

DECLARATION OF NILS SUNDELIN
IN SUPPORT OF PETITION FOR POST-GRANT REVIEW
OF U.S. PATENT NOS. 9,423,923, 9,423,938, and 9,423,954

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION

Petitioner

v.

CYPRESS LAKE SOFTWARE, INC.

Patent Owner.

PTAB Case No.: To Be Assigned
Patent No. 9,423,923,
9,423,938, and 9,423,954

**DECLARATION OF NILS SUNDELIN
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I, Nils Sundelin, declare as follows

1. I am a citizen of the United States and am at least eighteen years of age. I have investigated or have personal knowledge of the facts contained in this declaration, and if called to testify, could and would testify competently thereto.

2. I am employed by Microsoft Corporation, where I am currently the senior software engineer lead for the Core UX (“User eXperience”) team. Core UX is part of the “Shell” Team in Microsoft’s Windows and Devices Group. I have been a member of the this team since 2006, and have been Senior Software Engineer Lead since November 2015.

3. I have been informed that Windows 10 has been accused of infringement in a litigation, including specifically certain aspects of Windows 10’s “Snap Assist” feature.

4. Snap Assist and other user interface features in Windows 10 were developed in the Core UX team.

5. I am familiar with Snap Assist and other user interface features in Windows 10. I am also familiar with related user interface features in earlier versions of Windows.

I. WINDOWS 7 — AERO SNAP

6. Windows 7 was released for public sale and use in July 2009. It included a variety of new user interface features.

7. One of the new interface features in Windows 7 was called “Aero Snap.” It provided a convenient way for users to quickly set up windows in common layout configurations—for example, full screen or side-by-side.

8. Aero Snap could be invoked by dragging a window to any edge of the screen. *See Ex. 1021 at 33.* Dragging a window to the top of the screen by its title bar would “snap” the window to a maximized state, re-sizing the window to fill the entire screen. *See id.* Dragging a window to either side of the screen would “snap” the window to that side, moving and re-sizing the window so that it filled half of the screen. *See id.* The user could lay out two windows side-by-side by dragging each window to opposite sides of the screen with no manual re-sizing required. *See id.* Dragging a previously snapped window away from the edge would reverse the snap operation and return the window to its previous size. *See id.*

II. WINDOWS 8 — NEW UI MODEL / SHARED DIVIDER

9. Window 8 introduced a new user interface design with a windowing model based on non-overlapping windows. Applications designed for Windows 8 could be displayed in a maximized state or side-by-side with other applications. *See Ex. 1022 at 15.* As in Windows 7, the user could “snap” a window to either side of the screen by dragging the window to the corresponding left or right edge. *See id.*

10. In Windows 8, when multiple windows were displayed side-by-side after a “snap” operation, they were separated by a shared divider that could be moved to different locations on screen. Moving the shared divider to a different location would result in both windows being re-sized accordingly.

11. Windows 8 also included a “Desktop” application, which provided a traditional Windows user interface with overlapping windows. Applications that were not designed specifically for Windows 8 could be run within the Desktop application. The Desktop application included a user interface very similar to Windows 7. An applications window within the Desktop application could be snapped to either side of the Desktop by dragging it to either edge.

12. Windows 8 was publicly demonstrated running on a computer at the D9 conference on June 1, 2011. The computer was used to demonstrate both the “snap” feature using the new windowing model and resizing using the shared divider. A video of that demonstration is available at

<https://www.youtube.com/watch?v=kBHujE6DdrA>. Ex. 1023, 1024.

13. Windows 8 was released for public sale and use in August 2012.

III. WINDOWS 8.1 - REPLACING SIDE-BY-SIDE WINDOWS

14. The Windows 8.1 update included user interface improvements, including to the “snap” and “shared divider” features. Ex. 1025.

15. Windows 8.1 also provided more flexibility about where a shared divider could be positioned and more options for dividing the screen between side-by-side windows.

16. Windows 8.1 also introduced a user interface feature, sometimes known as “teeter,” for replacing a window with another window when in side-by-side mode. When viewing windows side-by-side and launching a new application, an icon tile representing the new application would be displayed hovering above the shared divider, and the size of both existing windows would be reduced. Moving the mouse between the left and right windows would cause the icon tile to animate a shifting back-and-forth motion, like a “teeter-totter.” Clicking either of the side-by-side windows would then replace that existing window with the newly opened window.

17. A video published on October 17, 2013, demonstrating this functionality (starting at 3:10) in Windows 8.1 is available at <https://www.youtube.com/watch?v=d6hLeHUU-vs> . Ex. 1026, 1027.

18. Windows 8.1 was publicly demonstrated and released in public beta at the Build conference in June 2013. Windows 8.1 was released to OEM hardware partners in August 2013 and officially released for public sale and use in October 2013.

