What is *iCentral*™?

Simply, iCentral ™ is a comprehensive, web based water management system that allows remote control for one or more Eagle-i/Eagle-I Plus irrigation controllers. The iCentral ™ website utilizes reliable 2-way wireless communications from the Internet to each field controller (US Patent No. 6,823,239). The iCentral ™ system takes advantage of existing commercial wireless carrier infrastructures; therefore, the activation of the wireless service to your controller is performed directly from the Rain Master website hereafter described.

This central system provides total control and allows programs to be entered or modified from the website. The "Automatic Scheduler" feature provides individual station customization relative to plant and soil type, slope conditions, sprinkler precipitation rates, root zone depth and even allowable depletion. The website is intelligent and automatically informs you via email or text message to your cell phone with a "Smart Alert™" anytime a remote field change has occurred. The website also allows you to initiate a rain shutdown command to one or more controllers, modify individual controller setup information and to turn on/off any station or program. The website has been designed for ease of use, and simplicity, so that little or no training is required. If you should need help, Rain Master's support staff is available during normal business hours (8am to 5pm PT, M-F).

In addition to central control, the website has the ability to collect and disseminate daily weather information so that water savings can be maximized. The system can be set up so that weather information (ET – EvapoTranspiration) is automatically sent to each controller every day with the use of *ZipET™.* Once the weather information is received by the field controller it intelligently modifies scheduled station runtimes to meet plant demand. The website may also initiate a "rain shutdown" to each of your controllers if it has determined that rain fall in your area necessitates a shutdown.

The *iCentral*™ system, with additional options, can intelligently detect broken heads, pipes, and mainline faults when a flow sensor is connected to the controller. Additionally, the **Eagle-i/Eagle-i Plus** controller has the ability to detect wiring faults associated with station field wiring. All of the field alarms are processed thru the website as they occur, and notification is provided to the website, as well as via email or cell phone text message to the responsible manager. The Eagle-i/Eagle-i Plus is also available with the Rain Master TWICE (2-wire) option.

Finally, you can manage your entire system with Rain Master's *iCentral*™ web services. Reports are available to show all web and field activity. Additionally, all monthly billing/payment can be reviewed and performed on-line via the Rain Master *iCentral*™ website.

iCentral: Frequently Asked Questions

1. *What is iCentral?*

   iCentral is the first Internet based Central Control Irrigation System. By logging on to Rain Master's iCentral website, users may control, monitor, and manage their irrigation needs via the internet.

2. *What specific functions can iCentral perform?*

   ➢ **Command and control**.
     ▪ Users may enter, modify, or view irrigation schedules for any iCentral enabled Irritrol Rain Master Eagle-i/Eagle-i Plus controller using the internet.
   ➢ **Water conservation**.
     ▪ iCentral monitors your local weather on a daily basis and automatically adjusts your controller's irrigation schedules based upon plant watering needs.
     ▪ iCentral monitors your local area rainfall and automatically performs a rain shutdown to your controllers. Similarly, iCentral intelligently restores your system back to the automatic watering mode when irrigation is required.
   ➢ **Timely maintenance**.
     ▪ Automatically take appropriate corrective action if and when field anomalies occur (i.e. broken heads, pipes, faulty station wiring and flow problems.)
     ▪ Smart alerts™ provide immediate user notification via email to your cell phone, computer, or any email capable device. These notifications inform you where the problem is, what the problem is, and at what time the problem was detected.
   ➢ **Irrigation management tools.**
     ▪ Command a manual rain shutdown or resumption of automatic watering from the internet.
     ▪ Start or stop irrigation of any station or program from the internet
     ▪ Management reports
       • water usage
       • system anomalies/alarms
       • Sensor and weather station reports
       • Irrigation Schedule reports
       • Operator scheduling and usage reports

   ➢ **"Intelli-Sync™" control.**
     ▪ Your Eagle-i/Eagle-i Plus controller and iCentral allow programming changes to be performed either in the field or at iCentral. Intelligent synchronization (Intelli-Sync™) processing notifies the iCentral web user any time a field programming change has occurred at any controller. The iCentral user may then elect to accept or reject the field modifications.
     ▪ Intelli-sync™ ensures that your controller's date/time is always correct by accounting for daylight saving time transitions, or inadvertent date/time adjustments at the controller.

