



US008589666B2

(12) **United States Patent**
Hammes

(10) **Patent No.:** **US 8,589,666 B2**
(45) **Date of Patent:** **Nov. 19, 2013**

(54) **ELIMINATION OF STREAM CONSUMER LOOP OVERSHOOT EFFECTS**

(56) **References Cited**

(75) Inventor: **Jeffrey Hammes**, Colorado Springs, CO (US)

(73) Assignee: **SRC Computers, Inc.**, Colorado Springs, CO (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1985 days.

(21) Appl. No.: **11/456,466**

(22) Filed: **Jul. 10, 2006**

(65) **Prior Publication Data**

US 2008/0010444 A1 Jan. 10, 2008

(51) **Int. Cl.**
G06F 15/00 (2006.01)
G06F 7/38 (2006.01)
G06F 9/00 (2006.01)
G06F 9/44 (2006.01)

(52) **U.S. Cl.**
USPC 712/241; 714/18

(58) **Field of Classification Search**
USPC 712/241, 201, 25
See application file for complete search history.

U.S. PATENT DOCUMENTS

7,085,955 B2 * 8/2006 Prabhu 714/6
2002/0124159 A1 * 9/2002 Bekooji et al. 712/226

* cited by examiner

Primary Examiner — Andrew Caldwell

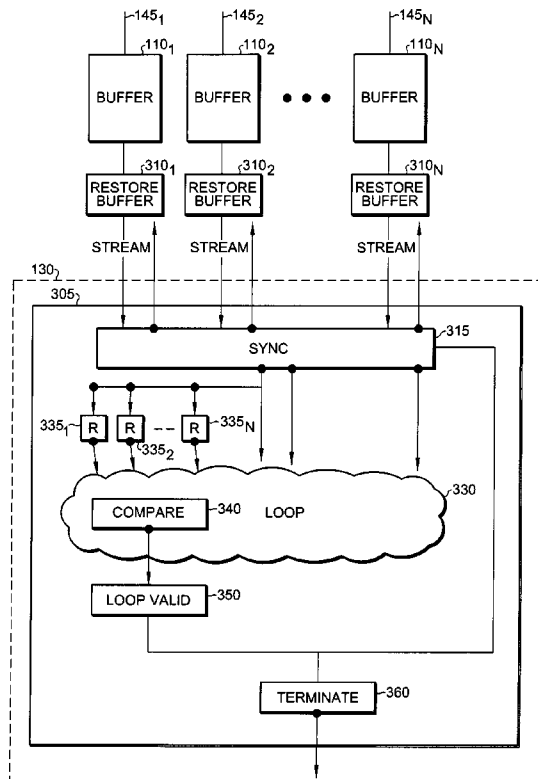
Assistant Examiner — George Giroux

(74) *Attorney, Agent, or Firm* — William J. Kubida; Hogan Lovells US LLP

(57) **ABSTRACT**

A reconfigurable processor invoking data stream pipelining is configured to associate a restore buffer with each incoming data stream. The buffer is configured to be of sufficient size to maintain data values dispatched to a loop so as to restore values fetched and lost due to loop overshoots. The restore buffer stores the values that were recently fetched from the buffer to the loop. To determine how many data values should be restored, the loop counts the number of the data values it takes from each data stream and the number of valid loop iterations that take place. Once a loop termination is detected, the loop halts the fetching of values from the restore buffer and compares, for each stream, the number of loop iterations with the number of values fetched. The difference is the number of extra values that were taken from the restore buffer and are restored.

