

2. Work it Out [the Span]

- (a) Define work and span

Solution:

Work - how long the running time of a program would be with just one processor

Span - the running time with an infinite number of processors

- (b) How do we calculate work and span?

Solution:

Work - sum all the work done by each processor

Span - calculate the longest dependence chain (the longest 'branch' in the parallel 'tree')

- (c) Does adding more processors affect the work or span?

Solution:

Neither - both work and span are defined by a fixed number of processors (1 for work and infinity for span) so adding more processors won't affect them