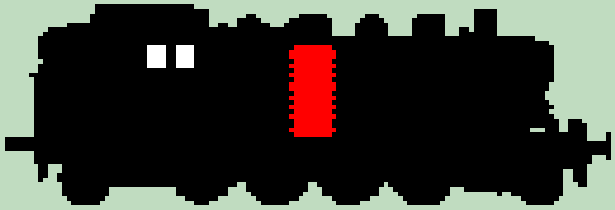

Interfacing Märklin Digital with your PC

Presented by:

Robert Frowenfeld

märklin digital

Presentation Outline

- The basics
- Why Interface?
- History of Märklin Digital & PC's
- Review of Märklin Digital Components
- Hardware Requirements
- Interfacing Considerations
- Software
- Support
- Neat things to do & other stuff

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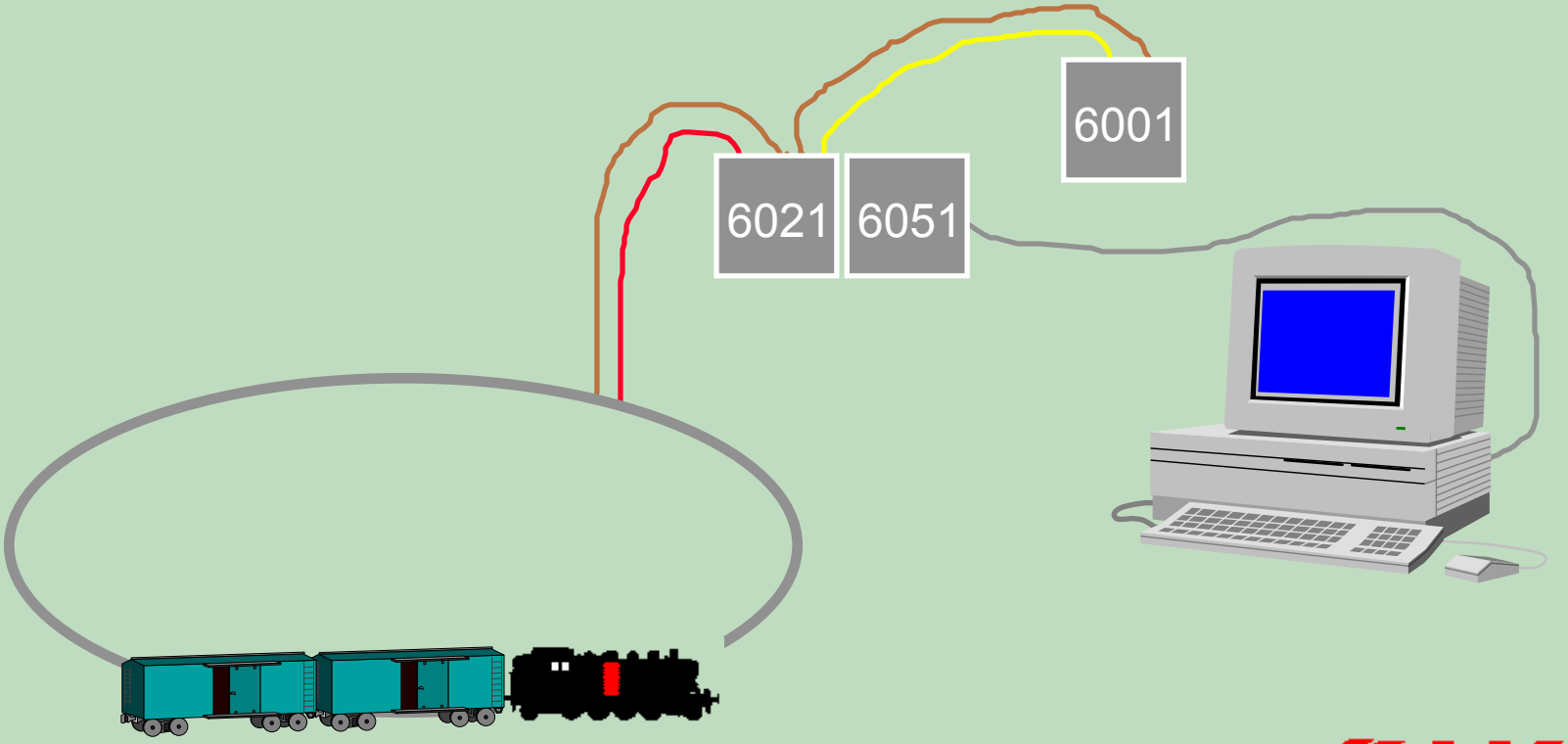
The basics



