1  BY MS. ROBERG-PEREZ:
2   Q.  Mr. Andersen, directing your attention
3   to the link "BusyBox-0.60.3.tar.bz2," do you see
4   that there was a last-modified date, April 27th,
5   2002?
6   A.  Yes, I see that.
7   Q.  Do you have an understanding of what
8   the last-modified date means?
9   A.  Yes.
10  Q.  What does that date mean?
11  A.  That's the date on which that file
12   was -- was -- last changed or modified, and --
13   and, presumably, it corresponds to the last time
14   anything in that file was changed.
15   Q.  And do you recognize -- let me back up
16   a bit.
17   At one point in time, you were a
18   BusyBox maintainer, correct?
19   A.  That is correct.
20   Q.  And were you a maintainer on
21   April 27th, 2002?
22   A.  Yes, I was.
23   Q.  And were you responsible for releasing
24   BusyBox Version 0.60.3?
25   A.  I was responsible for releasing

BusyBox 0.60.3.
Q.  Were you responsible for releasing
documentation in connection with that code as
well?
A.  I created documentation with -- at
that time, yes.
Q.  And do you know if documents that were
downloaded from this page would be true and
accurate copies of the indicated source code?
A.  I presume that they are.
Q.  Do you have any reason to believe that
those copies would not be accurate?
A.  I believe I -- the .sig file is --
contains cryptographic signature intended to
confirm that nobody's changed or modified it.
Q.  Okay.
Do you have any reason to believe that
the documentation in connection with the code that
is downloadable from these links would not be true
and accurate copies of the documentation?
A.  I have no reason to know one way or
the other whether the -- that's true or
accurate or not.
I -- I would have to check it and see
if it had changed, or something, but I presume
be reasonably be rendered.
Q. Okay.
A. He was a software developer who was working on a project called the "Linux Router Project."
Q. Does Mr. Cinege have any connection with BusyBox?
A. He had also just made use of the BusyBox project at that time on initial releases of the Linux Router Project, and he had made some modifications to BusyBox.
Q. Okay.
Directing your attention to the first e-mail in this e-mail string, about a third of the way down the page, September 20th, 1999, appears to be from you to Bruce and Dave.
A. Do you see that?
Q. And do you see that you've written:
"Hi, Bruce and Dave, I was wondering if you might be interested in letting me maintain BusyBox?"
A. Yes, I see that.
Q. What does "Maintaining BusyBox" mean?
A. It is, essentially, a social...
<table>
<thead>
<tr>
<th>Line</th>
<th>Text</th>
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<tbody>
<tr>
<td>1</td>
<td>integrate the project -- the software into their</td>
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<tr>
<td>2</td>
<td>own projects. At times they may discover that</td>
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<tr>
<td>3</td>
<td>they need to make changes to the project in order</td>
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<tr>
<td>4</td>
<td>to better suit their needs.</td>
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<tr>
<td>5</td>
<td>And by virtue of the GPL, it is then</td>
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<td>6</td>
<td>helpful for them to submit their changes to the</td>
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<td>7</td>
<td>project maintainer, who can then review the</td>
</tr>
<tr>
<td>8</td>
<td>changes and determine whether those changes are</td>
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<tr>
<td>9</td>
<td>changes that would be generally useful or are more</td>
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<td>10</td>
<td>of an individual nature, or were very poorly done</td>
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<tr>
<td>11</td>
<td>and either need to be reworked or not integrated</td>
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<td>12</td>
<td>into the -- the mainline project.</td>
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<tr>
<td>13</td>
<td>Q. Were you aware of BusyBox before</td>
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<tr>
<td>14</td>
<td>September 20th of 1999?</td>
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<tr>
<td>15</td>
<td>A. Well, obviously, I -- I must have</td>
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<tr>
<td>16</td>
<td>been, because if I was prepared to write this</td>
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<tr>
<td>17</td>
<td>e-mail stating that I was -- was -- that I had</td>
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<tr>
<td>18</td>
<td>been making some fixes on that date, then</td>
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<td>19</td>
<td>presumably prior to that date I had been making</td>
</tr>
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<td>20</td>
<td>those fixes, so I must have become aware prior to</td>
</tr>
<tr>
<td>21</td>
<td>that date.</td>
</tr>
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<td>22</td>
<td>Q. Do you remember when you became aware</td>
</tr>
<tr>
<td>23</td>
<td>of BusyBox?</td>
</tr>
<tr>
<td>24</td>
<td>A. I would have to presume that it was</td>
</tr>
<tr>
<td>25</td>
<td>sometime after August. I believe it was the</td>
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</table>

