Digital Vs Analog control
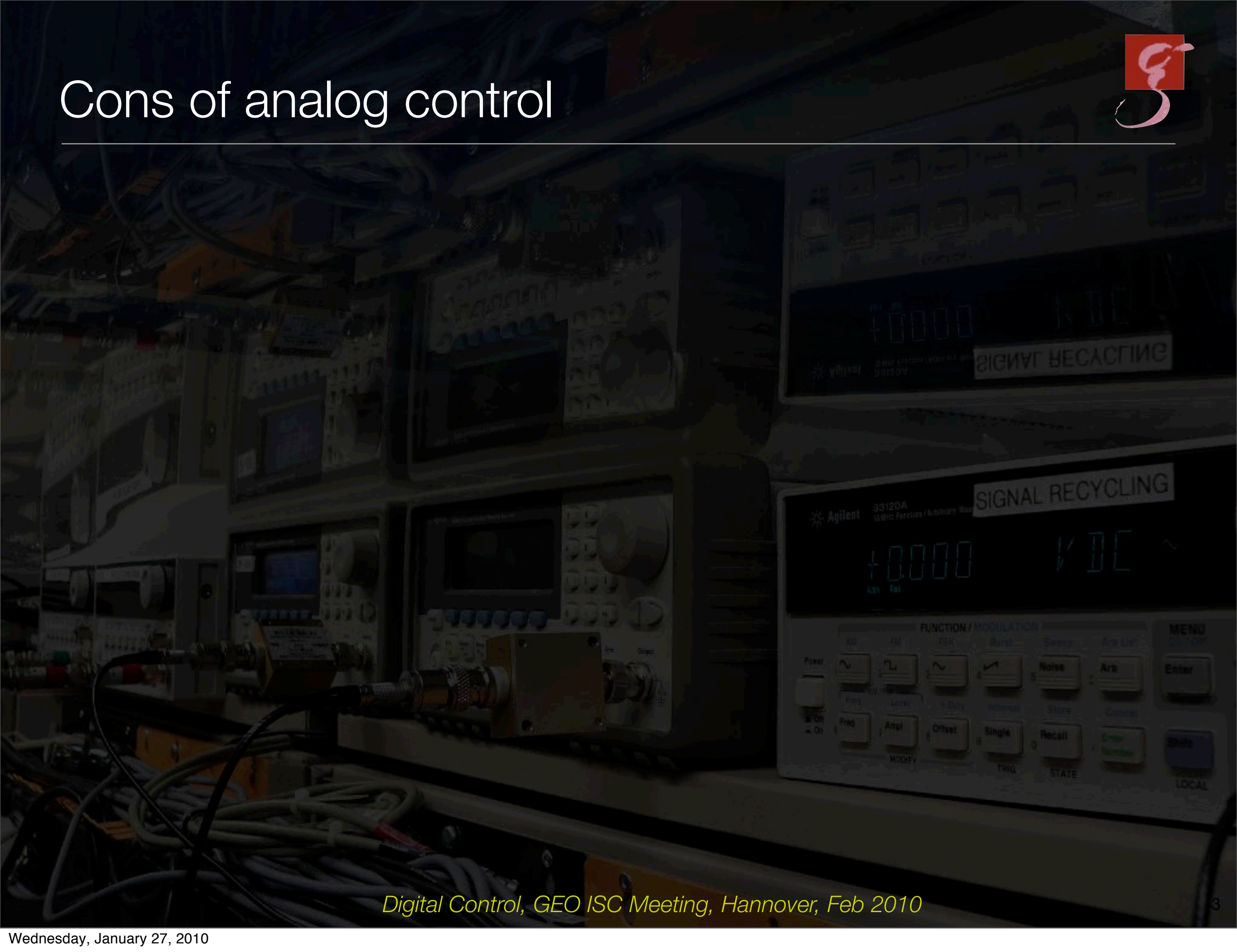
M Hewitson
GEO ISC Meeting
Hannover, Feb 2010

Contents

- Pros and cons of Analog and Digital Control
- Overall areas of work
- What do we need in 10 years from now?
- Other random thoughts