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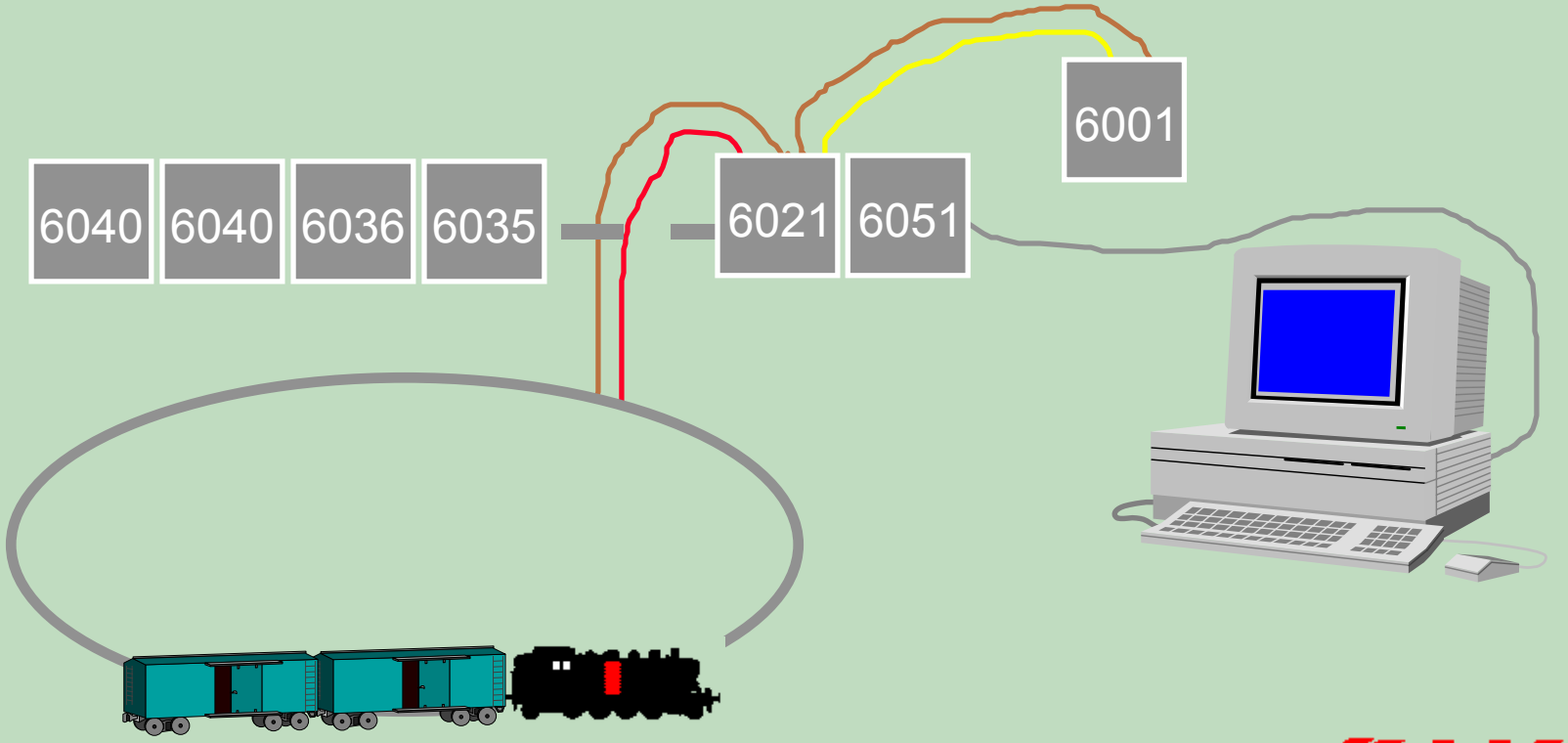
The basics



