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UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

ROBERT JACOBSEN, Plaintiff, v. MATTHEW KATZER, et al., Defendants.	No. C06-1905-JSW **DECLARATION OF ROBERT JACOBSEN IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT** Date: Friday, December 4, 2009 Time: 9:00 a.m. Courtroom: 11, 19th Floor Judge: Hon. Jeffrey S. White

I, Robert Jacobsen, have personal knowledge to the facts stated herein and hereby declare as follows:

I am a party to this action. I am submitting this Declaration in Support of the Motion for Summary Judgment.

1. On October 27, 2004, I applied to register the trademark "DecoderPro". The trademark was registered on the Principal Register on May 16, 2006 with registration number 3,092,440. I own that registration. Exhibit A is a true and accurate copy of this registration.
2. Many modern model railroad locomotives use digital control systems. The locomotives contain electronic assemblies that control them, called "decoders" or sometimes colloquially "chips".
3. These decoders contain various options that can be configured. To do this, numerical values must be entered into "configuration variables" (CVs) within the decoders. Different CVs control different options; each CV may have several possible values controlling the way the option works. This configuration process is often called "programming".
4. Originally, decoders were programmed by manually selecting CVs and entering numeric values into the control system's operator interface. This was often a small handheld device that was also used to control the trains. Model railroaders had to type numbers for each function (at the time, most engines had 30-40). To change a value, the model railroader had to retype it entirely. The model railroader had to keep manual records of values used. If the engine's chip malfunctioned and lost the typed-in data, the model railroader had to start all over again.
5. JMRI's DecoderPro program was written to make this process simpler for model railroaders. Since every type of decoder is different, there needed to be a way to inform the program about how model railroaders might want to configure each type. The decoder definition files were created to express this.
6. I created the first JMRI Decoder Definition Files, including the overall structure and basic vocabulary that formed the basis for later JMRI decoder definitions. Others have contributed to this over time, with and without my help.
7. The process of creating a decoder definition file involves understanding information from a number of sources, integrating it, and then expressing it in a way useful to model

railroaders. For instance, when I wrote the first few JMRI Decoder Definition Files, I started with nothing more than the JMRI program code, information about decoders in general, and my impressions of how best to understand decoders. I had to pick which decoders to describe initially, get information about them from various sources, compare the different information to see which was most useful, test it against the decoder, decide how to best represent it, and only then start to write it down in the form of a decoder definition file. As I did this for the first few decoder definitions, I refined how decoder definitions were recorded in terms of coding and format, developing the basic template form that all later ones would follow. When I finished, the resulting decoder definition file expressed, in an organized way, my ideas about how best to configure a specific type of decoder. The JMRI program could then use that decoder definition to simplify the task of configuring decoders, and programmers could use that decoder definition as the base for creating additional decoder definitions.

8. In the process of doing the first JMRI decoder definitions, I had to make many choices to best represent my view of how to easily program decoders. I carefully focused the JMRI definitions on the model railroader's view of the configuration process rather than on a purely structural or logical approach. I chose to emphasis the options that, in my view, model railroaders are likely to adjust most often, and gave less emphasis to those that I expected to be used less often; another author might have given the different aspects equal emphasis. I chose to order things in terms of the options and variables that I thought were most directly considered by model railroaders, while another author might have instead chosen to emphasize the decoder's internal organization of the CVs. Some other author might have emphasized bits and bytes rather than emphasizing numeric values and lists of optional terms, as I chose to do. Even after choosing the basic organization for describing decoders, I had to select specific names and terms for options with a decoder. I considered terms recommended by the NMRA, used by the decoder manufacturer, or others. I made a careful effort to pick terms that I thought would best communicate what the items were to the average model railroader. I could

have chosen to use only NMRA terms, or used only the terms used by the specific manufacturer. Others could have, and later did, choose differently.

9. Over time, I and other JMRI authors would chose to write additional decoder definitions for decoders that we thought were interesting. In most cases, we would start with an existing definition for a decoder that was similar to the new decoder type. We would consider the differences and how to represent them: Should we modify something, or take it out and replace it? If the new decoder had additional features, should we add them? How should we describe them? If it was missing values that were present in previous decoder definitions, how do we handle that? The resulting decoder definitions included both new content plus modified and unmodified content from the earlier decoder definitions.

