/k/ Embedded Java Solutions

Mika Product Sheet

/k/ is the main developer and maintainer of the Mika Virtual Machine, derived from the Wonka VM developed by ACUNIA. Mika is available as the fully open-source Open Mika or in an enhanced version Mika Max.

Open Mika – an open-source runtime for embedded Java™
Mika Max – with full support (SLA) and additional functionality

Open Mika core features

- Open source Java for the embedded world: BSD-licensed virtual machine and class library targeted at embedded systems
- Support for Foundation Execution Environment (OSGi RFC 26)
- Runs under Linux/uClinux on all major 32-bit architectures using advanced interpreter with JIT-like runtime optimisation features
- Supports Java Native Interface (JNI) (except Activation Interface)
- Tested and in daily use with OSGi frameworks such as Knopflerfish, Apache Felix
- Small ROM footprint (without AWT: <2MB, with AWT: approx. 2.5 MB)

Open Mika optional features

- AWT (runs directly on Linux framebuffer or memory-mapped screen)
- Byecode verifier
- Fine-grained security manager

Open Mika web site

(SVN repository, forums, wiki, ...): http://www.k-embedded-java.com/mika/trac/

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Mika Max service levels

Mika Max incorporates a Service Level Agreement (SLA) and additional components (see below). The SLA is available in three versions: Bronze, Silver, and Gold. Through a special arrangement with MakeWave a Mika Max and a Knopflerfish Pro SLA at the same level can be combined at a reduced price ("2 for the price of 1.67").

Item	*Description*	*Bronze*	*Silver*	*Gold*
E-mail support	Unlimited email advisory service during normal business hours	x	x	x
Telephone support	Unlimited phone advisory service during normal business hours		x	x
Telephone support	Limited phone advisory service during normal business hours	20 hrs	N.A.	N.A
Telephone support	Limited phone advisory service outside normal business hours			x
Documentation	Knopflerfish Pro and Mika Max documentation	x	x	x
Bug DB	Access to on-line bug tracking system	x	x	x
Error Rectification	Error corrections in reported defects	x	x	x
Technical Account Owner	/K/ will provide a named Technical Account Owner who is updated with the customers use of Licensed Software and can be used for telephone and email consultation			x
Indemnification	Mitigates the potential risk in the unlikely event of a covered intellectual property infringement claim.			x
Systems Expert Access Service	Access to a systems expert from /K/ or Makewave for technical advice, reviews of design or architecture (days)	1	1	3
Advance Information	Access to advance information regarding items like upcoming features, API-changes, early access to products, etc		x	x
Review Meetings	Annual review meeting, covering issues like number of defects issued, number of defects solved, number of upgrades delivered, and error response times			x
Response times	Response time on reported defects (business hours)	16	8	4
Supported developers	The number of developer's supported	4	10	20
Named contact persons	The number of named primary contact persons (customer)	1	1	2

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Mika Product Sheet

Mika Max supported platforms

The target systems supported by /k/ are divided into the following categories:

Category	Meaning
Reference	These platforms are fully supported and functionality is verified for each release.
Supported	These platforms are supported although functionality is not verified for each release.
Other	These platforms are not formally supported although believed to work.

Ports to other or future OS/Architectures, and support for other targets will be handled separately on a case by case basis.

Run-time Operating System	Processor architecture	Support Category
Linux	x86 (32-bit)	Reference
Linux	Arm7, arm9, Xscale	Reference
Linux	MIPS BCM63xx or similar	Reference
Linux	SH4	Reference
Linux	PowerPC	Supported
Any	Any	Other

Mika Max supported OSGi frameworks

Mika Max supports the Execution Environment defined in OSGi RFC 26, and therefore in principle all OSGi frameworks should run on Mika; however currently only Knopflerfish and Apache Felix have “supported” status. For other frameworks please contact /k/.

OSGi Framework	Support Category
Knopflerfish / Knopflerfish Pro	Reference
Apache Felix	Supported
Any	Other

The combined Mika Max – Knopflerfish Pro SLA described above includes the right to claim that a product “Contains an OSGi Compliant Service Platform”.

Mika Max additional components

The following additional components are currently defined as part of the Mika Max product offering:

- DinkySSL – a small; all-Java solution for connecting to a web server using HTTPS. This implementation works only as a client, and does not present a client certificate. Availability: now.
- Ahead-of-time compiler – converts selected methods into native code which is then loaded as a runtime library. First version will support only the compilation of system APIs, later versions will allow selective conversion of OSGi bundles into native code. Availability: first version is currently being tested internally, first betas will be made available in April 2009.
- Just-in-time compiler – converts most-used methods to native code at runtime. Availability: to be announced, currently in top-level design phase.

Further components will be added later. In the medium term we anticipate the addittion of support for Java5 features such as generics, and a more comprehensive SSL/HTTPS solution.