



# MAKIN' IT

LAUGH, LEARN and EARN

WINTER 2014/2015

Industrial Automation  
Consulting, Inc.

"Your Control, Security and  
Information Systems Provider"



## List Making

List making, I come by it naturally. My mother was and still is a notorious list maker. She had lists for house chores, groceries, birthday presents, Christmas presents, her going to town list, her other errands list, a list for my Dad, menu list for what she would cook for the week, and those are only the ones that I saw. I know she had more lists in her little notebooks; the one in her purse, and the one by her bed, and the one in her hand. When we were kids, "town" was 45 miles away from the ranch. Mom would gather her lists and we would go to town for the day. When I was older she wanted me to drive, so she could "organize" the lists. She would write down all our stops for the day beginning on one end of town and ending on the other. We also had grandparents on both ends of town so the list always included stops at both. Numerous times over the years, she forgot a page of the list at home. Those were the days before cell phones. At the first grandparent house she would call home to the ranch. No answer. She usually didn't leave a message because my Dad wouldn't get it anyway. She would sit down at Grama's kitchen table and try to recreate her forgotten list. Not to worry, I always thought, because I already knew from watching her do this many times that the forgotten items would just get

transferred on to next week's list, along with items that we wouldn't get to because there were too many on the list to accomplish all in one trip to town.

I married a list maker. He, like my mother, doesn't go to town without his list. If I ask him if he did something, he replies, "Did you write it on my list?" So I learned early on in our marriage to make him a list; lists for what I want and need done around the house. I make him lists for when he goes to town. I make him long term lists of what I think we should accomplish in the summer in our yard. Unlike my mom, if we forget the list on the kitchen counter, we just text each other with a few short words, "Please send photo of list hanging on the fridge." And a few seconds later the list appears on our cell phone. Wish my mom would have invented that!

My lists are usually on my pink notepad. Saturday, December 13, I made a list for the weekend. It was almost Christmas and our children would be coming home from out of state and we had to get ready. I got up early and was already crossing items off the generated list. My husband came cruising by me as I asked him if he had started on the list. "What list are you talking about?" in a

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Do your trade journals go unread? We've selected these articles as the best of the best for issues that affect you, your employees, your process and your bottom line. You will also find helpful hints, humor, and tidbits throughout.

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## CURRENT IAC PROJECTS

Anaconda-Deer Lodge WW Dept. – Wastewater HIP Facility Flow Metering Project  
 Chico Hot Springs Resort & Day Spa – Water Treatment Plant SCADA System  
 City of Billings – Backup Power Phase 3  
 City of Townsend - SCADA Systems Upgrade Phase 2  
 Canon Power Group - Linden Ranch Upgrades  
 City of Red Lodge – Lift Station Upgrades Phase 2

City of Sheridan – Big Goose WTP Improvements  
 GEI Consultants – Preliminary Design for KITP Improvements  
 Imerys - Three Forks – Palletizer Robot  
 Yellowstone Club – Water Expansion  
 Yellowstone Valley Electric Co-op - SCADA Telemetry  
 Cloud Peak Energy - Tongue River Intake

**IAC is a CSIA Certified control systems integrator specializing in automation engineering, security and information management. From plant floor to management's door, IAC has the expertise you are looking for to provide the seamless integration of technology into your operation.**

## Outdoors

### The Official Guide for Montana State Parks

Download this free app including all enhanced GPS features. Type in your email to receive a download link for the app to be accessed directly through your device.

With the Pocket Ranger technology you can access maps, trail data, record coordinates, it has a built-in compass, up-to-date news and information on park advisories and weather.

[www.pocketranger.com/apps/montana](http://www.pocketranger.com/apps/montana)  
or [www.stateparks.mt.gov](http://www.stateparks.mt.gov)



(continued from page 1)

tone of “oh no she has a list today”. The one on the counter, on pink paper, I reminded. He wandered over and read aloud, “Vacuum floors, mop floors, Windex front door, laundry, fold laundry, polish nails...” He stopped and looked at his nails, “Do I have to polish mine too?” I rolled my eyes and said, “That is my half of the list, yours is the other half.” He continued to read aloud and I turned the vacuum back on. Other than the dog, we are officially empty nesters. Our children only come home for vacations. I silently wonder what it would be like to be the one on vacation over the holidays. Do people really do that I muse? Go away someplace where the cooking and cleaning are done for you and someone else gets out the Christmas decorations and hang lights. Hmmm, maybe another time. Right now I need to make a 2015 list.

