



The Cutting Edge

MTI

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- **Keeping you up-to-date on the products and service of Montgomery Technology, Inc.**



Feature Articles:

- *The Upgrade Conundrum: Knowing when and how to upgrade your control system*
- *Training Opportunities: New courses and certifications from MTI*



In The News

Montgomery Technology, Inc. launches new installation and service company, Montgomery Technology Systems, LLC

MTI started MTS as a means of providing parts and services directly to customers who either do not have any MTI dealers in their area or are not satisfied with the performance of the contractors they have used in the past. In only 8 months of existence, MTS has completed over 12 installations and has seen work from small upgrades to multi-million dollar construction projects.

St. Johns County Jail implements a state-of-the-art Video Visitation system using Montgomery Technology, Inc. products

The St. Johns County Jail has a visitation center located in a strip mall almost 10 miles away from the jail. This visitation center houses 24 MTI video visitation stations which communicate via a METRO-E connection to the jail, which houses 62 inmate stations. The jail also provides recording of all 24 visits, all the time.

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The Upgrade Conundrum: Knowing when and how to upgrade your control system

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If there is one thing that is certain in life, it is that things change. We see it in our personal lives, we see it in nature around us, and we most definitely see it in the field of electronics. So, it should come as no surprise that the electronics that control our security systems will eventually need replacing. Like mechanical parts, there is a life span to every piece of electronic equipment. Over time, heat, moisture, and even use can increase the failure rate for these components. Beyond that, there are always improvements in product, and component manufacturers such as Intel®, Motorola®, and Microchip® are continually making new products and obsolescing their old products.

Given all of this continual change, how does a facility that depends on an electronic security system to operate maintain a system to avoid down-time? More importantly, how does a facility administrator know the right time for an upgrade of the system? To answer this question, we need to ask, “Why, when, and how?”

Question 1: Why should I upgrade my control system?

Products and components are constantly decaying and the supply of those components is also changing, it is important to keep a consistent schedule of upgrading components. Given the fact that everything is constantly changing, it makes sense to plan for component replacement on a regular schedule. For one, this keeps your failure rate to a minimum. Maintaining and upgrading your system minimizes the degradation of that system. It is also important because new products and components bring added features and improvements in performance and quality. MTI strives in everything we do to maintain backwards compatibility from one generation of components to another; however, the components we are currently making are not the same as the components we made 20 years ago. For example, there have been 3 generations of our Decoder board, which is a vital part of our communications method. The decoder board began with a circuit board using logic chips, went to a board using microcontrollers, then to a board using the latest “Pick-and-Place” components. In all of these changes, we have added features and made improvements along the way. Although the decoder board we ship today will plug directly into the slot of the decoder board we shipped 20 years ago, there are great improvements to be gained from the upgrade of that component.

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The Upgrade Conundrum: Knowing When and How to Upgrade Your Control System, cont.

Question 2: When should I upgrade my control system?

To answer this question, we have to begin looking at the control system, not as a complete product, but as a product made up of many individual standard components. MTI control systems break down into three major component areas: User Interface, Logic and Termination. Below is a table showing the components that fit into these categories.

<u>Category</u>	<u>Components</u>
User Interface	Touch-screens Hard Graphics Panels
Logic	PLCs Intercom Amplifiers Networking Switches Communication Converters
Termination	Locking/Lighting/Intercom Termination Boards Relays Decoder Boards

As a general rule of thumb, User Interface components should be replaced or upgraded every 5 years. Over 5 years, the switches and graphics of a hard graphics panel can be considerably worn out. Replacing the panel or upgrading to a touch-screen is a good practice to keep. Touch-screens also have a lifespan of 5 years, primarily because they use computer components which are known to have a 5 year lifespan, and because the computer industry progresses so quickly that acquiring components to repair a computer over 5 years old is almost impossible.

Logic components should be replaced or upgraded every 10 years. MTI seeks to advance PLC technology on a regular basis, and so upgrading your PLCs to the latest product can provide added features. It also avoids component obsolescence, which makes it easier to get a PLC repaired if one should fail. Intercom amplifiers, networking switches, and communication converters should also be replaced or upgraded within 10 years of original purchase. This avoids component failures and takes advantage of any improvements to product. (cont.)

