

## **N900 Hardware**

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*Experience the speed and raw power  
of the high-performance Nokia N900  
mobile computer.*

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***<http://www.libelektra.org>***



# Hardware

- Gewicht: 182 g
- Maße: 111x60x19
- Bildschirm: 800 x480 Pixel (touch sensitive)
- GPS: with A-GPS
- Camera: 5 megapixel camera
- Video: 848 x 480 pixel (WVGA), up to 25 fps
- TV out



# Additional Features

- Helligkeitssteuerung
  - Tastatur
- Umgebungslichtsensor
- Abstandssensor
- Front Kamera
- Stifteingabe
- Status-LED (gelb, blau, grün)



# Prozessoren

- ARM Cortex - A8 superscalar microprocessor core 600 MHz, less than 300mW
  - Multimedia and Signal Processing
- PowerVR SGX530 GPU
  - OpenGL ES 1.1
- TMS320C64x DSP/ISP 430 MHz
  - JPEG compression (up to 12 MP)



# Storage

- 32 GB partitioniert mit swap, /home und /home/user/MyDocs (vfat, mountable)
- 256 MB NAND Flash (flashable)
- Optional micro-SD Card



# Networking

- 3,5G UMTS (HSPA 10MBit/s, 2MBit/s up)
- WLAN 802.11g
  - Mit Assistent
- Quadband GSM mit GPRS und EDGE
- usb networking
- Bluetooth



# Missing

- oled/e-ink
- Usb to go
- Stärkere Batterie
  - Nicht Linearität
  - Unter Umständen nach 3h leer



## **N900 Software**

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*Linux-basierte Maemo 5 Software und Benutzeroberfläche mit Direct Touch-Logik, 3D-Grafikbeschleunigung, Unterstützung für mehrere geöffnete Fenster und Multitasking.*

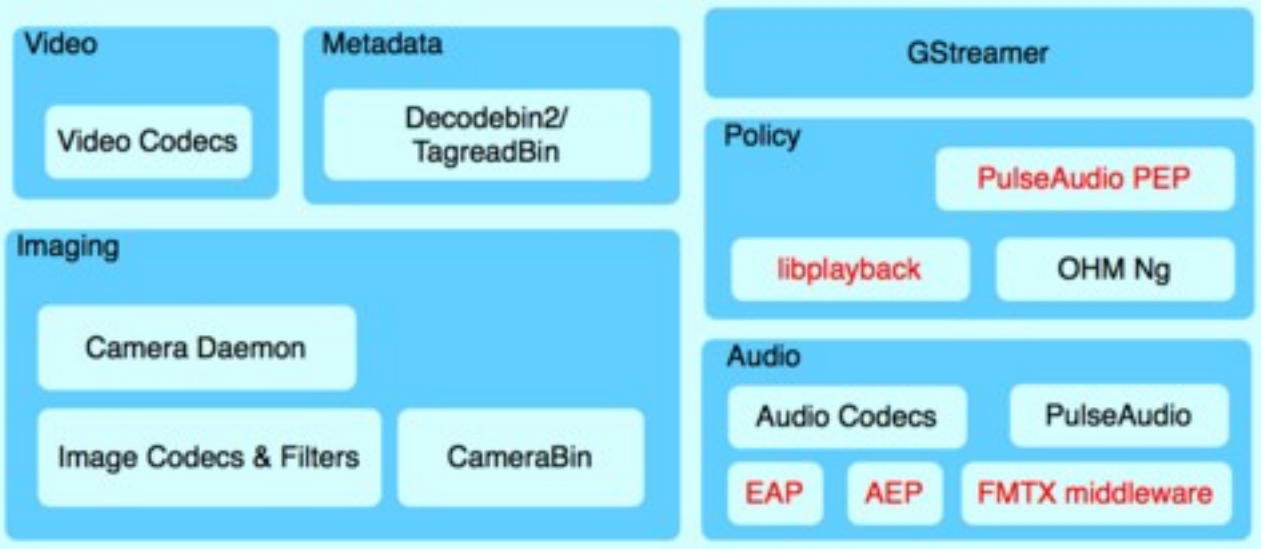
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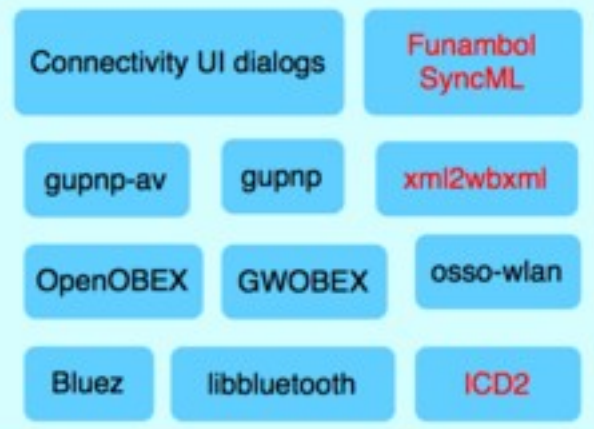




