

Laporan Dokumentasi Final Task Algoritma Parallel

Nama : Arsyia Rifqi Ramandika

NIM : 2013470225

1. Menggunakan 2 Processor

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vagrant@rifqi: ~/finaltask
vagrant@rifqi: ~/finaltask$ nano ujian1.c
vagrant@rifqi: ~/finaltask$ gcc -o coba ujian1.c
vagrant@rifqi: ~/finaltask$ ./coba
Mulai dengan tugas . 2
Input Random Angka Ke Dalam Array...
Kirim 100 baris untuk tugas 1 pada offset =0
Menerima Hasil Dari Tugas 1

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Hasil Perkalian Matrix:

0.00 328350.00 656700.00 985050.00 1313400.00 1641750.00 1970100.00 2298450.00 2626800.00 2955150.00 3283500.00 3611850.00 394
0200.00 4268550.00 4596900.00 4925250.00 5253600.00 5581950.00 5910300.00 6238650.00 6567000.00 6895350.00 7223700.00 7552050.00
7880400.00 8208750.00 8537100.00 8865450.00 9193800.00 9522150.00 9850500.00 10178850.00 10507200.00 10835550.00 11163900.00 1149
2250.00 11820600.00 12148950.00 12477300.00 12805650.00 13134000.00 13462350.00 13790700.00 14119050.00 14447400.00 14775750.00 1
5104100.00 15432450.00 15760800.00 16089150.00 16417500.00 16745850.00 17074200.00 17402550.00 17730900.00 18059250.00 18387600.0
0 18715950.00 19044300.00 19372650.00 19701000.00 20029350.00 20357700.00 20686050.00 21014400.00 21342750.00 21671100.00 2199945
0.00 22327800.00 22656150.00 22984500.00 23312850.00 23641200.00 23969550.00 24297900.00 24626250.00 24954600.00 25282950.00 2561
1300.00 25939650.00 26268000.00 26596350.00 26924700.00 27253050.00 27581400.00 27909750.00 28238100.00 28566450.00 28894800.00 2
9223150.00 29551500.00 29879850.00 30208200.00 30536550.00 30864900.00 31193250.00 31521600.00 31849950.00 32178300.00 32506650.0
0
0.00 333300.00 666600.00 999900.00 1333200.00 1666500.00 1999800.00 2333100.00 2666400.00 2999700.00 3333000.00 3666300.00 399
9600.00 4332900.00 4666200.00 4999500.00 5332800.00 5666100.00 5999400.00 6332700.00 6666000.00 6999300.00 7332600.00 7665900.00
7999200.00 8332500.00 8665800.00 8999100.00 9332400.00 9665700.00 9999000.00 10332300.00 10665600.00 10998900.00 11332200.00 1166
5500.00 11998800.00 12332100.00 12665400.00 12998700.00 13332000.00 13665300.00 13998600.00 14331900.00 14665200.00 14998500.00 1
5331800.00 15665100.00 15998400.00 16331700.00 16665000.00 16998300.00 17331600.00 17664900.00 17998200.00 18331500.00 18664800.0
0 18998100.00 19331400.00 19664700.00 19998000.00 20331300.00 20664600.00 20997900.00 21331200.00 21664500.00 21997800.00 2233110
0.00 22664400.00 22997700.00 23331000.00 23664300.00 23997600.00 24330900.00 24664200.00 24997500.00 25330800.00 25664100.00 2599
7400.00 26330700.00 26664000.00 26997300.00 27330600.00 27663900.00 27997200.00 28330500.00 28663800.00 28997100.00 29330400.00 2
9663700.00 29997000.00 30330300.00 30663600.00 30996900.00 31330200.00 31663500.00 31996800.00 32330100.00 32663400.00 32996700.0
0
0.00 338250.00 676500.00 1014750.00 1353000.00 1691250.00 2029500.00 2367750.00 2706000.00 3044250.00 3382500.00 3720750.00 40
59000.00 4397250.00 4735500.00 5073750.00 5412000.00 5750250.00 6088500.00 6426750.00 6765000.00 7103250.00 7441500.00 7779750.00
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vagrant@rifqi: ~/finaltask
1.00 1751.00 1604.00 1706.00 1813.00 1868.00 1705.00 1830.00 1618.00 1798.00 1786.00 1697.00 1356.00 1528.00 1728.00 2004.00 1638