22 Claims, 6 Drawing Sheets



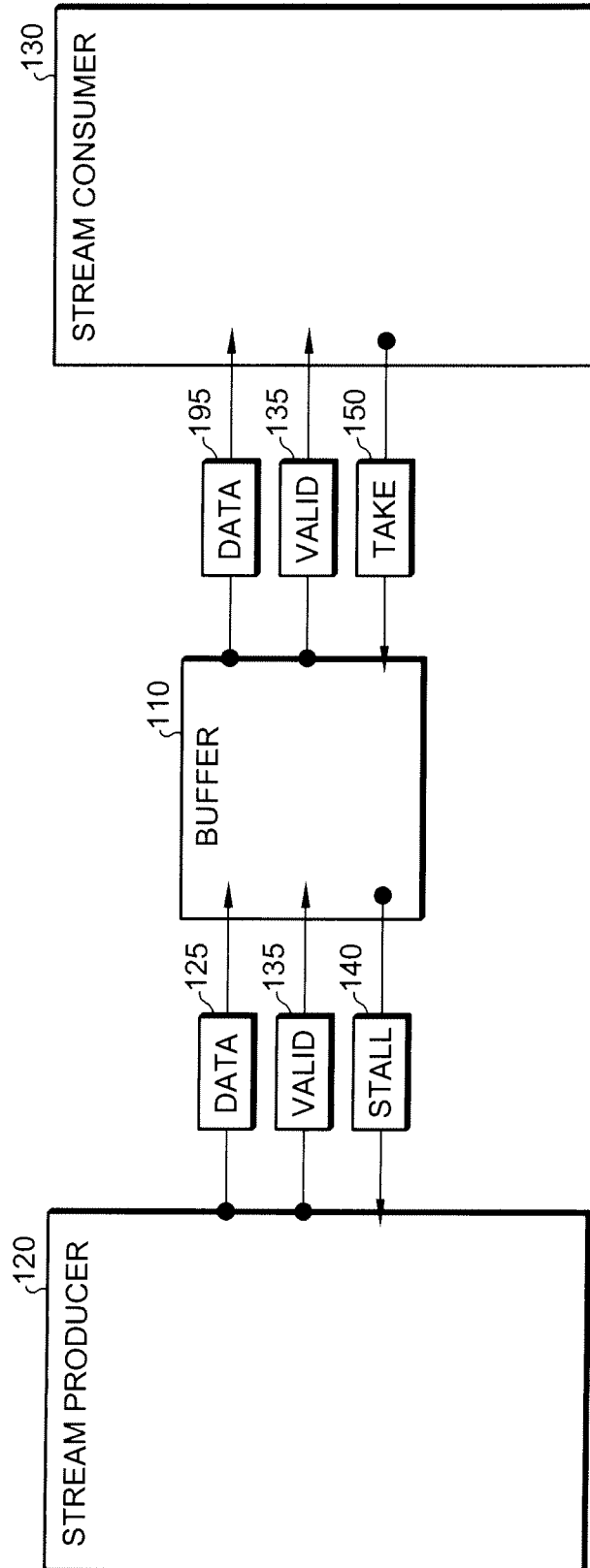


Fig. 1
Prior Art