3. *What do I need to use iCentral?*

   In order to use the iCentral system you need a Irritrol Rain Master Eagle-i/Eagle-i Plus controller and the corresponding "iCentral" communication card. The controller and communication card may be purchased as a package or the iCentral card may be added to any existing Eagle controller at any time. The iCentral card includes a small antenna which mounts directly on the underside of the enclosure. Once the installation is complete, proceed to the Rain Master website at www.rainmaster.com and click on the "iCentral" icon. The website guides you through initial user account creation, and directs you to "activate" your controller. Once service activation is complete, the power and benefits of the iCentral system is at your fingertips.

4. *How exactly does iCentral save me money?*

   Rain Master's iCentral system saves money for installation contractors, maintenance contractors, and end users in several ways:

   - Because the iCentral system uses wireless technology, installation costs are minimal. Costs associated with the complexities of phone line installation, and/or trenching for communications wires are non-existent with iCentral installations. A typical iCentral installation for a wall mount controller has three steps: (1) hang the controller on the wall (three screws) (2) mount the small antenna to the enclosure (An enclosure knockout is provided) (3) wire the AC power, ground, and station wiring connections in the traditional fashion.
   - End users benefit from iCentral water savings capabilities. Water savings occur when iCentral is setup to adjust irrigation schedules using daily weather data (i.e. evapotranspiration information as well as rainfall). Typical water savings range from 20-35% depending on your current systems operating variables and your schedule adjustment practices.

   - Maintenance contractors save money because minor adjustments and schedule changes can be made effortlessly from the office. Adjustments may include scheduling changes, rain shutdowns, and or manual irrigation cycles. Because control is provided through the internet, maintenance contractors may instantly respond to owners requests for field changes thereby negating the need for physical on-site visits.

   - Maintenance contractors may elect to "lockout" field programming changes at the controller in order to ensure that schedules are not mis-programmed

in the field. Mis-programmed controllers may result in damage to a landscape as well as being a potential source for customer dissatisfaction.

- Both maintenance contractors and end users benefit from the 24 hour round the clock monitoring activity performed by iCentral. Your Eagle controller has the ability to respond to field anomalies, i.e. broken heads, pipes, and mainlines in an immediate fashion, thereby eliminating runoff, damage to landscapes, and potential lawsuits. Once a problem area is detected, the controller takes the appropriate corrective action. Lastly an email is sent to your cell phone and/or PC in order to inform the user/Maintenance contractor of the specific problem condition.

5. *What are the advantages of using the internet over conventional central control systems?*

- **Affordable low-cost central.** The iCentral design utilizes one electronics card that plugs directly into your existing Eagle controller. With a minimum of components to purchase, your capital equipment expenditures are minimized.
- **Installation Simplicity**. Because iCentral utilizes existing infrastructures such as the internet and wireless carriers, your installation is simple and inexpensive. There are no phone lines to install, no hardwire to trench, no expensive hardware investments in radio communications networks, repeaters or radio site surveys. (refer to: "How exactly does iCentral save me money?")
- **High reliability.** Since the system components are minimal, there are fewer components to fail, less cables to get inadvertently unplugged, and greater system uptime.
- **No software required.** Because your central is internet based, there is no software to purchase or load. Software upgrades are no longer an issue. You receive the latest features and capabilities each time you logon to the website.
- **No software backups or lost irrigation schedules.** No need to worry about software backups, crashed disk drives, or lost irrigation schedules. Your irrigation schedules and all your account information is maintained indefinitely by the Rain Master iCentral web servers. Your irrigation schedules are also resident at your Eagle controller in non-volatile memory.

- **No training required.** The iCentral website has been designed to be an intuitive learning experience. Simple screens with explanatory text ensure that you will be using your iCentral capability from the moment that you first "logon". Should you have a question, your Rain Master support team is a toll-free call away.

> **Smart Alerts™.** You receive irrigation maintenance notifications via email on your cell phone, and/or PC, at the time that any system anomalies occur. These messages inform you where the problem is, what the problem is, and at what time the problem was detected.
> **Unlimited access/availability**. Manage your irrigation system from work, home, or anywhere you have an internet connection.
> **No radio license required.** No need to worry about license fees, applications, availability of spectrum, and lengthy license turnaround time.

