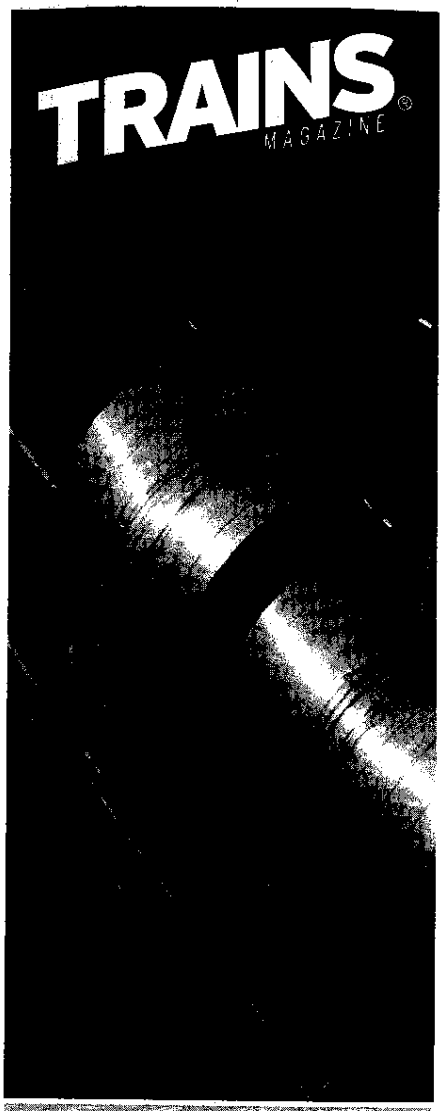
Jacobsen Declaration Exhibit C



Meet DecoderPro

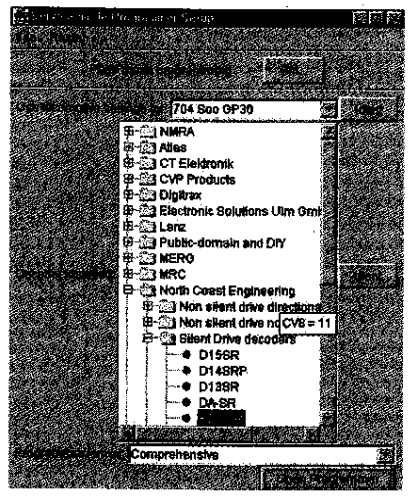


Fig. 1 Decoder selection page. By clicking the "Ident" button, DecoderPro will automatically identify the make and model of the decoder in your locomotive.

One of the most useful things about Digital Command Control (DCC) is that it allows us to customize decoder functions. A decoder's address, lighting effects, motor control, and function mapping are all controlled by adjustable numeric values called "configuration variables" (CVs). However, programming CV values on the small display screens of most DCC systems can be time consuming and is often frustrating.

Thankfully a group of dedicated hobbyists have created computer software that makes the task of programming decoders much simpler. Meet DecoderPro!

DCC and your computer. DecoderPro is a computer program that features easy-to-use display screens, allowing you to choose how you want your decoder to work by simply clicking your mouse – the software then enters the correct numeric values in the decoder's CVs for you.

Sound good? It is, and it's free. DecoderPro is one of several programs available from a private group called JMRI (Java Model Railroad Interface). Writing computer software for model railroaders, JMRI uses a universal computer language called "Java." Java works with many different types of computer operating systems, including Linux, Macintosh, OS/2, and Windows. At home, I run it on an old 300 MHz machine using Windows 98.

The DecoderPro "freeware" is continually updated by JMRI. At this writing the current revision is 1.4, which I downloaded from the JMRI Web site at http://jmri.sf.net.

What systems can use DecoderPro? To program decoders with DecoderPro on your computer, you'll need some additional hardware. In most cases, this is simply

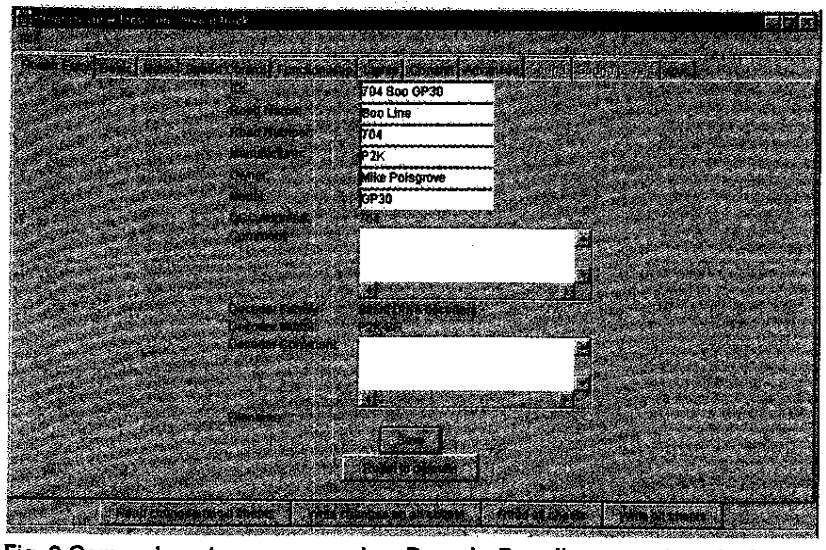


Fig. 2 Comprehensive programming. DecoderPro allows you to select, read, and program all of a given decoder's options using plain English. The software computes the correct CV numeric value for you.

the DCC system you already own. The DecoderPro Web site provides a complete list of current DCC systems on the market and what parts you need to connect them to your computer. I use a North Coast Engineering system and needed only a cable between the DCC base station and the serial port on my computer.