### **The Optimist, The Pessimist and The Engineer**

The optimist says, “The glass is half full.”

The pessimist says, “The glass is half empty.”

The engineer says, “The glass is twice as big as it needs to be.”

### Baby It's Cold Outside!

Everyone should carry a Winter Survival Kit in their car. It could save your life in an emergency. Here is a list of things you should have:

- A shovel
- Windshield ice scraper
- Flashlight with extra batteries
- Water
- High energy snack foods
- Matches and small candles in a water proof container
- Extra hats, socks and mittens
- First aid kit with pocket knife
- Blanket
- Kitty litter or road salt
- Booster cables, wire and rope
- Emergency flares and reflectors
- Cell phone adapter to plug into lighter
- Starter fluid, extra oil and de-icer
- Extra pet food – because almost everyone in Montana travels with a 4 legged friend!

For more tips on Montana Disaster & Emergency Survival go to [www.mdt.mt.gov](http://www.mdt.mt.gov)

## Trending Topics

### 1) **The Affordable Care Act**

[www.irs.gov/Affordable-Care-Act](http://www.irs.gov/Affordable-Care-Act)

### 2) **4 Simple Steps for Building an Effective Employer Brand**

An employer brand is a great way to differentiate you from the competition.

[www.theemploymentoffice.ca](http://www.theemploymentoffice.ca)

### 3) **The pros and cons of water treatment for a perfect cup of coffee.**

Water can help bring out different flavors from coffee beans.

[www.watertechonline.com](http://www.watertechonline.com)

### 4) **A Guide to Disaster Recovery in the Cloud**

Simple, affordable protection for your applications and data.

[resources.idcenterprise.com](http://resources.idcenterprise.com)

## Top Legal Tips of 2014

[https://sites.legalshield.com/cp/newsletter/issue2\\_v4.html](https://sites.legalshield.com/cp/newsletter/issue2_v4.html)

**1. Will Your Online History Come Back to Haunt You?** – An article about online history explains how your family’s online activity could affect attorney-client confidentiality, your job and your safety. It is vital to understand that information posted online is never truly anonymous and once posted is nearly impossible to remove.

**2. 8 Ways to Protect Your Smartphone** – Smartphones contain an incredible amount of personal information. They are increasingly used for banking and are even beginning to replace credit and debit cards. In addition to financial information many phones now track your health and your physical location. It is important to properly protect your phone and all of your personal data.

**3. 9 Things You Must Know About Student Loans** – Our article on student loans covers the various types of loans available to students, the consequences of default and tips for managing your payments. In addition, the article includes links to additional resources for students.

**4. 6 Critical Legal Tips for Homeowners** – As a homeowner you may face a number of significant legal questions. Do you have adequate homeowners insurance? Do you understand your homeowner association bylaws? How do you deal with a difficult neighbor?

**5. 6 Legal Tips Every Pet Owner Must Read** – Along with the joy and fun pets bring to our lives, they also bring the occasional headache. This article includes tips on following your local pet laws, purchasing pet insurance and more.

## Tech Tip

### Passwords for Smartphones is a must

With increased use of mobile devices in the workforce, employee's need to have their smartphone (any brand) set up with a password feature in order to access their phone. Think about how many applications or websites that you already have a user name and a password stored on your phone for easy access. Now take a minute to think about if your phone was lost or stolen and how much information a stranger would have access to in the palm of their hands. Security with your mobile device starts with the "Lock" screen page! Find out more information from your mobile device provider how to enable these settings.

## Controls/ Automation

### 1) Top Robots for Farmers for 2014

Slideshow - Over 60 agricultural robots are in-the-field today, either commercially or in testing for release in 2015-2016. Here are 27 of the top contenders for the autonomous robotic ag of the future.

[www.eetimes.com](http://www.eetimes.com)  
(1/2/15)

### 2) 10 Flash Drives That Will Turn Heads (& Store Your Data!)

Today's flash drives have come a long way with iconic designs and larger storage capacities.