Cons of analog control

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3

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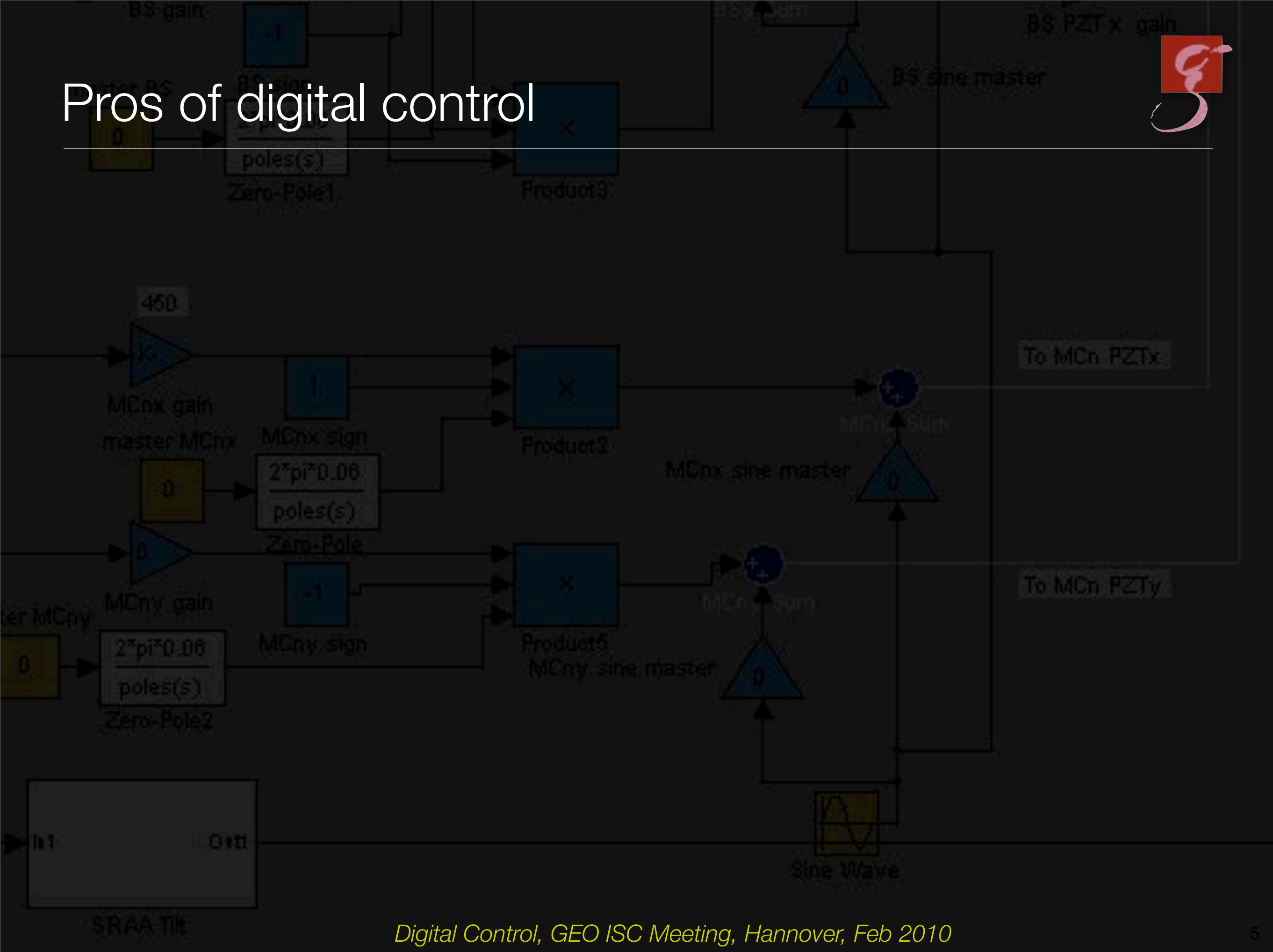 - no inherent band-width limits
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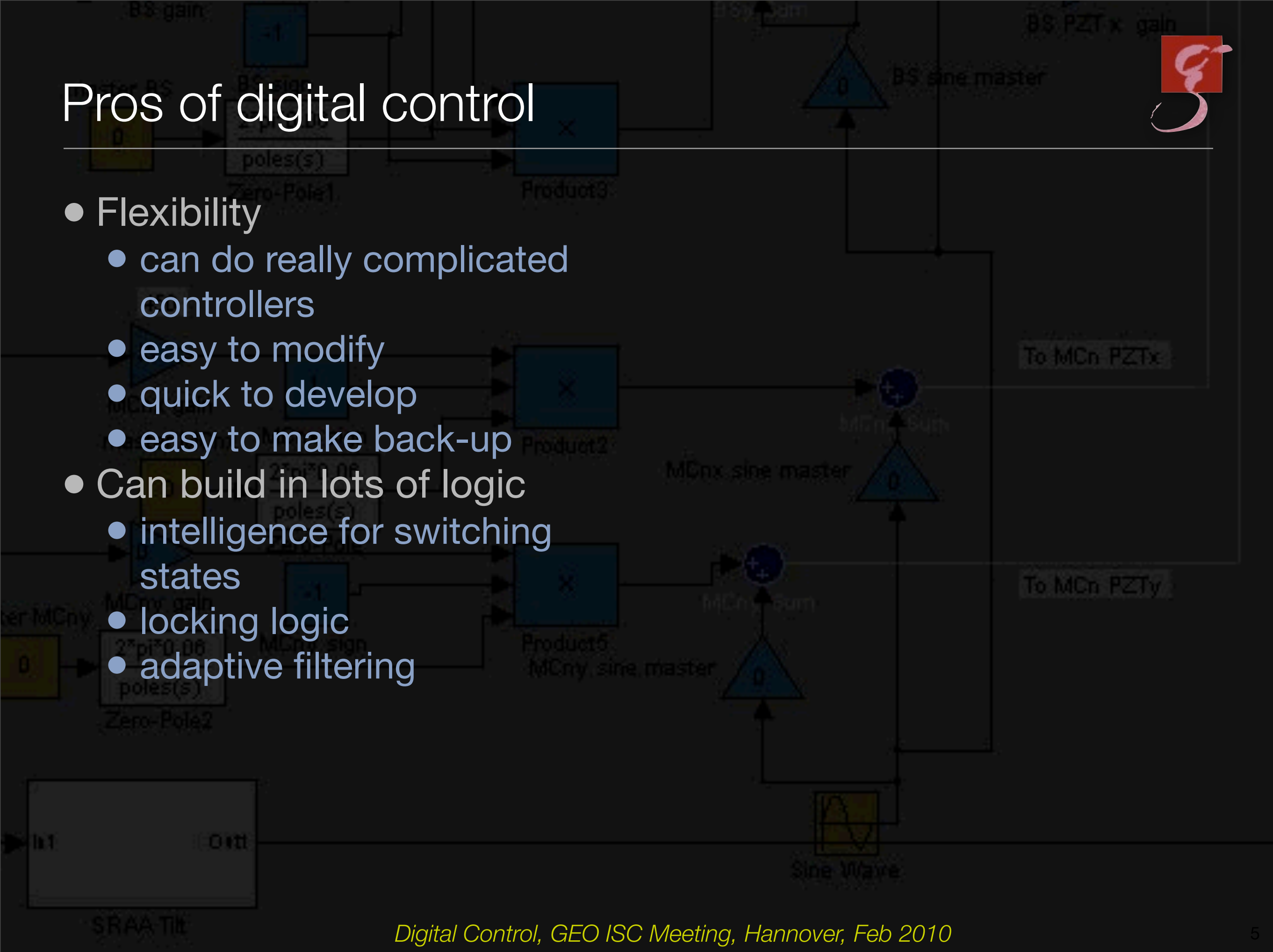 - locking logic
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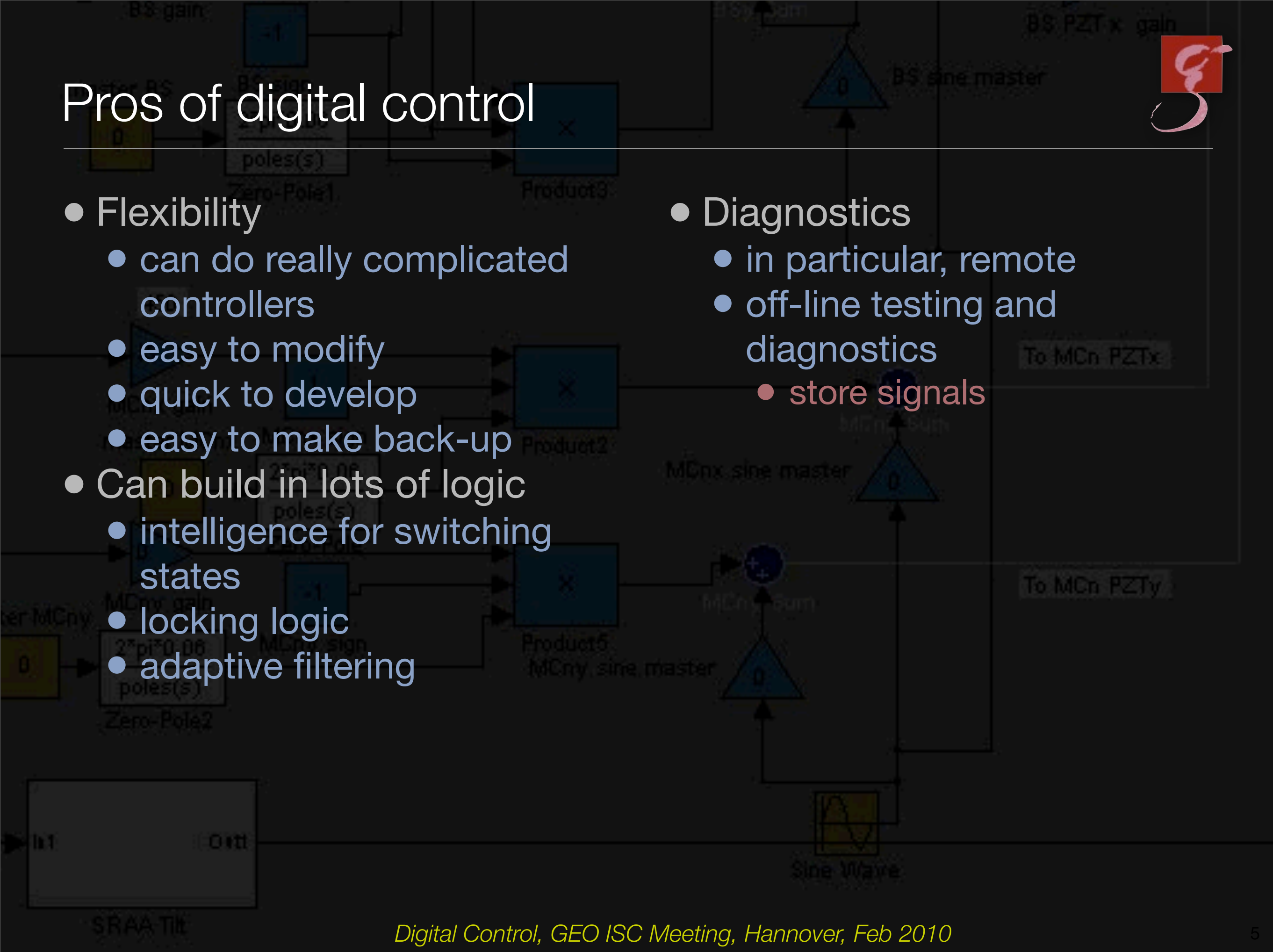
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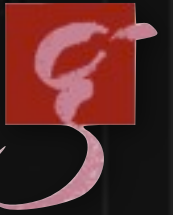# Pros of digital control

