



Model Railroad Hobbyist |

DCC IMPULSES

column

BRUCE PETRARCA MMR



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Five years of *DCC Impulses*

Time flies when you are having fun. *DCC Impulses* was born in October 2011. So this is a special anniversary edition -- five years.

It will be a shorter column than it is in most months. That way, the time that you might normally spend reading this column will be available to read the story about “my club” elsewhere in this issue. *Railfanning the Great Lakes Western* gives a railfan’s view of operations on the layout I’ve been involved with for almost two decades now.

In July 2016, I was in northern Utah for a few weeks. I got to spend some time with the model railroaders there on a couple of Saturdays. The first event was a monthly division meet of the Northern Utah division of the NMRA (northernutahnmra.org). They asked me to discuss DCC at the meet. I chose to take questions from the floor, as opposed to making a canned presentation. One question was, “Where do you see DCC going in the next five years?”

Answering that on the fly was interesting and started me thinking that changes in the DCC industry would make a good topic for my fifth-anniversary column. By the way, I emailed many of the major players at DCC manufacturers, offering them a chance to share their ideas. None even replied. Guess they don’t want to be pinned down.

I know that there will be areas of the sport, so to speak, that I won’t cover in this column. Feel free to bring them up on the MRH forum. Just click the link at the beginning or the end of this column to be taken there.

Here are some of my ideas, with apologies up front for errors and omissions. Before we look forward, let's look back.

Remember five years ago?

In the spirit of The Earls' 1962 doo-wop hit, *Remember Then*, let's take a look back at where DCC was five years ago, when I started writing this column. Just to set the scene, I've been using the Wayback Machine (archive.org) to look at manufacturers' websites in the fall of 2011. Let's see what memories they bring back.

1. IN THE FALL OF 2011, DIGITRAX WAS FINE-TUNING THEIR NEW DUPLEX RADIO SYSTEM, AS SHOWN ON THEIR WEBSITE AT DIGITRAX.COM.

What's New

Digitrax DT402D Throttle Firmware Revision 1.4 and RF24 Duplex Radio Transceiver Firmware Revision 1.0.

This update improves the DT402D login sequences and overall performance on large installations using multiple UR92s and DT402Ds. This update is optional for users that are not experiencing any issues with their Duplex throttles. DT402Ds with any version of firmware will work together.


Follow the instructions provided to update your DT402D & their RF24s to the latest firmware. **DT402 and RF24 need to be downloaded for the installation to be successful!**

1. [Download Instructions Here](#) (PDF)
2. [Download the DigiIPL109 Utility Software](#). (Right-Click and Save As)
3. [Download DT402D R14 Firmware](#). (Right-Click and Save As)
4. [Download RF24 1.0 Firmware](#). (Right-Click and Save As)

Zephyr Xtra Firmware Update, R2 Routine Update. We recommend that all Zephyr Xtras be updated with this code. ['Right Click' here](#) to download the .DMF file. (right-click and choose 'Save-As' or 'Save link/target As' to save to your hard drive.) *To update the firmware please use the DigiIPL109 utility that can be downloaded [here](#).*

Zephyr Xtra Starter Set DCS51 Command Station/Booster/Throttle
Easy to Use All-In-One Unit.

UR92 Firmware Update, R5 This code improves multi UR92 name sharing and operation. We recommend that all UR 92s be updated with this code. ['Right Click' here](#) to download the .DMF file. (right-click and choose 'Save-As' or 'Save link/target As' to save to your hard drive.) *To update the firmware please use the DigiIPL109 utility that can be downloaded [here](#).*

 NO WORRIES WARRANTY

1 WARRANTY & REPAIR POLICY

2 RETURN PROCEDURES

3 WARRANTY & REPAIR FORM

4 NON-WARRANTY REPAIR PRICING

RADIO THROTTLE CONVERSIONS

Please select your area for the proper conversion form.

[US/Canada/Aus/NZ](#)

[Europe](#)

Everyone's Curious

What forms of block/train detection

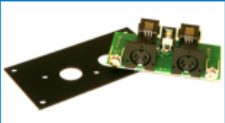
Digitrax [1] was entrenched in their second versions of systems they had released earlier in the millennium, with their DT402 series of cabs and the Zephyr Xtra (DCS51), as well as the duplex radio system.

ESU was transitioning their LokSound line from being a secondary USA-loco sound decoder to a major force in DCC sound worldwide. They had recently released their flagship ECoS DCC system. I don't have a webpage image to share from the WaybBackMachine. I can find some German pages, but the English version is incomplete there.

2. LENZ (LENZUSA.COM) HAD MOVED FROM THEIR LONG TERM IMPORTER (THE LENZ AGENCY) TO USING AMERICAN HOBBY DISTRIBUTORS BY LATE 2011.

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XpressNet

New
Lenz DIN Panel
Option



This Express Net fascia panel can be used in conjunction with the LA152 or by itself, Like the LA152, the Lenz Din Panel can be connected by

Welcome to Lenz USA

Digital plus[®]

by Lenz

Unleashing the Power of DCC

[Introduction to Lenz GmbH](#) [Quality, Value, Performance and True Compatibility](#)


News!