[www.electronicdesign.com](http://www.electronicdesign.com)  
(12/21/14)

### 3) White Paper Library

Control Design's White Paper Library is a large directory of free vendor-supplied technical content. Take advantage of the library's white papers on an array of topics from Big Data to cloud computing, mobility to security, HMI to I/O and much more.

[www.controldesign.com/whitepapers](http://www.controldesign.com/whitepapers)

### 4) Drones Come In All Shapes and Sizes

From 3D visualization to using big data to prevent school tragedies, check out these cool technology tools.

[www.electronicdesign.com](http://www.electronicdesign.com)  
(1/26/15)

## IAC Recycles!

It's habit to throw our refuse into the trash when we have used up a consumable, but did you know that the new Compact Fluorescent Light Bulbs (CFLs) are hazardous to the environment? CFLs contain mercury and may break when thrown into a dumpster, trash can or compactor, or when they end up in a landfill or incinerator. The release of mercury contributes to polluting our ground water.

IAC has recently implemented a program to add Hazardous Waste disposal to our recycling efforts. We already recycle plastic, paper and cans, so adding CFLs was an easy decision. Since CFLs are considered hazardous, we are encouraging employees to bring their burned-out bulbs into work where they will be collected and taken to an appropriate facility for recycling. All batteries (rechargeable or not) are also considered hazardous waste and we are collecting those from employees as well.

To learn more about CFLs and proper disposal, check out this link:

<http://www2.epa.gov/cfl/recycling-and-disposal-after-cfl-burns-out>

## EMPLOYEE SPOTLIGHT

### Jill Hamilton

Jill Hamilton, our new Office Administrator, joins us with over 13 years of professional supervisory experience. Jill is a native Montanan with a passion for her family's cattle ranch. Jill and her husband, Dave live on the Jefferson River, where they love to landscape, garden and spoil their dog. They have two adult children that live out of state.

### Darrin Strosnider

Darrin Strosnider is originally from central Ohio and has, for the past five years, found himself in Bozeman pursuing his PhD at MSU. He now calls Montana his home. He joins the IAC team as a Senior Project Engineer and is delighted to be back in the industry after spending several years in academia. Darrin's free time is spent volunteering for various community services, improving his outdoor photography skills and restoring old Lionel trains.



## Are you keeping your New Year's Resolutions?

1. Lose Weight (Hike into that blue-ribbon stream.)
2. Volunteer to Help Others (Teach others to fish.)
3. Quit Smoking (So you can fish longer.)
4. Get a Better Education (At a college in Montana close to a river.)
5. Get a Better Job (Closer to the lake.)
6. Save Money (Pack a lunch in your tackle box.)
7. Get Fit (Hike into that blue ribbon stream.)
8. Eat Healthy Food (Cook the days catch over a fire.)
9. Manage Stress (Fresh mountain air!)
10. Manage Debt (Dig your own worms.)
11. Take a Trip (Drive to the lake.)
12. Reduce, Reuse, and Recycle (Borrow a fishing pole!)

## Top 10 Valentine Gifts for Your Technical Sweetie

10. Biohazard Coffee Mug
9. 3D Printing Pen – think a combination between a glue gun and an ink pen.
8. "I Can Explain It To You, But I Can't Understand It For You" T-Shirt
7. Mechanical Pencil 16x20 Framed Patent Art
6. USB Flash Drive Heart Pendant Necklace
5. 4-in-1 Photo Lens for your iPhone. Fits in the palm of your hand and will make your Instagram friends jealous.
4. Circuit Board Tie
3. Buy a domain name and build a .us or .me website for your Valentine. "youlove.me"
2. Bluetooth Keyboard

### And the #1 Valentine Gift for Your Techie

1. A light-up engagement ring that lets her know she has messages!

## Upcoming Events

IAC is a member of a number organizations and associations throughout Montana and Wyoming. If you will be attending one of the events below, please stop by the IAC booth and introduce yourself to us!