August date on which I was hired by Lineo, and the
September 20 date on which I wrote this e-mail.
So, sometime in that time.
Now, because my attention was now
turned to the question of -- of improving the
state of embedded Linux, I apparently became aware
of BusyBox and began working on it in that time
frame.
Q. So, before you began working for
Lineo, is it your testimony that you were not
aware of a BusyBox?
A. I might have been aware of it, because
I was a Debian developer and I had some
familiarity with -- with Debian and the Debian
boot floppies, which integrated BusyBox.
So, I may have been aware of it, but I
did not prior to the August-to-September-of-1999
time frame developed an interest in enhancing and
improving BusyBox.
Q. Sometime after September 20th, 1999,
did you become BusyBox maintainer?
A. Yes, I did.
Q. Do you recall the date?
A. I do not.
I know that I exchanged a series of
1  e-mails with Bruce where he was certain that he
2  was going to get right on it, and he did not, and
3  eventually decided to cede that position to me.
4  Q.  And do you recall when you stopped
5  maintaining BusyBox?
6  A.  I do not recall the time frame
7  exactly.
8  I know that eventually my other
9  things, my other work, was such that I was not
10  able to give it sufficient time and attention.
11  And just as Bruce was not able to give
12  it sufficient time and attention and passed the
13  project on, there came a point when my interests
14  and my time were such that I passed the project
15  on.
16  But I don't recall the exact date.
17  I'm sure that I would have to look that up.
18  Q.  And do you recall who you passed the
19  project to?
20  A.  It was a developer named Rob Landley,
21  and he -- I believe he was in Austin, Texas at the
22  time.
23  Q.  Okay.
24  A.  That's my recollection.
25  Q.  Okay.
software. That was a -- a revision control system called, "CVS," Charlie, Victor, Sam, or I don't know, whatever you use for the letter "S."

But that, I think it -- I believe it stands for concurrent versioning system, but -- or something to that effect.

It is a software utility that is intended to track and archive changes to -- to things such as software.

Q. Do you still have that software or files that you generated with that software?

A. The -- well, the -- the software itself that was then stored was, obviously, released as BusyBox 0.28.

And then in subsequent releases,

the -- the software archive that occurred at that time, the archive itself was some years later converted to a different revision control system called "Subversion," and Subversion maintains all of the archives and logs of the changes that were made to the software going back to the earliest commits.

Q. So, if we are to look at the Subversion files, we would see all of your earlier logs from CVS.

A. I would hope so.

Q. Do you know if those Subversion files -- and I apologize, I don't know if the correct term is files or logs because I'm not familiar with the software, but if that -- those Subversion files or logs have been turned over to your counsel?

A. I would assume that they were, and that they are publicly accessible on BusyBox.net, and any interested parties are welcome to peruse them at will.

They go back, presumably, to the beginning of my efforts at changing the software, and they, over time, developed greater utility as I began to use the revision control system more effectively and made better commentary on the changes that were made.

Q. Let me show you a document to see if -- if this is what we've been talking about or not.

MS. MARVIN: I'm handing the court reporter a document to be marked Exhibit 31.

(Exhibit Andersen 31, a change log, was marked for identification at this time.)

A. Okay.
1. Q. Okay.
2. Is this a Subversion log of the type we've been discussing?
3. A. No, it is not.
4. Q. Okay.
5. A. This is a separate document that I included in the source code releases, which I believe I titled, "Change log," where I distilled down some of the more relevant and interesting changes into a -- a -- I guess a text document to make it easier for people to ascertain what the more interesting and substantive changes that went into particular releases.
6. Q. So, just so I make sure I understand correctly, is this a version -- a Subversion log then more detailed than the change log?
7. A. A Subversion -- the Subversion logs, or change logs, have a full history of every software edit that was made to the software.
8. If someone sent me a patch, and one --
9. and that patch was deemed acceptable and included into the software, into BusyBox, there would have been a change that would have occurred in the CVS, and, later, Subversion revision control system, that indicated that particular change. And, in
who committed that change, and, so, it might not
have included some -- the name or e-mail address
of some other person.
Other times, as -- as the project
developed, I gave commit access to other
individuals, and, so, rather than them
specifically annotating that -- that they were the
person, the logs themselves have that user name
incorporated within them, but it may not have been
explicitly annotated as such by the -- by the
commiter.
Q. Do the logs also annotate -- I'm
sorry, did the logs also contain new code that was
written and added to BusyBox?
A. Well, any time new code was added to
BusyBox, no matter what its origin, it would have
been committed into the revision control system.
That is the mechanism by which it became a part of
BusyBox.
Q. Okay.
And it would -- it would, therefore,
be contained on the log -- the Subversion log as
well?
A. Yes, any change that was made, it
would be within that.
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a change by editing one line in a file, for
example, I might then commit that change.
I am also given an opportunity to
annotate that change, and I can then add whatever
explanatory comments I might choose, such as, this
change came from so and so, or this -- I -- I saw
this crashed when I did this, and, so, I'm adding
this change in order to fix it, that type of
editorial content as well.
So, it can change the -- it contains
both the software modification and, potentially,
some degree of editorial comment upon the change
that was made.
Q. Okay.
And to distinguish it from the change
log that we were looking at as Exhibit 31, do I
understand correctly that the change log is not --
well, let me rephrase that.
Is the change log in Exhibit 31, for
example, automatically generated in any way, or is
all of the content in it written by the -- by
yourself or the current maintainer of it?
A. Yes, the change log itself would be
written explicitly by myself or the maintainer as
a commentary on the changes, sometimes by

Q. And do you release the change log with
the soft -- the code release?

A. Yes, the change log was always
incorporated, yeah, within the software as a file
within the -- the .tar.gz, or later, .tar.bz2
file.