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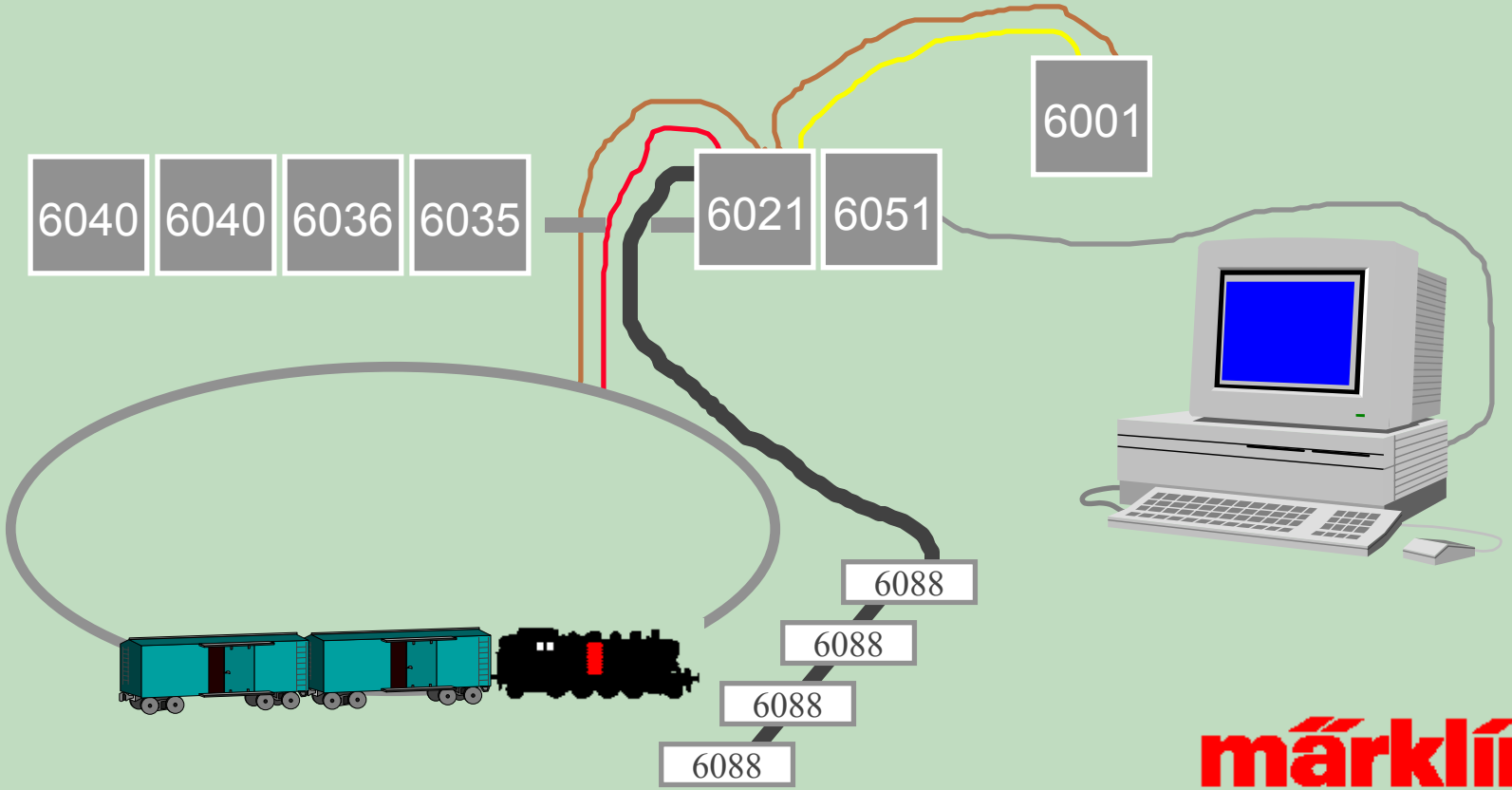
The basics