- [New LZV200 and Ver. 4 Software](#)
- [Whats New 2011](#)
- [LI-USB Windows 7 Software and Drivers](#)
- [Controlling your layout with an iPhone/iPod](#)
- [New decoder SILVER PluX12](#)
- [Comming Soon! USB and Eithernet Interface](#)

Lenz [2] had introduced the Ver-4 software for their systems. This had them owning the first 5-amp system to embrace the revised NMRA standard (S 9.2.3), which had been approved a few months earlier. This allowed programming of any decoder with their system without a programming track booster.


As a precursor of things to come, Lenz was, I believe, the first major DCC manufacturer to encourage iPhone cab control.


3. MY WEBSITE (MRDCCU.COM) WAS SETTling IN WITH THE INTELLECTUAL PROPERTY MOVED FROM THE LITCHFIELD STATION (LITCHFIELDSTATION.COM) SITE.




The DCC University!

Phone: 623-640-4060
Bruce@MrDCCU.com





DCC Puts You in the Engineer's Seat

*Photographed at Pacific Southwest Railway Museum
Copyright 2010 Bruce Petrarca*

The DCC UNIVERSITY . . .


. . . arose out of the questions raised through 9 years of operating Litchfield Station and developing it from a small installation business to the second largest DCC specialty shop in the world.

In April 2010, Bruce sold the DCC dealership Litchfield Station, LLC. **The DCC University is no longer associated with that commercial enterprise and they are solely responsible for running their business.** However, there is still a cooperative relationship between us. Links have been provided from here to the Litchfield Station web site, for the convenience of folks who browse the DCC University!

Bruce is still available for DCC installations and consulting.
[CLICK HERE](#) for more data.

Understand, Bruce makes no profit on Litchfield Station sales.

[CLICK HERE to be redirected to the Litchfield Station web site.](#)



Bruce and Linda took a vacation in Mexico just after we sold Litchfield Station - [CLICK HERE](#) to view the BLOG of that trip.

My (Mr. DCC) website [3] featured an in-cab photo to showcase the realism of running your layout with DCC. This SD9 photo had been taken about a year earlier while making up a train in southern California.

Within a year and a half, my site design and appearance would change with a minor change in content.

4. IN FALL OF 2011, NCE (NCEDCC.COM) HAD JUST RELEASED THEIR CAB06 FAMILY.



NCE's Cab06 family was released in 2011. It has since become very popular, a favorite user cab.

Their PowerCab was on its way to becoming one of the most popular DCC sets ever. Rumor has it that NCE has by now sold over 70,000 units.

NCE [4] also had a really fun video visit on their website. It was interesting to see the folks that we had only talked to, working in their native environment.

5. In late 2011, SoundTraxx (soundtraxx.com) was in the middle of the product life cycle for their Tsunami series decoders and really coming up to speed on their Blackstone HOn3 product line.

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Welcome to SoundTraxx!

SoundTraxx brings new dimensions in digital sound technology to your model railroad. Regardless of your scale or prototype, we have a sound system for you! SoundTraxx has been designing and manufacturing the latest in state-of-the-art sound systems for the discriminating model railroader since 1990.

This site contains information about and where to buy our products, upcoming shows and clinics where you can see us, accessories available to enhance your sound systems, and technical information. Be sure to bookmark our site to keep abreast of the latest developments at SoundTraxx.

If you are unfamiliar with our products, we recommend you visit [Choosing the Right Sound System](#) or our [Company Overview](#). If you are already a SoundTraxx customer, visit our [Products](#) section or take a look at the [Latest News](#).

Whether you are a seasoned customer or a newcomer to SoundTraxx, we're sure you'll find something to make your railroad sing!

★ **Dealer Training Week**

The week of August 3 - 6 was dealer training week. Many of our dealers, featured in the photo below, came to Durango to attend classes taught by SoundTraxx staff, learn how to install our decoders into various models, and much more.

We want to thank everybody who took time out of their busy schedule to attend, both last week and in past years. Factory trained dealers are represented on our dealer page with a gold star.

Latest News

New! Accessory Lighting Decoder for Blackstone Models Long Caboose!

NEW! Sound Samples- EMD 567D Turbo, Dual EMD 567 (E Units), GE FDL-16 (Modern), and the ALCO 251C Supercharged

New! Gevo and SD70ACe Sound Samples!

New Decoder Selector!

Products

- [Tsunami TSU-750](#)
- [Tsunami TSU-1000](#)
- [Tsunami TSU-AT1000](#)
- [Tsunami TSU-GN1000](#)
- [Tsunami TSU-KT1000](#)
- [Tsunami TSU-BW1000](#)
- [Tsunami TSU-4664N](#)
- [PTB-100](#)
- [SurroundTraxx DSP-80](#)
- [DCC Mobile Decoder](#)

SoundTraxx [5] had the preeminent sound decoder line in its Tsunami. The Tsunami release had been delayed a couple of years while the industry sat out the results from the MTH vs. QSI legal wrangling. By 2011, that was behind us and the Tsunami was setting a standard for sound decoders that others were preparing to challenge.

