(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
10 April 2008 (10.04.2008)

PCT

(10) International Publication Number
WO 2008/042579 A2

(51) International Patent Classification:
G06F 15/173 (2006.01)

(21) International Application Number:
PCT/US2007/078575

(22) International Filing Date:
14 September 2007 (14.09.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/536,585 28 September 2006 (28.09.2006) US

(71) Applicant *(for all designated States except US)*: **LAM RESEARCH CORPORATION** [US/US]; 4650 Cushing Parkway, Fremont, CA 94538 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **HUANG, Chung-ho** [US/US]; 4650 Cushing Parkway, Fremont, California 94538 (US). **FAN, Shih-jeun** [US/US]; 4650 Cushing Parkway, Fremont, California 94538 (US).

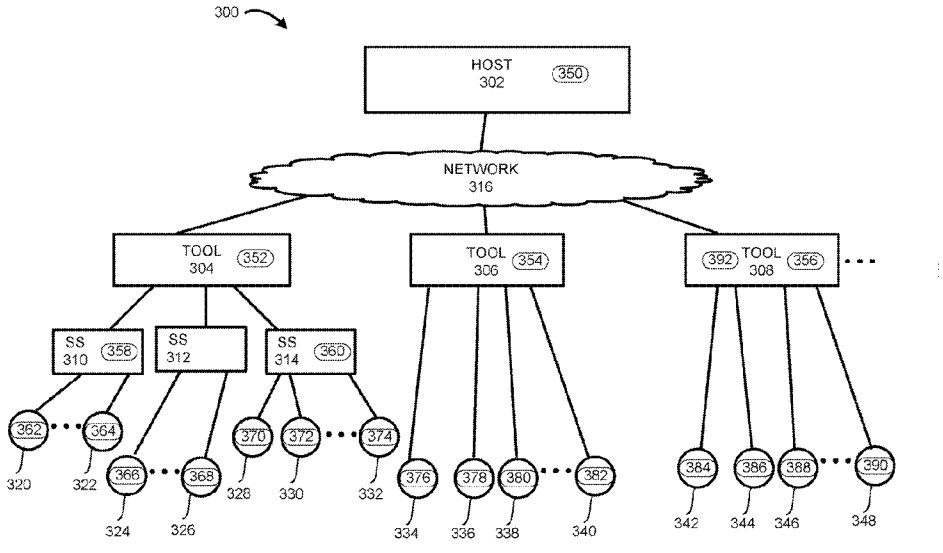
(74) Agent: **NGUYEN, Joseph A**; IPSG PC, PO Box 700640, San Jose, California 95170 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*

(54) **Title:** TARGETED DATA COLLECTION ARCHITECTURE



(57) **Abstract:** A targeted data collection system configured to collect processing data in a plasma processing system is provided. The system includes a data collection host and a plurality of plasma processing components having a plurality of sensors such that each of the plurality of plasma processing components having at least one sensor. Each of the sensors implements at least one intelligent targeted data agent that governs sensor data collection behavior. The system further includes a communication network coupling data collection host and plurality of sensors for bi-directional communication such that a given sensor of plurality of sensors receive information from data collection host pertaining to plasma processing system conditions occurring elsewhere from given sensor. Information received from data collection host causes the given processor to collect sensor in a first manner different from a second manner employed by sensor prior to receiving e information from the data collection host.

WO 2008/042579 A2