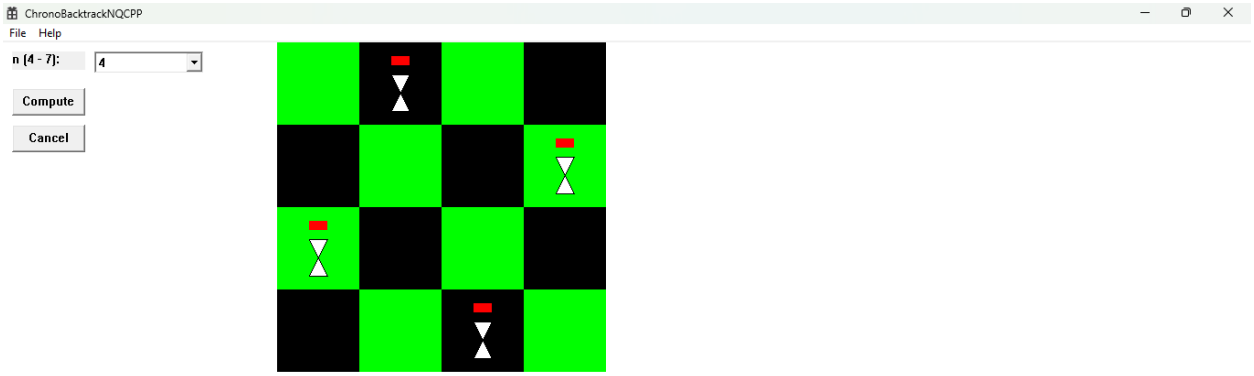
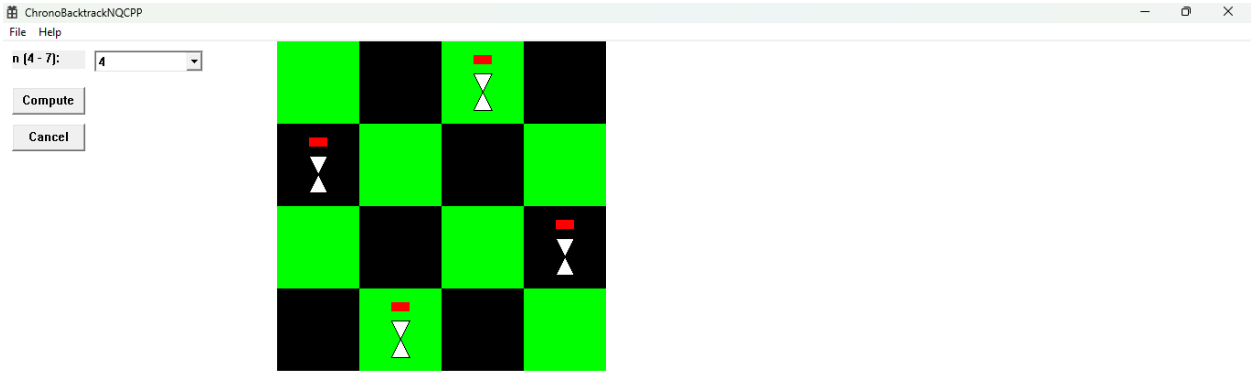
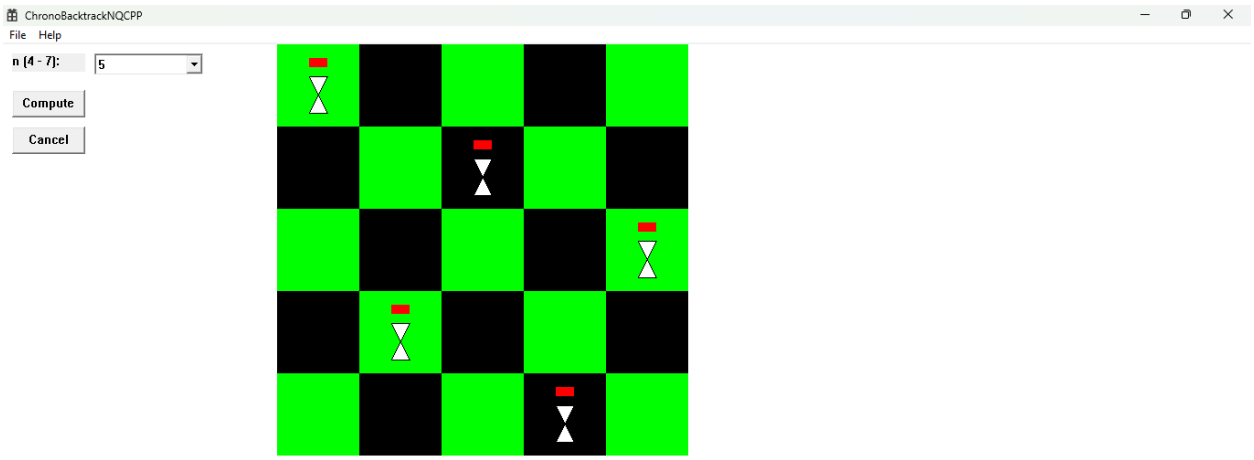
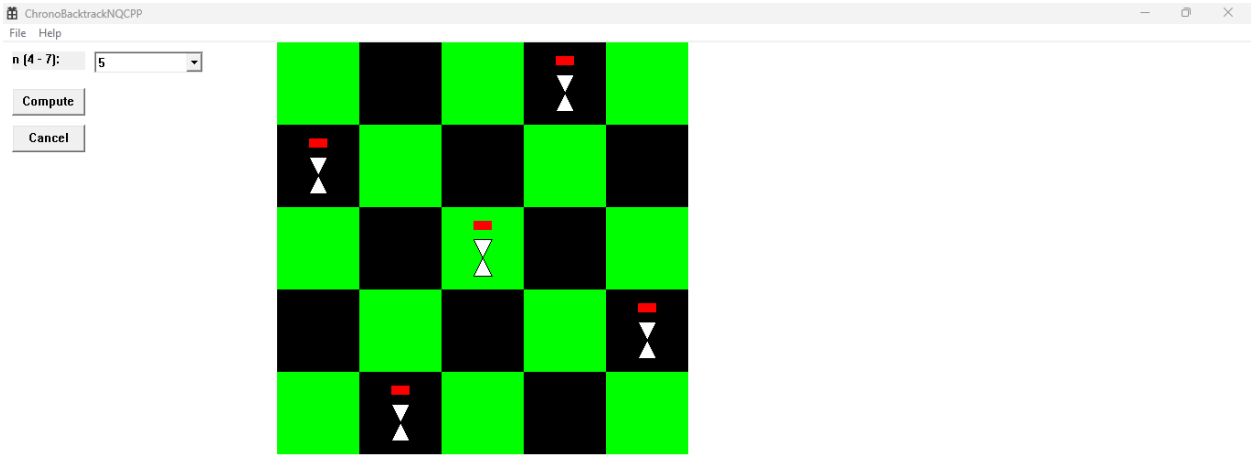
Blog Entry © Monday, September 29, 2025, A Win32 C++ Chronological Backtracking N-Queens Puzzle Solver for a Small Number of Queens by James Pate Williams, Jr.

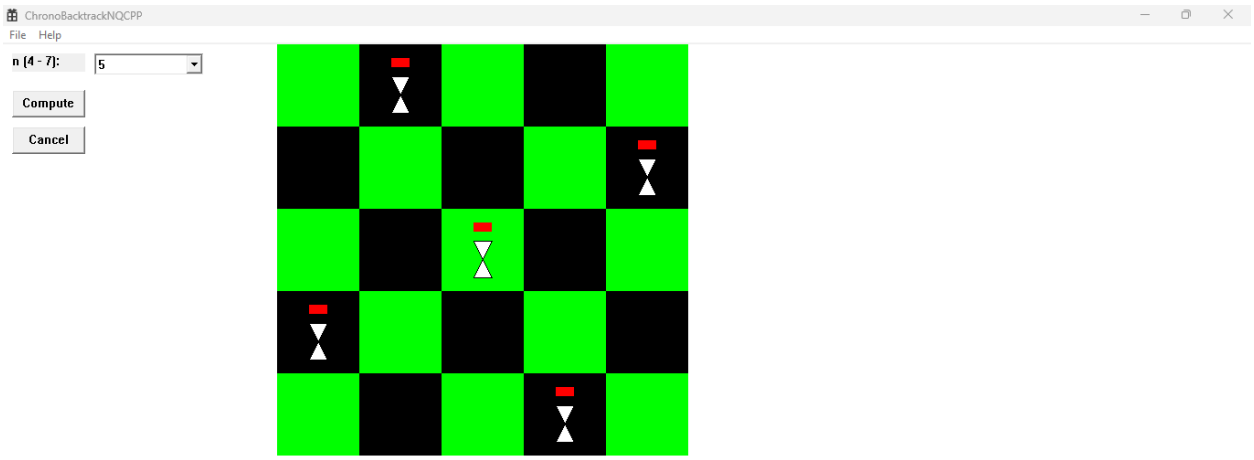
