtonetools -u -s 280 -intype rtttl -outtype nokia monkey.txt -  
ringtonetools -u -s 280 -intype gif -outtype nokia fox.gif -
```

Each line is getting sent as a separate SMS. Each line must only contain hex digits.
Empty lines will be ignored. Lines with //SCKL header are not supported.

Maximum of 5 SMS per invocation. Maximum of 140 bytes per SMS.

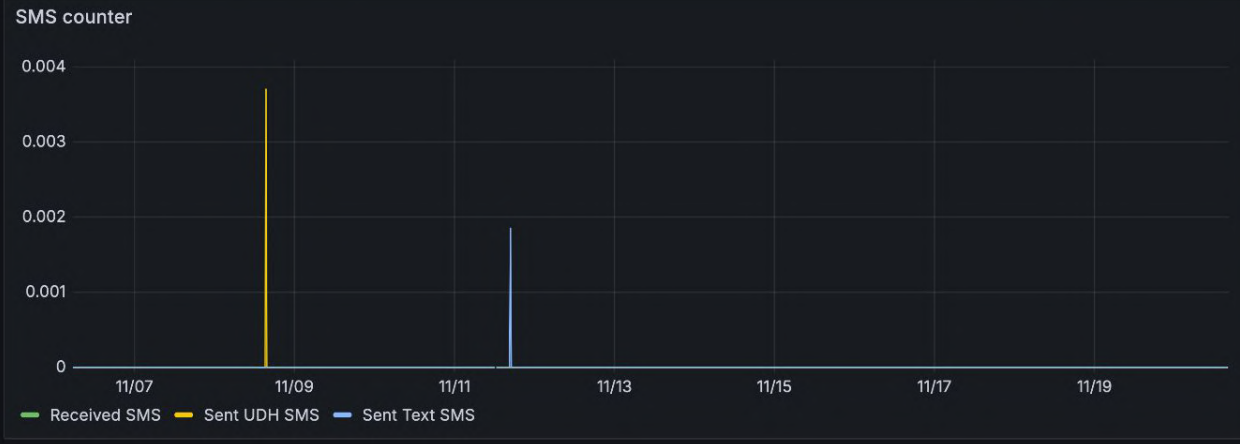
Malformed SMS can crash or even damage (if they are stored) your phone. Be careful!

```
0B0504158100000003010201024A3A7535BDB9AD95E48125CDB185B990040  
0A320CAEA2AC490628AB0C30BB0AB09A0A912418A26C4906289B08B12718A  
26C22C4906288B1241
```

```
0B05041581000000030102028710410A2AC490628AA4C30BB0AB09A0A9124  
18A2EC30C490628C312418A348490428BA12418A30C2EC2AC26C2EC30C490  
628C312418A2E800
```

send to:





SMS received

477

Ringtones sent

319

SMS sent (Text)

24

Logos sent

400

SMS sent (UDH)

31

J2ME sent

39

Logs

Date	Phonenumber	Type	Log
2024-11-17 00:50:16	+49	storedwap_media	{ "USER": "blamba", "HOME": "\\var\\www\\blamba\\htdocs\\", "S
2024-11-17 00:49:47	+49	send_udh_sms	0605040b8423f001060403ae81ea02056a0045c60b036874747C
2024-11-17 00:49:47		generate_wap_push	{ "url": "http://wap.blamba.de/wp/YXG26sutMaHLKkrHOIYTSA
2024-11-17 00:49:47	+49	web_transfer	{ "msn": "113", "contentid": "00600" }
2024-11-11 15:37:30	6083	send_text_sms	miau :3
2024-11-08 14:23:19	+49	send_udh_sms	0B0504158200000003010202FFCE3C78FBB80E00

Available logos

271

Available ringtones

199

Blamba Gateway v1

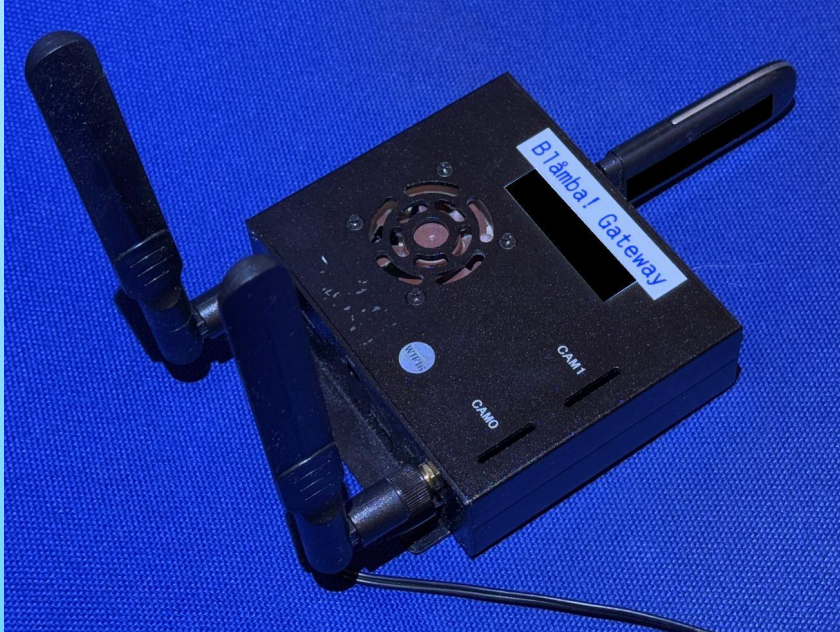


- Intel NUC
- ZTE 3G USB dongle
- C3GSM SIM card
- WiFi & Ethernet

- Used at Camp 2023
- i219 tso/gso offloading bug



Blamba Gateway v2



- Raspberry Pi CM4
- Same ZTE 3G USB dongle
- C3GSM SIM card
- AX200 PCIe WiFi card

- Used at 37C3 and 38C3



Edit <> Code Jump to bot

[RTTTL] Add IevanPolka #8

Merged

Manawryrm merged 1 commit into blamba-de:main from H3wastooshort:main on May 28

