

Exhibit F-11: Chunky SLD

An article entitled, “Automated Target Recognition on SPLASH 2,” by Rencher et al., (“Chunky SLD”), was published in the Proceedings of the Symposium on Field-Programmable Custom Computer Machines, pp. 192-200 in 1997, and is therefore prior art to Plaintiff’s ’800 Patent (No. 7,620,800 (“’800 Patent”)) at least under 35 U.S.C. §§ 102(a) and (b).

As described in detail below, Chunky SLD anticipates the asserted claim(s) of the ’800 Patent. To the extent it is found that Chunky SLD does not expressly disclose certain limitations in the asserted claim, such limitations are inherent. Furthermore, if it is found that Chunky SLD does not anticipate the asserted claim, Chunky SLD renders the asserted claim obvious, either in view of, or in combination with other prior art identified in the cover pleading or herein.

This chart is subject to all reservations, objections, and disclaimers in Microsoft’s Invalidation Contentions and any amendments, supplements, or modifications thereof, which are incorporated herein by reference in their entirety.

Asserted Claim of ’800 Patent	Exemplary Disclosure of Chunky SLD
<p>[1A] A method for data processing in a reconfigurable computing system, the reconfigurable computing system comprising at least one reconfigurable processor, the reconfigurable processor comprising a plurality of functional units, said method comprising:</p>	<p>At least under Plaintiff’s apparent theories of infringement and interpretations of the asserted claim, and/or alleging that any of Defendant’s accused products satisfy this claim limitation, Chunky SLD, either alone or in combination with one or more references, discloses:</p> <p>Chunky SLD at Abstract: “Automated target recognition is an application area that requires specialized purpose hardware to achieve reasonable performance. FPGA-based platforms can provide a high level of performance for ATR systems if the implementation can be adapted to the specific hardware and routing resources of these architectures. This paper discusses a mapping of a linear-systolic implementation of an ATR algorithm to the SPLASH2 architecture. In this implementation, column-oriented processors were used throughout the design to achieve high performance with limited nearest-neighbor communication. The distributed SPLASH2 memories were used to achieve a high degree of parallelism. The resulting design is scalable and can be implemented on multiple SPLASH2 boards with a linear increase in performance.”</p> <p>Chunky SLD at 196: “The actual SPLASH2 platform consists of a board with 16 chips (plus one for control) arranged in a linear systolic array. Each chip has a limited number of connections to its two nearest neighbors. Each Xilinx 4010 is connected to a 512 kbyte memory. The memory can handle back-to-back reads, or back-to-back writes, but requires a 100 ns (around) cycle when changing from write to read. There is also a crossbar connection between the chips.”</p>

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chips that allows some level of random connection between chips. Up to 16 boards can be chained together to provide a large linear-systolic array of 256 elements.”

Chunky SLD at Figure 6:

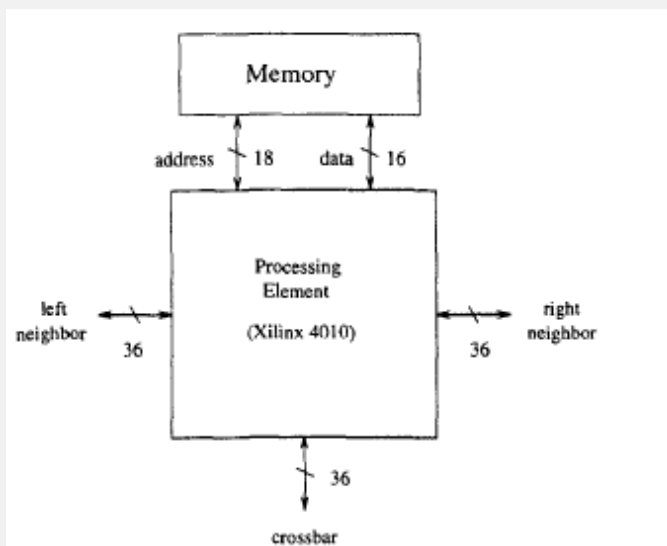


Figure 6: Single Processing Element of SPLASH 2.

Chunky SLD at Figure 7:

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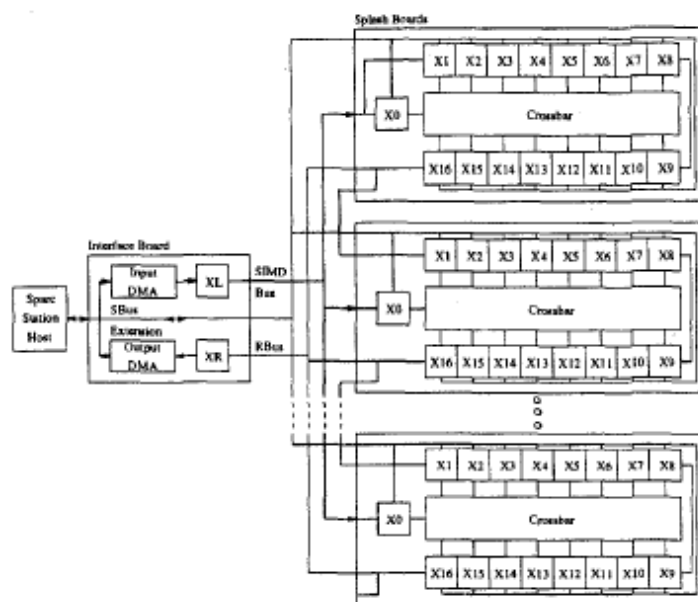
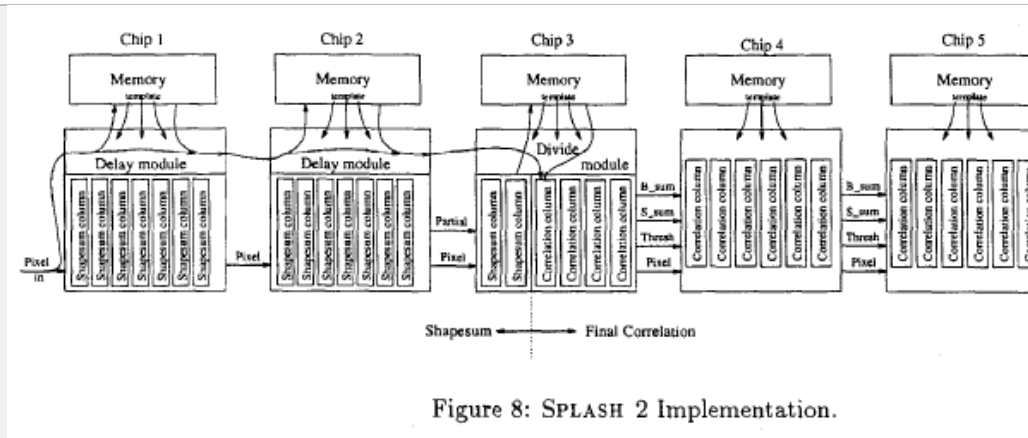
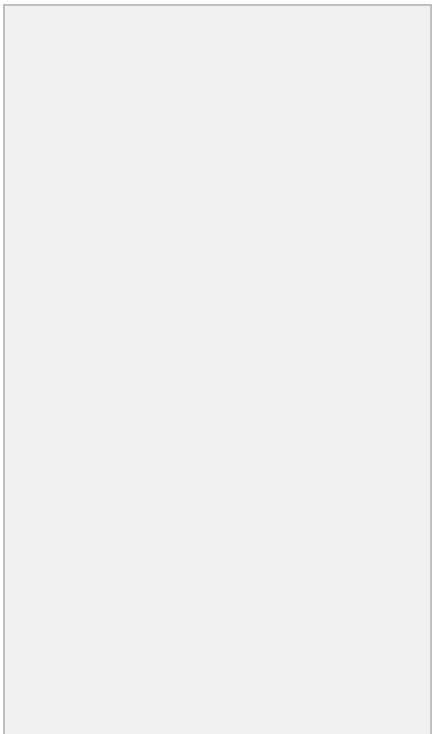


Figure 7: SPLASH 2 platform.

Chunky SLD at Figure 8:

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To the extent Plaintiff asserts this limitation is not expressly or inherently disclosed in the prior art, the claimed subject matter is not obvious to a person of ordinary skill in the art considering this reference in the knowledge of one of ordinary skill in the art at the time of the alleged invention. The disclosures in one or more of the references identified in Section I.B.2 of the cover sheet are hereby incorporated by reference into this specification.

[1B] transforming an algorithm into a data driven calculation that is implemented by said reconfigurable computing system at the at least one reconfigurable processor;

At least under Plaintiff’s apparent theories of infringement and interpretations of the claim limitation, C or in combination with one or more references, discloses:

Chunky SLD at Abstract: “Automated target recognition is an application area that requires high performance hardware to achieve reasonable performance. FPGA-based platforms can provide a high level of performance for ATR systems if the implementation can be adapted to the hardware and routing resources of these architectures. This paper discusses a mapping of a linear-systolic implementation of an ATR algorithm is mapped to the SPLASH2 architecture. Column-oriented processors were used throughout the design to achieve high performance with limited nearest-neighbor communication. The distributed SPLASH2 memories are used to achieve a high degree of parallelism. The resulting design is scalable and can be implemented on multiple SPLASH2 boards with a linear increase in performance.”

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Chunky SLD at 195: “Chunky SLD was implemented on the SPLASH2 board. SPLASH2 has shown itself to be a useful platform and has had numerous applications mapped to it (see 10, 111). The implementation was done in VHDL and simulated/synthesized using Xilinx tools. Place and route was done automatically using Xilinx place and route tools.”

Chunky SLD at 196: “The actual SPLASH2 platform consists of a board with 16 chips (plus one for control) arranged in a linear systolic array. Each chip has a limited 32-bit bus to its two nearest neighbors. Each Xilinx 4010 is connected to a 512 kbyte memory (16 chips in total). The memory can handle back-to-back reads, or back-to-back writes, but requires (approximately 100) cycle when changing from write to read. There is also a crossbar connecting the chips that allows some level of random connection between chips. Up to 16 boards can be chained together to provide a large linear-systolic array of 256 elements.”

Chunky SLD at Figure 6:

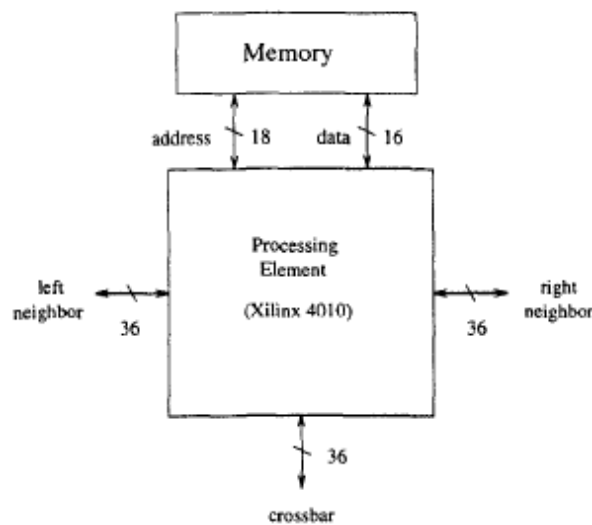


Figure 6: Single Processing Element of SPLASH 2.

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