

1 VICTORIA K. HALL (SBN 240702)
LAW OFFICE OF VICTORIA K HALL
2 3 Bethesda Metro Suite 700
Bethesda MD 20814
3 Victoria@vkhall-law.com
Telephone: 301-280-5925
4 Facsimile: 240-536-9142

5 Attorney for Plaintiff
ROBERT JACOBSEN
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10 UNITED STATES DISTRICT COURT
11 FOR THE NORTHERN DISTRICT OF CALIFORNIA
12 SAN FRANCISCO DIVISION

13 ROBERT JACOBSEN,) No. C-06-1905-JSW
14)
Plaintiff,)
15) **DECLARATION OF ROBERT**
v.) **JACOBSEN IN SUPPORT OF MOTION**
16) **FOR PRELIMINARY INJUNCTION**
MATTHEW KATZER, et al.,)
17) Courtroom: 2, 17th Floor
18) Judge: Hon. Jeffrey S. White
Defendants.)
19)
20)

21 I, ROBERT JACOBSEN, have personal knowledge to the facts stated herein and hereby
22 declare as follows:

23 I am a party to this action. I am submitting this Declaration in Support of the Motion for
24 Preliminary Injunction.

25 BACKGROUND

26 PLAINTIFF'S ROLE IN THE NMRA AND JMRI

27 1. I am model railroader. As part of my model-railroading hobby, I have contributed to the
28

1 development of the National Model Railroad Association (NMRA) Digital Command
2 Control (DCC) standards used by many model railroaders and present in many types of
3 model railroad equipment. I have served as the Chair of the DCC Working Group, a
4 standards-setting organization within the NMRA. I worked directly with many types of
5 digital model railroad equipment, including all common types of DCC systems. I have used
6 and observed many types of model railroad software. In several cases, I have helped people
7 debug several types of model railroad software.

8 2. I am the owner and assignee of JMRI software. The copyright registrations are Ex. C
9 through L in the Second Amended Complaint. The first page of copyright registration
10 applications are in Exs. A to G of this declaration. I have been involved in the Java Model
11 Railroad Interface (JMRI) open-source software project since shortly after its inception in
12 2001, and am currently one of its leaders. I have written parts of JMRI's code and
13 documentation. I have helped others write parts of the code and documentation. I have
14 given public talks about the use and structure of the software. I have periodically built
15 versions of the JMRI software for general use, and posted them to the SourceForge web site
16 for public download.

17 3. JMRI software is popular among its users. As of October 1, 2008, there have been
18 approximately 160,000 downloads. JMRI software has received laudatory reviews in the
19 model train press, and won a prestigious Duke's Choice award from Sun Microsystems.
20 User group meetings held in various countries draw large crowds, and model train
21 hobbyists discuss JMRI software regularly on model train listservs. Other model train
22 software companies include JMRI software with their products.

23 JMRI CREATES DECODER DEFINITION FILES

24 4. To allow more realistic operation, certain model railroads use decoders, or computer chips,
25 in locomotives and other equipment to control their operation. Properly-configured
26 decoders give model railroaders the greatest range of use. The process of configuring a
27 decoder is referred to as "programming" it.

28 5. There are many different types of decoders, and they vary greatly in complexity. The

1 configuration information for each of them also varies greatly.

2 6. DecoderPro, part of JMRI, is a tool that makes it easier to program decoders. Without
3 DecoderPro, the user would have to specify numeric values to be stored in computer
4 locations. With DecoderPro, a user selects options and settings in a language and interface
5 naturally understood by model railroaders. DecoderPro uses Decoder Definition Files to
6 help with the programming, and a Decoder Definition File may define more than one
7 decoder. Here are several examples of programming without DecoderPro, and with
8 DecoderPro:

- 9 • If a user wanted to program a locomotive so that its top speed is limited, he could
10 store a value of 80 in location 5. DecoderPro simplifies this by providing a sliding
11 scale on the screen that the user moves to limit the speed, without needing to know
12 precise numbers.
- 13 • If a user wants to provide a negative voltage to the motor, instead of the usual
14 positive voltage for the train moving forward, he would add one to the value in
15 location 29. DecoderPro makes this much easier by providing a checkbox to select
16 negative motor voltages.
- 17 • If he wanted the decoder to respond to long addresses instead of short ones, he'd
18 add 32 to the value in location 29. DecoderPro also simplifies this by providing a
19 checkbox to select long addresses instead of short addresses.

20 7. I first wrote some of these files in the summer of 2001. I have edited others' Decoder
21 Definition Files. I have helped people create and edit Decoder Definition Files. Since 2001,
22 approximately 75 other model railroaders have written JMRI Decoder Definition files.

23 8. When I discovered Defendants' infringement, JMRI authors had written more than 100 files
24 with a total of about 350 decoders. As of October 1, 2008, 195 files exist that define 635
25 decoders. More decoder files and decoders are added with each JMRI release.

26 9. JMRI files were subject to the Artistic License, and are now subject to the GNU General
27 Public License 2.0. Copies of these licenses are attached as Exs. H and I, respectively.
28 Copyright notices and authors' names are present at the top of the files, as is a reference to

1 the license in a COPYING file. The license is distributed with the package.