IV. WINDOWS 10

19. Windows 10 introduced the ability to snap windows beyond just full-screen or in half-screen but to screen quadrants. *See Ex. 1028 at 6–7.* Dragging a window to a corner of the screen “snaps” that window to that corresponding screen quadrant. *See id.*

20. Windows 10 also introduced a feature called “Snap Assist” that built on the earlier “snap” features in Windows 7 and 8. When a user “snaps” a window to either side of the screen or to a corner, the Snap Assist feature will display rectangular thumbnails for other open windows in the remaining space. Snap Assist will also display an icon with each thumbnail indicating the window’s application. *See Ex. 1028 at 6–7.* Selecting any one of those thumbnails will result in the window corresponding to that thumbnail filling the remaining portion of the screen. *See id.* Moving the snapped window away from the edge cancels the snap (as in Windows 7) and also cancels Snap Assist. *See id.* Snap Assist displays the thumbnails in an order based on which window has been most recently used. *See id.*

21. Windows 10 also provided a “Task view” user interface feature that displayed live thumbnails of every open window in the center of the screen to switch between applications. *See Ex. 1028 at 7.*

22. Windows 10 also provided a feature that allowed users to set up

multiple virtual desktop spaces. Each desktop could be configured with different windows, and the user could switch back-and-forth between the different virtual desktops. *See* Ex. 1028 at 7.

23. Windows 10 and its Snap Assist, Task View, and Multiple Desktop user interface features were publicly demonstrated running on a on a computer on September 30, 2014. *See* Ex. 1029, *available at* <http://www.pcworld.com/article/2689230/hands-on-with-microsofts-new-windows-10-ui-changes-that-look-great-at-first-blush.html>. A build of Windows 10 with those features was released to the public Windows Insider program in October 2014. *See id.*

24. Windows 10 introduced two modes — a Desktop Mode with traditional overlapping windows, and a Tablet Mode that functioned like the non-overlapping windows in Windows 8.1.

25. Windows 10 was officially released for public sale and use on July 29, 2015. That release included Task View, Virtual Desktops, Snap Assist (in both Desktop Mode & Tablet Mode). Tablet Mode included shared dividers, as in Windows 8.1, for resizing side-by-side windows. Closing a side-by-side window in Tablet Mode triggers Snap Assist in the empty space. Moving the shared divider in Tablet Mode while the Snap Assist thumbnails are displayed results in the Snap Assist thumbnails re-drawing themselves in the newly sized empty space.

Objects (e.g., individual browser tabs from a browser window) can be dragged and dropped on an empty space in Tablet Mode to fill that empty space.

On September 18, 2015, Windows 10 build 10547 was released to the public

Windows 10 Insider Preview program. See Ex. 1030, *available at*

[https://mspoweruser.com/microsoft-is-slowly-bringing-back-windows-8s-](https://mspoweruser.com/microsoft-is-slowly-bringing-back-windows-8s-snapping-features-to-windows-10/)

[snapping-features-to-windows-10/](https://mspoweruser.com/microsoft-is-slowly-bringing-back-windows-8s-snapping-features-to-windows-10/). That build added some pre-existing user

interface features to different areas of the Windows 10 interface. For example, it

added the “teeter” functionality from Windows 8.1 when selecting a new window

in Task View while running side-by-side applications in Tablet Mode. *See id.*; Ex.

1031, *available at* [https://mspoweruser.com/microsoft-is-slowly-bringing-back-](https://mspoweruser.com/microsoft-is-slowly-bringing-back-windows-8s-snapping-features-to-windows-10/)

[windows-8s-snapping-features-to-windows-10/](https://mspoweruser.com/microsoft-is-slowly-bringing-back-windows-8s-snapping-features-to-windows-10/). It also provided a shared divider

between to simultaneously resize snapped application windows in Desktop Mode,

which already existed in Windows 10 Tablet Mode and in Window 8. *See id.*

These features were described publicly in articles on September 19, 2015. *See id.*

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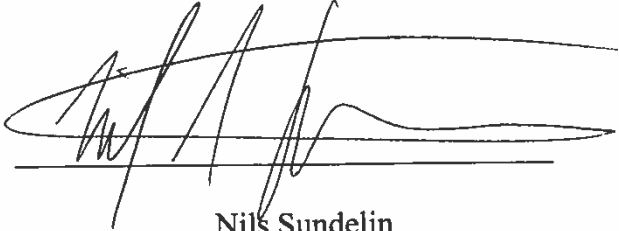
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I declare under the penalty of perjury that the foregoing is true and correct, to the best of my knowledge.

Executed on 23rd day of May 2017 in Redmond, WA.



Nils Sundelin