Reference: ***Foundations of Constraint Satisfaction*** by Edward Tsang Page 37






ChronoBacktrackNQCPP
File Help
n (4 - 7):
5
Compute
Cancel


ChronoBacktrackNQCPP
File Help
n (4 - 7):
5
Compute
Cancel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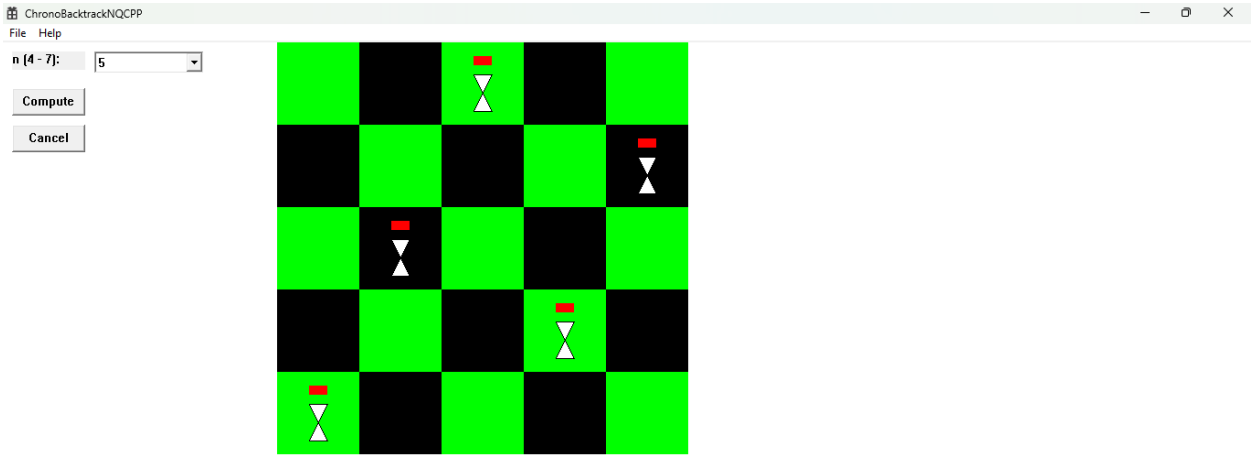
File Help
n (4 - 7):
5
Compute
Cancel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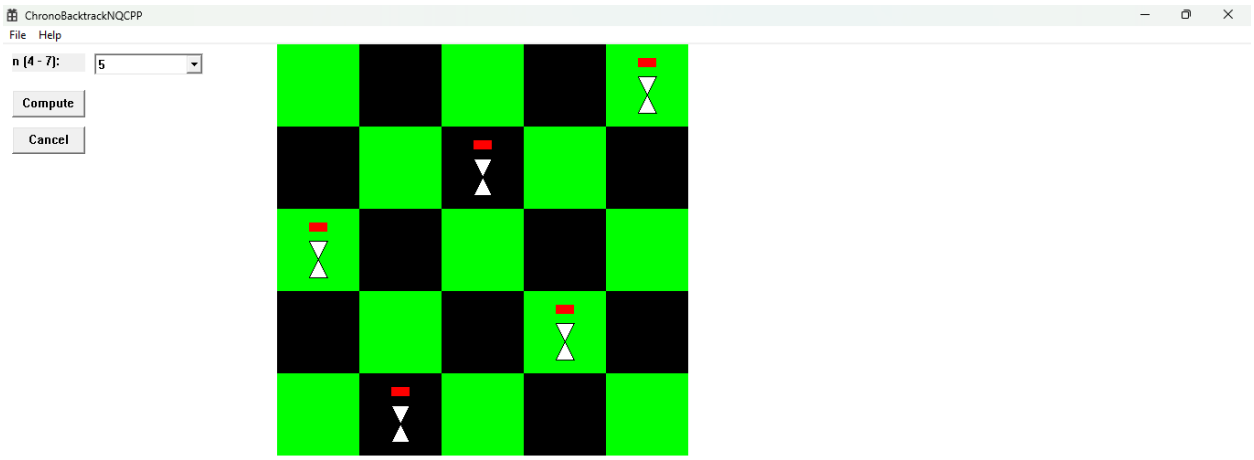