2 CREATING DECODER DEFINITION FILES INVOLVES CREATIVE EXPRESSION

3 10. As discussed above, decoders in model trains control the train's operation. Modern
4 decoders can control lights and sounds from the locomotives, provide precise control of the
5 speed and power of the motor, and do other advanced functions. To adjust and configure
6 these functions, the user can put new numeric values into "Configuration Variables" (CVs)
7 in the decoder. Each Configuration Variable controls one or more aspects of the decoder,
8 and therefore, the model train's, operation.

9 11. For example, a particular CV may control the pitch of a sound. Another might control
10 when that sound is played. Another might provide a number of bits for selecting which
11 lights come on at the same time.

12 12. Basic decoders may have only a few Configuration Variables, because they have few
13 features. More advanced decoders, such as those that provide sounds or complicated
14 lighting effects, will generally have many more Configuration Variables. The advanced
15 decoders tend to be more popular—and more complex—because of their range of features.
16 All decoders have certain CVs in common, but generally the number and ordering of CVs
17 differ greatly from one manufacturer's decoder to another.

18 13. In addition to DecoderPro, several computer programs, including Defendants' Decoder
19 Commander, have been written to make it easier to set values for a large number of decoder
20 CVs.

21 14. In order to work, these programs must have information about what each Configuration
22 Variable does. This information is called a decoder definition by JMRI, and a decoder
23 template by Defendants.

24 15. Decoder definitions are separate from the programs that use them. Multiple decoder-setting
25 programs can use the same decoder definition, just like differing MP3 players, such as an
26 iPod or a computer, can play the same songs. The internal operation of the decoder
27 programs, and the language in which they are written, is irrelevant to the end result—setting
28 Configuration Variables on the decoder. And like an iPod without songs, a decoder-setting

1 program is virtually useless without a decoder definition. Without the definitions—whether
2 in a database or in their decoder templates—Decoder Commander would be essentially
3 inert and without value to the customers.

4 16. The process of creating a decoder definition file involves understanding information from a
5 number of sources, integrating it, and then expressing it in a way useful to model
6 railroaders. For instance, when I wrote JMRI Decoder Definition Files, I started with
7 nothing more than a bare JMRI template, information about the decoder, and my
8 impressions of how best to understand the decoder. When I finished, the resulting Decoder
9 Definition File expressed, in an organized way, my ideas about how best to configure a
10 specific type of decoder. Programmers can then use that Decoder Definition File to create
11 programs to help users properly configure the decoder through setting Configuration
12 Values.

13 17. I use the following example in paragraphs 18 to 25 to describe how I selected variable
14 names for CV 1 through CV 5 for early decoder definitions.

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

19 19. The “Recommended Practices” document of the National Model Railroad Association
20 (NMRA) refers to CV1 as the “Primary Address”. Exhibit J is a true and accurate copy of
21 this Recommended Practice document.

22 20. Lenz, a prominent German manufacturer of decoders, refers to CV1 as “Locomotive
23 Address” in their manuals. Exhibit K is a true and accurate copy of a Lenz manual that
24 shows this on page 8.

25 21. Digitrax, a prominent manufacturer of decoders based in Norcross, Georgia, calls CV1 “2-
26 digit address” in their manuals. Exhibit L is a true and accurate copy of a Digitrax manual
27 that shows this on page 2.

28 22. Many model railroaders refer to this as the “short address”, because there is another place to

- 1 store addresses that can be up to four digits long, called the “long address”.
- 2 23. When I wrote the early Decoder Definition Files, I described CV 1 as “Primary Address”. I
3 considered the names that both the NMRA and the manufacturers use, plus several terms
4 that are in common use, and then picked or created one to include in the decoder definition.
5 I chose “Primary Address” because most model railroaders are familiar with the term. I did
6 not select any of the manufacturer-specific terms, because they are less commonly used.
- 7 24. The tables in Exhibit M show further examples. Each lists a Configuration Variable
8 number, the NMRA Recommended Practice for the name, the name given to it in Lenz and
9 Digitrax manuals, and the name in the JMRI definition files.
- 10 25. For CV 1 and 5, I chose the name from the NMRA; for CV 2, I chose an abbreviated form
11 of what two manufacturers were using; and for CV 3 and 4, I used an original form. I
12 selected those variable names because I thought they made DecoderPro the most user
13 friendly.
- 14 26. There are numerous examples of this throughout the JMRI Decoder Definition Files, where
15 the author has chosen a variable name that expresses the function—sound, lights, speed,
16 etc.—a particular Configuration Value controls.
- 17 27. Authors also must choose what information to represent. For some very complicated
18 decoders, authors occasionally decide to omit some of the more esoteric options to avoid
19 confusing the user.
- 20 28. The decoder definition for the Digitrax DS54 decoder is an example of this. I am the
21 original author of this definition. Configuration Variable 9 is used as part of an extended
22 address. Its use is described in the Digitrax manual for the DS54 decoder. It is a complex
23 feature, however, easy to get wrong, and of interest to few users, so I chose not to include it
24 in the JMRI Digitrax_yDS54 Decoder Definition File.
- 25 29. As a further example, model railroaders sometimes discover features in decoders that are
26 not documented by the manufacturer. Authors may choose to include these, rather than
27 including information from manuals only. For example, there is a bit in CV61 of the
28 Digitrax DH163 decoder that can be used to turn on and off the decoder’s protection against

1 short circuits. The DH163 manual does not document this feature. It is described in the
2 JMRI Digitrax_01x3 Decoder Definition File as “Short-circuit protection” with value
3 “Disabled”.

