Chapter 5

Conclusion

In the presented thesis, two connectionist models are applied to seismic horizon linking. The models are used to find out the continuous line segments in a binary image. Due to this feature, we can use these models to link broken segment of seismogram and find a horizon in a linked pattern.

Both the network models work on the basis of neighborhood information. The first model relies on the information only from 1-neighborhood. The second model can get information over 1-neighborhood. Form the results of chapter 4, the second model gets better result than first model. Because it is not sufficient enough if only consider the information of 1-neighborhood. We calculate direction of each processing element by its neighboring area in second model, and link line by direction information. That can increase the ability to line linking. But the result is affected if the noise is too many. The disadvantage of these models is the noise reduction capability. Both of them only can remove one point noise because it will delete point on the true line if we increase the negative self-feedback.

In the thesis, we apply two line linking method for seismic horizon linking and get a well result in simulated and real seismogram by second model. The result can help for seismic pattern recognition and improve the seismic interpretations.