

EXHIBIT D

(c) **During Runtime (claims 1, 7, 22)**

Claim Term (claims 1, 7, 22): During Runtime	
Apple's Proposed Construction	While running or executing
HTC's and Staff's Proposed Construction	<p>During the execution of the object-oriented application</p> <p>(HTC is construing "during runtime" only in the context of the following limitations:</p> <p>claim 1(d) "procedural program logic code, ... native system services;"</p> <p>claim 1(g) "a runtime loader, ... object-oriented methods."</p> <p>claim 7(b) "issuing calls ... native system services;"</p> <p>claim 7(c) "determining during runtime ... computer hardware; and"</p> <p>claim 7(d) "selectively loading the ... if not yet loaded."</p> <p>claim 22(d) "a processor in the computer system ... native system services;"</p> <p>claim 22(e) "said processor loading ... native system services;"</p> <p>claim 22(f) "said processor invoking ... during runtime.")</p>

64. One of skill in the art would understand the term "during runtime" to mean while running or executing. HTC's and Staff's proposed constructions read an unnecessary and unduly narrowing requirement into "during runtime" to require execution of an object-oriented application.

65. The claims of the '983 patent do not limit "during runtime" to only the execution of an object-oriented application. For example, in claim 22, the term "during runtime" appears in three semicolon separated clauses. The first two of those clauses states, "determining *during runtime* whether procedural program logic code is available in the executable program memory to provide said required native system services;" and " loading procedural program logic code from said library into the executable program memory *during runtime* to provide said required

native system services." Nothing in those two clauses restricts "during runtime" to the execution of an object-oriented application. One of ordinary skill in the art would simply understand that the term "during runtime" in those clauses is being used to refer to a time during which software is running or executing on the computer system of claim 22. Claim 22 further identifies different types of software including "a library of procedural program logic code," "a procedural operating system," and "an object-oriented program." Accordingly, based on just the language of the claims alone, one of ordinary skill in the art would not restrict the term "during runtime" to only the time when an "object-oriented application" is running or executing.

66. The '983 patent specification does not limit "during runtime" to only the runtime of an object-oriented application. The specification refers to "during runtime" more broadly to mean running or executing of software in general. In fact, in addition to describing the runtime of applications, the specification also refers to the "run-time environment of the computer" and the "run-time environment established in the computer platform 102." (*See, e.g.*, '983 patent 5:8-10; 9:62-65.)

67. The prosecution history is also consistent with the broader understanding of the term "during runtime" as referring to software that is "running or executing" as distinguished from software that is being developed or compiled. For example, the Applicant noted that "in [the] claimed invention, the object oriented statements using a wrapper are located in the system at runtime *while running or executing*, whereas in Schmidt the locating is completed at development time." ('983 Prosecution History, Nov. 3, 1999 Response to Office Action at 1-2.) The Examiner agreed with this understanding of the term "during runtime," noting in a later office action that "[t]ransparent mapping is inherently a run-time function (i.e. *while running or executing*)." ('983 Prosecution History, Jan. 28, 2000 at 3.) As understood by the Examiner, one