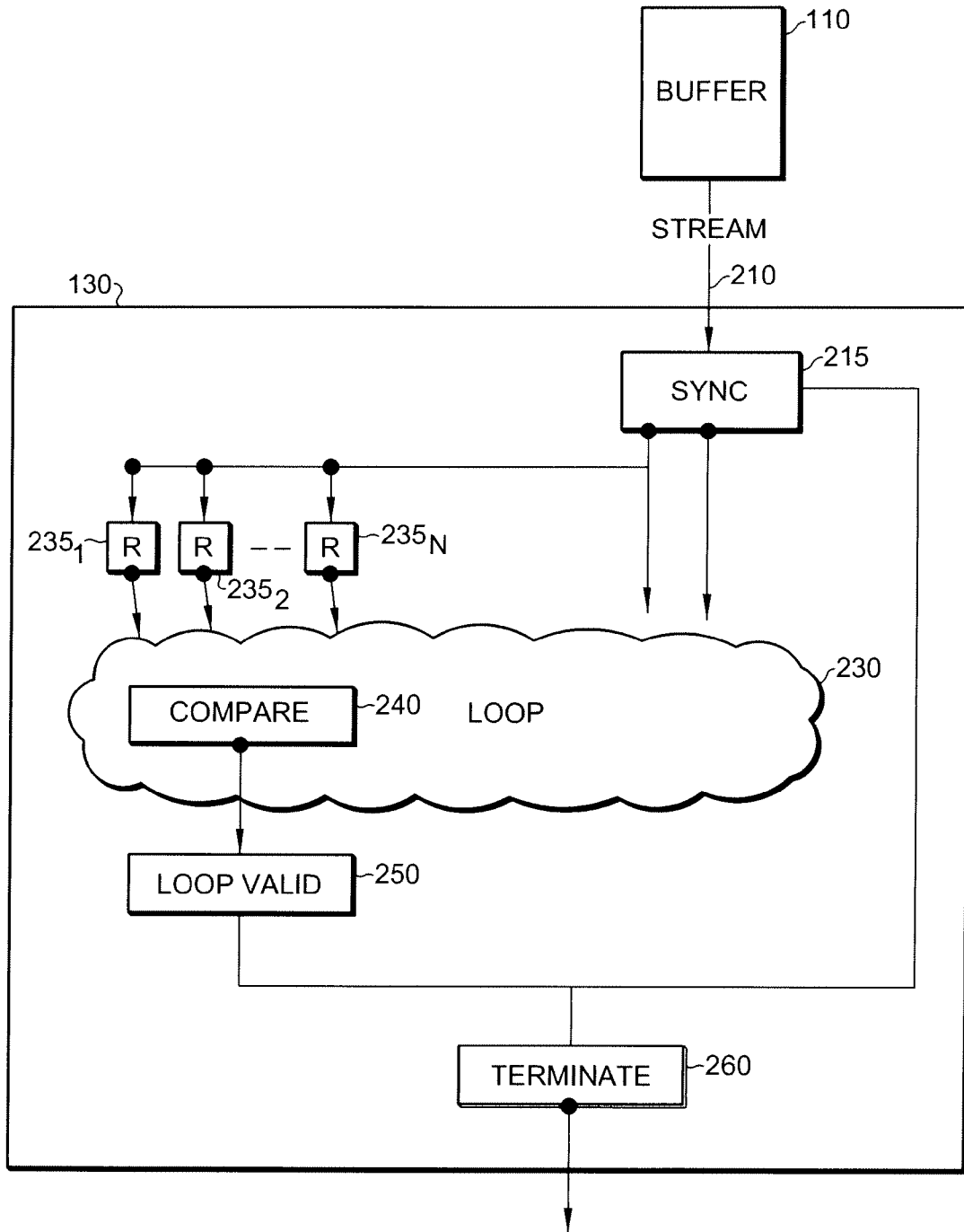


Fig. 2
Prior Art

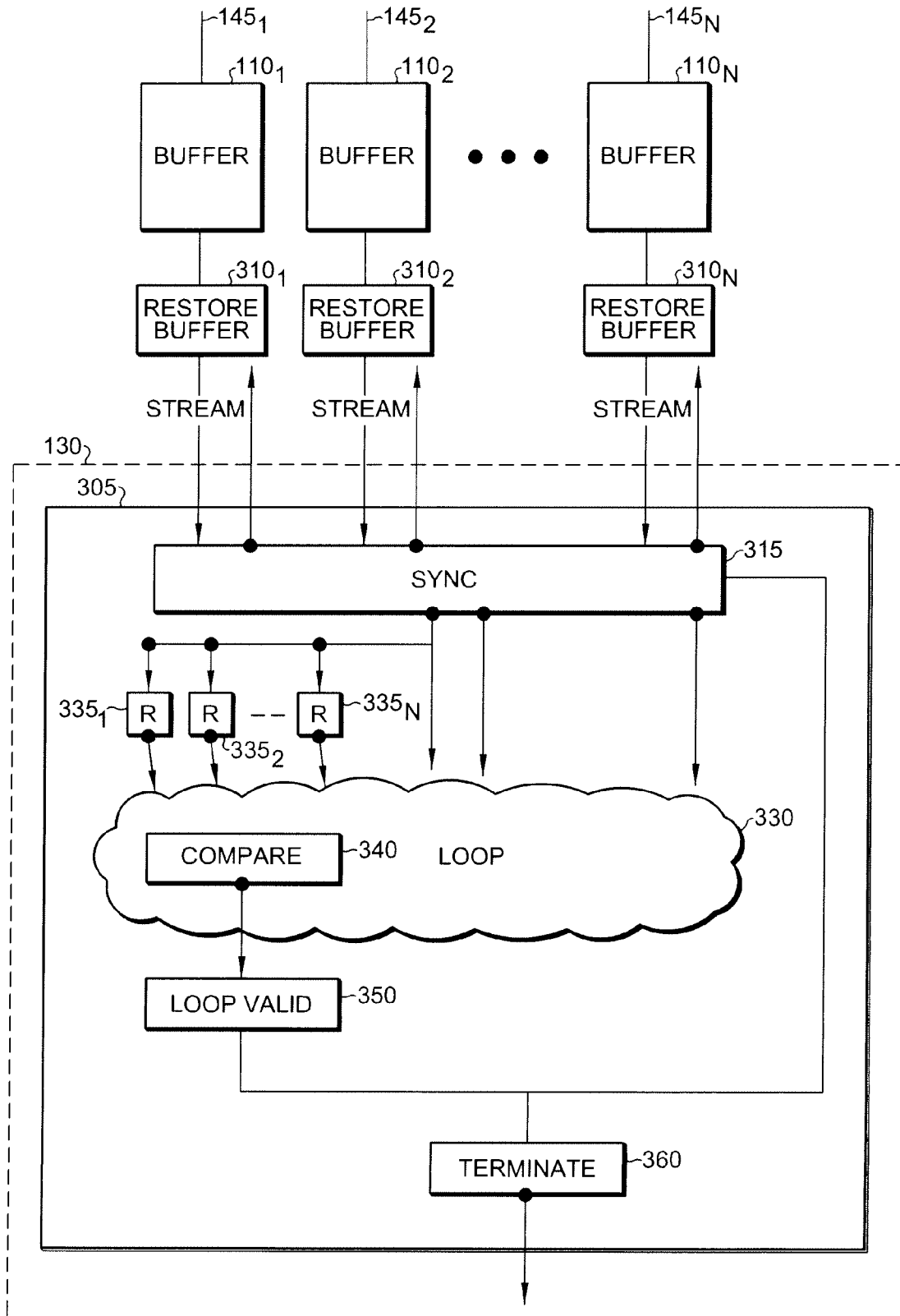


Fig. 3