January 6-9	Consumer Electronics Show – Las Vegas, NV
January 21-22	CSIA Audit
February 18-20	MT Rural Water Systems Conference – Great Falls, MT
February 25th – 27th	Peer Group Meeting – Vacaville, CA
March 1	IAC's 20th Anniversary
March 27	TEDX BOZEMAN, Bozeman, Montana

## Good Reads from the Engineer's Bookshelf:

Deadly Odds by Allen Wyler	Coldbrook by Tim Lebbon
A Short History of Nearly Everything by Bill Bryson	Robocalypse by Daniel H. Wilson
Reinventing Gravity by John Moffat	Locke & Key by Joe Hill and Gabriel Rodriguez
The Disappearing Spoon by Sam Kean	Preacher by Garth Ennis and Steve Dillon
Shakespeare – The World as Stage by Bill Bryson	Hacker's Delight by Henry S. Warren, Jr.
Alone in the Universe by John Gribbin	The Reapers Are the Angels by Alden Bell
Idea Man by Paul Allen	The Smart Swarm by Peter Miller
Nine Algorithms That Changed the Future by John MacCormick	Dream London by Tony Ballantyne
In Search of Time by Dan Falk	Wetware: A Computer in Every Living Cell by Dennis Bray
	Source: <a href="http://www.eetimes.com">http://www.eetimes.com</a>



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# IAC Celebrates 20 Years!

A look back through the years seems to have flown by to have reached the pinnacle of this anniversary.

What started out 20 years ago with Chuck opening his own company in his native Montana, near mountains and rivers, with only one other employee has now grown to a company of ten that is housed in a beautiful historical building on Main Street.

Hundreds of projects later, Chuck and his crew have met some amazing people along the way and have been involved with ground

breaking technology. Chuck is proud to call himself an Integrator and humbled by the character of his associates and their organizations that he works with.

Chuck looks forward with passion thinking about new clients, new projects and the need for more engineers. Bringing optimism to staff meetings and his daily life is something we are all proud of him for. Congratulations!

## Top Ten Revisited from a 2012 Newsletter: Evolution of Chuck's Hat



Phase 1 60s	Phase 2 70s	Phase 3 80s	Phase 4 90s Started a trend of...	Phase 5 Spring	Phase 6 Summer	Phase 7 Fall	Phase 8 Winter	Phase 9 The Collection	Phase 10 Modern-Day
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## CSIA Certified — The Mark of Excellence



IAC has once again successfully completed its Control System Integrators Association (CSIA) recertification audit. CSIA is a not-for-profit, global trade association for system integration companies with more than 486 member firms in 27 countries. IAC has been a Certified CSIA member since 2006 and is the only CSIA certified systems integrator in Montana and one of just 85 worldwide. Only members who have demonstrated the highest level of professionalism and excellence in the stringent criteria set forth in the Best Practices and Benchmarks Manual earn CSIA Certification.

Every three years CSIA Certified company's like IAC undertake the audit process to maintain their certification. Technical proficiency alone is not enough. Integrators are

challenged to develop and demonstrate comprehensive business practices in 9 areas including general management, financial management, project management, quality management, technical management, human resources management and marketing, business development and sales management. Companies are scored on 79 detailed objectives and must exhibit that their internal processes and procedures meet or exceed the defined criteria of the Best Practices and Benchmarks. By holding these periodic audits, companies are encouraged to review current business practices and strive for continuous improvement and advancement of not only their individual businesses, but also the Systems Integration industry.

This painstaking but worthwhile process ensures that IAC customers always receive the best technical solutions as well as the highest quality service and support throughout their project.

## A bad day of fishing is still better than a day at the office.

### And with that said...

Send Chuck a congratulations card for IAC's 20th Anniversary!

The receipt of your card in our office will be your entry into an **all-expenses paid weekend fishing trip with Chuck**.

Plan on fishing, fun, food, more fishing and more fun!!!

IAC sits at the Home of the Missouri River where the Madison, Gallatin and Jefferson rivers meet. Three Forks is only an hour's drive to the famous

Yellowstone River and two hours to the great waters of Yellowstone Park. We are blessed to live in such a beautiful place and hope to share a little piece of it with you. Inside the card, print your name, address and phone number.

Remember to mail your card by March 6, 2015. The drawing will be held on March 13th and the fishing trip will be held sometime between April and June 2015.

Just think of all the stories you can go home and tell (or make-up!).