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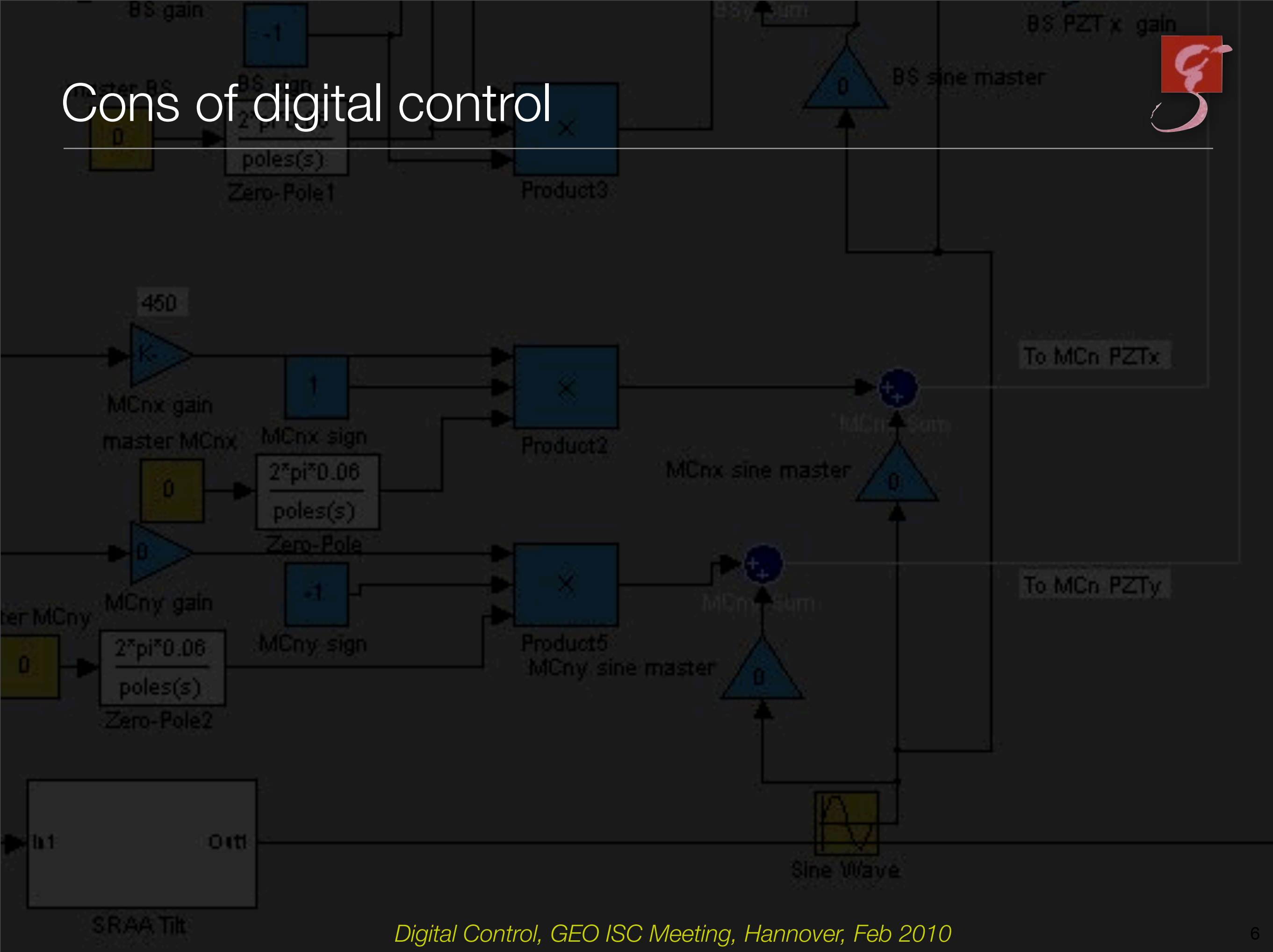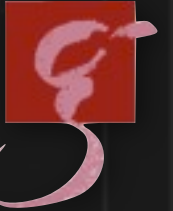- Can do lots of DIO
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