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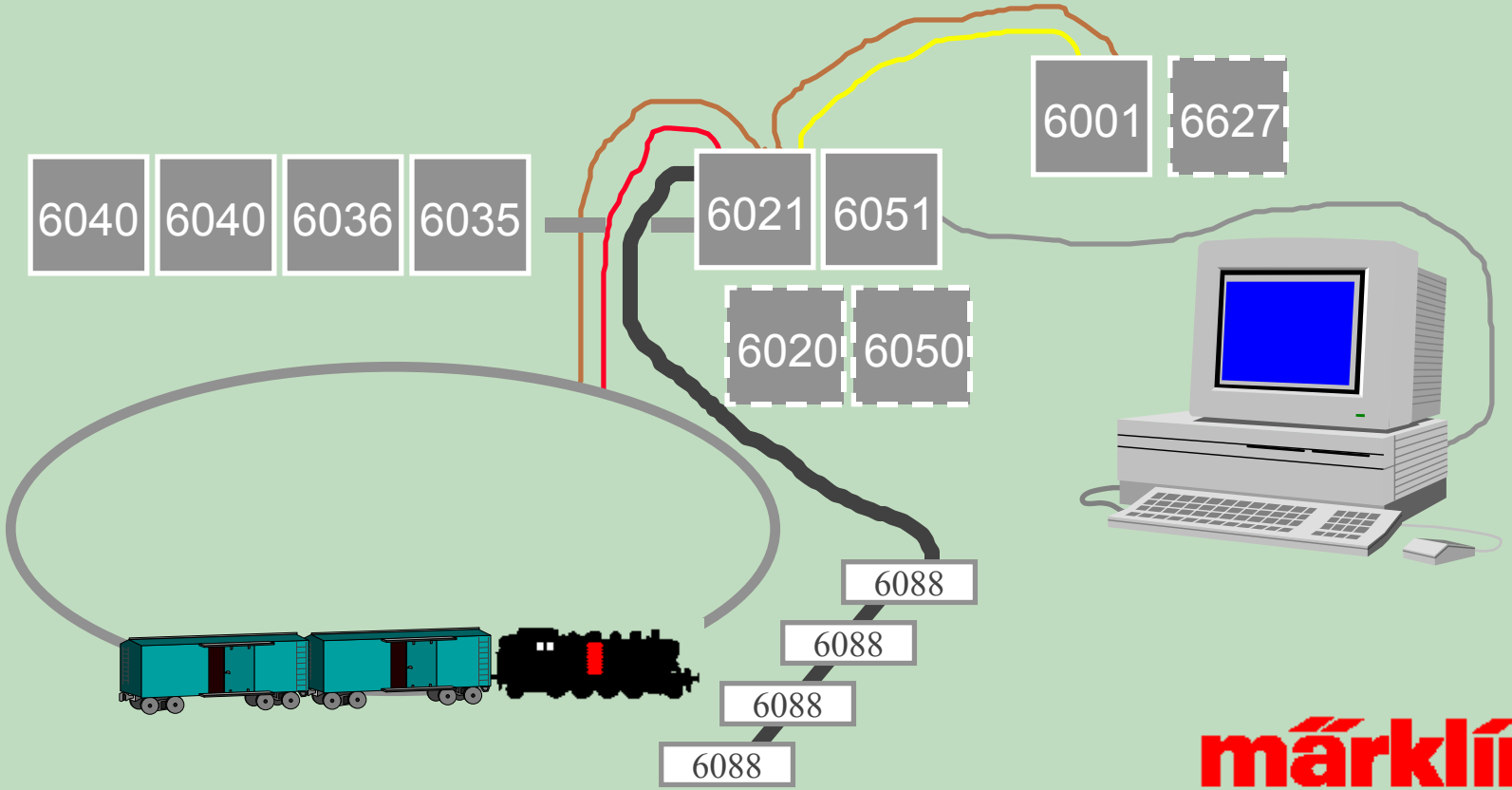
The basics



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Why Interface?

- Contact tracks, relays, etc. are fine, but you can't:
  - ➔ speed up / slow down engines
  - ➔ reverse engines
  - ➔ script sequences
- Provides an added dimension to enjoying your layout
- Do "neat" things: sound, video, etc.

