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## Release Notes Tempurity System Version 2.0

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### Introduction

Tempurity Version 2 includes new versions of both the Tempurity Monitor and the Tempurity Server. Version 2 Tempurity Monitors must be used with Version 2 Tempurity Servers.

Tempurity System Version 2 Enhancements:

- 1) Monitoring of non-temperature devices
- 2) Alarm notification architecture for spam-protective environments
- 3) Enhanced voice alarm notifications
- 4) Statistics and improved graphing
- 5) Server-entered calibration factors
- 6) Data collection from monitored devices via domain names
- 7) Easier server configuration and configuration audit trail

Version 2 supports Networked Robotics' new hardware product line. You can now measure oxygen, carbon dioxide, humidity, and temperature directly from some brands of incubators, Networked Robotics HPL1 humidity sensor, and the ACL1 power sensor. Doors and other kinds of switches can be monitored with the Networked Robotics DCP probe. Your existing Networked Robotics NTMS can collect from these sensors without the need for new network hardware.

The new server is compatible with your old data files, and thus you can continue to provide historical data. The data format has changed to store additional information in Tempurity Server Version 2 data files; however this does not affect the ability to access older data.

If you attempt to connect a Version 2 Monitor to a Version 1 server, the Monitor's server connection indicator will be a red color, indicating failure to connect.

Below are descriptions of changes in Tempurity Version 2.

## **1) Monitoring of Non-temperature Devices**

The Tempurity Server Configuration Utility now allows the entry of non-temperature “monitored device types” which means you can collect from humidity, voltage, % oxygen, and other sensor types. A command character is entered that indicates the network command used to elicit network data collection. Network commands are mapped to the type of data returned by the system through Networked Robotics NTMS (Network Telemetry Monitoring System) hardware. The degree of precision for the values returned by the monitored device can now be specified. The type of units can be specified however it is the customer’s responsibility to enter these units correctly. Except for temperature, there is no support for unit conversion in the version 2 Tempurity Monitor.

## **2) Tempurity Server-based Alarm Notifications**

Mail servers are getting tougher about who they accept mail from. This is the case with both our customer-controlled mail servers and the mail engines of the recipient accounts like Google and Yahoo. Tempurity now supports the routing all mail through the Tempurity Server, and using authenticated SMTP for easier, more reliable alarm notification configuration.

As was the case in version 1.5, the Tempurity Monitor runs as a service rather than interactively. This means that as long as the computer is running (and configured properly) the Tempurity Monitor is always running. In Version 1 and 1.2 alarm notification messages are sent to recipient mail servers either directly, or through an SMTP server. In Version 1.5 the Monitor sent alarm notification messages directly to the internet over port 80 to a Networked Robotics server that relayed those messages via a HTTP Post to the alarm notification recipients. In version 2, Tempurity Monitors send alarm notification messages over port 80 to the Tempurity Server. The Tempurity Server then relays these alarm notifications to mail servers (usually the customer’s corporate mail server) through an authenticated connection. In this way spam protection mechanisms either within customer mail servers, or at ISP mail servers that could potentially inhibit alarm notification sends, are no longer an issue. A username and password for a mail account must now be entered at the Tempurity Server. All alarm notifications stemming from Tempurity Monitors watching monitored devices on this server are sent through authentication using this account.

You may wish to create a generic mail account in your mail system that will be used as the "from" address for Tempurity System alarm notifications.

Tempurity Server computer firewalls will need to accept port 80 connections as well as the current port 3010. Network connectivity must exist between Tempurity Servers and the mail server that is logged into.

### **3) Voice Alarm Notifications**

The mechanism of voice alarm notifications has changed in Version 2. An alarm notification type of “Voice alarm” can now be selected. Now Tempurity Server administrators must enter a Voice Account ID that allows the Tempurity Server to send voice alarm notifications. This ID is obtained from Networked Robotics. It is an account number, used to charge back phone calls sent to the alarm notification recipients.

This Version 2 voice alarm notification architecture is more secure than in 1.5. This is important given the highly distributed architecture of Tempurity. Voice alarm notifications are controlled centrally – at the Tempurity Server.

The current implementation of security for voice alarm notifications is by source IP address. Source IP addresses must be provided to Networked Robotics for each Tempurity Server to enable voice alarm notification. Multiple IP addresses can be provided.

Voice alarm notification messages have been enhanced so that they are easier to understand.

### **3) Calibration Factors**

A constant calibration factor can now be applied to the reading from any monitored device. These values are recorded for every data file, thus both the “actual” and “corrected” readings are stored for every measurement. Only the “corrected” readings are displayed through the Tempurity Monitor.

### **4) Data Collection from Monitored Devices via Domain Names**

You can enter either an IP address or the domain name of a network source from which data will be collected.

### **4) Statistics**

The mean data value, number of data points, minimum, maximum, number of out-of-range low events, number of out-of-range high events, percentage of measurements in and out-of-range can now be displayed for any graphed time range.

### **5) Graphing**

Overlays of up to 2 monitored devices are now permitted on a graph. A last-out-of-range feature has been added.

## **6) Server Configuration Audit Trail**

When a server configuration is changed, it is stored by date. This means that server configurations can be easily restored to the configuration extant on any date.

## **Installation Issues**

### **1) Removing the Old Version**

To install on a computer on which the Tempurity Monitor or Tempurity Server is already installed, download the version 2 product from the Networked Robotics web site, you will need to remove the old version before running the installer. Click on "Control Panel" then "Add/Remove". Click on the monitor or server or both and click "Remove".

### **2) Server Firewall Open on Port 80**

The firewalls on Tempurity Server computers must be set to allow connections on port 80.

### **3) Conflicts on Port 80**

Tempurity Servers must not be running web server software such as Internet Information Services which will interfere with the ability for the Tempurity Server to accept port 80 (web or http) connections.

### **4) Minimum Server Configuration**

The Version 2 Tempurity Server computing requirement is enhanced to a 2 Ghz Pentium 4 computer or faster.

### **5) Server/Mail server Connection**

The Tempurity Server computer must now be able to connect to your company's mail server over port 25.

### **6) Data/Configuration not Altered**

A backup of the Tempurity directory in Windows/System32 is recommended before installation; however neither existing data or existing configurations will be lost during an upgrade from Tempurity Server 1 to Tempurity Server version 2.

## **7) Alarm Notifications not Altered**

Tempurity Monitor alarm notification parameters will not be affected during an upgrade from a Version 1 Monitor to a Version 2 Monitor. For some monitors you may wish to back up alarm notification configurations using the Regedit tool in Windows.

Networked Robotics recommends using the “Test” button for each alarm notification group to verify correct alarm notification configuration after the upgrade.