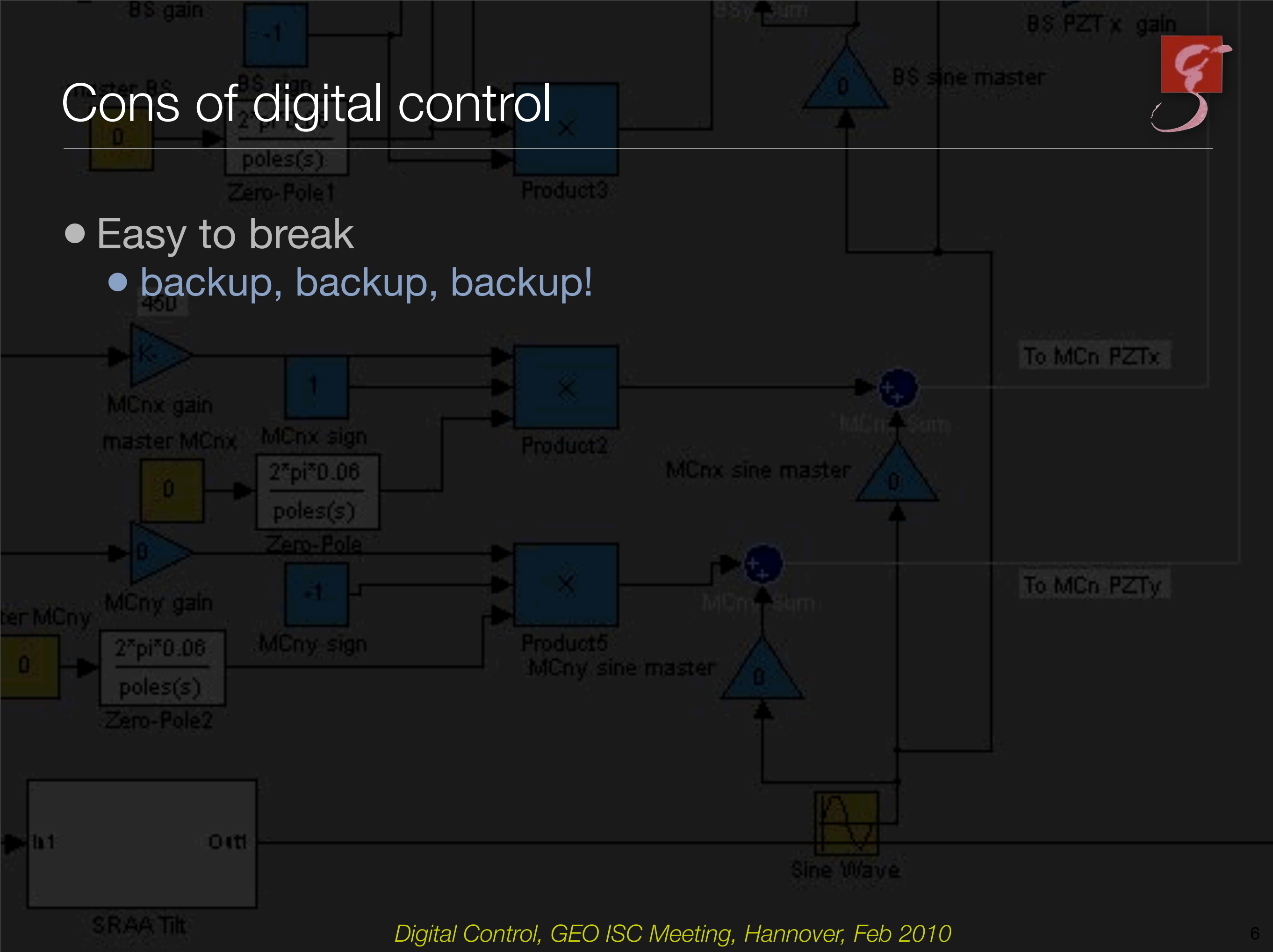
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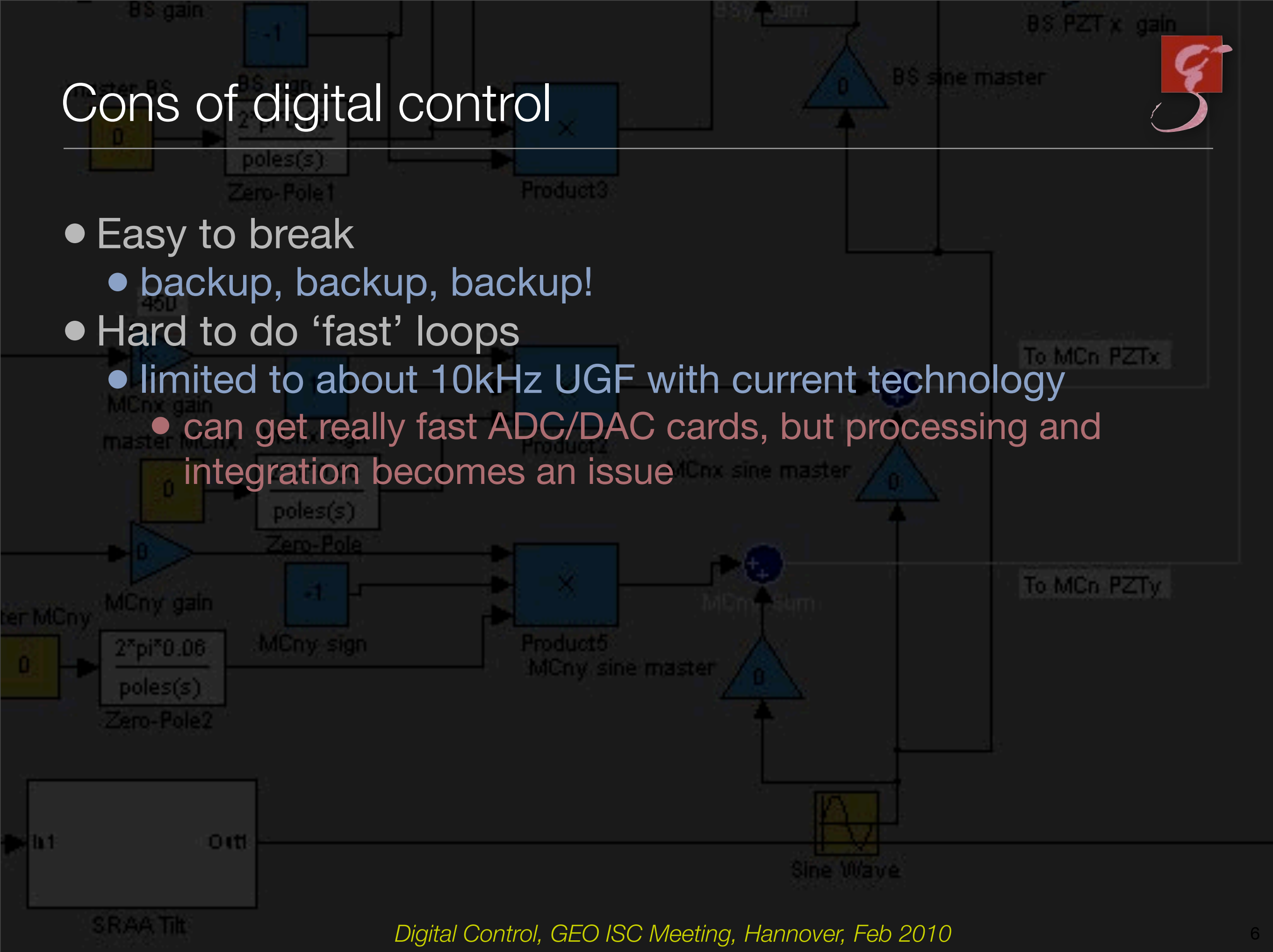
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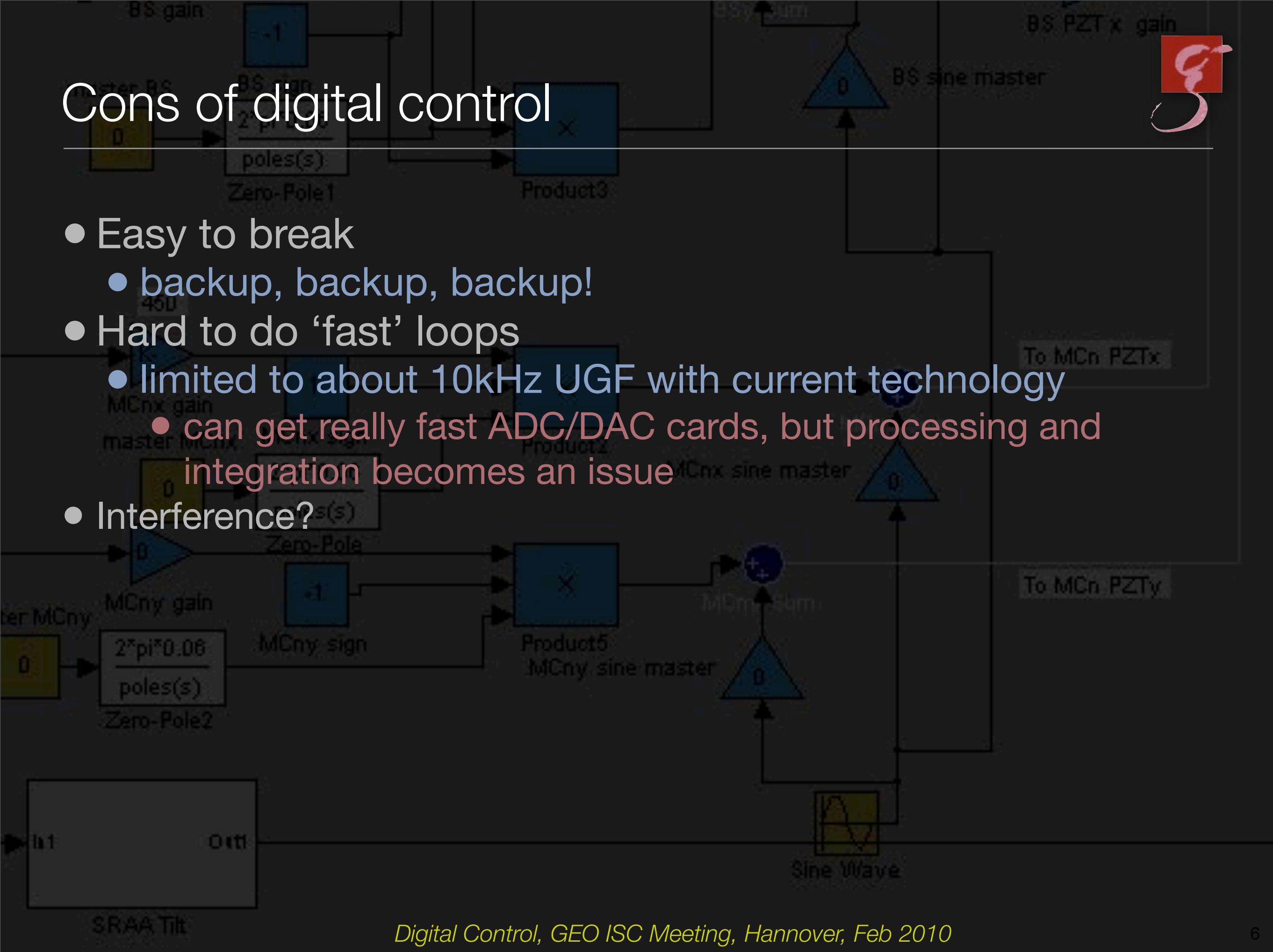
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- Tighter coupling between data analysis and instrument control
  - tracking of signals, IFO operation modes responding to external triggers

