GraphX Synth Benchmark (nverts = 100000, app = pagerank) Recommended Schedule: Memory Footprint: Cache RDD[13] at stage(0) in job(0) {13} Cache RDD[10] at stage(4) in job(1) $\{10, 13\}$ Cache RDD[20] at stage(4) in job(1) {10, 20, 13} Cache RDD[30] at stage(4) in job(1) $\{10, 20, 13, 30\}$ Unpersist RDD[10] after stage(5) in job(1) {20, 13, 30} {13, 30} Unpersist RDD[20] after stage(5) in job(1) {13, 22, 30} Cache RDD[22] at stage(6) in job(1) {32, 13, 22, 30} Cache RDD[32] at stage(6) in job(1) Unpersist RDD[22] after stage(6) in job(1) {32, 13, 30} Unpersist RDD[13] after stage(6) in job(1) {32, 30} Cache RDD[42] at stage(7) in job(1) {32, 42, 30} {32, 42} Unpersist RDD[30] after stage(7) in job(1) Cache RDD[48] at stage(8) in job(1) {32, 48, 42} {32, 49, 48, 42} Cache RDD[49] at stage(8) in job(1) Unpersist RDD[49] after stage(8) in job(1) {32, 48, 42} $\{48, 42\}$ Unpersist RDD[32] after stage(8) in job(1) Cache RDD[54] at stage(17) in job(2) {48, 42, 54} Unpersist RDD[42] after stage(17) in job(2) $\{48, 54\}$ {48, 60, 54} Cache RDD[60] at stage(18) in job(2) {48, 60, 61, 54} Cache RDD[61] at stage(18) in job(2) {48, 60, 54} Unpersist RDD[61] after stage(18) in job(2) Unpersist RDD[48] after stage(18) in job(2) $\{60, 54\}$ Cache RDD[66] at stage(29) in job(3) {66, 60, 54} Unpersist RDD[54] after stage(29) in job(3) {66, 60} Cache RDD[72] at stage(30) in job(3) {72, 66, 60} Cache RDD[73] at stage(30) in job(3) {72, 73, 66, 60} {72, 66, 60} Unpersist RDD[73] after stage(30) in job(3) Unpersist RDD[60] after stage(30) in job(3) $\{72, 66\}$ Cache RDD[78] at stage(43) in job(4) {72, 66, 78} Unpersist RDD[66] after stage(43) in job(4) {72, 78} {72, 84, 78} Cache RDD[84] at stage(44) in job(4)Cache RDD[85] at stage(44) in job(4) {72, 84, 85, 78} Unpersist RDD[85] after stage(44) in job(4) {72, 84, 78} {84, 78} Unpersist RDD[72] after stage(44) in job(4) {90, 84, 78} Cache RDD[90] at stage(59) in job(5) Unpersist RDD[78] after stage(59) in job(5) {90, 84} Cache RDD[96] at stage(60) in job(5) {96, 90, 84} Cache RDD[97] at stage(60) in job(5) {96, 97, 90, 84} [0] Unpersist RDD[97] after stage(60) in job(5) {96, 90, 84} {96, 90} Unpersist RDD[84] after stage(60) in job(5){96, 90, 102} Cache RDD[102] at stage(77) in job(6) {96, 102} Unpersist RDD[90] after stage(77) in job(6) Cache RDD[108] at stage(78) in job(6) {96, 108, 102} {96, 108, 109, 102} Cache RDD[109] at stage(78) in job(6) {96, 108, 102} Unpersist RDD[109] after stage(78) in job(6) $\{108, 102\}$ Unpersist RDD[96] after stage(78) in job(6) Cache RDD[114] at stage(97) in job(7) $\{114, 108, 102\}$ Unpersist RDD[102] after stage(97) in job(7) {114, 108} Cache RDD[120] at stage(98) in job(7) {120, 114, 108} {120, 121, 114, 108} Cache RDD[121] at stage(98) in job(7) Unpersist RDD[121] after stage(98) in job(7) {120, 114, 108} {120, 114} Unpersist RDD[108] after stage(98) in job(7) {120, 114, 126} Cache RDD[126] at stage(119) in job(8) Unpersist RDD[114] after stage(119) in job(8) {120, 126} Cache RDD[132] at stage(120) in job(8) {120, 132, 126} Cache RDD[133] at stage(120) in job(8) {120, 132, 133, 126} Unpersist RDD[133] after stage(120) in job(8) {120, 132, 126} Unpersist RDD[120] after stage(120) in job(8) {132, 126} Cache RDD[138] at stage(143) in job(9) {138, 132, 126} Unpersist RDD[126] after stage(143) in job(9) {138, 132} $\{144, 138, 132\}$ Cache RDD[144] at stage(144) in job(9) {144, 145, 138, 132} Cache RDD[145] at stage(144) in job(9) {144, 138, 132} Unpersist RDD[145] after stage(144) in job(9) Unpersist RDD[132] after stage(144) in job(9) $\{144, 138\}$ Cache RDD[150] at stage(169) in job(10) {144, 138, 150} Unpersist RDD[138] after stage(169) in job(10) {144, 150} Cache RDD[156] at stage(170) in job(10) {144, 156, 150} Cache RDD[157] at stage(170) in job(10) {144, 156, 157, 150} {144, 157, 150} Unpersist RDD[156] after stage(170) in job(10) Unpersist RDD[157] after stage(170) in job(10) {144, 150} Unpersist RDD[144] after stage(170) in job(10) {150} Cache RDD[151] at stage(195) in job(11) {150, 151} Unpersist RDD[151] after stage(195) in job(11) {150} Cache RDD[160] at stage(245) in job(13) {160, 150} Cache RDD[161] at stage(245) in job(13) {160, 161, 150} Unpersist RDD[160] after stage(245) in job(13) $\{161, 150\}$ Unpersist RDD[161] after stage(245) in job(13) {150} Unpersist RDD[150] after stage(245) in job(13) Free [16] [17] [26] [28] [34] [35] [39] [51] [58] [87] [95] [5] [104] [106] [107] [108] [109] [6] [118] [130] [131] [136] [140] [143]