6. TCS (tcsdcc.com) was becoming firmly entrenched as a non-sound decoder manufacturer, as can be seen on their October 2011 web page.

Train Control Systems (TCS), in their first decade of business, built a reputation as a manufacturer of price-competitive decoders with good motor control. Five years ago, they were expanding their loco-specific N decoders [6]. The WOW Sound decoders from TCS were to be a thing of the future.

The plateau -- coming of age

In the 1990s, DCC was not widely accepted and was used mostly in the realm of the electronic-experimenter modelers.

In the first decade of this millennium, DCC moved into the mainstream of modeling. Manufacturers went from ignoring DCC to including it in their locos. The average modeler became aware of DCC, even if they didn't personally embrace it.

The webpages presented earlier showed a glimpse of what was going on as the industry matured.

What's happened in the last five years?

In the sound decoder realm, the LokSound from ESU and the WOW Sound from TCS have risen up to challenge the Tsunami from SoundTraxx.

SoundTraxx responded with a new Econami line and a new flagship decoder line: The Tsunami2.

No new players have become household names in the DCC field.

Lenz' share of the market (at least in the USA) has diminished and MRC has come up to the point where "the big three" systems manufacturers in the USA are Digitrax, MRC and NCE.

Many of the earlier "major" announcements have not been the commercial success that the developers envisioned, such as "playable" whistles or SurroundTraxx.

The use of smart phones and tablets to control locos and layouts has moved into the mainstream.

Where to from here?

It has been a long time since we have seen a major new product introduction in the DCC realm.

Yes, newer and better and smaller decoders with better sound get announced with regularity. Mostly, they come out at about the same price as their predecessors. The "new decoder with fantastic features at half the price of the one it replaced" was part of the first decade of DCC.

Similarly, in the DCC system area, prices have been stable to increasing slightly. In DCC, a big run is a thousand units or so. Apple builds about 100 million iPhones a year. The DCC industry just doesn't have the volumes to pay back development costs and reduce prices year over year.

These are all markers of a plateaued industry. Sometimes industries come off the plateau and move to new heights. Sometimes they begin a decline. Other times, such as the auto industry, they bounce along for decades at that plateaued level.

What would drive the DCC industry to new heights? I believe it would be something that finally takes all the geekiness out of DCC. Getting rid of terms like "CV" and "programming" and "bits" are necessary to increase the user base. A system that could interface all decoders and throttles and not require the (sometimes steep) learning curve would be nice.

Is this possible within the NMRA definitions of DCC? I don't know. If I did, I'd be doing it.

After 30-plus years of personal computers, we still have the PC vs. Apple fight. And that is with hundreds of millions of units sold. What are we, in the DCC world, going to do with a few thousand units being a big run?

Aging principals and succession plans

There are very few players in the DCC world that are affiliated with large corporations. Most are headed by an engineer or an entrepreneur for whom DCC is a passion. Most of these companies have been the primary focus of these principals for a quarter-century or so. I'm seeing these players become more and more interested in spending time with their families and friends.

Some firms are working on succession plans. It was announced that Evan Rimmel has come into Digitrax as director of operations and a shareholder in the company. JD Forsythe, son of TCS founder John Forsythe, has come into the business there.

Other firms seem to have no succession plans. Absent these plans, I see some of the businesses who currently are major players having a diminished presence over the next five years. Perhaps, even out of the business entirely.

New technology may change DCC

Last year (2015) the NMRA finalized the specifications for Layout Command Control (LCC). LCC is a new format for the bus to control all the things within your layout: turnouts, signaling, audio (telephone), video, etc. LCC doesn't require or compete with DCC. It coexists with DCC (or whatever locomotive control system you choose). The concept is to improve DCC bus response by providing an alternative path for things that are taking up bandwidth on the DCC bus.

How the DCC manufacturers respond to LCC has yet to be seen. There may be some major synergy here that folks have yet to explore. For more information, see my November 2015 column, "*What's up with LCC?*".

Dead track, on-board power, and dead rails are all names for a concept where the train carries its own power. It is controlled more like an RC car or plane than the way we are used to controlling our trains, namely through the track. Many forms of this can coexist with DCC, sometimes charging the

batteries onboard from the DCC power in the track and sometimes using an existing DCC system for the operational commands. This technology may eventually replace DCC. See my March 2016 column, "*Is DCC dead?*".

Doom and gloom?

Not at all. I'm continuing to build my indoor HO layout with DCC and convert DC locos to run on it. I fully expect to run this layout with DCC for the rest of my modeling lifetime.

I *am* experimenting with dead track in the garden. But I was only driven in that direction due to the extremely high costs of nickel silver rail for the garden track. I have almost 300 feet of brass track and over 20 turnouts down. But right now, dead track is about where DCC was in the 1990s. It is mostly electronic experimenters who are working with it. I'm one of those experimenters.

Folks always seem to have additional ideas to share. I hope this column stirs some creative juices. Just click on the Reader Feedback icon at the beginning or the end of the column to go to the MRH forum about this column. While you are there, I encourage you to rate the column. "Awesome" is always appreciated. Thanks.

Until next month, I wish you green boards in all your endeavors.