4 30. A more extensive example can be found in the Decoder Definition Files for the MERG
5 decoders. MERG is a group of electronic hobbyists and model railroaders in the United
6 Kingdom. They design and produce decoders. Like many hobbyist organizations, they do
7 not develop detailed documentation. Creating the Decoder Definition Files for the MERG
8 decoders involved extensive discussions with the decoder designer (Michael Bolton) about
9 what features were present, how to operate them, and how best to explain their intended
10 use. These conversations then informed the choices about what to include in the Decoder
11 Definition File.

12 31. There are multiple examples of JMRI Decoder Definition Files containing this type of non-
13 documented information.

14 32. For many Configuration Variables, the Decoder Definition File will include a “default”
15 value. What value to include, if any, is the definition’s author’s choice. In some cases, this
16 is taken from the manufacturer’s recommendation in the decoder manual. In others, the
17 author will use a value that, in his opinion, works better than the manufacturer’s default.
18 An example of this can be seen in the JMRI Lenz_51 Decoder Definition File, where CV 2
19 and CV 3 both have default values of 4, although the manufacturer’s manual recommends
20 values of 1.

21 GAINING ACCESS TO JMRI DECODER DEFINITION FILES

22 33. As one of the original leaders of the JMRI Project, I know how JMRI distributes its
23 software. The software is posted on SourceForge.net’s website. As described earlier, this
24 software is subject to a license called the Artistic License, Ex. H, and GPL 2.0, Ex. I.

25 34. There are two ways to download the software from SourceForge: (1) a complete “released”
26 version, containing both the complete set of JMRI Decoder Definition Files and other
27 components, or (2) individual files created by project members, including the individual
28 JMRI Decoder Definition Files.

1 35. To download a complete released version, a person clicks a URL such as
2 <http://prdownloads.sourceforge.net/jmri/JMRI.1.7.1.exe?download>, taking him or her to a
3 web page. A true and accurate copy of this webpage is attached as Exhibit N. Most web
4 browsers will also start downloading the version at this point. Some web browsers will
5 require clicking one of the "Download" links in the right-center of the page. Once the
6 download is complete, most browsers will start the installation process. Some browsers
7 will require moving or clicking the downloaded file to start the installation. Neither the
8 software nor download present anyone with a license agreement to accept.

9 36. To download individual files, a person navigates from the main JMRI web site to the
10 repository that contains all JMRI source code. Individual files can then be examined.
11 Attached as Exhibit O is a typical web page from which a JMRI Decoder Definition file can
12 be examined or downloaded. Neither the software nor download present anyone with a
13 license agreement to accept.

14 OTHERS' AUTHORIZED USE OF THE FILES

15 37. Several individuals and organizations use JMRI software as part of their products. Except
16 for Defendants, I have never experienced any problems with non-compliance with license
17 terms.

18 38. For example, GPP Software, located in Australia, uses the JMRI Decoder Definition Files
19 as part of its products. They distribute the JMRI files unmodified, without having removed
20 any of their contents. GPP Software credits JMRI as the source in their documentation, and
21 follows license terms.

22 39. MTS Associates distributes JMRI, including the Decoder Definition Files, as part of its
23 Model Railroad Manager product. They credit JMRI on their web pages and in their
24 documentation, and follow license terms. Tom Stack of MTS Associates modified certain
25 JMRI files and, following the terms of the Artistic License, contributed them back to JMRI
26 so JMRI could include the changes in later releases.

27 40. Bruce Petrarca of Litchfield Station in Arizona distributes JMRI on a CD along with
28 additional information for his customers. He identifies JMRI as the source of the files, and

1 follows license terms.

2 41. In contrast, neither Defendant Katzer nor any agent or employee from Defendant KAMIND
3 Associates, Inc. ever contacted me for authorization to use the JMRI Decoder Definition
4 Files, even after I charged them with infringement.

5 42. Neither Defendant Katzer nor any agent or employee from Defendant KAMIND
6 Associates, Inc. ever contacted me to negotiate a contract to use the JMRI Decoder
7 Definition Files, even after I charged them with infringement.

8 DEFENDENTS OBTAINED THE JMRI DECODER DEFINITION FILES

9 43. Defendants have been aware of and accessed JMRI software and its Decoder Definition
10 files since 2001. Defendants have also been aware that this software is subject to a license,
11 and are aware of the license terms.

12 44. In an internet discussion on May 2, 2003, I replied to Defendant Katzer that “JMRI uses
13 XML files to store state information (decoder definitions, layout configuration, etc), ...”.
14 Attached as Exhibit P is a true and accurate copy of this posting.

15 45. On May 10, 2003, Defendant Katzer replied to another post in that same discussion. That
16 reply said, in part, “Like wise, the xml definitions you use in jmri for the data files I suspect
17 that you would like to see them submitted.” Attached as Exhibit Q is a true and accurate
18 copy of this posting.

19 46. On August 8, 2003, I replied to a question in an email post by Defendant Katzer with
20 information about the JMRI Decoder Definition Files and where to obtain additional
21 information, including the files. Attached as Exhibit R is a true and accurate copy of this
22 posting.

23 47. Defendant Katzer is a member of the JMRI users electronic discussion group on which the
24 JMRI Decoder Definition Files are discussed. He has posted to this listserv numerous times
25 in 2004 and 2005, indicating that he read posts to this listserv during that period.