10. I estimate, based on my recollections and examining a sample of current decoder definitions, that more than two thirds of the JMRI decoder definitions can trace their lineage through this process back to the original files that I wrote. The fraction may well be much higher than that.

11. For example, I originally wrote the 0NMRA.xml file. This later formed the complete basis for the QSI_Quantum file defining a different decoder. To create the new definition I changed some identification information, modified some values to what I thought best described the new decoder, and removed variables that were not present in this new decoder.

12. I use the following example in paragraphs 13 to 20 to describe how I selected variable names for CV 1 through CV 5 for early decoder definitions.

13. Consider the first configuration variable (CV) present in the decoder, which is numbered as CV 1. CV 1 contains an eight-bit number that determines the digital address the decoder will respond to. For technical reasons, it can only have values from 1 to 127. This quantity is called different things in different documents.

14. The “Recommended Practices” document of the National Model Railroad Association (NMRA) refers to CV1 as the “Primary Address”. Exhibit B is a true and accurate copy

of this Recommended Practice document.

15. Lenz, a prominent German manufacturer of decoders, refers to CV1 as "Locomotive Address" in their manuals. Exhibit C is a true and accurate copy of a Lenz manual that shows this on page 8.

16. Digitrax, a prominent manufacturer of decoders based in Florida, calls CV1 "2- digit address" in their manuals. Exhibit D is a true and accurate copy of a Digitrax manual that shows this on page 2.

17. Many model railroaders refer to this as the "short address", because there is another place to store addresses that can be up to four digits long, called the "long address".

18. When I wrote the early Decoder Definition Files, I described CV 1 as "Primary Address". I considered the names that both the NMRA and the manufacturers use, plus several terms that are in common use, and then picked or created one to include in the decoder definition. I chose "Primary Address" because most model railroaders are familiar with the term. I did not select any of the manufacturer-specific terms, because they are less commonly used.

19. The tables in Exhibit E show further examples. Each lists a Configuration Variable number, the NMRA Recommended Practice for the name, the name given to it in Lenz and Digitrax manuals, and the name in the JMRI definition files.

20. For CV 1 and 5, I chose the name from the NMRA; for CV 2, I chose an abbreviated form of what two manufacturers were using; and for CV 3 and 4, I used an original form. I selected those variable names because I thought they made DecoderPro the most user friendly.

21. There are numerous examples of this throughout the JMRI Decoder Definition Files, where the author has chosen a variable name that expresses the function—sound, lights, speed, etc.—a particular Configuration Value controls.

22. As another example, when Howard Penny was deciding how to represent information for the QSI Electric decoder, he decided that e.g. CV42, which QSI called "Output Location for F8" in their documentation, would be better understood by model

railroaders if it was called “F8 controls output 4” through “F8 controls output 12”.

23. Authors also must choose what information to represent. For some very complicated decoders, authors occasionally decide to omit some of the more esoteric options to avoid confusing the user.

24. The decoder definition for the Digitrax DS54 decoder is an example of this. I am the original author of this definition. Configuration Variable 9 is used as part of an extended address. Its use is described in the Digitrax manual for the DS54 decoder. It is a complex feature, however, easy to get wrong, and of interest to few users, so I chose not to include it in the JMRI Digitrax_yDS54 Decoder Definition File.

25. As a further example, model railroaders sometimes discover features in decoders that are not documented by the manufacturer. Authors may choose to include these, rather than including information from manuals only. For example, there is a bit in CV61 of the Digitrax DH163 decoder that can be used to turn on and off the decoder’s protection against short circuits. The DH163 manual does not document this feature. It is described in the JMRI Digitrax_01x3 Decoder Definition File as “Short-circuit protection” with value “Disabled”.

