GOWARRIOR

GOBIAN

GoBian
Data Sheet

v1.0

Overview

What is GoWarrior?

GoWarrior is a compact, open-source, community-supported embedded Android/Linux computing platform geared toward maker/ hacker/ entrepreneur/ dreamer/ artist/ student/ inventor/ hobbyist/ tinker. It brings together a rich feature set of innovative building blocks with cloud-driven back-end service deployment. It can be used to build complex applications that interact high-level software and low-level electronic circuits, helping you from idea through prototype to commercial mass production delivery.

It is also an ideal platform for prototyping to project and product design that take advantage of the power and freedom of Android/Linux ecosystem, combined with direct access to input/output pins and buses, allowing you to interface with electronics components, modules, and USB/Wi-Fi devices.

What is GoBian?

GoBian is a Linux-embedded operating system running on TIGER Board for the GoWarrior platform.

GoBian is developed based on Raspbian which is from Debian 7 wheezy armhf, and differs from Raspbian for the extra features, for example, GoBian encapsulates the RPi.gpio and other I/O libraries to facilitate transplanting projects which use the related libraries from Raspberry Pi to TIGER Board. Furthermore, GoBian provides support for multimedia by integrating GOF, Kodi and other middleware modules and applications out-of-the-box.

Features

- **Networking & Remote Access**

GoBian enables the Internet connection through Ethernet or Wi-Fi through the Ethernet port and Wi-Fi module on TIGER Board, and thus supports various methods to access to your projects and transfer data, such as FTP, SSH.

- **Timekeeping**

GoBian automatically synchronizes the system time with Internet time servers using the NTP protocol.

- **File System**

GoBian integrates a built-in file system to facilitate your data management.

- **Built-in Programming Environments**

C, C++, Python, Perl, and shell script.

- **I/O Interfaces**

GoBian lets you call the GPIO/I2C/UART/SPI interfaces directly in your projects with the built-in RPi.gpio and other libraries.

- **Multimedia**

GoBian makes it easy for the secondary development of multimedia applications with the customized GOF middleware for TIGER Board.

- **Multitasking**

The on-board ALi's M3733-AFAAA processor makes GoBian a multitasking system with good performance.

- **Linux Software**

The software programs that are available for Debian are basically compatible with GoBian.

- **Low-Power Sleep Mode**

GoBian supports the ultra-power-saving sleep mode (PMU Standby), with the entire board power consumption as low as 0.35W.

- **Multi-Screen Sharing**

GoBian integrates with [DLNA](http://www.dlna.org/) to fully support the multimedia sharing and multi-screen interaction.

- **Community Support**

The GoWarrior community is already launched to support your projects with GoBian
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Appendix A: Supported Network Protocols and Video, Audio, Container Formats

Parts of the following audio and video format need License support.

Classification	Subclass	Description
Network Protocol	HTTP	Protocol prefix: "http://", "https://"
	MMS	Protocol prefix: "mms://", "mmsh://", "mmst://", "mmsu://"
	RTMP	Protocol prefix: "rtmp://", "rtmpt://", "rtmps://", "rtmpe://", "rtmfp://", "rtmpte://", "rtmpts://"
	RTSP	Protocol prefix: "rtsp://", "rtspu://", "rtspt://", "rtsph://", "hw://"
Video Format	MPEG-4 Part 10 /AVC(H.264)	H.264 Baseline/Main/High Profile, level 1-4.1
	VP 6/7/8	——
	Xvid	——
	VC-1	VC1 Simple/Main/Advance Profile, level 0-3
	MPEG-1/2 (MP@HL)	——
	H.263 profile 0 (short header)	——
	MPEG	MPEG Audio I/II layer 1/2/3
Audio Format	AAC/HEAAC	——
	FLAC	——
	RealAudio	——
	Vorbis	——

Classification	Subclass	Description
Audio Format	PCM/ADPCM	——
	APE	——
Container Format	FLV	.flv, .f4v video
	MPEG-TS	.ts, .m2ts, .mts, .tp, .trp
	MP4	.mp4
	MPEG-PS	.dat, .mpg, .mpeg, .vob
	Ogg	——
	3GP	——
	ASF	——
	AVI	——
	WAV	Audio only
	Matroska	.mkv, .mka, .mks, .mov
	RealMedia	.ra, .ram,.rm,.rmvb ; License required
Picture Format	PNG	——
	GIF Static	——
	BMP	——
	JPEG	——
	WebP	——
Subtitle Format	ASS/SSA	.ass, .ssa
	MicroDVD	.sub

Classification	Subclass	Description
Subtitle Format	VOBsub	.sub+.idx
	SubRip	.str
	SMI	.smi
	PGS	——
Variable Bitrate Streaming Media (Adaptive Streaming)	Http Live Streaming, Smooth Streaming	——
Audio Encoding	AMR-NB, AMR-WB, AAC LC, HE AACv1, AAC ELD	——
Image Encoding	PNG	——

Appendix B: Supported Kodi Plugins

Classification	Plug-in Name	Result
Video Plugin	Filmikz	PASS
	FilmOn	PASS
	FilmOn.TV	PASS
	FliXanity	PASS
	Football Replays	PASS
	Genesis	PASS
	HowStuffWorks.com	PASS
	Husham Lists	PASS
	IPTV Stalker	PASS
	IPTVTR	PASS
	IPTVxtra Ukxtra	PASS
	KIDSIL	PASS
	Mikey's Karaoke	PASS
	Movies XK	PASS
	Movies4ME	PASS
	Much Movies HD	PASS
	One Click Watch	PASS
	Online HD Movies	PASS
	p2p-streams	PASS
	Pak India Live	PASS
	Phoenix	PASS

Classification	Plug-in Name	Result
Video Plugin	Project Free TV	PASS
	S.P.O.P.T	PASS
	Supper Cartoons	PASS
	The GiddyUp Network	PASS
	World News Live	PASS
	World Tv Xunity Talk.com	PASS
	XMovies8	PASS
	ZemTV.com	PASS
Audio Plugin	Hellenic TV	PASS
	Old Skool	PASS
	BBC Podcasts	PASS

Appendix C: Supported DLNA/Miracast Classes and Features

Classification	Subclass	Description
DLNA	DMR	Service release, device discovery
		Media push and playback
		Playback control
		Playback status
		Error handling
	DMS	Service release
		List content
	DMP	Device detection
		Directory browsing
		Media play
Miracast	Sink	Device discovery
		Device connection
		Audio, video & image push
		Device reconnection after disconnection
	HDCP	Protect transmission content