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matmult.txt

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bash\$ /usr/convex/bin/fc -O1 matmult.f

Optimization for MAIN

Line Num.	Id Num.	Iter. Var.	Reordering Transformation	New Loops	Optimizing / Special Transformation
11	1	*NONE*	Serial		
12	2	*NONE*	Serial		
14	3	*NONE*	Serial		

bash\$ /usr/convex/bin/fc -O2 matmult.f

Optimization for MAIN

Line Num.	Id Num.	Iter. Var.	Reordering Transformation	New Loops	Optimizing / Special Transformation
11	1	I	*Dist	(2-3)	No Strip
11-1	2	I	*Interchange	(4)	(I J) -> (J I)
12-1	4	J	Serial		
11	5	I	Serial		Unroll
11-2	3	I	*Interchange	(6)	(I I J K K) -> (I K J I K) Blocked
11	6	I	Serial		
14-2	7	K	Serial		Blocked
12-2	8	J	*Unroll and Jam	(9)	
12	9	J	Serial		
11	10	I	*Unroll and Jam	(11-12)	
11	11	I	Serial		
14	13	K	Serial		
11	12	I	Serial		
14	14	K	Serial		Unroll

Line Num.	Id Num.	Iter. Var.	Analysis
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11	6	I	Loop blocked by 88 iterations
14-2	7	K	Loop blocked by 88 iterations
11	5	I	Replicated: partially unrolled with factor of 8
11	11	I	Loop unrolled and jammed with factor of 5
12	9	J	Loop unrolled and jammed with factor of 4
14	14	K	Replicated: partially unrolled with factor of 5

bash\$ /usr/convex/bin/fc -O3 -or all matmult.f

Optimization for MAIN

Line Num.	Id Num.	Iter. Var.	Reordering Transformation	New Loops	Optimizing / Special Transformation
11	1	I	*Dist	(2-3)	No Strip
11-1	2	I	*DynSel	(4-5)	Work
11	4	I	*Interchange	(6)	(I J) -> (J I)
12	6	J	PARALLEL		
11	7	I	Serial		Unroll
11	5	I	*Interchange	(8)	(I J) -> (J I)
12	8	J	Serial		Removed
11	9	I	Serial		Unroll Removed
11-2	3	I	*DynSel	(10-11)	Work
11	10	I	*Interchange	(12)	(I I J K K) -> (I K J I K) Blocked
11	12	I	Serial		
14	13	K	Serial		Blocked

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12      14  J      *Unroll and Jam      (15)
12      15  J      PARALLEL
11      16  I      *Unroll and Jam      (17-18)
11      17  I      Serial
14      19  K      Serial
11      18  I      Serial
14      20  K      Serial                      Unroll

11      11  I      *Interchange          (21)      (I I J K K) -> (I K J I
                                           K) Blocked
11      21  I      Serial                      Removed
14      22  K      Serial                      Blocked Removed
12      23  J      *Unroll and Jam      (24)
12      24  J      Serial                      Removed
11      25  I      *Unroll and Jam      (26-27)
11      26  I      Serial                      Removed
14      28  K      Serial                      Removed
11      27  I      Serial                      Removed
14      29  K      Serial                      Unroll Removed
    
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Line Num.	Id Num.	Iter. Var.	Analysis
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11      12  I      Loop blocked by 88 iterations
14      13  K      Loop blocked by 88 iterations
11      21  I      Loop blocked by 88 iterations
14      22  K      Loop blocked by 88 iterations
11      7   I      Replicated: partially unrolled with factor of 8
11      9   I      Loop removed
11      21  I      Loop removed
11      17  I      Loop unrolled and jammed with factor of 5
11      26  I      Loop unrolled and jammed with factor of 5
11      26  I      Loop removed
11      27  I      Loop removed
12      8   J      Loop removed
12      15  J      Loop unrolled and jammed with factor of 4
12      24  J      Loop unrolled and jammed with factor of 4
12      24  J      Loop removed
14      22  K      Loop removed
14      20  K      Replicated: partially unrolled with factor of 5
14      28  K      Loop removed
14      29  K      Loop removed
    
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Line Num.	Id Num.	Iter. Var.	Priv. Var.	Privatization Information for Parallel Loops
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12      6   J      J      Loop induction variable privatized
12      6   J      I      Reference privatized
12      15  J      J      Loop induction variable privatized
    
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