6. *I am apprehensive about using new technologies. How can I be assured that this really works?*

   Rain Master has specialized in irrigation control systems since company inception in 1981. At Rain Master, control is our only business. Through the years Rain Master has developed a reputation as *the* industry leader for innovative central control technology. The Eagle/iCentral is no exception. The Irritrol Rain Master Eagle intelligent water management controller was first introduced on April 15, 2002. The iCentral internet communications capability was released after the successful completion of six months of extensive beta testing which culminated June 1, 2003. The iCentral website was officially launched on June 9th, 2003.

7. *What if I lose connectivity to the internet or the wireless service to my controller is temporarily interrupted or lost? Will my controllers still irrigate?*

   Absolutely. Your Eagle controller is not dependent upon the internet or the wireless service to irrigate. All of the irrigation schedules are executed from the controller. The controller can continue to operate with its present schedule indefinitely. If you were using daily weather information sent via the internet and communications were lost, the controller will utilize historic weather information from its non-volatile memory in order to intelligently irrigate your landscape. When service is restored the controller will automatically resume usage of the daily weather information sent via the internet.

8. *I do not have much computer knowledge and I am concerned that I will not understand how to use the iCentral website. Is this technology difficult to learn?*

   The iCentral website has been designed for the novice. The site has been designed so that no training is necessary. Navigation is simple and explanatory text accompanies each area that you traverse to.

   When it comes to programming any "stand-alone" controller, virtually all

manufacturers' controllers have a learning curve of some type. When using the iCentral website, the learning curve is virtually eliminated because the website operations are both intuitive and simple. All of the controller functions are actually much easier to use on the website than from the controller front panel.

If for some reason you have ANY question, you can always call the Rain Master iCentral Technical Support team at (800) 634-TURF (8873) and get your question(s) answered by factory trained personnel.

9. **How much does an iCentral System cost?**

iCentral was designed to be an affordable central system alternative for budget constrained irrigation contractors and end users who require the most fundamental central control capabilities without the complexity presented by larger more comprehensive systems. iCentral requires three components:

- The Irritrol Rain Master Eagle controller. The Eagle is an intelligent water management controller that is competitively priced at the same price point as a typical "stand-alone" commercial timer.
- The iCentral Communications card. In order to communicate with the internet, a wireless communications card must be added to the RME Eagle controller. The iCentral Communications Card with the antenna has a retail list price of $795.
- iCentral Service. Users must sign up for an iCentral Service Plan which includes 2-way wireless service and access to the iCentral website. Experience all the benefits of iCentral for as little as $9.95 per month.

Rain Master products may be purchased from your local distributor. To find your closest distributor see www.rainmaster.com/location_wizard.asp

10. **I am a maintenance contractor and I intend to utilize iCentral on my customer accounts. What type of service contract am I obligated to sign up for?**

Rain Master's iCentral system does <u>not</u> require a term service contract. Users may elect to terminate service to one or more controllers at any time.

11. **How does the iCentral website communicate with my Eagle controller?**

The iCentral website communicates with the iCentral enabled Eagle Controller by utilizing existing wireless networks throughout the continental United States. This keeps installation costs low while ensuring reliable communications are achieved.

12. How do I know if I have coverage at my location?

The "iCentral" communications network is available throughout most populated areas across the continental United States utilizing existing wireless technology. If you would like to check wireless coverage email the physical address of your controllers to: irritgationsupport@irritrol.com

13. What types of field problems (faults) can the controller detect and how will I be notified?

The Eagle with iCentral card will monitor for Wiring Faults, Mainline Flow limits, Unscheduled Flow, No Flow, and Upper Flow limit violation on a per station basis. You can configure the iCentral system to notify you in real time via email or text message to any capable cellular phone or email account. In addition to the email, the website will show an alarm icon indicating that field problems have been detected.

14. The Rain Master "iCentral" system can deliver site specific weather information to my controller. Where does this information come from?

The daily weather information may come from a variety of sources depending on your location.

➢ California users may get daily ET data from any of California's CIMIS weather stations. Rain Master automatically downloads this information from CIMIS every day and re-distributes it to your controller.

➢ You may purchase a Rain Master weather station and connect it to one of your Eagle controllers. Rain Master will then read and distribute this data to any of your "other" Eagle controllers automatically.

➢ Rain Master will be announcing a number of other weather options which will be available throughout different parts of the country. These sources may include use of data from existing weather stations and networks.