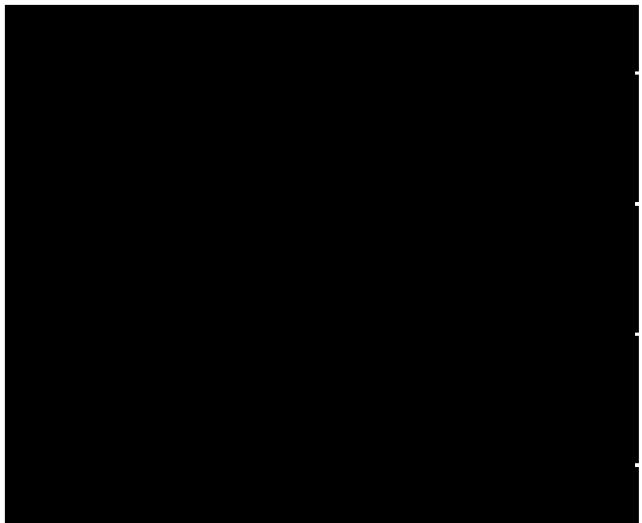
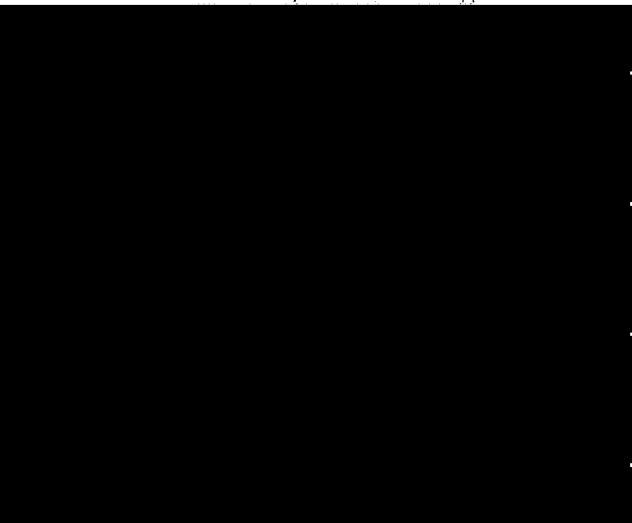
of skill in the art would understand that the term "during runtime," as used in the '983 patent, refers simply to the time when software is "running or executing," as distinct from the time when software is developed or compiled. As such, one of skill in the art would understand "during runtime" to mean simply "while running or executing" as proposed by Apple.

68. HTC's and Staff's proposed constructions limit "runtime" to running or executing of only one type of software—object-oriented applications—which is inconsistent with how the term runtime is used throughout the claims. HTC and Staff propose that "during runtime" means "during the execution of the object-oriented application." Since the term and their proposed definition both recite "during," HTC's and Staff's proposal amounts to providing a definition of "runtime" as "the execution of the object-oriented application." But the term "runtime" is not so limited within the claims themselves. For example, claim 1 recites "executable program memory associated with the computer hardware for **runtime** execution of the procedural operating system." (983 patent at 37:63-67.) Since an object-oriented application and a procedural operating system are different pieces of software, HTC's and Staff's narrow reading of "runtime" as solely "the execution of the object-oriented application" is contrary to the explicit language of the claims. Indeed, substituting HTC's and Staff's construction for runtime into claim 1 renders it unintelligible to one of skill in the art - "executable program memory associated with the computer hardware for the [execution of the object-oriented application] execution of the procedural operating system." Accordingly, Apple's construction, which treats the term "runtime" consistently across all the claims, is the appropriate construction as would be understood by one of skill in the art.

69. Various dictionary definitions confirm that the term "runtime" is not restricted to the "execution of the object-oriented application" but is simply used to refer to "running or

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executing" of software as distinguished from software that is being developed or compiled. For example, the *DICTIONARY OF COMPUTING* defines "run time" as "The time at which a program begins to execute, in contrast to the time at which it may have been submitted, loaded, compiled, or assembled." (See *DICTIONARY OF COMPUTING*, Oxford University Press (3d ed. 1991)) In yet another example, the *COMPUTER DICTIONARY* defines "run time" as "Either the time period during which a program is running or the amount of time needed to execute the program." (See *COMPUTER DICTIONARY*, Microsoft Press (1991)) Further, the *ACADEMIC PRESS DICTIONARY OF SCIENCE AND TECHNOLOGY* defines "run-time" as "*Computer Science.* of or referring to something that happens during execution of a program." (See *ACADEMIC PRESS DICTIONARY OF SCIENCE AND TECHNOLOGY*, Academic Press (1992)) Also, *THE COMPUTER GLOSSARY, THE COMPLETE ILLUSTRATED DICTIONARY* defines "runtime" as "Refers to the actual execution of a program." (See *THE COMPUTER GLOSSARY, THE COMPLETE ILLUSTRATED DICTIONARY*, Amacom (7th ed. 1994)) *THE NEW IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS* defines "run time" as "(A) The instant at which a computer program begins to execute. (B) The period of time during which a computer program is executing. (C) See: execution time." (See *NEW IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS* (5th ed. 1993))



Signed this 22nd day of January, 2011



A handwritten signature in cursive script, appearing to read "Susan Spielman", written over a horizontal dotted line.

Susan Spielman