Conversation 3 Commits 1 Checks 0

H3wastooshort commented on May 28

Credits

H3

Technical info

RTTTL player in LogoManager v1.4

Other requests

It's quite late, i'll have to check if it sounds right tomorrow...

add bLamba Logo 5cd8513

[RTTTL] Add IevanPolka 50

Manawryrm commented on May 28

Edit <> Code Jump to bott

Added operator logos #4

Merged

Manawryrm merged 7 commits into blamba-de:main from Pixtxa:main on Aug 7, 2023

Conversation 4 Commits 7 Checks 0

Pixtxa commented on Aug 7, 2023

Credits

Pixtxa

Technical info

untested

Other requests

It's pixelated by hand and I don't have the equipment to test it, but it would be nice to see the logos in the field

add blank and censored operator logos ace26

Pixtxa added 7 commits last year

Added blank and censored operator logos ace26

Edit <> Code Jump to bottom

First few ideas for operator logos #1

Merged

Manawryrm merged 3 commits into blamba-de:main from tabascoeye:main on Jul 22, 2023

Conversation 2 Commits 3 Checks 0

tabascoeye commented on Jul 22, 2023

Credits

TabascoEye

Technical info

totally untested

Other requests

please give feedback if format or syntax needs to be changed

add bLamba Logo 5cd8513

tabascoeye added 3 commits last year

Create .gitkeep 4e8390a

Edit <> Code Jump to bottom

add blamba logo #7

Merged

Manawryrm merged 1 commit into blamba-de:main from H3wastooshort:main on May 27

Conversation 1 Commits 1 Checks 0

H3wastooshort commented on May 27

Credits

H3

Technical info

Nokia 6110 via LogoManager v1.4 demo

Other requests

add bLamba Logo 5cd8513

add bLamba Logo 5cd8513

Manawryrm merged commit f302b0c into blamba-de:main on May 27

Revert

[RTTTL] Add IevanPolka #1

Merged

Manawrym merged 1 commit into blamba-de: H3wastooshort:main on May 28

H3wastooshort commented on May 27

Credits

H3

Technical info

RTTTL player in LogoManager v1.4

Other requests

It's quite late, i'll have to check if it sounds tomorrow...

