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



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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") 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 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 titled20 "An Integrated Global GIS and Visual Simulation System," written by Peter



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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
  20 Publication via the GVU website and FTP site in 1997. I received a copy of the



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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.

- 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 <a href="ftp://ftp.gvu.gatech.edu">ftp://ftp.gvu.gatech.edu</a>. Subsequent to the online publication of the Lindstrom Publication, the ftp site was changed to a different address at <a href="ftp://ftp.cc.gatech.edu">ftp://ftp.cc.gatech.edu</a>. While the address changed, the current address still directs users to the same Georgia Tech FTP directory to which I uploaded the Lindstrom Publication in 1997. The Lindstrom Publication is currently available at <a href="ftp://ftp.cc.gatech.edu//pub/groups/gvu/tr/1997/97-07.pdf">ftp://ftp.cc.gatech.edu//pub/groups/gvu/tr/1997/97-07.pdf</a>, while the color plates that were published as part of this figure are available at <a href="ftp://ftp.cc.gatech.edu//pub/groups/gvu/tr/1997/97-07.figures.pdf">ftp://ftp.cc.gatech.edu//pub/groups/gvu/tr/1997/97-07.figures.pdf</a>.
  - 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 dates when the Lindstrom Publication was uploaded to the GVU server.



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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:

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



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