.00 1448.00 1683.00 1758.00 1769.00 1798.00 1720.00 1598.00 1862.00 1554.00 2015.00 1723.00 1715.00 1505.00 1651.00 1829.00 1884.
00 1670.00 1776.00 1741.00
1781.00 2152.00 2077.00 2261.00 1930.00 1780.00 1992.00 2176.00 1810.00 2058.00 1817.00 1744.00 1923.00 1803.00 2031.00 2072.00
1770.00 1905.00 1966.00 1883.00 1836.00 1996.00 1840.00 1874.00 1958.00 1906.00 1858.00 1977.00 1938.00 2093.00 1980.00 1796.00 1
658.00 1944.00 1904.00 2180.00 2146.00 2134.00 2013.00 1904.00 1978.00 1855.00 1758.00 1871.00 1825.00 2022.00 2096.00 2005.00 20
78.00 1808.00 1891.00 1831.00 2206.00 1908.00 2073.00 1971.00 2157.00 1907.00 2105.00 1867.00 1801.00 1965.00 1995.00 1823.00 178
4.00 1904.00 1826.00 1925.00 2132.00 1861.00 1984.00 1894.00 1987.00 2126.00 2090.00 1859.00 1868.00 1726.00 1929.00 2187.00 1897
.00 1722.00 1910.00 1903.00 1817.00 1887.00 1777.00 1870.00 2050.00 1917.00 1913.00 1932.00 1971.00 1865.00 1841.00 1943.00 2178.
00 1844.00 1913.00 1896.00
1634.00 1902.00 2094.00 1969.00 1983.00 1702.00 1921.00 2059.00 1833.00 1911.00 1893.00 1795.00 1952.00 1891.00 2074.00 2026.00
1868.00 1769.00 1767.00 1838.00 2122.00 1986.00 1997.00 1865.00 2049.00 2087.00 1613.00 1779.00 1949.00 2030.00 1995.00 1788.00 1
765.00 1847.00 1723.00 2027.00 2015.00 2107.00 1800.00 1787.00 2006.00 1892.00 1647.00 1988.00 1753.00 2106.00 2157.00 1827.00 19
85.00 1780.00 1823.00 1762.00 2057.00 1791.00 1919.00 1781.00 2029.00 1737.00 2131.00 1796.00 1822.00 1839.00 1912.00 1905.00 184
6.00 1973.00 1930.00 1824.00 1935.00 1881.00 1922.00 1838.00 2070.00 2159.00 1897.00 1789.00 1818.00 1775.00 2063.00 2187.00 1956
.00 1802.00 1894.00 1934.00 1829.00 2019.00 1818.00 2059.00 2022.00 1792.00 1905.00 1807.00 1861.00 1768.00 1835.00 2020.00 2074.
00 1752.00 1964.00 1860.00
1719.00 2214.00 1933.00 2165.00 1846.00 1758.00 2034.00 2167.00 1928.00 2000.00 1981.00 1926.00 1949.00 2115.00 2151.00 2082.00
1908.00 1848.00 2099.00 2071.00 1850.00 1824.00 2035.00 2036.00 2032.00 2229.00 1966.00 2049.00 2010.00 2326.00 2153.00 1889.00 2
009.00 1909.00 2046.00 2145.00 2124.00 2143.00 1968.00 1958.00 2314.00 2069.00 1742.00 2297.00 1912.00 2249.00 1753.00 2118.00 21
80.00 1951.00 1875.00 1856.00 2203.00 1986.00 2043.00 1909.00 2087.00 1725.00 2148.00 1945.00 1973.00 1976.00 2133.00 1862.00 204
8.00 2009.00 1757.00 1954.00 2198.00 1848.00 1957.00 2113.00 2049.00 2101.00 2122.00 2077.00 1799.00 1970.00 2255.00 2182.00 1851
.00 1835.00 1757.00 1901.00 2278.00 2114.00 2159.00 1935.00 2051.00 2045.00 2254.00 2231.00 2029.00 1777.00 1730.00 2087.00 2413.
00 2004.00 2213.00 1934.00
1912.00 2190.00 2084.00 2203.00 2166.00 1720.00 2025.00 2338.00 1915.00 1989.00 2078.00 1845.00 1982.00 1905.00 2099.00 1989.00
1971.00 1733.00 2036.00 1913.00 2172.00 1964.00 1928.00 1959.00 2168.00 1978.00 1883.00 1944.00 1885.00 2242.00 2146.00 1809.00 1
846.00 1940.00 1962.00 2148.00 2119.00 2285.00 1919.00 2041.00 1955.00 2006.00 1757.00 2135.00 1861.00 2112.00 2141.00 1966.00 23
45.00 1990.00 1914.00 1735.00 2114.00 1912.00 2014.00 1884.00 2107.00 1841.00 2193.00 2033.00 2035.00 1949.00 2074.00 1924.00 183
2.00 2061.00 1987.00 2043.00 2147.00 2041.00 1984.00 1990.00 2012.00 2161.00 1922.00 1867.00 1822.00 1665.00 2159.00 2220.00 2055
.00 1860.00 1947.00 2095.00 1954.00 2093.00 2004.00 1929.00 2175.00 1858.00 2040.00 2000.00 1982.00 2042.00 1923.00 2095.00 2167.
00 2008.00 1991.00 1836.00