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History of Märklin Digital & PC's

- 1985: Märklin Digital is born
  - → **6001,6015,6020,6035,6038-9**
    6040,6043,6050,6080,6083,6088
- 1987: 6041 (Dig. Switchboard), 6084
- 1988: 6036 (Control 80f)
- 1989: 6023 (Central Control Unit)
- 1991: 6070 (Infrared Controller)
- 1992: 6073 (Turnout Decoder), 6090
- 1994: 6021 (Central Control), 6051 (Interface)
- 1996: 6017 Booster

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Review of Märklin Digital Components

- 6020 Central Unit *(AC)*
- 6021 Central Control
- 6035 Control 80 & 6036 Control 80f
- 6040 Keyboard
- 6088 s88 decoder
- 6050 & 6051 Interface and cables
- c80 & c90 engine decoders
- k83 & k84 switch/accessory decoders
- 6073 & Naka decoders

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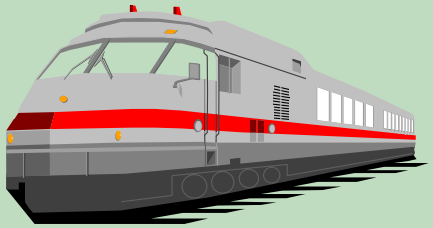
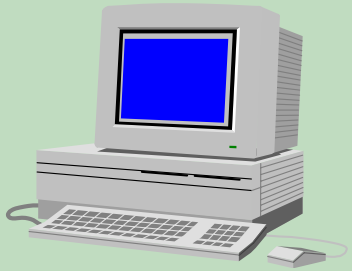
Hardware Requirements

- Train
  - ➔ 6020 or 6021 Central Unit
  - ➔ 6050 or 6051 Interface & cable
  - ➔ Optional: 6035, 6036, 6040, 6088



- PC
  - ➔ CPU (286, 386, 486, Pentium)
  - ➔ Mouse
  - ➔ Extra serial port for Interface
  - ➔ Software
  - ➔ Optional: sound, video capture, etc.



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Interfacing Considerations

- CPU speed
- Video (speed, resolution)
- Communications:
  - ➔ COM Ports
  - ➔ Interface Cable
- Software
- 6035, 6036, 6040, Infrared, etc.

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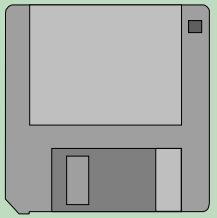
Software



- Commercial / shareware
  - ➔ TPL
  - ➔ Digipet
  - ➔ Winlok
- Write your own
  - ➔ VB (Basic), Delphi (Pascal)
  - ➔ Communications, graphics, user interface

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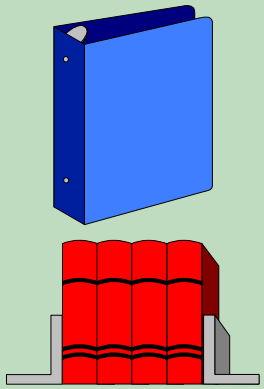
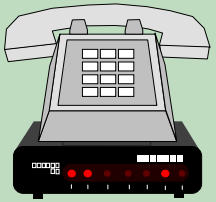
Support



- Märklin Digital Newsletter
- Books:
  - ➔308 Getting started with Märklin Digital
  - ➔850, 851, 852 Rutger Friberg digital experiments
- Internet sites:
  - ➔http://www.marklin.com
  - ➔http://www.marklin.de.com
  - ➔http://members.aol.com/rjftrains
  - ➔marklin@scintilla.utwente.nl
  - ➔search engines, and many, many more



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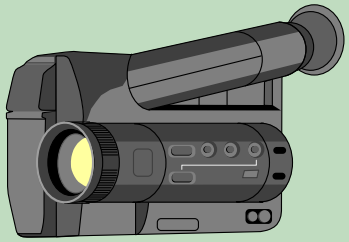
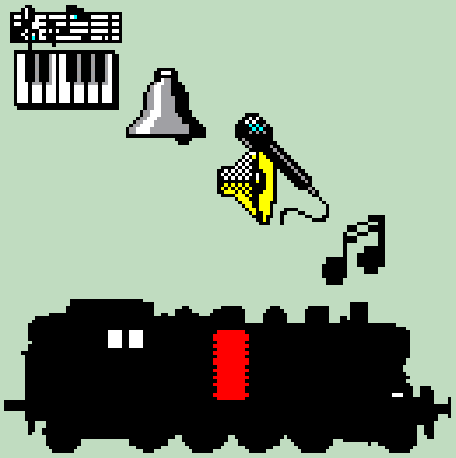
Neat things to do