26 48. On March 30, 2004, Defendant Katzer wrote to me via direct email. Attached as Exhibit S
27 is a true and accurate copy of this email. In it, he made the statement: “Currently you are
28 supply [sic] software under the GNU license”. His statement was incorrect, as JMRI then

1 was using the Artistic License. I brought this to his attention explicitly, including both
2 pointers to the full license and discussion of its terms, in an email dated March 30, 2004.
3 Attached as Exhibit T is a true and accurate copy of this email.

4 49. On September 7, 2004 in another internet discussion, Defendant Katzer indicated his
5 familiarity with the terms of the JMRI license by saying “JMRI license agreement requires
6 them to ship source, and dictates what can be charge [sic].” (These license terms are in Ex.
7 H ¶¶ 3-5.) Attached as Exhibit U is a true and accurate copy of this posting.

8 50. On July 25, 2005, and after Defendants started distributing their infringing software,
9 Defendant Katzer posted to a NMRA Working Group mailing list to start a discussion about
10 creating a common format for decoder information. It included the following (emphasis
11 added):

12 “I had an old action item from 2004, to develop an XML cv format that the NMRA,
13 mfg and software developers cuydl use as a standard.

14 ...

15 - KAM has a format that we use for our Decoder Commander.

16 - JMRI folks have a format that they use for decoder pro.

17 Does this make sense to merge the two together to create a NMRA document that
18 defines what the format should be, that way we can all use the same data format?”

19 Attached as Exhibit V is a true and accurate copy of this posting. By the time Defendant
20 Katzer made this posting, he had already merged JMRI content into Decoder Commander’s
21 templates. On a related note, I believe Defendant Katzer was attempting to persuade the
22 NMRA to adopt his infringing software as a standard. If Defendants had been successful,
23 then both the NMRA and all who used this standard would have been infringers. Also, if
24 Defendants had been successful, their actions would have pitted JMRI against the NMRA
25 and model train computer users, if JMRI sought to enforce its copyright and license terms.

26 51. Defendants’ lawyer wrote to me on August 24, 2005 to describe their “analysis of (my)
27 existing implementation of the JMRI software”. Attached as Exhibit W is a true and
28 accurate copy of this letter. To make their analysis, they must have downloaded the JMRI

1 software, in which case they would have received copies of the entire collection of current
2 JMRI Decoder Definition Files, and the license.

3 52. I attended the NMRA DCC Working Group meeting in Austria during September 2004. At
4 that meeting, I met Robert Bouwens of Switzerland. We had previously corresponded over
5 email. He gave me a business card which identified him as working for KAM.

6 53. On December 31, 2001 Robert Bouwens had posted a note about looking at specific JMRI
7 Decoder Definition Files on the web. Attached as Exhibit X is a true and accurate copy of
8 this posting.

9 54. On August 15, 2005, Robert Bouwens posted a note about the Decoder Definition Files and
10 templates. Attached as Exhibit Y is a true and accurate copy of this posting. It contains the
11 following statement: “When you look at the jmri defs for the gold decoder then you see my
12 personal view of open source ;-),” followed by lines quoted from the JMRI Decoder
13 Definition File for the Lenz Gold decoder. Ex. Y, at 1.

14 55. That August 15, 2005 posting by Bouwens then shows a template in the KAM format that
15 contains information copied from the JMRI “Umelec_ATL2064.xml” Decoder Definition
16 File. Ex. Y, at 3-4.

17 56. The August 15, 2005 posting also contains the statement:

18 “I’ve written a converter to make jmri templates a bit more strict.

19 The panel info will also be stripped.

20 But it need additional work to complete the resulting template...”

21 Ex. Y, at 4.

22 57. Thus, Defendant Katzer and Defendant KAM’s employee both knew about the JMRI
23 Decoder Definition Files, the license governing their use, had obtained copies of them, were
24 modifying them, and had intentionally created a tool to convert them.

25 DEFENDANTS ANNOUNCE PLANS FOR THEIR DECODER TEMPLATES, AND BEGIN
26 INFRINGEMENT

27 58. On April 24, 2005, Defendant Katzer published an announcement of KAM’s “Train Server
28 3.0” product. Exhibit Z is a true and accurate copy of that announcement. It says in part:

1 Our latest product release is “Decoder Commander®”. This software is design
2 [sic] to provide the most intuitive programmer on the market. Our users tell us that
3 Decoder Commander far surpasses any other solution available in the market (free
4 or commercial). We are very pleased with the command station integration and ease
5 of use that this software provides. Decoder Commander will set the new
6 programmer standard.

7 [...]

8 Build 30 has the following features: Decoder Commander® – a distributed GUI
9 programmer for loco programming allowing importing of ours or other third party
10 decoder templates

11 [...]

12 Decoder Commander will be available to all KAM subscription customers at a
13 reduce [sic] price prior to June 30, 2005. This offer will only be available to
14 subscription customers, for orders on the web, electronic download only. The
15 special introduction price will be 40% below the retail price of the software. You
16 may order Decoder Commander on June 1, 2005 from
17 <<http://www.kamind.com/>>www.kamind.com web site. Decoder Commander®
18 suite will also be available from our dealers after June 30, 2005. Decoder
19 Commander® Suite will retail for \$59.

20 Ex. Z (emphasis added).

21 59. In July 2005, Defendants presented their Decoder Commander product at the National
22 Model Railroad Association convention in Cincinnati, Ohio.

23 60. Defendant Katzer was scheduled to give a talk entitled “Decoder Commander – Easy Tool
24 for Programming Decoders” at the convention. A true and accurate copy is attached as Ex.
25 AA. The talk is at page 7.

