

## **Mercury®API**

The ThingMagic® Mercury® 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

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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
- iOS application with Mercury API using XCODE Framework

The Mercury API communicates with readers through a TCP-based network connection or via local serial ports. For Android applications, the Java API includes built-in support for connecting to Mercury 6e and Mercury 5e series modules over Bluetooth. On-reader applications are supported on the Mercury 6 and Astra-EX readers through the Mercury C 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 =<br>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<br>"Create" command  |
| SetRegion | rdr.ParamSet("/reader/region/id",<br>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. |



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#### **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

### 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.

#### THINGMAGIC PRODUCTS



Embedded RFID Module Family



Fixed/Multiport: Mercury6



Integrated: Astra™-EX



Ruggedized: Vega™



Desktop: USB Plus+