MS. MARVIN: I'm handing the court
reporter a document to be marked Exhibit 32.

(Exhibit Andersen 32, a message posted
by Erik Andersen on March 3, 2006, was
marked for identification at this time.)

A. Okay.

Q. I will represent to you that we
printed this off the message board archives on the
busy body -- I'm sorry, the BusyBox, not the busy
body -- the BusyBox website that your counsel has
directed -- that directed us to for the archive
messages.

Does this appear to be a message
posted by yourself on March 3rd of 2006?

Depo International, Inc.
(763) 591-6535 or (800) 591-9722 admin@depointernational.com

Depo International, Inc.
(763) 591-6535 or (800) 591-9722 admin@depointernational.com
1 A. It appears to be just that.
2 Q. Okay.
3 I'd like to direct your attention to
4 the second paragraph from the bottom of the page
5 that begins, "I personally wrote."
6 The second sentence of that paragraph
7 reads: "Later, as others began contributing to
8 utility.c, attribution for all such changes were
9 not very carefully tracked." Newer -- period.
10 "Newer stuff, of course, has been properly marked
11 an SVN as to who wrote or contributed it."
12 We were just talking about the CVS and
13 Subversion logs. And here you say that
14 attribution for all such changes was not carefully
15 tracked, and I believe you testified that sometime
16 things came in, or people changed things -- and if
17 I'm misquoting your testimony, please, correct
18 me -- that were not marked in the code.
19 Is this -- does this -- does this
20 line, "That attribution for all such changes was
21 not very carefully tracked," does that go to what
22 you were speaking of earlier with respect to the
23 CVS Subversion logs?
24 A. To a certain extent, yes, it does
25 refer to that.
1. file who contributed that -- that file?
2. A. It is -- it was typically the case
3. that when you had an -- an entire file
4. contributed, that we would then annotate at the
5. top of the file the name of the individual
6. responsible for that file.
7. It was, however, not the practice to
8. then modify and add additional header attributions
9. to other individuals for that file unless the
10. change constituted a -- a substantial rework of
11. the file such that the majority of the authorship
12. now resided with some other individual.
13. Q. And that was your practice -- was that
14. your practice the -- throughout the time that you
15. were maintainer at BusyBox?
16. A. Yes, that was the practice.
17. Q. Okay.
18. And when you refer, in the next
19. paragraph: "So while in theory, it may be
20. possible, after an extensive search through all my
21. ancient e-mail, to determine the exact set of
22. authors and patch submitters for each line of code
23. presently in LIDBB, and contact each one of them
24. and get a written GPL" -- that's an arrow -- "LGPL
25. transition approval, in practice, this is simply
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1  April 27, 2002.
2  Q.  And Exhibit 34 is a post by you on the
3  BusyBox message board of April 27, 2002?
4  A.  That's what it appears to be, yes.
5  Q.  Do you know what changed between -- in
6  the code between Version 0.60.1 and 0.60.37?
7  A.  I would imagine that if I was to refer
8  to the -- to the change log, I might be able to
9  provide a summary of some of the more interesting
10  and salient points.
11  I would anticipate a perusal of the
12  Subversion logs, of course, provide a
13  comprehensive list of every change, but off the
14  top of my head, I can't recall any particular
15  change that it -- I'm afraid the time has been too
16  long for me to enumerate those.
17  Q.  Do you see the -- on Exhibit 34, the
18  second sentence, says: "This is primarily a bug
19  fix release for the stable series"?
20  A.  Do you see that?
21  Q.  Yes, I see that it says that.
22  A.  Does that reflect -- I'm sorry, does
23  that refresh your recollection as to what the
24  changes were in this version?
25  A.  Well, I'm sure that the changes, as
A. Okay. I briefly reviewed this.
Q. I will represent to you that we
printed this out of the 0.60.3 version of the
BusyBox code.

Does this appear to be the change log?
A. This does appear to be the change log
file from the 0.60.3 release.
Q. And from this change log, are you able
to tell if any new code was added to 0.60.3 from
.60.1?
A. Having reviewed this, it is
immediately apparent that both myself and others
added substantive new changes and new code.

When I mentioned, as the first item,
for example, a new time applet, that is a --

MS. MARVIN: A-P-P-L-E.T.
A. -- that is a -- you know, right from
the first line, we already see brand new code
being added.

When we see additional changes, such
as adding, you know, con equals no error support,
20E -- 2DD, that that's a clear -- another case of
brand new, spiffy functionality that is being
added.

As I review this, I see a number of