26 61. Exhibit AB is a true and accurate copy of a KAM sales brochure. It carries a copyright date
27 of 2005. It says in part:

28 Decoder Commander uses a set of configurable templates that you can customize
for your own use. KAM ships all of the popular templates with the software, and
provides additional templates on www.kamind.com. Decoder commander also
supports a full set of programming tools that allows you to import a template from
different decoder programming software packages.

Ex. AB (emphasis added).

62. Exhibit AC is a true and accurate copy of the KAM manual for their Decoder Commander
product. Here, they claim that they created the template files:

All decoders have unique characteristics. KAM has created a set of Decoder
Templates that has these characteristics in a XML configuration file.

1 Ex. AC, at 11 (emphasis added).

2 63. No credit or acknowledgement was given to the JMRI Project. As discussed next, the
3 original JMRI files were not shipped with the KAM files, as required by JMRI's license.
4 Defendants did not include a statement describing how and when the changes were made to
5 JMRI files. They also did not grant a license back to JMRI to use their modifications.
6 They did not follow any license terms. Defendants did not get my approval to make the
7 infringing modifications or distributions.

8 DEFENDANTS' COPYRIGHT INFRINGEMENT DISCOVERED

9 64. Aware of Defendant Katzer's unauthorized registration of decoderpro.com in 2004, I had
10 initially conducted a brief review of their software in summer 2005. Given Defendants'
11 history of problematic software releases, I found it strange that Katzer could provide
12 software with such a broad range of functionality, and I wondered if he had used JMRI. I
13 searched his website and downloadable files for the JMRI copyright, the Artistic License,
14 and author information to see if he was using JMRI Decoder Definition Files. I found
15 nothing. This led me to believe that Katzer and Bouwens had created the KAM files
16 themselves. I did not investigate further.

17 65. As a part of opposing Defendants' anti-SLAPP motion in Spring 2006, I took a closer look
18 at KAMIND Associates, Inc.'s products.

19 66. Their advertising said that demonstration versions were available for download from their
20 website. I updated a computer to the required Windows version and attempted to download
21 a copy of Defendants' software. As part of this, I identified myself on Defendants' web site,
22 thus informing them that I was trying to examine their software. After I identified myself,
23 Defendants' website did not allow me to download a demonstration copy of the software.

24 67. Undeterred, I downloaded a copy of the Decoder Commander manual from the Defendants'
25 web site. This manual was dated Oct. 4, 2005. The manual contains several figures
26 showing Defendants' program and the text the program displayed. I recognized the text as
27 coming from the JMRI Decoder Definition Files.

28 68. Based on this, I believed Defendants were infringing the JMRI copyright. Although very

1 busy with work on three oppositions and their declarations due by June 9, 2006, I
2 immediately started to gather assignments from my JMRI co-authors. I had an appropriate
3 assignment agreement prepared immediately, and sent it out to the co-authors June 5-6,
4 2006. I received them back over the next week or so. I then submitted a copyright
5 registration for the JMRI Decoder Definition Files on June 13, 2006, paying approximately
6 \$500 extra for expedited handling due to pending litigation.

7 69. After seeking a copy of Defendants' Decoder Commander from several sources, I obtained
8 a copy in mid-June 2006. I received a package on June 16, 2006, containing a CD ROM
9 labeled TS3.30.304, the "304 CD", and examined it. It had several copyright notices,
10 including "Copyright 1992-2005 KAMIND Associates, Inc.", "Copyright 2003", and
11 "Copyright 2005. KAM Industries." I used KAM's registration key provided with the CD
12 to view the files. I also began the installation process, and was presented with KAM's
13 license, which made no mention of JMRI's license.

14 70. When I viewed the KAM CD's files, I recognized the contents. Because of my role with
15 JMRI, I am familiar with the file names of JMRI software. When I reviewed the names of
16 the decoder template files on the KAM 304 CD, I immediately recognized the names of the
17 JMRI Decoder Definition Files. Defendants had merely added a ".tpl" to the names. I
18 opened the files.

19 71. I compared the JMRI Decoder Definition Files with the decoder template files on the KAM
20 304 CD. Attached as Exhibit AD is a true and accurate copy of the JMRI Decoder
21 Definition File, "QSI_Electric.xml". Attached as Exhibit AE is a true and accurate copy of
22 Defendants' decoder template, "QSI_Electric.tpl.xml", from the KAM 304 CD.

23 72. I found numerous instances of copying the variable structure, selection, naming and default
24 variable values in Defendants' files, in addition to minor technical differences in format. I
25 also found numerous examples that proved copying:

- 26 • Each template file on the KAM 304 CD and each JMRI Decoder Definition file
27 contains a version number and modification date. These vary from Decoder
28 Definition File to Decoder Definition File. The version number in each file on the

1 KAM 304 CD was identical to the version number in the corresponding JMRI
2 Decoder Definition File. The modification date in each file on the KAM 304 CD
3 was identical to the modification date in the corresponding JMRI Decoder
4 Definition file. Compare Ex. AD at 1 with Ex. AE at 1.

