UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

**DECLARATION OF CHARLES RANDALL CARPENTER
REGARDING 1997 ARTICLE ENTITLED "AN INTEGRATED GLOBAL
GIS AND VISUAL SIMULATION SYSTEM"**

I, Charles Randall ("Randy") Carpenter, make the following declaration under penalty of perjury:

1. My name is Charles Randall Carpenter. I am a retired research faculty member from the Georgia Institute of Technology ("Georgia Tech")

5 College of Computing.

2. I have a B.S. in Mathematics and an M.S. in Computer Science from Georgia State University.

3. I worked at Georgia Tech from 1998 to 2014 and held various positions. Between 1994 and 1998, I was a research scientist in Georgia Tech's

10 Graphics, Visualization, and Usability (GVU) Center, where I was the Manager of the GVU Lab. As part of my duties as the Manager of the GVU Lab, I oversaw publication of certain publications originating out of the GVU Lab. Some papers based on research originating out of the GVU Lab were published online as GVU Technical Reports, which would be made accessible to the public via File Transfer

15 Protocol and could be located and accessed from the Georgia Tech library website.

4. In the mid-1990s, a group of researchers including Dr. Peter Lindstrom worked on a project related to a visual simulation system called Virtual Geographic Information System, or VGIS.

5. The VGIS system was partially described in a research paper titled

20 "An Integrated Global GIS and Visual Simulation System," written by Peter

Lindstrom, David Koller, William Ribarsky, Larry F. Hodges, Augusto Op den Bosch, and Nick Faust. I will refer to this publication simply as "the Lindstrom Publication" for purposes of this declaration.

6.   The Lindstrom Publication was published online on the Georgia Tech website as a GVU Technical Report in 1997. I specifically recall the publication of the Lindstrom Publication online in 1997 and I am confident based on my own recollection that the Lindstrom Publication was published that year because I worked with Dr. Lindstrom in handling the publication of the Lindstrom Publication.

7.   The Lindstrom Publication was published online as a GVU Technical Report in 1997 and was available to the public for free through the Georgia Tech website and File Transfer Protocol (FTP) site. The Lindstrom Publication could have been located by the general public through a search of the online Georgia Tech catalog. The general public could also locate and obtain a copy of the Lindstrom publication through a regular Internet search engine. I checked the GVU FTP site in 1997 after the Lindstrom Publication was published online and observed that the Lindstrom Publication was, in fact, available for download in a location accessible to the public.

8.   I was responsible for handling the online publication of the Lindstrom Publication via the GVU website and FTP site in 1997. I received a copy of the

Lindstrom Publication in approximately April 1997 from Elaine Swobe, the GVU

Center's technical report coordinator. Under our normal procedures, Ms. Swobe

would accept submissions for publications and then send them for me to post on

the GVU web site.

5   9.   At the time the Lindstrom Publication was published in 1997, it was

made available to the public at the GVU FTP site located at

ftp://ftp.gvu.gatech.edu. Subsequent to the online publication of the Lindstrom

Publication, the ftp site was changed to a different address at

ftp://ftp.cc.gatech.edu. While the address changed, the current address still directs

10   users to the same Georgia Tech FTP directory to which I uploaded the Lindstrom

Publication in 1997. The Lindstrom Publication is currently available at

ftp://ftp.cc.gatech.edu//pub/groups/gvu/tr/1997/97-07.pdf, while the color plates

that were published as part of this figure are available at

ftp://ftp.cc.gatech.edu//pub/groups/gvu/tr/1997/97-07.figures.pdf.

15   10.   Attached to this declaration as Exhibit A is a true and correct copy of

the Lindstrom Publication that was made publicly accessible in 1997. I recognize

Exhibit A as a true and correct copy of the Lindstrom Publication from my own

recollection and because I retrieved this document from the publicly available

GVU server. The document on the GVU server contains a time stamp showing the

20   dates when the Lindstrom Publication was uploaded to the GVU server.