26. There are multiple examples of JMRI Decoder Definition Files containing this type of nondocumented information.

27. For many Configuration Variables, the Decoder Definition File will include a “default” value. What value to include, if any, is the definition’s author’s choice. In some cases, this is taken from the manufacturer’s recommendation in the decoder manual. In others, the author will use a value that, in his opinion, works better than the manufacturer’s default.

28. An example of this can be seen in the JMRI Lenz_51 Decoder Definition File, where CV 2 and CV 3 both have default values of 4, although the manufacturer’s manual recommends values of 1.

29. JMRI does not charge for its software. It has never charged in the past, and has no plans to charge for it in the future. Anyone can download and use it, and anyone can modify

and distribute it subject to the minimal conditions in the license.

30. I have registered the copyrights for all versions of JMRI relevant to this litigation. I still own those registrations. These registrations claim:

> "New computer program and updates to existing program, compilation and selection of pre-existing data by listed authors."

31. At no time have I ever claimed exclusive rights in material written by model train manufacturers. I have never had an interest in doing so.

32. At no time did I give Defendants permission to change the copyright or author information in any JMRI material

33. At no time did I give Defendants permission to distribute JMRI content under their own copyright notice or author information, or any other form of copyright management information that indicated they were the owners and/or creators of JMRI content.

34. Since 2001, JMRI has provided copies of its license within the group of files that can be downloaded. Multiple files within the download contained notices pointing to the license file.

35. In May of 2005, I decided that the decoder definition files should include a notice pointing to the license.

36. This notice had to be inserted properly into each of a number of files, all of which were unique. I wrote an automated tool which scanned the files, located the right place to insert the notice, and inserted it. This work was done between approximately April 29 and May 3, 2005. Since then, every decoder definition made available for downloading has included the following notice as close as technically possible to the top of the file (dates vary):

> Copyright (C) JMRI 2002, 2004 All rights reserved
> See the COPYING file for more information on licensing and appropriate use

37. I have examined the 102 template files present in Defendants' version 304 product CD. I compared them to the versions of JMRI decoder definition files.

38. The 102 files on Defendants' CD matched the 102 files in JMRI version 1.7.1.

39. Defendants' 304 product CD contained files matching JMRI files that had been introduced in JMRI version 1.7.1, and were not present in earlier JMRI versions.

Specifically, these included the "QSI_Articulated_Steam", "QSI_Diesel", "QSI_Electric", "QSI_Gas_Turbine", and "QSI_Steam" definitions that were first provided in JMRI version 1.7.1.

40. Defendants' 304 product CD did not contain files matching JMRI files that had been introduced in JMRI version 1.7.2, and were not present in JMRI 1.7.1. Specifically, these included the "QSI_Articulated_Steam_ver6", "QSI_Diesel_Ver6", "QSI_Steam_ver6" and "Zimo_MX66-2000-11" files.

41. Defendants' 304 product CD did contain a file that was included in JMRI 1.7.1, but was not included in JMRI 1.7.2 or any later version. This is the "QSI_Quantum" file.

42. From this evidence, I concluded that the JMRI version copied by Defendants for their version 304 CD was JMRI 1.7.1.

43. The 102 decoder definition files in JMRI version 1.7.1 defined 291 specific decoder models. At the time JMRI version 1.7.1 was made available, there were approximately 500 decoder models available on the market.

44. The KAM 304 CD contains an installer which unpacks and installs Decoder Commander on a Windows PC. When I ran that installer, I found that it had installed a software tool called "Template_verifyer.exe".

45. The instructions for the use of this tool describe its use as:

> The Template Verification Tools is a tool that KAM has released to allow you to create your own template file, and use third party templates, and convert them into a format that is usable by Decoder Commander.

Exhibit F. Exhibit F is a true and correct copy of the relevant pages from Defendants' Decoder Commander manual.

46. I ran the tool. It presented a tab labeled "JMRI", and the option to "Convert JMRI template into a KAM template". There are no tabs for any other "third party template". A true and accurate copy of this screen is attached as Exhibit G.

47. After running the tool, I determined the tool's purpose is to convert JMRI Decoder Definition Files to Defendants' decoder templates. I know of no other decoder

definition that this tool can convert other than JMRI Decoder Definition Files.