However, if your computer and your model railroad are on different floors of your home like mine, you can avoid having to move one or both items by using a standalone programmer called a "SPROG." This small component takes the place of a DCC system, plugs between your computer and programming track, and is available fully assembled or as a kit. For more information visit the manufacturer's Web site at www.sheerstock.fsnet.co.uk/dcc/sprog.htm.

Once the hardware is connected, there's just one more step before you can program decoders. The very first time you run the DecoderPro software, it will ask you what DCC system you're using and which serial port of the computer it's connected to.

Using the software. The first screen that appears when you start DecoderPro gives you a choice of using the programming track or programming on the main. If you are programming a newly installed decoder, you'll want to choose the programming track so you can set the decoder's address.

After choosing "Programming Track," the next screen that appears asks you about the type of decoder installed in the locomotive. You can choose the decoder type from a long list or you can click the "Ident" button to ask the decoder to identify itself, as shown in **fig. 1**. (DecoderPro gives you several options if your decoder is not listed.)

On the bottom of the screen, select either "Basic" or "Comprehensive Programming" and click on the "Open Programmer" button. I used comprehensive programmer, as shown in **fig. 2**.

The options available on each programming page (DecoderPro calls them "sheets") depend upon the brand and model of decoder you're using in your locomotive.

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DCC Corner

As manufacturers often release new decoders, it's a good idea to check the JMRI Web site periodically for updates.

To program a new locomotive, begin at the "Roster Entry" tab. This page allows you to save setting files for each locomotive on your computer. You can use this information to program similar engines or to reprogram a particular locomotive should you change the decoder. The example in **fig. 2** is for one of my Life-Like Proto 2000 Soo Line GP30s. Be sure to click the "save" button when you're done entering the information.

Next, click on the "Basic" tab. This page allows you to set the short and extended decoder addresses, as well as several other basic decoder functions. When you're ready, click the "Write Changes on Sheet" button – the software will program your decoder with this information. The program also allows you to read back any written information, but be aware that it might take a long time.

In the Comprehensive mode, you also have pages for motor control, speed control, function mapping, lights, consisting, sound, and sound levels. Each one of these allows you to determine, in English, how you want your decoder to behave, leaving the task of determining the numeric programming value to the computer.

Time to play. DecoderPro does a nice job of simplifying the often complex task of programming decoders. I was impressed at how quickly and easily I could program even advanced functions using the software. Though I've covered some of the basic uses, DecoderPro offers a host of additional features. And you can't beat the price! **MR**

Correction: To wire the rear headlight on a standard Athearn locomotive as mentioned in the October 2004, DCC Corner (page 102), use the blue and yellow decoder wires, not the colors listed.

Send your questions about Digital Command Control to DCC Corner, *Model Railroader* magazine, P.O. Box 1612, Waukesha, WI 53187, or e-mail dcc@mrmag.com. We regret we can't answer all the questions we receive.

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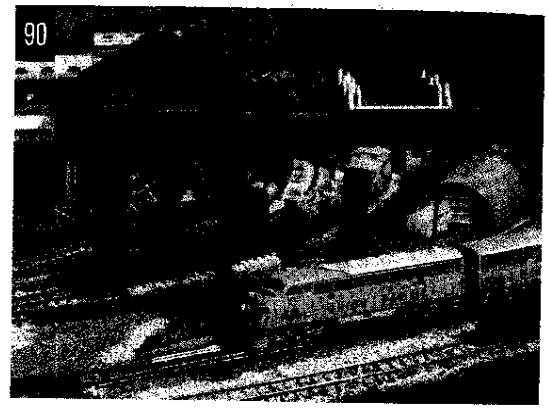

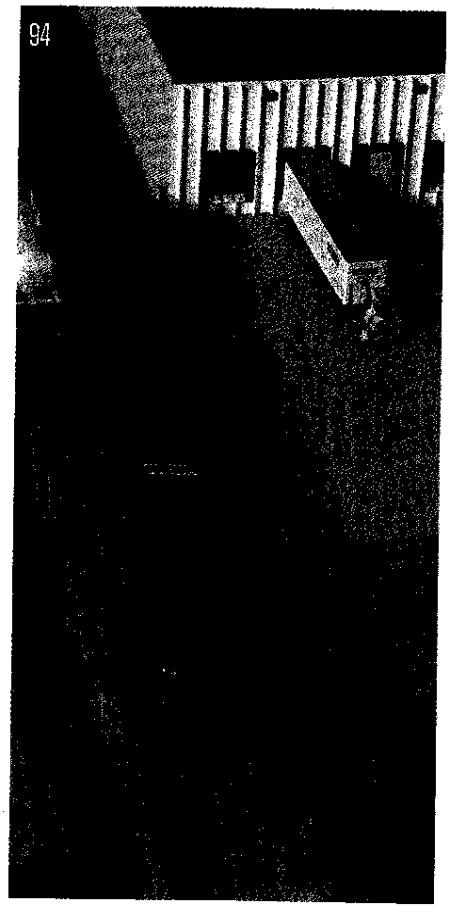

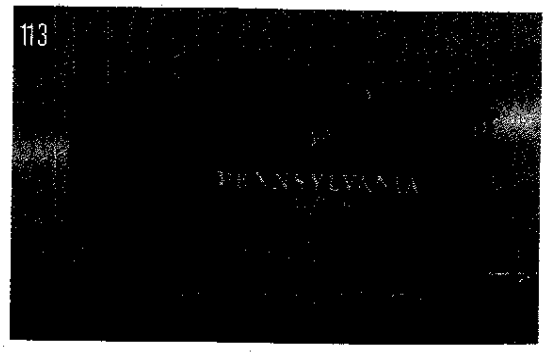

Coming next issue: In December we revisit Ken McCorry's enormous HO scale Pennsylvania RR layout, but this time it's set in the Penn Central era – and it's bigger!

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