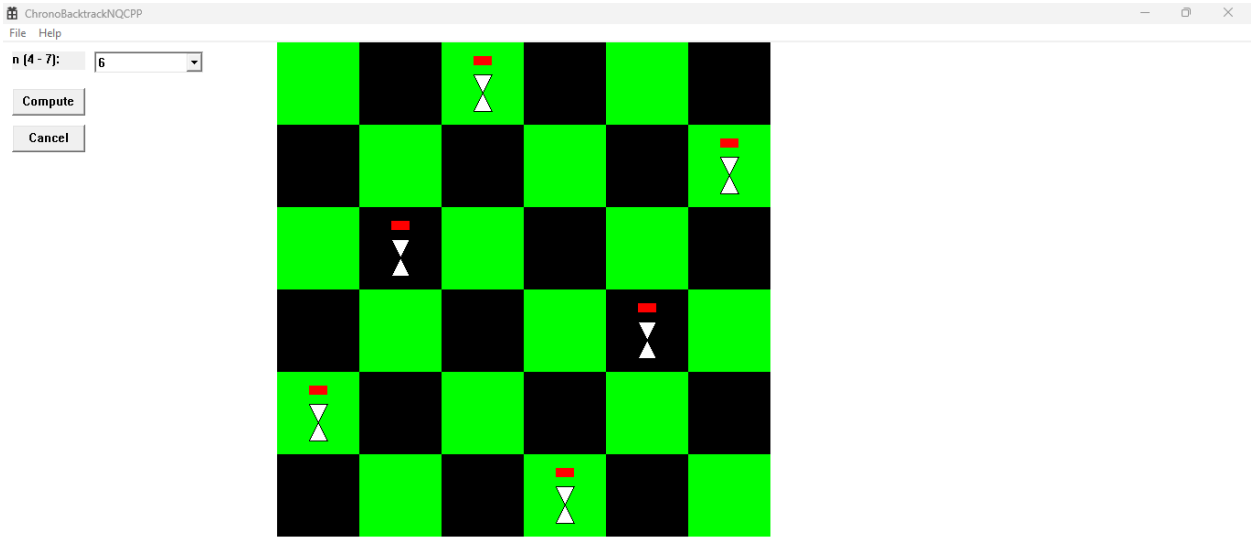
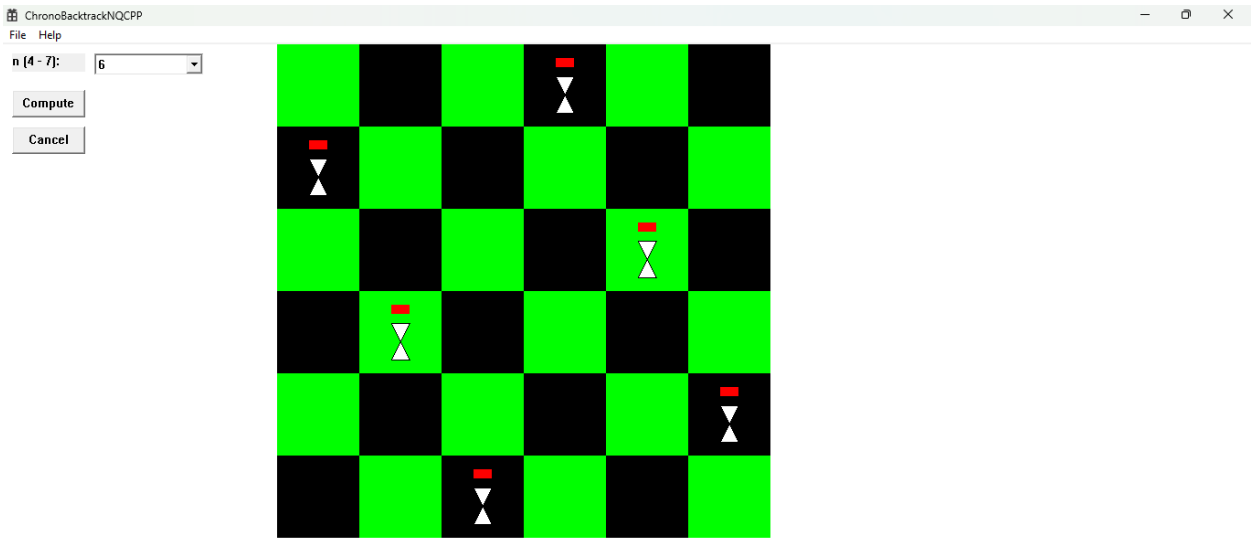
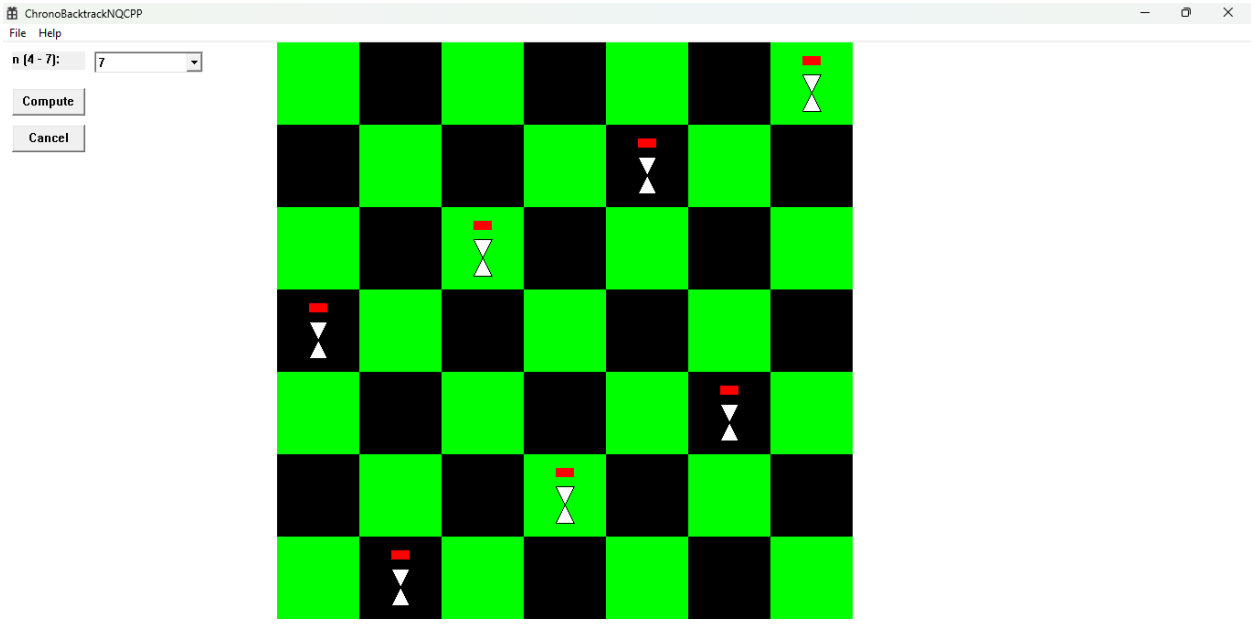
File Help
n (4 - 7):
5
Compute
Cancel


ChronoBacktrackNQCPP
File Help
n (4 - 7):
5
Compute
Cancel


ChronoBacktrackNQCPP
File Help
n (4 - 7):
6
Compute
Cancel


ChronoBacktrackNQCPP
File Help
n (4 - 7):
6
Compute
