

# **Mercury**<sup>®</sup> **API**

The ThingMagic<sup>®</sup> Mercury<sup>®</sup> API makes it easy for system integrators, OEMs and ISVs to discover, provision and control ThingMagic readers – removing complexities, speeding RFID solution development and resulting in a quicker return on investment.

An extensive software development kit (SDK) with example applications and sample code in Java, C and C#, the Mercury API offers a consistent programmatic interface across all ThingMagic finished readers and embedded RFID modules. The intuitively designed and well documented Mercury API requires little RFID expertise, enabling developers to rapidly design and test:

- Reader and tag commands
- Advanced read functionality such as setting antennas, protocols and filtering criteria
- Advanced tag operations such as killing and locking tags
- Privacy and security features
- Performance and memory optimization



The ThingMagic Mercury API is available for several different programming languages, is written in Java, C and C#, and supports the following application types:

- .NET applications in the .NET Compact Framework v2.0
- Windows applications in the .NET Framework
- Windows applications in the Java Framework
- Linux (Intel) and MacOSX applications in the Java Framework
- Android applications in the Java Framework

The Mercury API communicates with readers through a TCP-based network connection or via local serial ports. On-reader applications are supported on the Mercury6 and Astra-EX readers through the Mercury API.

## Programs to control the reader can be extremely simple or very powerful. Here are the 4 basic commands needed to activate a reader and return results.

Function	Examples	Features
Create	rdr = Reader.Create (tmr://192.168.12.101)	Creates reader instance, giving reader type and identifier. If "tmr" is used for reader type, API determines reader type automatically
Connect	rdr.connect()	Activates connection to reader, defined in "Create" command
SetRegion	rdr.ParamSet("/reader/region/id", Reader.Region.NA)	Sets regulatory region of operation. This example sets it to "NA" – North America. A list of supported regions can be obtained from the reader before this choice is made.
Read	tagReads = rdr.Read(500)	Read commands can be simple or very powerful. This simple form reads for 500 ms and returns an array of results, using default settings and automated discovery of active antennas.



#### MAKING RFID EASY TO USE

ThingMagic is dedicated to driving the barriers to deploying RFID technology as low as possible. We design our products to be easy to use out-of-the box and to deliver predictable, reliable, and repeatable performance. Our development tools require little RFID expertise, enabling you to rapidly design, test, and deploy your RFID solutions.

#### **Developers Kit**

Everything needed to read and write RFID tags and begin developing **RFID-enabled** applications:

- Test chassis
- Cables
- Antenna
- Sample Tags

- Full schematics to help you design your own complementary components

#### THINGMAGIC PRODUCTS

#### Mercury API

A common development platform, supporting an extensive variety of hardware to connect, configure, and control ThingMagic readers.

#### **Universal Reader Assistant**

A utility for advanced demo, testing, and tuning of all ThingMagic readers. Reduces complexity for novice users while permitting low-level control for advanced developers.

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Embedded RFID	Fixed/Multiport:	Integrated:	Ruggedized:	Desktop:
Module Family	Mercury6	Astra™-EX	Vega™	USB Plus+

## Develop

Create RFID-enabled solutions

using industry-standard tools

### Deploy

Enable rapid deployment and reliable operation of RFID solutions within a wide variety of new and existing environments

## Optimize

Maximize productivity, improve ROI, and lower operating costs



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