Training Neural Networks on Embedded Devices

Targeting Embedded Environments

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Thesis

Uppsala University

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Outline

1. Introduction
2. Embedded Linux
3. Benchmark Applications
   - Design
   - Development
   - Results
4. Discussion
5. Conclusions

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Neural Network Applications on Embedded Devices

Neural Network Applications on Embedded Devices

- Embedded Linux
- Federated Learning

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Build Systems

Yocto

Developing ARM Boards

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- Shown on the second and the third slide.

Shown on all slides.

You get fine-grain control over which elements are visible at each time.

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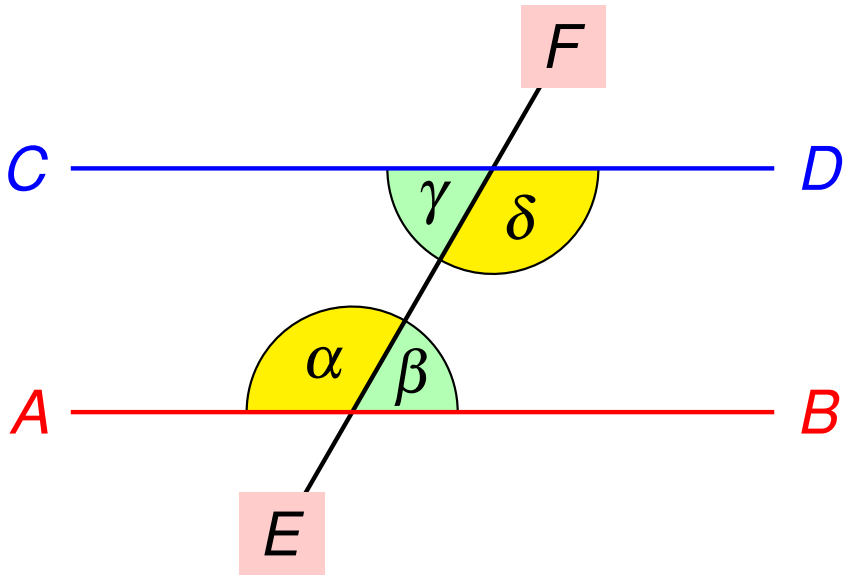
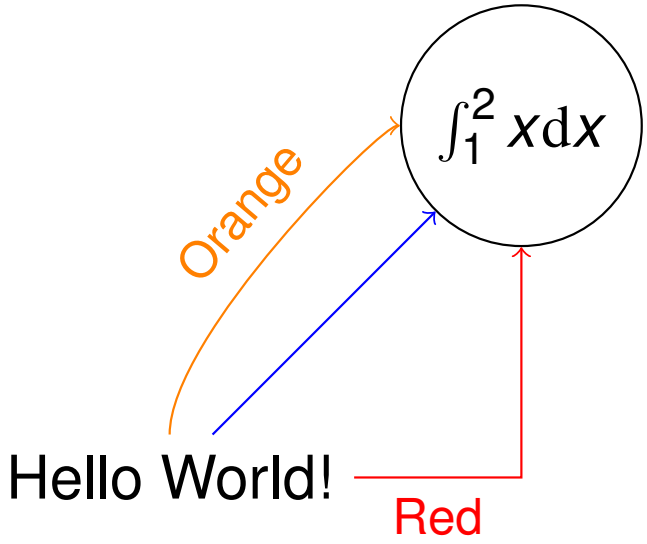
- Shown from slide 3 on.

Shown from slide 3 on. Shown on all slides.