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Waktu Komputasi Processor : 0.004352vagrant@rifqi: ~/finaltask$
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2. Menggunakan 16 Processor

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vagrant@rifqi: ~/finaltask
Vaktu Komputasi Processor : 0.001400Vaktu Komputasi Processor : 0.001337Vaktu Komputasi Processor : 0.001339Vaktu Komputasi Processor : 0.002309Vaktu Komputasi Processor : 0.001402vagrant@ifqi: ~/finaltask$ clear

vagrant@ifqi: ~/finaltask$ mpi run -n 16 ./coba
Mulai dengan tugas . 16
Input Random Angka Ke Dalam Array...
Kirim 7 baris untuk tugas 1 pada offset =0
Kirim 7 baris untuk tugas 2 pada offset =7
Kirim 7 baris untuk tugas 3 pada offset =14
Kirim 7 baris untuk tugas 4 pada offset =21
Kirim 7 baris untuk tugas 5 pada offset =28
Kirim 7 baris untuk tugas 6 pada offset =35
Kirim 7 baris untuk tugas 7 pada offset =42
Kirim 7 baris untuk tugas 8 pada offset =49
Kirim 7 baris untuk tugas 9 pada offset =56
Kirim 7 baris untuk tugas 10 pada offset =63
Kirim 6 baris untuk tugas 11 pada offset =70
Kirim 6 baris untuk tugas 12 pada offset =76
Kirim 6 baris untuk tugas 13 pada offset =82
Kirim 6 baris untuk tugas 14 pada offset =88
Kirim 6 baris untuk tugas 15 pada offset =94
Menerima Hasil Dari Tugas 1
Menerima Hasil Dari Tugas 2
Menerima Hasil Dari Tugas 3
Menerima Hasil Dari Tugas 4
Menerima Hasil Dari Tugas 5
Menerima Hasil Dari Tugas 6
Menerima Hasil Dari Tugas 7
Menerima Hasil Dari Tugas 8
Menerima Hasil Dari Tugas 9
Menerima Hasil Dari Tugas 10
Menerima Hasil Dari Tugas 11
Menerima Hasil Dari Tugas 12
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vagrant@rifqi: ~/finaltask
1770.00 1905.00 1966.00 1883.00 1836.00 1996.00 1840.00 1874.00 1958.00 1906.00 1858.00 1977.00 1938.00 2093.00 1980.00 1796.00 1
658.00 1944.00 1904.00 2180.00 2146.00 2134.00 2013.00 1904.00 1978.00 1855.00 1758.00 1871.00 1825.00 2022.00 2096.00 2005.00 20
78.00 1808.00 1891.00 1831.00 2206.00 1908.00 2073.00 1971.00 2157.00 1907.00 2105.00 1867.00 1801.00 1965.00 1995.00 1823.00 178
4.00 1904.00 1826.00 1925.00 2132.00 1861.00 1984.00 1894.00 1987.00 2126.00 2090.00 1859.00 1868.00 1726.00 1929.00 2187.00 1897
.00 1722.00 1910.00 1903.00 1817.00 1887.00 1777.00 1870.00 2050.00 1917.00 1913.00 1932.00 1971.00 1865.00 1841.00 1943.00 2178.
00 1844.00 1913.00 1896.00
1634.00 1902.00 2094.00 1969.00 1983.00 1702.00 1921.00 2059.00 1833.00 1911.00 1893.00 1795.00 1952.00 1891.00 2074.00 2026.00
1868.00 1769.00 1767.00 1838.00 2122.00 1986.00 1997.00 1865.00 2049.00 2087.00 1613.00 1779.00 1949.00 2030.00 1995.00 1788.00 1
765.00 1847.00 1723.00 2027.00 2015.00 2107.00 1800.00 1787.00 2006.00 1892.00 1647.00 1988.00 1753.00 2106.00 2157.00 1827.00 19
