**Woflan Diagnosis on Net "Petri net"**

**The net is not a sound workflow net.**

**Soundness requirements**

**Option to complete**

Whatever happens, an instance can always mark the sink place

**Proper completion**

On completion, only the sink place is marked, and it is marked only once

**No dead tasks**

No transition is dead

The short-circuited net is unbounded. As a result, completion cannot be proper.

The following places are unbounded in the short-circuited net:

1. **place\_17**
2. **place\_12**
3. **place\_9**
4. **place\_3**

The following diagnostic information assumes that there exists a bounded safe haven (a bounded strongly connected component which includes the initial marking). Clearly, to avoid unbounded behavior, behavior should be restricted to this component. Thus, any transition leaving the component should be disabled.

Disabling the following transitions at the following (reachable) markings effectively would restrict the behavior to the bounded safe haven:

1. Transition **W\_Completeren aanvraag+COMPLETE** at marking **[place\_10,place\_2,place\_11,place\_15,place\_7,place\_1,place\_17,place\_5,place\_12,place\_9,place\_3]**
2. Transition **W\_Completeren aanvraag+COMPLETE** at marking **[place\_14,place\_2,place\_16,place\_15,place\_7,place\_1,place\_17,place\_5,place\_12,place\_9,place\_3]**

The following diagnostic information presents places that are not covered by any S-component. An S-component strongly relates to an aspect (say, a data field) of a case. Therefore, it is strongly recommended to have all places covered, and any uncovered place cannot be related to any aspect of the case, which seems odd. Note, however, that a net may be sound even if some places are not covered.

1. **place\_10**
2. **place\_17**
3. **place\_12**
4. **place\_9**
5. **place\_3**

The following diagnostic information presents places that are not covered by any positive place invariant. Note, however, that a net may be sound even if some places are not covered.

1. **place\_17**
2. **place\_12**
3. **place\_9**
4. **place\_3**

The following diagnostic information presents transition-place pairs for which multiple disjoint paths exist from the transition to the place. Such pairs relate strongly to unbounded behavior, and, hence listing them might help detecting the root cause for the unboundedness.

1. Transition **W\_Afhandelen leads+START**, place **place\_2**
2. Transition **W\_Afhandelen leads+START**, place **place\_11**
3. Transition **W\_Afhandelen leads+START**, place **place\_1**
4. Transition **W\_Afhandelen leads+START**, place **place\_5**
5. Transition **W\_Afhandelen leads+START**, place **place\_3**
6. Transition **A\_PARTLYSUBMITTED+COMPLETE**, place **place\_10**
7. Transition **A\_PARTLYSUBMITTED+COMPLETE**, place **place\_11**
8. Transition **W\_Completeren aanvraag+SCHEDULE**, place **place\_10**
9. Transition **W\_Completeren aanvraag+SCHEDULE**, place **place\_2**
10. Transition **W\_Completeren aanvraag+SCHEDULE**, place **place\_11**
11. Transition **W\_Completeren aanvraag+SCHEDULE**, place **place\_1**
12. Transition **W\_Completeren aanvraag+SCHEDULE**, place **place\_5**
13. Transition **W\_Completeren aanvraag+SCHEDULE**, place **place\_3**
14. Transition **W\_Completeren aanvraag+COMPLETE**, place **place\_10**
15. Transition **W\_Completeren aanvraag+COMPLETE**, place **place\_14**
16. Transition **W\_Completeren aanvraag+COMPLETE**, place **place\_11**
17. Transition **W\_Completeren aanvraag+COMPLETE**, place **place\_16**
18. Transition **W\_Completeren aanvraag+COMPLETE**, place **place\_5**
19. Transition **W\_Afhandelen leads+COMPLETE**, place **place\_10**
20. Transition **W\_Afhandelen leads+COMPLETE**, place **place\_14**
21. Transition **W\_Afhandelen leads+COMPLETE**, place **place\_11**
22. Transition **W\_Afhandelen leads+COMPLETE**, place **place\_16**
23. Transition **W\_Afhandelen leads+COMPLETE**, place **place\_7**
24. Transition **W\_Afhandelen leads+COMPLETE**, place **place\_9**
25. Transition **A\_CANCELLED+COMPLETE**, place **place\_14**
26. Transition **A\_CANCELLED+COMPLETE**, place **place\_16**
27. Transition **A\_CANCELLED+COMPLETE**, place **place\_7**
28. Transition **A\_CANCELLED+COMPLETE**, place **place\_17**
29. Transition **A\_CANCELLED+COMPLETE**, place **place\_12**
30. Transition **A\_CANCELLED+COMPLETE**, place **place\_9**
31. Transition **A\_CANCELLED+COMPLETE**, place **place\_3**
32. Transition **A\_DECLINED+COMPLETE**, place **place\_14**
33. Transition **A\_DECLINED+COMPLETE**, place **place\_2**
34. Transition **A\_DECLINED+COMPLETE**, place **place\_16**
35. Transition **A\_DECLINED+COMPLETE**, place **place\_15**
36. Transition **A\_DECLINED+COMPLETE**, place **place\_1**
37. Transition **A\_DECLINED+COMPLETE**, place **place\_17**
38. Transition **A\_DECLINED+COMPLETE**, place **place\_5**
39. Transition **A\_DECLINED+COMPLETE**, place **place\_12**
40. Transition **A\_DECLINED+COMPLETE**, place **place\_9**
41. Transition **A\_DECLINED+COMPLETE**, place **place\_3**
42. Transition **W\_Completeren aanvraag+START**, place **place\_10**
43. Transition **W\_Completeren aanvraag+START**, place **place\_14**
44. Transition **W\_Completeren aanvraag+START**, place **place\_11**
45. Transition **W\_Completeren aanvraag+START**, place **place\_15**
46. Transition **W\_Completeren aanvraag+START**, place **place\_7**
47. Transition **W\_Completeren aanvraag+START**, place **place\_1**
48. Transition **W\_Completeren aanvraag+START**, place **place\_17**
49. Transition **W\_Completeren aanvraag+START**, place **place\_12**
50. Transition **W\_Completeren aanvraag+START**, place **place\_9**
51. Transition **W\_Completeren aanvraag+START**, place **place\_3**