[RTTTL] Add IevanPolka

Manawrym commented on May 28

TOP COLOR LOGOS



cccamp23_logo

Show all color logos!



sprayed-23



Blahaj



cyber-yellow

TOP OPERATOR LOGOS



Show all operator logos!

mba logo #7

Merged 1 commit into blamba-de:main from rt:main on May 27

H3wastooshort commented on May 27

Technical info

via LogoManager v1.4 demo

Other requests

blamba Logo

Manawrym merged commit f302b0c on May 27

Thanks to



- LaF0rge
- Billy549
- NikTheDusky
- Benjamin Erhart (jsPduDecoder)
- Mike Kohn (ringtonetools)
- Jennifer Graul (bwrap-seccomp)

and all the Osmocom, ImageMagick, Kannel, etc. folks!



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Questions?

Thank you for listening!



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Klingeltöne für dein Handy

Charts

	monophon	polyphon
1 Never Gonna Give You Up	00616	00618
2 Monkey Island	00076	00677
3 Nyan Cat	00090	00316
Still Alive	00678	00361
Outrun	00078	00284
Jeopardy	00073	00615
Popcorn	00064	00359
DOOM E1M1	00648	00675
Boom Boom Dollar	00674	00283
Butterfly	00617	00276
Great Giana Sisters	00066	00679
Delta	00676	00320

Logos

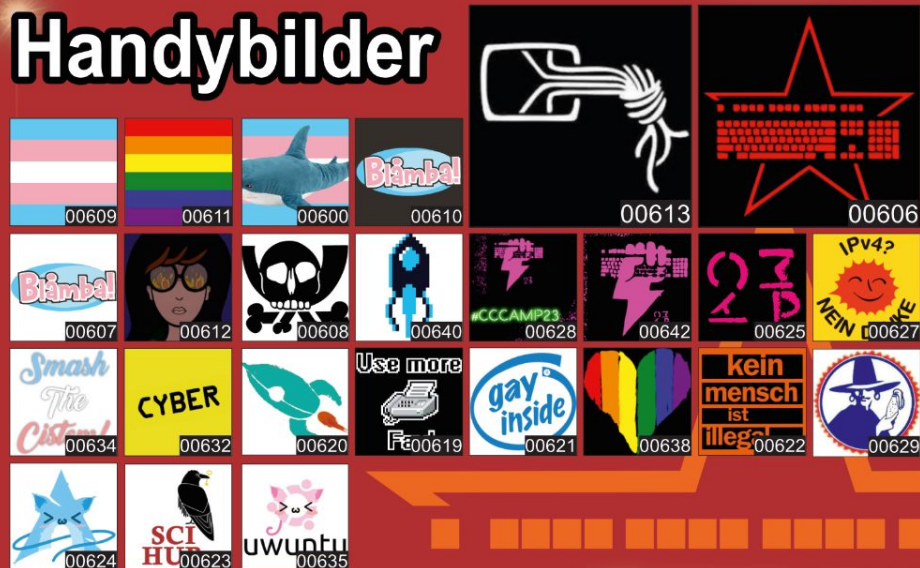
 Linux	 JAVA™	 WITCH
00523	00540	00558
 CAUTION	 This side up.	 C: \>
00541	00528	00727

252622*

Im C3GSM Netz verfügbar

Blämba!

Handybilder



Für Handybilder
z.B.



Sende
„00613“
an

252622*

Im C3GSM Netz verfügbar