AIC with Groups

From sudokuwiki.org, the puzzle solver's site

Grouped nodes were discussed on the Grouped X-Cycles page and it is very relevant to Alternating Inference Chains. Luckily, there's nothing too scary about them although they may be harder to spot.

The example on the right shows a classic and relatively simple deduction based on a loop that is predominantly candidates 3 and 4. But the two bi-value cells **E8** and **E9** containing 4/5 and 2/4 allow us to form strong links that continue the number 4 we're tracing from **E2** to **F8**. We end up with two weak links pointing to **B7**, where the 1 can be removed, thanks to Nice Loop Rule 3. Our grouped node on **[E8|E9]** acts just as a normal cell. The solver gives us:

AIC on 1 (Grouped Discontinuous Alternating Nice Loop, length 10):
+1[B7]-3[B7]+3[B2]-3[E2]+4[E2]
-4[E8|E9]+4[F8]-1[F8]+1[F7]-1[B7]
- Contradiction: When B7 is set to 1 the chain implies it cannot be 1 - it can be removed
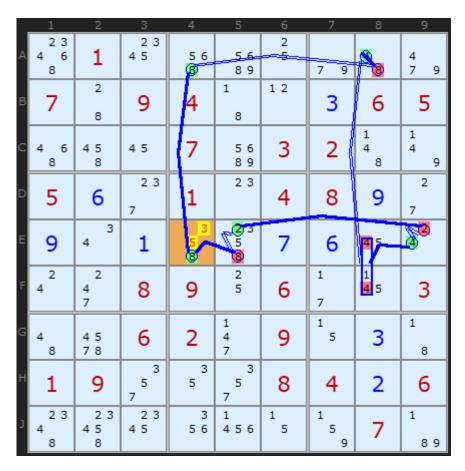
Grouped AIC : Load Example or : From the Start

Just a few steps later in this puzzle we get another AIC which shows Rule 2 - two strong links - which allows us to place with certainty 8 on **E4**.

AIC on 8 (Grouped Discontinuous Alternating Nice Loop, length 10):
-8[E4]+8[A4]-8[A8]+4[A8]-4[E8|F8]
+4[E9]-2[E9]+2[E5]-8[E5]+8[E4]
- Contradiction: When 8 is removed from E4 the chain implies it must be 8 - other candidates 3/5 can be removed

Go back to Alternating Inference Chains Continue to AICs with ALSs

Grouped Cell AIC : Load Example or : From the Start