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81 Cutting planes:
82   Learned: 2
83   Gomory: 7
84   Lift-and-project: 5
85   MIR: 25
86   StrongCG: 13
87   Flow cover: 66
88   Zero half: 10
89   RLT: 2
90   Relax-and-lift: 46
91
92 Explored 1260 nodes (102217 simplex iterations) in 107.69 seconds (105.58 work units)
93 Thread count was 8 (of 8 available processors)
94
95 Solution count 3: 363 363 363
96 No other solutions better than 363
97
98 Optimal solution found (tolerance 1.00e-04)
99 Best objective 3.6300000000000e+02, best bound 3.6300000000000e+02, gap 0.0000%
100
101 Output optimal solution and the Optimal Obj: 363.0
102
103
104 Obj = 363.0
105
106 Solutions:
107   The total pi = 116.0
108   The total duration time in berth stage = 101.0
109   The total duration time in quay crane scheduling stage = 28.0
110   The total departure time in berth stage= 218.0
111   The total departure time in quay crane scheduling stage = 145.0
112   The total wasted crane work hour according QC0= 3.682162309781372
113   The last depature time in quay crane scheduling stage = 40.0
114
115 The specific solution are as follows:
116   Vessel i: 0:   li: 7,      pi: 7-14,      ai-di: 38-52,      taoi-deltai: 38-52,      periodi: 14,      taoPi_SP-deltaPi_SP
: 38-40,      periodPi: 2,      c_i: 3637964,      dowork: 3691016,      fa_i: 7
117   Vessel i: 1:   li: 6,      pi: 14-20,      ai-di: 12-26,      taoi-deltai: 12-26,      periodi: 14,      taoPi_SP-
deltaPi_SP: 12-15,      periodPi: 3,      c_i: 3529264,      dowork: 3559194,      fa_i: 4
118   Vessel i: 2:   li: 4,      pi: 30-34,      ai-di: 4-15,      taoi-deltai: 4-15,      periodi: 11,      taoPi_SP-deltaPi_SP
: 4-8,      periodPi: 4,      c_i: 2863362,      dowork: 3031906,      fa_i: 2
119   Vessel i: 3:   li: 4,      pi: 24-28,      ai-di: 9-19,      taoi-deltai: 9-19,      periodi: 10,      taoPi_SP-deltaPi_SP
: 9-12,      periodPi: 3,      c_i: 2387699,      dowork: 2768262,      fa_i: 2
120   Vessel i: 4:   li: 7,      pi: 7-14,      ai-di: 16-38,      taoi-deltai: 16-36,      periodi: 20,      taoPi_SP-deltaPi_SP
: 16-22,      periodPi: 6,      c_i: 5263637,      dowork: 5404702,      fa_i: 2
121   Vessel i: 5:   li: 6,      pi: 14-20,      ai-di: 28-50,      taoi-deltai: 28-44,      periodi: 16,      taoPi_SP-
deltaPi_SP: 28-32,      periodPi: 4,      c_i: 4201228,      dowork: 4350126,      fa_i: 3
122   Vessel i: 6:   li: 4,      pi: 20-24,      ai-di: 10-32,      taoi-deltai: 10-26,      periodi: 16,      taoPi_SP-
deltaPi_SP: 10-16,      periodPi: 6,      c_i: 4169576,      dowork: 4218304,      fa_i: 2
123 TimeSolveModel: 115.000000
124
125 TimeAll: 118.000000
126
127

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