The Upgrade Conundrum: Knowing When and How to Upgrade Your Control System, cont.

Termination components are the simplest part of the MTI control system. Other than the decoder boards, most of these components involve very little electronics. Termination boards, relays, and decoder boards should last well beyond 15 years, and if they happen to fail, most of the time it is due to lightning or surge, not component defect. In the case of relays and decoders, it might be easier for the facility to maintain a small stock of these components, in case of failure, the maintenance manager can grab one off the shelf and replace it. If this is done, there is no need to consider these components as part of your upgrade plan.

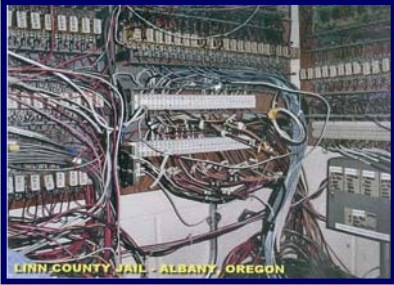
Question 3: How do I go about planning for an upgrade?

MTI advises that you plan for the upgrade of the above mentioned components just like you would plan for the maintenance and upgrade of mechanical equipment, such as air conditioners, washing machines, and generators. Using the life-span of each component stated in the previous question/answer, you can easily develop an upgrade plan. Once you have a plan in place, you can make budget preparations. If you follow your plan, it will greatly reduce the yearly cost of maintenance, and you should never have to do a complete upgrade of the entire system at one time.

When you are ready for an upgrade, we advise that you contact MTI or your MTI dealer for help in planning and implementing an upgrade. If you have no active dealer in your area, MTI can work with you directly to install an upgrade and keep you up-to-date through a yearly service contract.

Upgrading any component, whether mechanical or electronic, is a necessary evil to avoid inconvenient or even dangerous component failures. It is also a great benefit when you gain added features and product improvements. In the end, there is really no conundrum if you plan for upgrades and stick to the plan. We at MTI are committed to long-term support of our products and systems, and we hope to be of help to you as you seek to continually improve your facility.

Before



After





Training Opportunities: New courses and certifications from MTI

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Montgomery Technology, Inc. has been offering free maintenance and troubleshooting training since 1987. Due to the increasing popularity in our products and the wide range of diversity that now exists in our products and customer base, MTI is now offering more robust training and more focused classes.

Instead of offering one class that attempts to meet the needs of the end-user, the service technician, and the distributor, we are now offering specific classes for system operators, maintenance and internet technology professionals, service contractors, and distributors. Not only have we devised a more focused curriculum, but we have also created certifications aimed at giving attendees an edge in the market.

To register for any of these classes, please call 1-800-392-8292 ext. 221 to speak with a customer service representative. You can also request a copy of our training catalog, in which you will find more details on the classes offered.

Class	Intended Audience	Length (in days)	Cost
MTI Certified Operator	Facility Staff	1	\$0.00
MTI Certified Legacy* Technician	Facility Maintenance Facility I.T. Personnel Service Contractors New employees of Distributors *(Legacy stands for any system that involves the MTI PLC 2000 line or older)	2	\$0.00
MTI Certified Firefly* Technician	Facility Maintenance Facility I.T. Personnel Service Contractors New employees of Distributors *(Firefly stands for the current control line that MTI produces)	2	\$0.00
MTI Certified Video Visitation Technician	Facility I.T. Personnel Service Contractors Distributor Technicians	1	\$0.00
MTI Certified Installer	Distributors	2	\$425.00
MTI Certified Design Professional	Distributors, Architects, Consultants.	3	\$625.00


** There is a fee of \$100.00 to take the certification test for any of these classes, but you are not required to take the test in order to attend the class. Only those desiring certification must complete and pass the test. For the Legacy and Firefly technician classes, the \$0 class fee assumes that the student already owns an MTI data tester. If the student does not, payment for this tester (\$225) will be required before he or she can attend the class.

MTI's Mission Statement



Our Mission Statement:

“The employees of Montgomery Technology, Inc. are committed to providing the highest quality products that fully meet the customer requirements, internal and external, through continuous improvements in quality and service. Through company-wide employee involvement, training and teamwork, we endeavor to make the best uses of the talents within our company to produce products of superior quality in an increasingly efficient manner.”



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