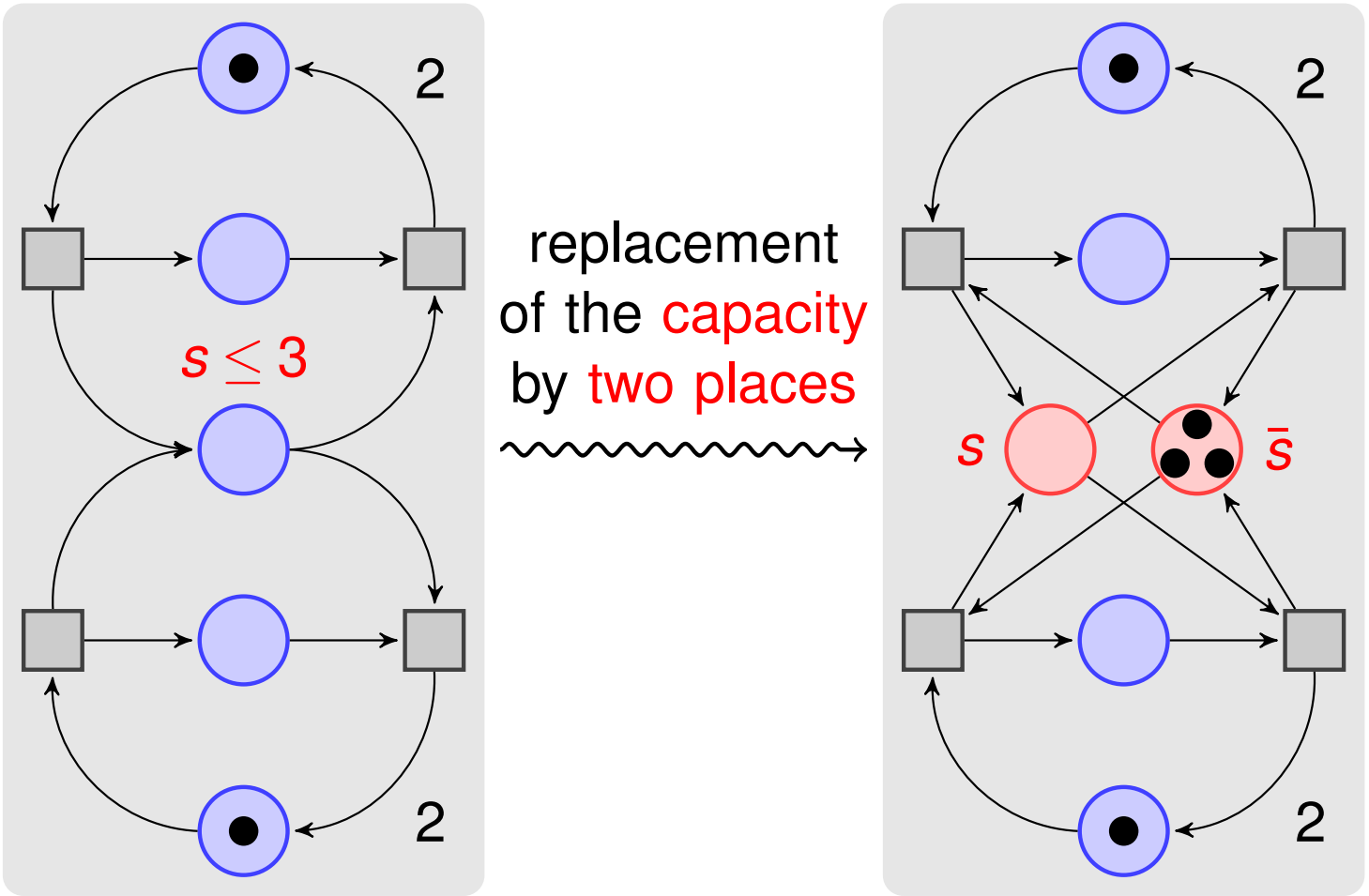
You get fine-grain control over which elements are visible at each time.

Using TikZ for Drawings





Using Ti*k*Z for Petri-Net



Applications

Different implementations

Learning Algorithm

Add the Algorithm

C based HDR-NN

Add some code maybe

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Graphs

Figures

Development Experience

Development Experience

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Conclusions