48. I compared the JMRI Decoder Definition Files and the files produced by the software tool. Attached as Exhibit H is a true and accurate copy of the decoder template output from Defendants' software tool after it processed the QSI_Electric.xml JMRI file. A true and correct copy of the QSI_Electric.xml file is attached as Exhibit I. The output files are in a different technical format than the template files on the KAM 304 CD, but contain the same information expressed in the same way. The same structure, variable selection, naming, and default values were present. However, the authors' names, copyright notices, references to the license, and the license, were not included. I found numerous examples that prove copying:

- The version number and modification date were preserved intact from the input JMRI Decoder Definition File to the output decoder template. However, the version author — present in the same line of code as the version number and modification date within the input JMRI Decoder Definition File — was intentionally not copied. Compare Ex. I at 1 (top, near date) with Ex. H at 1 (missing, should be near date).
- The copyright notice from the input JMRI Decoder Definition File was not copied to the output decoder template created by the software tool. Compare Ex. I at 1 (top) with Ex. H at 1 (missing, should be at top).
- Within individual files, there are numerous examples of information directly copied. As one example of many, I compared the JMRI "QSI_Electric.xml" file and the corresponding template output file. In one section, these files describe the 7th output of the decoder and what it can do. The evidence of copying in just this small area of the files includes:
    - The author of the JMRI file used "and" and "+" to represent the word "and". This appears in the following choices:
    - "Directional Headlight + Directional Mars Light"
    - "Directional Headlight + Directional Ditch Lights"
    - "Scale mph Report and Status Report"

- "Squealing Brakes + Air Brakes".

- These variations are present in both the JMRI file and the template output file. Compare Ex. I at 9 (near top) with Ex. H at 24 (lower mid-page).
- The author of the JMRI file used lower case in "Scale mph Report and Status Report" although one might expect the "MPH" to be capitalized. It is present in lower case in both the JMRI file and the template output file. Compare Ex. I at 9 (near top) with Ex. H at 24 (lower page).
- A typographical error appears exactly the same in the two files. Instead of using "output" (for the output of the decoder), the name is given as "outout". Compare Ex. I at 8 (bottom) with Ex. H at 24 (top).
- One choice for this element is "Stobe Ditch Lights"—another misspelling, since it should be "Strobe Ditch Lights". This misspelling is present in both the JMRI file and the template output file. Compare Ex. I at 9 (near top) with Ex. H at 24 (lower mid-page). A large number of additional similarities of this type are present in this specific pair of files.

49. Similar evidence of copying exists in all infringing files.

50. Mr. Severson has never asked me about this litigation. He has never asked me what the copyright on the JMRI software claims. He has never attempted to contact me in any way that I am aware of since July 2006.

51. When I learned that Mr. Severson had assigned the rights to his manual to Mr. Katzer, I didn't know what to think. He had approached me at the 2006 Philadelphia NMRA convention and asked what he needed to do to get QSI decoder definitions in DecoderPro. He had personally given me permission without reservation to create decoder definitions from QSI information, including using his manuals for that purpose. As far as I knew, I still had that permission. I tried to contact Mr. Severson to find out why he made the assignment. I wrote him multiple times. I called him at QS Industries on numerous dates, but the person answering the phone said Mr. Severson was not in. I left messages numerous times. Mr. Severson never got back to me.

52. Several times, I left messages asking if he wanted JMRI to stop providing decoder definitions for QSI decoders. He never replied. Had he asked me to stop, or if I had learned from any other JMRI developer that he wanted us to stop, or if anybody else associated with QSI had objected to our use in any way, we would have immediately stopped providing QSI decoder definitions and stopped all use of his manuals.

53. Since QSI continued to help JMRI developers by providing information to create more Decoder Definition Files for QSI decoder chips, and since QSI still made the manuals and other reference information available on their web site and in the QSI Yahoo group, I decided that we continued to have Mr. Severson's permission. We therefore continued to provide decoder definitions for the QSI decoders.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 29th day of October, 2009, in Berkeley, California.

By _____
Robert Jacobsen