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11	UNITED STATES DISTRICT COURT				
12	FOR THE NORTHERN DISTRICT OF CALIFORNIA				
13	SAN FRANCISCO DIVISION				
14	ROBERT JACOBSEN.) No. C06-1905			
15 16	Plaintiff,	DECLARAT SUPPORT O JUDGMENT	ION OF ROBIN BECKER IN OF MOTION OF SUMMARY		
	v.	{	11, 19th Floor		
17 18	MATTHEW KATZER, et al.,	Courtroom: Judge: Date:	Hon. Jeffrey S. White Fri., December 4, 2009		
19	Defendants.	Time:	9;00 a.m.		
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23					
24	My name is Robin Becker. I have personal knowledge of the facts stated below. If called as				
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25 26	a witness I could and would testify competently t	to the following.			
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26	a witness I could and would testify competently t	to the following. ineering. I am th	ac Director of Engineering for		
26 27	a witness I could and would testify competently to 1. I have a PhD in electrical enging Teledyne Advanced Pollution Instrumentation. Declaration of Robin Bed	to the following. incering. I am th I am trained and	nc Director of Engineering for d highly skilled in electronics,		

firmware, and embedded control system design and development.

- I have written decoder files for JMRI. My work on the JMRI project was mostly with the Soundtraxx decoders. I believe I contributed to 10 or 11 Soundtraxx decoder files over multiple releases.
- 3. Most of this effort was during the early years of JMRI, around 2001-2003. At that time I think it is fair to say that the DCC information available in the public domain was very poor—much poorer than it is now. The lack of quality information was particularly true with regard to the details of decoder behavior for each manufacturer.
- 4. The documentation manufacturers provided was often incomplete, contradictory, and inaccurate. There was no standardized, accessible firmware versioning method used by Soundtraxx. As a result it was difficult to determine what functions were actually supported in any a given decoder.
- 5. On multiple occasions I dealt directly with Soundtraxx, the decoder manufacturer, in attempts to resolve issues. At times they were confused, or just plain wrong, about what was in the firmware, how a function actually worked, or what their documentation actually meant. Given the overall state of the industry during that time, a fair amount of skill, research, and experimentation were required to correctly establish some of the details in each of the JMRI Soundtraxx decoder files.
- I can flatly state that it was not possible to take the manufacturer and NMRA documentation and produce complete, fully functioning decoder files.
- 7. I do not have specific records of the hours I contributed to JMRI on the Soundtraxx decoder files. Given my recollections, the number of files, multiple releases, and nature of the issues encountered, a reasonable estimate would be 80-100 hours.

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1	I declare under penalty of perjury of the laws of the United States of America that the
2	foregoing is true and correct.
3	Executed this ZZ day of October, 2009 at Zan Digg, California.
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6	Robin Becker
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	No. C06-1905-J\$W DECLARATION OF ROBIN BECKER IN SUPPORT OF MOTION FOR