11.	At the request of Microsoft's counsel, I took a screen shot on my computer of the relevant portions of the directory of 1997 GVU Technical Reports showing the time stamps when the Lindstrom Publication and its associated figures were uploaded to the GVU server. A copy of that screen shot is attached below:

```
ftp> pwd                                              To:  Ai, Bing (Perki
Remote directory: /pub/groups/gvu/tr/1997
ftp> ls -l                                            Cc:  Lindstrom, Pe
229 Entering Extended Passive Mode (III498361)
150 Here comes the directory listing.                 Subject: Re: Your
-rw-rw-r--   1 2367     1800       442521 Jun 16  1998 97-01.pdf
-rw-rw-r--   1 2367     1800     15295735 Jun 15  1998 97-01.ps.Z  randy carpe
-rw-rw-r--   1 2367     1800     13388305 Mar 05  1997 97-02.cps.Z
-rw-rw-r--   1 2367     1800       251678 Feb 13  1998 97-02.cps.pdf  age Size: 460
-rw-rw-r--   1 2367     1800       215404 Feb 13  1998 97-02.pdf
-rw-rw-r--   1 2367     1800      1544178 Mar 05  1997 97-02.ps.Z oduction on the
-rw-rw-r--   1 2367     1800       149394 Feb 13  1998 97-03.pdf e myself.
-rw-rw-r--   1 2367     1800       550305 Mar 05  1997 97-03.ps.Z
-rw-rw-r--   1 2367     1800       105288 Feb 13  1998 97-04.pdf  https://web.arc
-rw-rw-r--   1 2367     1800       192757 Mar 31  1997 97-04.ps.Z
-rw-rw-r--   1 2367     1800        71235 Feb 13  1998 97-05.pdf e links to the pa
-rw-rw-r--   1 2367     1800       100369 Mar 31  1997 97-05.ps.Z original file is s
-rw-rw-r--   1 2367     1800        24120 Feb 13  1998 97-06.pdf
-rw-rw-r--   1 2367     1800        27774 May 07  1997 97-06.ps.Z
-rw-rw-r--   1 2367     1800        72226 Feb 13  1998 97-07.figures.pdf
-rw-rw-r--   1 2367     1800      7543633 May 08  1997 97-07.figures.ps.Z
-rw-rw-r--   1 2367     1800       197772 Feb 13  1998 97-07.pdf p> ls -l
-rw-rw-r--   1 2367     1800       849503 May 07  1997 97-07.ps.Z Entering Ext
-rw-rw-r--   1 2367     1800       973485 Feb 13  1998 97-08.pdf 0 Here comes t
-rw-rw-r--   1 2367     1800       549966 May 08  1997 97-08.ps.Z -rw-r--    1
-rw-rw-r--   1 2367     1800       334921 Feb 13  1998 97-09.pdf w-rw-r--    1
-rw-rw-r--   1 2367     1800       362615 Jul 17  1997 97-09.ps.Z -rw-r--    1
-rw-rw-r--   1 2367     1800       230034 Feb 13  1998 97-10.pdf w-rw-r--    1
-rw-rw-r--   1 2367     1800       314981 Jul 23  1997 97-10.ps.Z -rw-r--    1
-rw-rw-r--   1 2367     1800       180560 Feb 13  1998 97-11.pdf w-rw-r--    1
-rw-rw-r--   1 2367     1800       403025 Jul 17  1997 97-11.ps.Z -rw-r--    1
-rw-rw-r--   1 2367     1800       171742 Feb 13  1998 97-12.pdf w-rw-r--    1
-rw-rw-r--   1 2367     1800       135074 Jul 17  1997 97-12.ps.Z -rw-r--    1
```

12.	The above screen shot shows that the Lindstrom Publication and accompanying figures were uploaded to the directory as PostScript files on May 8,

5

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