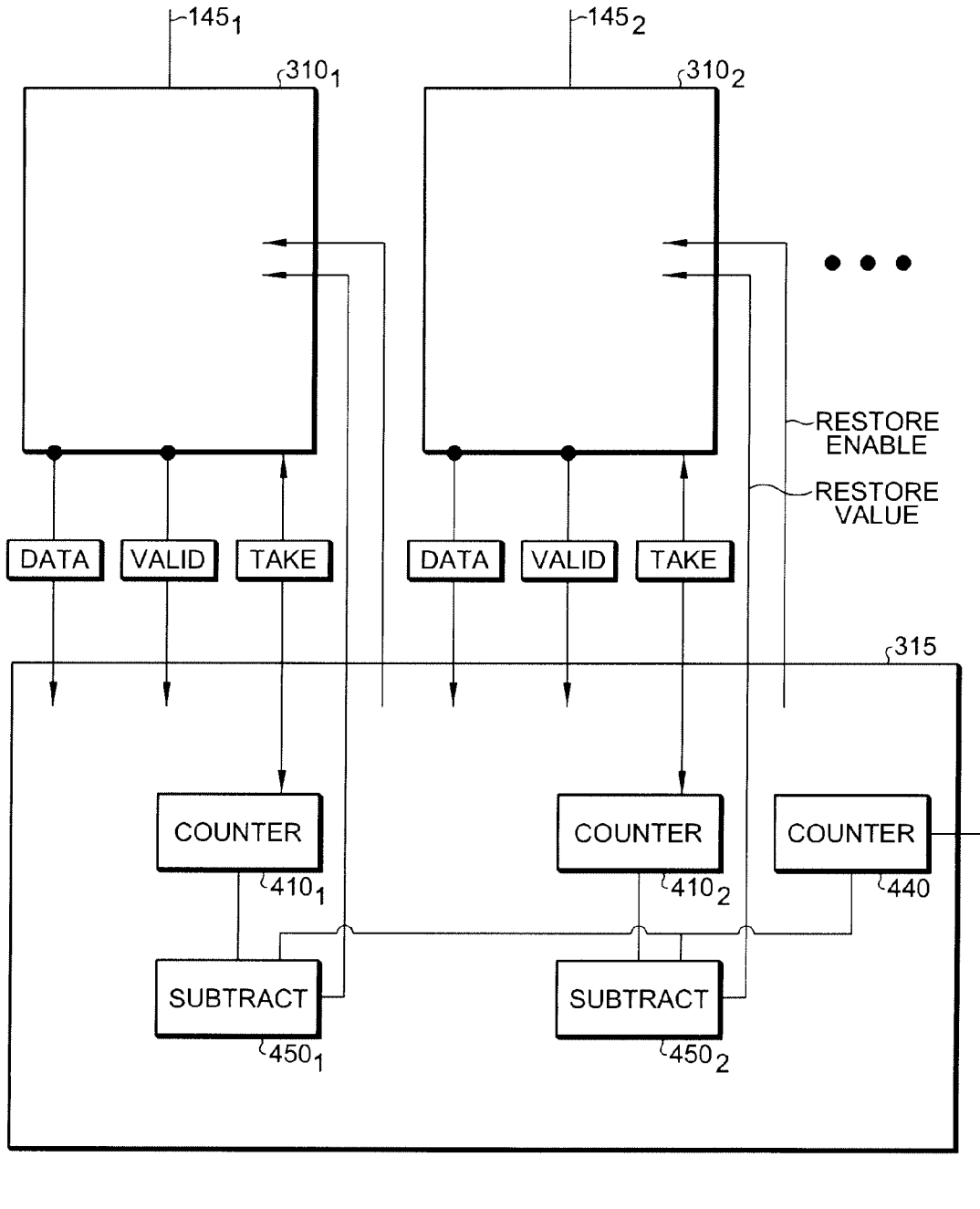


Fig. 4

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.