- 5 • Within individual files, there are numerous examples of information directly copied.
6 As one example of many, I compare here the JMRI “QSI_Electric.xml” file and the
7 corresponding “QSI_Electric.tpl.xml” file on the KAM 304 CD. In one section,
8 these files describe the 7th output of the decoder and what it can do. The evidence
9 of copying in just this small area of the files includes:

- 10 ▪ The author of the JMRI file used “and” and “+” to represent the word
11 “and”. This appears in the following choices:
 - 12 ○ “Directional Headlight + Directional Mars Light”
 - 13 ○ “Directional Headlight + Directional Ditch Lights”
 - 14 ○ “Scale mph Report and Status Report”
 - 15 ○ “Squealing Brakes + Air Brakes”.

16 These variations are also present in the file on the KAM 304 CD. Compare Ex.
17 AD at 9 (near top) with Ex. AE at 29 (bottom).

- 18 ▪ The author of the JMRI file used lower case in “Scale mph Report and
19 Status Report” although one might expect the “MPH” to be capitalized. It
20 is also present in lower case in the file on the KAM 304 CD. Compare Ex.
21 AD at 9 (near top) with Ex. AE at 29 (bottom).
- 22 ▪ A typographical error appears exactly the same in the two files. Instead of
23 using “output” (for the output of the decoder), the name is given as
24 “outout”. Compare Ex. AD at 8 (bottom) with Ex. AE at 29 (quarter page
25 from top).
- 26 ▪ One choice for this element is “Stobe Ditch Lights”—another misspelling,
27 since it should be “Strobe Ditch Lights”. This misspelling is also present
28 in the file on the KAM 304 CD. Compare Ex. AD at 9 (near top) with Ex.

1 AE at 29 (near bottom).

- 2 ■ A large number of additional similarities of this type are present in this
- 3 specific pair of files.
- 4 ■ Each JMRI Decoder Definition File contains a copyright notice and an
- 5 author name. These are missing from the KAM template files. Compare
- 6 Ex. AD at 1 (top – near date) with Ex. AE at 1 (top – should have been
- 7 near date). In many cases, these are omitted from the KAM template files
- 8 even though other information on the same line of code in the JMRI file
- 9 was copied to the KAM file.

10 73. Similar evidence of copying existed in all approximately 100 files. For example:

- 11 • The tables in Exhibit M, discussed in paragraphs 17 to 25, show the names of the
- 12 NMRA, Digitrax, Lenz, and JMRI variables. These tables also show the KAM
- 13 Lenz_51.tpl template from version 304 of the KAM software. KAM chose the same
- 14 variable names and settings as JMRI.
- 15 • As discussed in paragraph 28, Configuration Variable 9 in the Digitrax DS54
- 16 decoder is a complex feature that I, as the author of this decoder definition, chose
- 17 not to include in the JMRI Digitrax_yDS54 Decoder Definition File. This
- 18 configuration variable is also not present in the KAM Digitrax_yDS54.tpl template
- 19 file.
- 20 • As discussed in paragraph 29, there is a bit in CV61 of the Digitrax DH163 decoder
- 21 that can be used to turn on and off the decoder’s protection against short circuits.
- 22 The DH163 manual does not document this feature, but a JMRI programmer found
- 23 it. This configuration variable is described in the JMRI Digitrax_01x3 Decoder
- 24 Definition File as “Short-circuit protection” with value “Disabled”; it appears in the
- 25 KAM Digitrax_01x3.tpl template as “Short-circuit protection Disabled”, merely
- 26 merging the two strings.
- 27 • Defendants also copied exactly JMRI’s variable selection, names and settings for
- 28 the MERG decoders. As discussed in paragraph 30, documentation on the MERG

1 decoders is not complete, so the JMRI programmer had to determine what
2 configuration variables, names, and settings, to include in the Decoder Definition
3 File. Defendants copied JMRI's choices exactly. JMRI programmers developed
4 decoder definitions for many other decoders whose documentation is incomplete.
5 KAM copied those variable selection, naming, and setting exactly.

- 6 • In some instances, the JMRI programmer chose a default variable setting that was
7 different from the manufacturer's recommended setting. As discussed in paragraph
8 32, an example of this can be seen in the JMRI Lenz_51 Decoder Definition File,
9 where CV 2 and CV 3 both have default values of 4, although the manufacturer's
10 manual recommends values of 1. The value from the JMRI file was copied into the
11 KAM Lenz_51.tpl file.

12 74. Meanwhile, on June 5, 2006, Alex Shepherd emailed me that he had downloaded from
13 Defendants' web site a "utility that imports templates". Attached as Exhibit AF is a true
14 and accurate copy of this email. He included a copy of the download as a compressed file,
15 and also the contents of the "readme" information. This "readme" file says:

16 4. If you wish to use third party templates, you can run the template
17 conversion on the third party template. We have added "tabs" in the menu to
18 allow you to select the format and convert it to the a Decoder Commander
19 template.

20 [...]

21 As we become aware of third party templates, we will list them here for your
22 reference. Different software producers have different rules on the use of
23 their decoder templates. Please check with the produce and verify that you
24 have the rights to use there templates.

25 Non dtd templates

- 26 o Use the verifcaion tab for conversion

27 JMRI templates:

- 28 o These are located at <http://jmri.sourceforge.net/xml/decoders/>

o You will need to download the schema at
<http://jmri.sourceforge.net/xml/DTD/>

- o You can also download the s/w at <http://jmri.sourceforge.net/download/>

1 Ex. AF (emphasis added).

2 75. After receiving Alex Shepard's email, I downloaded Defendants' template tool from their
3 web site on June 6, 2006. I found that it worked as Alex Shepherd had described.