## Multimedia Framework



## Connectivity framework



## Core



## Cellular



## System Software



## Hardware



## Application interfaces

### Media Application Framework

mafw-tracker-source

libmafaw

mafw-upnp-source

mafw-gst-renderer

mafw-shared

mafw-iradio-source

Sharing plugins

libsharing

sqlite3

libmodest-dbus-client

GDigicam

calendar-backend

tablet-browser-interface

libtime

osso-games-startup

libcityinfo

## UI Framework

Hildon Desktop

Hildon Status Menu

Hildon Home

Control Panel

Input Method framework

Clipboard Manager

Restore factory settings & Clear User data framework

Clutter

Startup Wizard & scripts

## Location framework

gypsy daemon

liblocation

location daemon

## Nokia Graphics

Sounds

Icons

## RTCom

telepathy-glib

Mission Control

rtcom-eventlogger

libaccounts

SSO

### Streaming Engines

telepathy-farsight

farsight2

libnice

telepathy-stream-engine

### Connection Managers

telepathy-sofiasip

telepathy-gabble

sofia-sip

loudmouth

## Data Management

Backup

Mime and URL

ke-recv

File Handling

Address Book

Package Management

Tracker

## Toolkit

Fonts

Themes

libosso

SDL

Cairo

gconf2

Hildon Widgets

glib

gtk+

pango

gtkhtml

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# Programming

- Preinstalled
  - C/C++ using Gtk (Hildon)
  - Python 2.5.4 using Gtk (Hildon)
  - Perl 5.8.3 (modules stripped down)
  - Full Adobe Flash
  - JavaScript
- User Contributed:
  - Qt
  - Garage (mostly Linux apps)

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# Multitasking

- Real Multitasking (thanks to linux)
- Very nice program switcher
- Notifications
- Common programs always running



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# Zusätzliche Software

- Rundgang...
- Interesse?

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# Packaging

- Extras-Devel (= Experimental)
  - Upload using <http://garage.maemo.org>
  - Using ssh or web interface
- Extras-Testing
  - After Package is promoted (by someone else)
- Extras
  - well tested
  - suitable for end users



# Images

- Chroot to linux images possible
- Previous Tablets allowed Android
- Debian Image (Easy Debian)
  - oo.org
  - Lxde desktop
  - Iceweasel
  - Powerful shell

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# Backup

- backup tool
- rsync
- unison

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# Quellen

- [http://www.my-symbian.com/other/preview\\_n9](http://www.my-symbian.com/other/preview_n9)
- <http://maemo.nokia.com/n900/>
- <http://www.pocket.at/maemo/?p=1335>
- [http://www.arm.com/products/CPUs/ARM\\_CoI](http://www.arm.com/products/CPUs/ARM_CoI)

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# SDK

- Basiert auf scratchbox
- <http://wiki.maemo.org/Documentation/Maemo!>

<http://www.libelektra.org>



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# Phone Control

- Funktioniert mit dbus
- Kann verwendet werden um
  - Konsole
  - ssh
  - cron/at Jobs
- Siehe [http://wiki.maemo.org/Phone\\_control](http://wiki.maemo.org/Phone_control)