- Turn on lights in a tunnel
- Turn on/off lights at a station
- Accelerate going up an incline
- Play a sound approaching a station
- Clean your tracks
- Capture video





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Other stuff to do with your PC

- Layout design software
- Sound clips
- Video capture
- Electronic projects
- Remote operation

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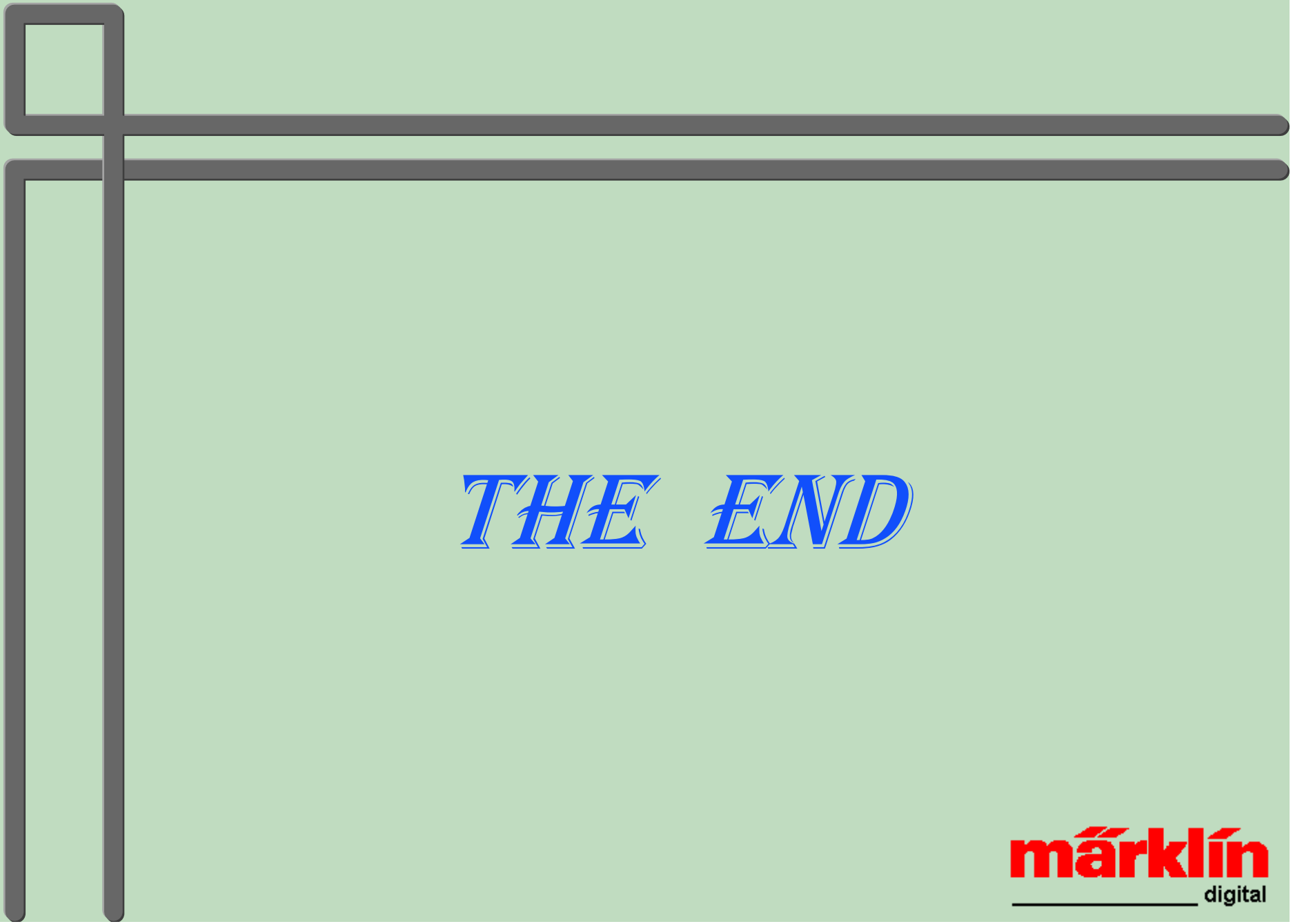
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