4 76. As noted earlier, the KAM 304 CD contains an installer which unpacks and installs
5 Decoder Commander on a Windows PC. When I ran that installer, I found that it had
6 installed a software tool called "Template_verifyer.exe".

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

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

11 Ex. AC at 30 (emphasis added).

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

15 79. After running the tool, I determined the tool's purpose is to convert JMRI Decoder
16 Definition Files to Defendants' decoder templates. I know of no other decoder definition
17 that this tool can convert other than JMRI Decoder Definition Files.

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

- 26 ▪ The version number and modification date were preserved intact from the input
27 JMRI Decoder Definition File to the output decoder template. However, the
28 version author—present in the same line of code as the version number and

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modification date within the input JMRI Decoder Definition File—was intentionally not copied. The version author was also not copied. Compare Ex. AD at 1 (top, near date) with Ex. AH 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. AD at 1 (top) with Ex. AH 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. AD at 9 (near top) with Ex. AH 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. AD at 9 (near top) with Ex. AH 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. AD at 8 (bottom) with Ex. AH at 24 (top).
- One choice for this element is “Stobe Ditch Lights”—another misspelling, since it should be “Strobe Ditch Lights”. This misspelling

1 is present in both the JMRI file and the template output file. Compare
2 Ex. AD at 9 (near top) with Ex. AH at 24 (lower mid-page).

3 A large number of additional similarities of this type are present in this specific
4 pair of files.

5 81. Again, similar evidence of copying, including that described in paragraph 73, exists in all
6 infringing files.

7 82. I obtained different KAMIND Associates, Inc. product CDs. I found KAMIND distributes
8 the same CD for all products. The registration key determines which product operates after
9 the software is installed. The same files and software tool are on each CD.

10 DEFENDANTS' INFRINGEMENT CONTINUES

11 83. On Aug. 14, 2006, the day I received the copyright registration, I ordered a copy of
12 Defendants' Engine Commander software from a supplier. I received it on Aug. 21, 2006. I
13 examined the CD's contents. It was labeled "TS3.30.304", and appeared to have contents
14 identical to the Decoder Commander CD I bought in June. It included the KAM decoder
15 templates that were copied from the JMRI Decoder Definition Files.

16 84. Also on Aug. 14, 2006, I was again able to download the template verifier tool from
17 Defendants' website.

18 85. In September, I obtained copies of Engine Commander and Decoder Commander products.
19 They were both version 305. Both CDs included KAM decoder templates that were copied
20 from the JMRI Decoder Definition Files.

21 86. Many of the decoder template files from the KAM 304 CD were gone, but some were still
22 present.

23 87. I reviewed those that were present and found the same evidence of copying as I had on the
24 KAM 304 CD.

25 88. The software tool was not present on the KAM 305 CD. Instead, there was a note that said
26 (emphasis added): "Smart decoder Editor (.net 2.0) v1.0 is released. Editor can read 3rd
27 party decoder templates. The editor is available as a seperate [sic] download from our
28 website."

1 89. In late September 2006, after I charged Defendants with copyright infringement,
2 Defendants sent me another CD labeled TS4.30.306, the KAM 306 CD.

3 90. I reviewed the KAM 306 CD. I found that one file which had been named in the Amended
4 Complaint had been removed. There was a note claiming that “Incorrect decoder template
5 shipped with software.” However, other files which I and others originally authored were
6 present. Evidence of copying was still present in those files, and the authors’ names and
7 copyright information had been stripped. The tool remained available on the web.

8 91. On November 10, 2006, I downloaded a copy of the “Decoder Commander software
9 Configuration and User Manual”. It carried a revision date of 10/31/2006 on the second
10 page.

11 92. Information copied from the JMRI Decoder Definition Files appears in figure 13 on page
12 20, page 14 on page 21, and figure 15 on page 22 in this manual, among others. These
13 figures are screen shots taken from the running program. Attached as Exhibit AI is a true
14 and accurate copy of this manual. Comparing variable names in figure 15 from Exhibit AI
15 with variable names in my discussion in paragraphs 72 and 80, one can see that Defendants
16 took their template from the JMRI Decoder Definition File.

17 93. On November 10, 2006, I downloaded a copy of Defendants’ web page that describes their
18 Decoder Commander product from their web site. Attached as Exhibit AJ is a true and
19 accurate copy of this web page. It contained in part:

20 Decoder Commander can read third party decoder templates using our Smart
21 Decoder® editor. The smart decoder editor allows you to read third party templates,
22 create your own decoder template and verify existing Decoder Commander
23 templates.

24 To use this feature, download KAM’s Smart Decoder Template utility form our
25 download area and convert the 3rd party templates to a Decoder Commander
26 format. This utility is not included in the Train Tools software release. The smart
27 decoder utility verifies the template information and adds additional information
28 that is needed to be used by Decoder Commander.

Note: Before you convert any third party template, you will need to verify that the
3rd party tempalte license agreement allows you to run the smart decoder
conversion utility on the 3rd party template. Kam software supports Microsoft
current operating systems, Win CE (PC2002-03, Mobile 5.x), Win 200x, Windows
XP and .NET servers.

1 Ex. AJ (emphasis added).

2 94. On November 16, 2006, I downloaded a description of Defendants' Decoder Commander
3 product from the web site of their distributor in Cincinnati, Ohio. Attached as Exhibit AK
4 is a true and accurate copy of this page. This page contains the same language about
5 reading third party decoder templates and Defendants' Smart Decoder Template utility.