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Areas of activity

Experiment

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ADC	DAC	DIO	ADC	DAC	DIO

Experiment

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Timing

| ADC | DAC | DIO | ADC | DAC | DIO |

Experiment

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Areas of activity

Communication

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Areas of activity

Real-time Processing

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Scripting interface

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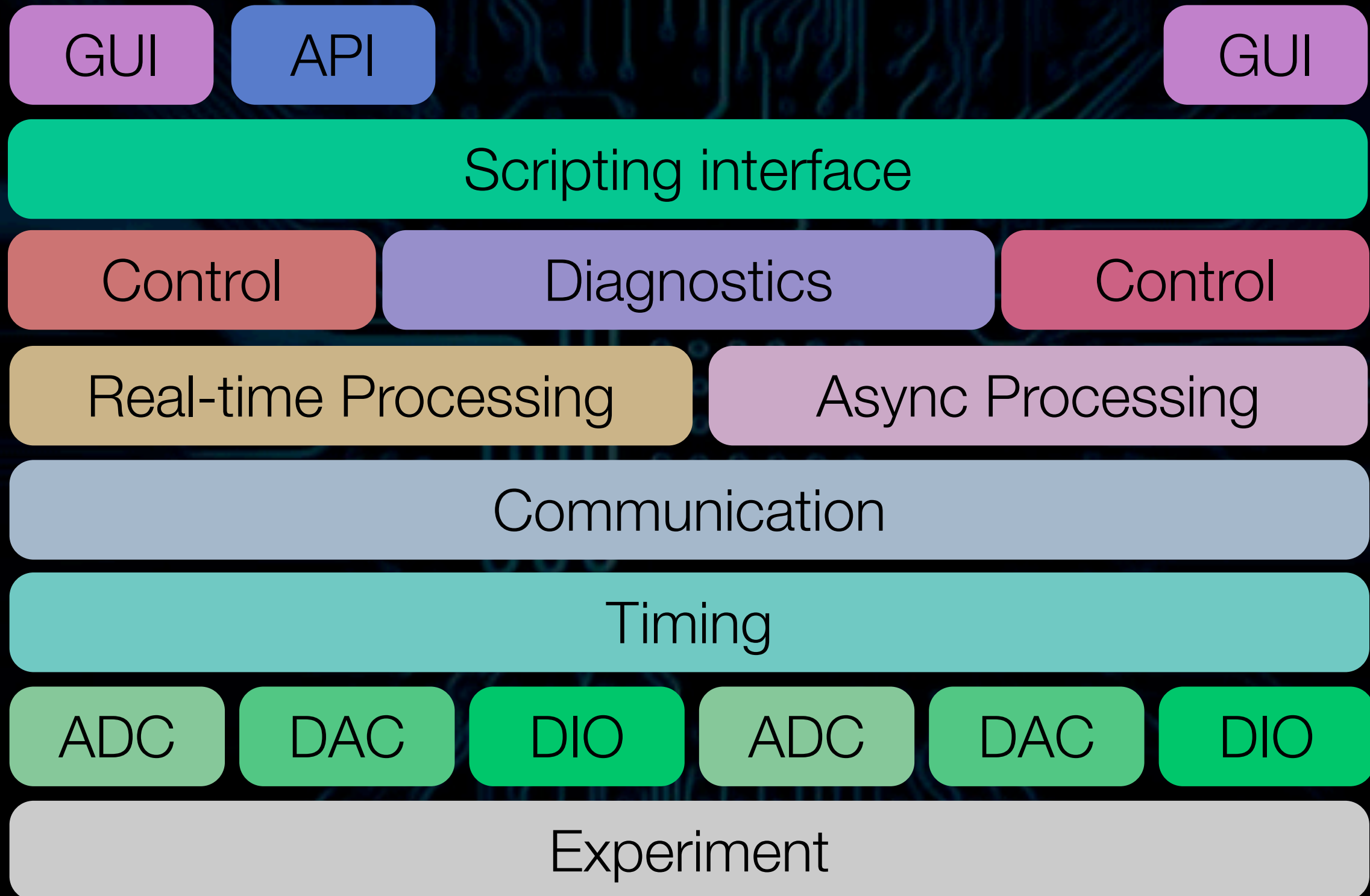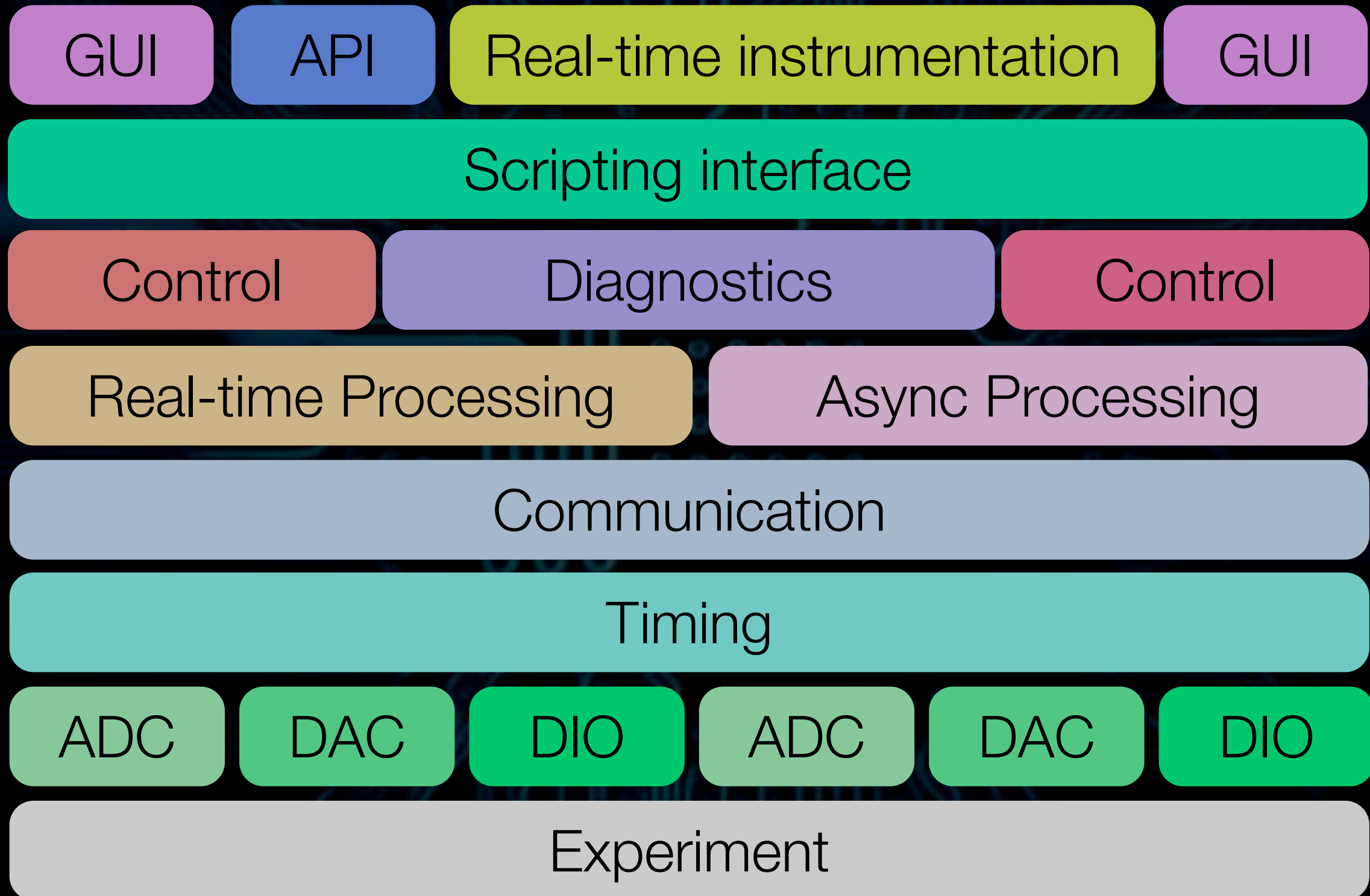
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  - it should be nice to use, powerful, flexible, robust

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- Digital control means more data
  - storage, data access

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