

# Mango

## AUTOMATION

### OVERVIEW

Mango Automation platform is a 100% browser-based, cross platform software application that enables users to access and control electronic sensors, PLC's, devices, databases or web services over multiple protocols simultaneously. Mango provides an interface with which diverse data sources can be created and configured while providing downstream management of user access, alerts, data logging, alarms and automation.

### REQUIREMENTS

<b>Processor</b>	Intel Core i5 or better, fully multi threaded and compatible with multiple CPU cores
<b>RAM</b>	- Less than 20,000 data points 8GB - Greater than 20,000 data points 16GB or more
<b>Hard Drive</b>	- SSD Preferred - 500MB minimum for Mango - 1GB per 50 million values in Time Series Database
<b>Operating System</b>	Windows 7 or greater, Linux or Mac OSX 64 bit
<b>Server Type</b>	Physical or Virtual including Amazon or other hosted server
<b>Software Dependencies</b>	Oracle Java JDK 1.8
<b>Databases Dependencies</b>	- None required - MySQL recommended for more than 5000 data points
<b>Browser Support</b>	<b>Recommended</b> - Current versions of Chrome or Firefox <b>Supported but not recommended</b> - Safari - Edge <b>Not Supported:</b> - Internet Explorer
<b>Internet</b>	Not required but preferred for easy upgrades and support

### FEATURES



#### Built In Protocols

With BACnet, Modbus, MQTT, SNMP, DNP3, SQL, CSV Files, HTTP, and others there is no need to pay for extra drivers or software tools.



#### High Performance Time Series Historian

Mango is capable of storing billions of historical values with ground breaking throughput while utilizing surprisingly small amounts of disk space.



#### Built In Analytics

Mango provides several standard web interfaces for users to perform quick and efficient analytics of systems.



#### Report and Billing

Create fully customized reports & bills using Excel documents. Reports can be manually or automatically delivered to users' email inboxes.



#### System Scalability

From a simple standalone application to a global data acquisition system with thousands of remote nodes, the same Mango software scales for all types needs.



#### Automation & Alarming

Mango includes powerful scripting environments that allow users to write control algorithms. Users can configure multiple types of alarms to trigger event handling or notifications.



#### Leading Edge Data Visualization

Utilizing leading open source web development technologies, Mango provides a flexible development platform for mobile-friendly dynamic dashboards, web/mobile apps and kiosks.



#### Powerful IIoT & Remote Site Monitoring

With automatic data replication, self healing history synchronizations and real time updates you can configure your global data acquisition / IIoT system to suit any need.



## FEATURES OF DIFFERENT VERSIONS

	Personal	Gateway	Commercial Light	Commercial	Enterprise
# of Data Points	300	100	500	1000	Unlimited
User Connections	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
Annual Maintenance Fee	None	None	None	None	None
Protocols	✓	✓	✓	✓	✓
REST API	✓	✓	✓	✓	✓
Mango Cloud Syncing	✗	✓	✓	✓	✓
Reports	✓	✗	✓	✓	✓
Custom Graphic Pages	✓	✗	✓	✓	✓
High Performance Time Series Database	✗	✓	✓	✓	✓
Comercial Use	✗	✓	✓	✓	✓

## ADD-ONS

Name	Description
<b>Excel Reports (ExcelReports)</b>	Excel Reports is a powerful reporting module that allows you to use an Excel document as a template for reports. Mango will automatically insert data into the document and optionally email it to you on a schedule. Reports can include formatting, formulas and macros.
<b>Allen Bradley EthernetIP (abeip)</b>	Allows communication with Allen-Bradley's ControlLogix series of PLC processors. Please note that PCCC support (PLC-5, SLC series) is not included, please use the <b>abpccc</b> module.
<b>Allen Bradley PCCC (abpccc)</b>	Allows communication with Allen-Bradley's PLC-5 and SLC series of PLC processors.

## SUPPORTED PROTOCOLS

- Modbus IP
  - Modbus Serial
  - BACnet IP
  - BACnet MS/TP
  - MQTT
  - HTTP
  - SNMP
  - SQL
  - ASCII File
  - Serial
  - MBus
  - DNP3
  - POP3
  - Data Files (XML, CSV, XLS, BIN)
  - Temperature Sensors
  - Allen Bradly (extra fee)
  - Mango Cloud Sync
  - Haystack
- Many more...**

## ORDERING INFORMATION

### Mango Automation - [Version]-[Addons]

<b>Version</b>	- Gateway - CommercialLight - Commercial - Enterprise
<b>Addons</b>	- ExcelReports - abeip - abpccc



**Building Automation**



**Industrial Internet of Things**



**Data Center Automation**



**SCADA**