85.00 1780.00 1823.00 1762.00 2057.00 1791.00 1919.00 1781.00 2029.00 1737.00 2131.00 1796.00 1822.00 1839.00 1912.00 1905.00 184
6.00 1973.00 1930.00 1824.00 1935.00 1881.00 1922.00 1838.00 2070.00 2159.00 1897.00 1789.00 1818.00 1775.00 2063.00 2187.00 1956
.00 1802.00 1894.00 1934.00 1829.00 2019.00 1818.00 2059.00 2022.00 1792.00 1905.00 1807.00 1861.00 1768.00 1835.00 2020.00 2074.
00 1752.00 1964.00 1860.00
1719.00 2214.00 1933.00 2165.00 1846.00 1758.00 2034.00 2167.00 1928.00 2000.00 1981.00 1926.00 1949.00 2115.00 2151.00 2082.00
1908.00 1848.00 2099.00 2071.00 1850.00 1824.00 2035.00 2036.00 2032.00 2229.00 1966.00 2049.00 2010.00 2326.00 2153.00 1889.00 2
009.00 1909.00 2046.00 2145.00 2124.00 2143.00 1968.00 1958.00 2314.00 2069.00 1742.00 2297.00 1912.00 2249.00 1753.00 2118.00 21
80.00 1951.00 1875.00 1856.00 2203.00 1986.00 2043.00 1909.00 2087.00 1725.00 2148.00 1945.00 1973.00 1976.00 2133.00 1862.00 204
8.00 2009.00 1757.00 1954.00 2198.00 1848.00 1957.00 2113.00 2049.00 2101.00 2122.00 2077.00 1799.00 1970.00 2255.00 2182.00 1851
.00 1835.00 1757.00 1901.00 2278.00 2114.00 2159.00 1935.00 2051.00 2045.00 2254.00 2231.00 2029.00 1777.00 1730.00 2087.00 2413.
00 2004.00 2213.00 1934.00
1912.00 2190.00 2084.00 2203.00 2166.00 1720.00 2025.00 2338.00 1915.00 1989.00 2078.00 1845.00 1982.00 1905.00 2099.00 1989.00
1971.00 1733.00 2036.00 1913.00 2172.00 1964.00 1928.00 1959.00 2168.00 1978.00 1883.00 1944.00 1885.00 2242.00 2146.00 1809.00 1
846.00 1940.00 1962.00 2148.00 2119.00 2285.00 1919.00 2041.00 1955.00 2006.00 1757.00 2135.00 1861.00 2112.00 2141.00 1966.00 23
45.00 1990.00 1914.00 1735.00 2114.00 1912.00 2014.00 1884.00 2107.00 1841.00 2193.00 2033.00 2035.00 1949.00 2074.00 1924.00 183
2.00 2061.00 1987.00 2043.00 2147.00 2041.00 1984.00 1990.00 2012.00 2161.00 1922.00 1867.00 1822.00 1665.00 2159.00 2220.00 2055
.00 1860.00 1947.00 2095.00 1954.00 2093.00 2004.00 1929.00 2175.00 1858.00 2040.00 2000.00 1982.00 2042.00 1923.00 2095.00 2167.
00 2008.00 1991.00 1836.00

Vaktu Komputasi Processor : 0.000524Vaktu Komputasi Processor : 0.000634Vaktu Komputasi Processor : 0.000614Vaktu Komputasi Processor : 0.000620Vaktu Komputasi Processor : 0.000598Vaktu Komputasi Processor : 0.002083Vaktu Komputasi Processor : 0.000596Vaktu Komputasi Processor : 0.002857Vaktu Komputasi Processor : 0.000948Vaktu Komputasi Processor : 0.000505Vaktu Komputasi Processor : 0.001576Vaktu Komputasi Processor : 0.000637Vaktu Komputasi Processor : 0.000392Vaktu Komputasi Processor : 0.000457Vaktu Komputasi Processor : 0.001556vagrant@ifqi: ~/finaltask$
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Speed Up Processor

- a. Untuk 2 processor : 0,004352 detik
- b. Untuk 16 processor : 0,000114 detik