Cancel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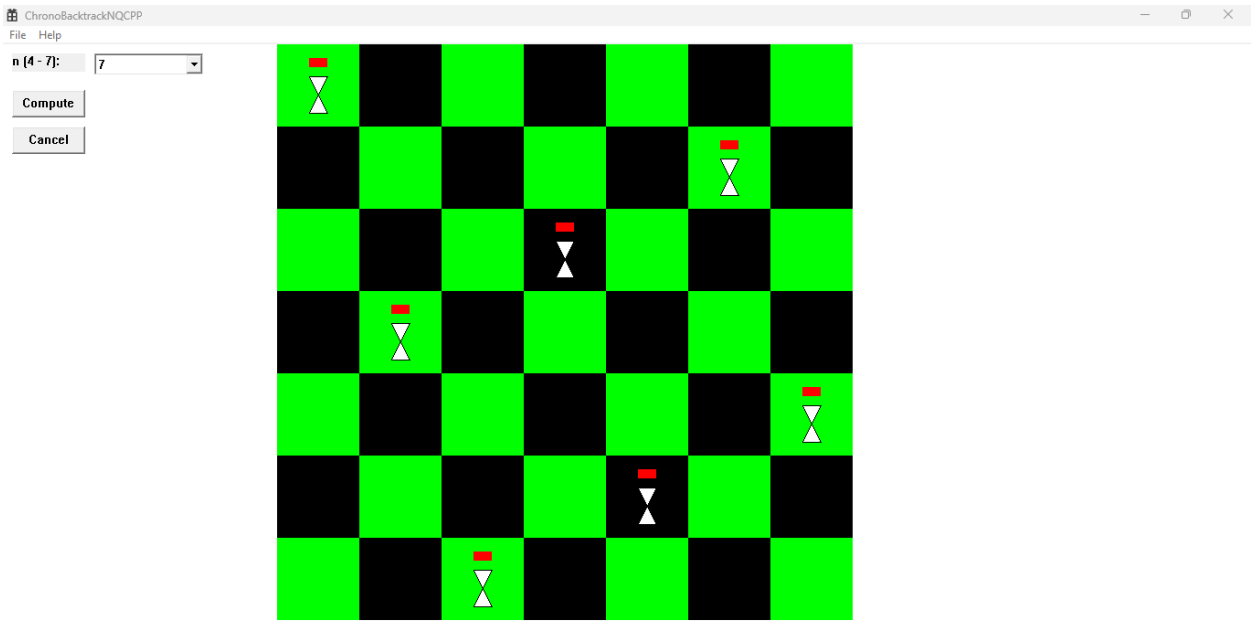
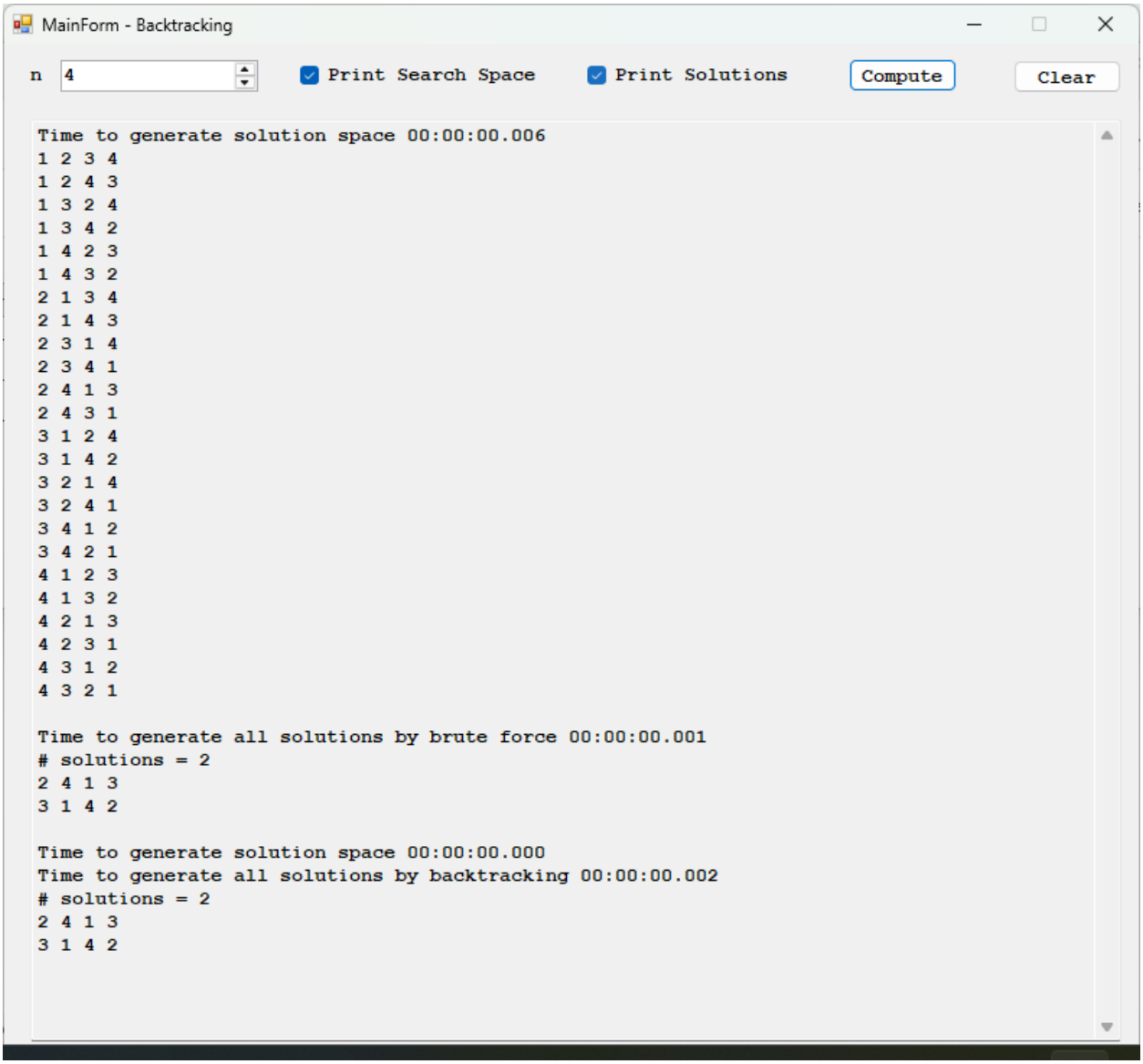
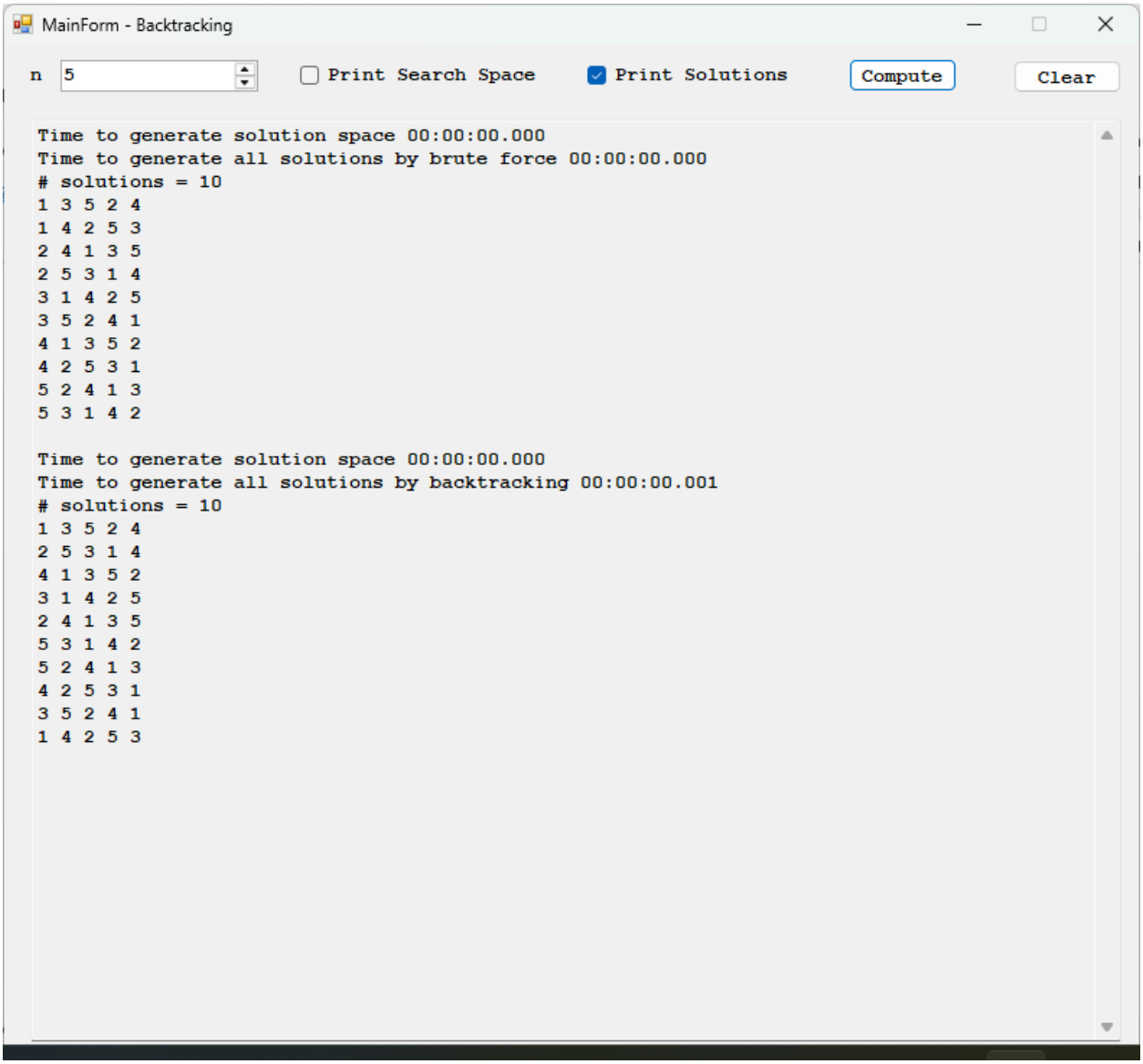
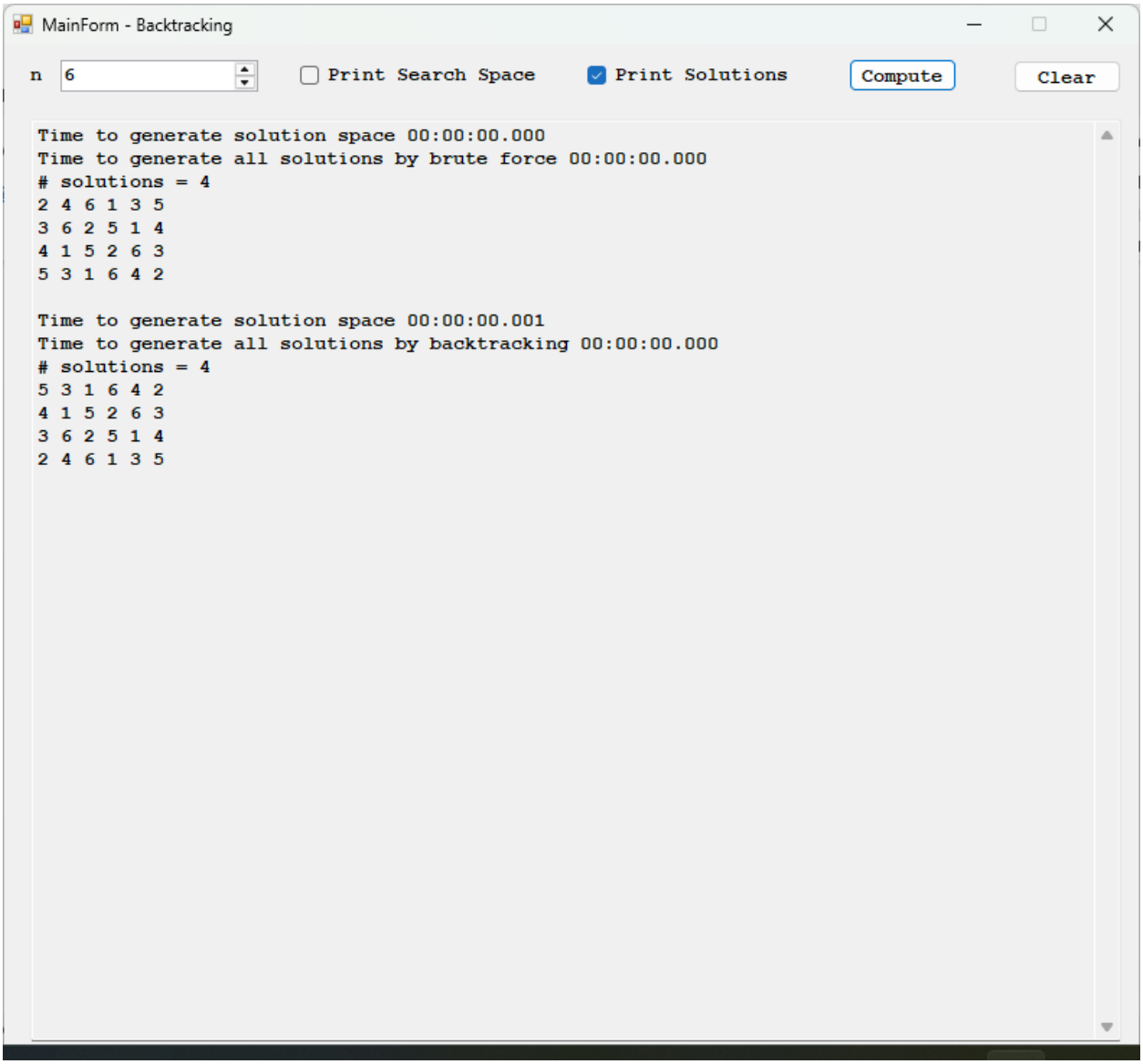
File Help
n (4 - 7):
7
Compute
Cancel



Next, we have the results of a C# N-Queens brute force solver. The app was created on October 16, 2015. It was also posted to the Microsoft TechNet.