6 95. On November 16, 2006, I downloaded a similar description of Defendants' Decoder
7 Commander product from the web site of their UK distributor. Attached as Exhibit AL is a
8 true and accurate copy of this page. This page contains the same language about reading
9 third party decoder templates and Defendants' Smart Decoder Template utility.

10 96. On November 10, 2006, I downloaded an advertising flyer from Defendants web site.
11 Attached as Exhibit AM is a true and accurate copy of that flyer. It says in part:

12 Decoder Commander uses a set of configurable templates that you can customize
13 for your own use. KAM ships all of the popular templates with the software, and
14 provides additional templates on www.kamind.com. Decoder commander also
15 supports a full set of programming tools that allows you to import a template from
16 different decoder programming software packages.

17 Ex. AM (emphasis added).

18 97. Defendants sent me version 307, which Defendants said used a new database in place of its
19 infringing decoder templates. However, version 307 did not work, so I could not verify if
20 the new database was created from JMRI materials.

21 AFTER JACOBSEN'S ANALYSIS SHOWS CONTINUED INFRINGEMENT, DEFENDANTS
22 WITHHOLD NEW VERSIONS FROM JACOBSEN'S REVIEW

23 98. When I bought Defendants' software in August 2006, they guaranteed one year's worth of
24 updates. I did not receive any updates after version 307, issued in November 2006,
25 although Defendants released multiple versions through August 2007.

26 99. On December 18, 2006, Katzer announced via email that "All dealers and OEMS are
27 currently stocking Train Tools version 308." and "Lenz and ZTC are shipping KAM
28 software products." Ex. AN is a true and accurate copy of that posting. I did not receive a
copy of the version 308 CD. I tried to buy a copy from DCC Train, but was told I had to
buy it directly from Katzer.

- 1 100. On February 4, 2007, Katzer posted that build 309 was “released February 1, 2007”.
2 Ex. AO is a true and accurate copy of that posting. I did not receive a copy of this version.
- 3 101. I did not receive announcements from sometime in February 2008 to sometime in
4 May 2008 because, without telling me, Katzer removed me from his announcement mailing
5 list.
- 6 102. On May 17, 2007, Katzer posted that he had mailed a customer a build 310 CD. Ex.
7 AP is a true and accurate copy of that posting. I did not receive a copy of that version.
- 8 103. On July 2, 2007, Katzer posted about the install process for build 311. Ex. AQ is a
9 true and accurate copy of that posting. I did not receive a copy of that version.
- 10 104. Jon Miller and Eric Eggel bought copies of KAMIND software during summer
11 2006. They received updates through version 307 in November 2006, but none after that.
- 12 DEFENDANTS CONTINUE TO CONCEAL DATABASE FROM JACOBSEN, AND
13 CONTINUE TO DISTRIBUTE
- 14 105. In December 2007, I received version 312 after my attorney sent multiple demand
15 letters to defense counsel.
- 16 106. I installed the software. Defense counsel Scott Jerger had told this Court that
17 version 308 had the full functionality of JMRI’s decoder definitions and was not created
18 from JMRI’s work. Based on this statement, I expected to find at least 350 decoder models.
- 19 107. I found decoder-specific definitions for only 4 decoder models. They were partially
20 functional. They require additional variables and inputs to work. Attached as Exhibit AR
21 is a screen-shot showing that there are only four models to select (left side of screen), along
22 with the NMRA standard definitions which have been listed as “KAM”. Defendants had
23 also included two non-functional generic definitions, which cannot be used to program a
24 decoder.
- 25 108. KAMIND’s software cannot, generally speaking, operate without decoder
26 definitions. The primary purpose of Katzer’s Decoder Commander software is to make it
27 easier to program decoders by using custom decoder definitions. See Defendants
28 statements in paragraphs 58 and 61. Without decoder definitions, Decoder Commander

1 serves no useful purpose.

2 109. Some variable names were the same as used in JMRI. For instance, CV25 of the
3 KAM "QSI Decoder" definition is "Speed Table Selection". The corresponding JMRI
4 definition uses the same name. The NMRA standard name is different: "Speed Table/Mid-
5 range Cab Speed Step" or sometimes just "Speed Table". The QSI decoder manual calls it
6 by a longer name: "Quantum Speed Table Selection". The KAMIND software's definition
7 uses the JMRI name, not any of the other forms.

8 110. Because version 312 is essentially unusable without additional decoder definitions,
9 but Katzer claims that people are buying and using it, I believe that Katzer and KAMIND
10 are permitting continued use of infringing files. Furthermore, because a trade magazine,
11 Model Railroad News, is reviewing Defendants' software and JMRI software concurrently
12 in the February through April 2009 issues, I believe that Defendants have motive to
13 continue using JMRI software as a basis for their product.

14 111. Defendants' latest venture is to distribute KAM CDs with a "dog DNA" kit called
15 Link-Vet. Attached as Exhibit AS is a true and correct copy of the relevant Link-Vet
16 webpage. RAK Associates, owned by Rod and Emily Katzer, have been distributing Link-
17 Vet since June 2008. I believe that Katzer is ridding himself of infringing CDs at a low
18 price so that he can obtain tax breaks for a business loss.

19
20 I declare under penalty of perjury under the laws of the United States of America that the
21 foregoing is true and correct.

22 Executed this third day of October, 2008, in Berkeley, California.

23
24 By


25 Robert Jacobsen
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27
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