MainForm - Backtracking
n 4
Print Search Space
Print Solutions
Compute
Clear
Time to generate solution space 00:00:00.006
1 2 3 4
1 2 4 3
1 3 2 4
1 3 4 2
1 4 2 3
1 4 3 2
2 1 3 4
2 1 4 3
2 3 1 4
2 3 4 1
2 4 1 3
2 4 3 1
3 1 2 4
3 1 4 2
3 2 1 4
3 2 4 1
3 4 1 2
3 4 2 1
4 1 2 3
4 1 3 2
4 2 1 3
4 2 3 1
4 3 1 2
4 3 2 1
Time to generate all solutions by brute force 00:00:00.001
solutions = 2
2 4 1 3
3 1 4 2
Time to generate solution space 00:00:00.000
Time to generate all solutions by backtracking 00:00:00.002
solutions = 2
2 4 1 3
3 1 4 2


MainForm - Backtracking
n 5
Print Search Space
Print Solutions
Compute
Clear
Time to generate solution space 00:00:00.000
Time to generate all solutions by brute force 00:00:00.000
solutions = 10
1 3 5 2 4
1 4 2 5 3
2 4 1 3 5
2 5 3 1 4
3 1 4 2 5
3 5 2 4 1
4 1 3 5 2
4 2 5 3 1
5 2 4 1 3
5 3 1 4 2
Time to generate solution space 00:00:00.000
Time to generate all solutions by backtracking 00:00:00.001
solutions = 10
1 3 5 2 4
2 5 3 1 4
4 1 3 5 2
3 1 4 2 5
2 4 1 3 5
5 3 1 4 2
5 2 4 1 3
4 2 5 3 1
3 5 2 4 1
1 4 2 5 3


MainForm - Backtracking
n 6
Print Search Space
Print Solutions
Compute
Clear
Time to generate solution space 00:00:00.000
Time to generate all solutions by brute force 00:00:00.000
solutions = 4
2 4 6 1 3 5
3 6 2 5 1 4
4 1 5 2 6 3
5 3 1 6 4 2
Time to generate solution space 00:00:00.001
Time to generate all solutions by backtracking 00:00:00.000
solutions = 4
5 3 1 6 4 2
4 1 5 2 6 3
3 6 2 5 1 4
2 4 6 1 3 5