

Computerarchitectuur

Praktische informatie

PC Labo

- **Geen eten en drinken**
- Toegangscode: 5350
- Computers
 - Ubuntu
 - Gebruikersnaam: Student
 - Wachtwoord: Ohey5350
- Na gebruik:
 - Afsluiten
 - Scherm uitzetten
 - Stoel terugzetten
 - Alles netjes houden

Algemene regels

- De les niet verstoren
- Je bezig houden met de les
- Respectvol omgaan met elkaar
- Geen afval achterlaten
- ...

Praktische info

- Twee onderdelen
 - Computersystemen
 - Computerarchitectuur
- Oefensessie: elke week
 - Groep A en B: Vrijdag 13u45-18u00 in M.G.025 of M.G.026
 - Altijd SisA/e-mail/MSDL raadplegen voor het correcte uur en lokaal!
- Praktijkassistenten CA: Kasper Engelen
- Puntenverdeling: zie MSDL

Vrijstellingen 2de zit

Score	Action
You passed the course in the 1st session	You do not have to re-take anything
Your score for the theory exam is less than 50%	You have to re-do the theory exam
Your score for the practical exam is less than 50%	You have to re-do the practical exam and the architecture exercises
Your score for the architecture exercises is less than 50%	You have to re-do the architecture exercises and the practical exam
Your score for the systems exercises is less than 50%	You have to re-do the systems exercises

Opdrachten Computerarchitectuur

- Opdrachten:
 - CA1: Gates & Wires
 - CA2: Adders
 - CA3: ALU
 - CA4: Memory
 - CA5: Simple datapath
 - CA6: Full Datapath
 - CA7: Datapath in action
- Opgaves op MSDL website
- Groepen van twee
- Indienen via Blackboard
- 3 evaluaties met feedback
- **Alle opdrachten moeten worden ingediend (anders AFW)**

Fraude

- Fraude/plagiaat
 - Gebruik maken van het werk van anderen zonder bronvermelding
 - Aan iemand anders vragen om de opdracht in jouw plaats te maken (“ghostwriting”).
 - Iemand anders helpen met fraude
- Dien enkel je eigen werk in!
- Vermeld altijd alle bronnen die je hebt geraadpleegd!
- Sancties:
 - 0 op dit vak
 - 0 op alle vakken dit semester
 - 0 op alle vakken dit jaar
 - Uitsluiting van inschrijving op de Uantwerpen
 - Uitsluiting van inschrijving op alle universiteiten in Vlaanderen

MSDL Website

1. Open <https://blackboard.uantwerpen.be/>
2. Cursus “Computersystemen en -architectuur”
3. “Inhoud” -> “MSDL-website”
4. <http://msdl.uantwerpen.be/people/hv/teaching/ComputerSystemsArchitecture>

Computer Systems and Architecture

On this page you will find information about the course “Computersystemen en -architectuur”

- 1001WETCAR, a compulsory 9-credit course for first-year Bachelor Computer Science students and
- 2500WETCAR, a 6-credit course in the Educational Master

for the first semester of the 2022-2023 academic year at the University of Antwerp.

This page is written in English for the benefit of foreign (Erasmus) students. Note that the course is taught in Dutch however!

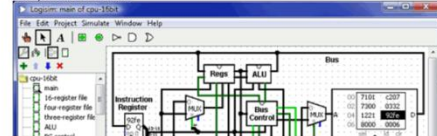
This page is under construction! You will still find some of last year's material.

This course consists of two tightly interwoven parts:

Computer Systems



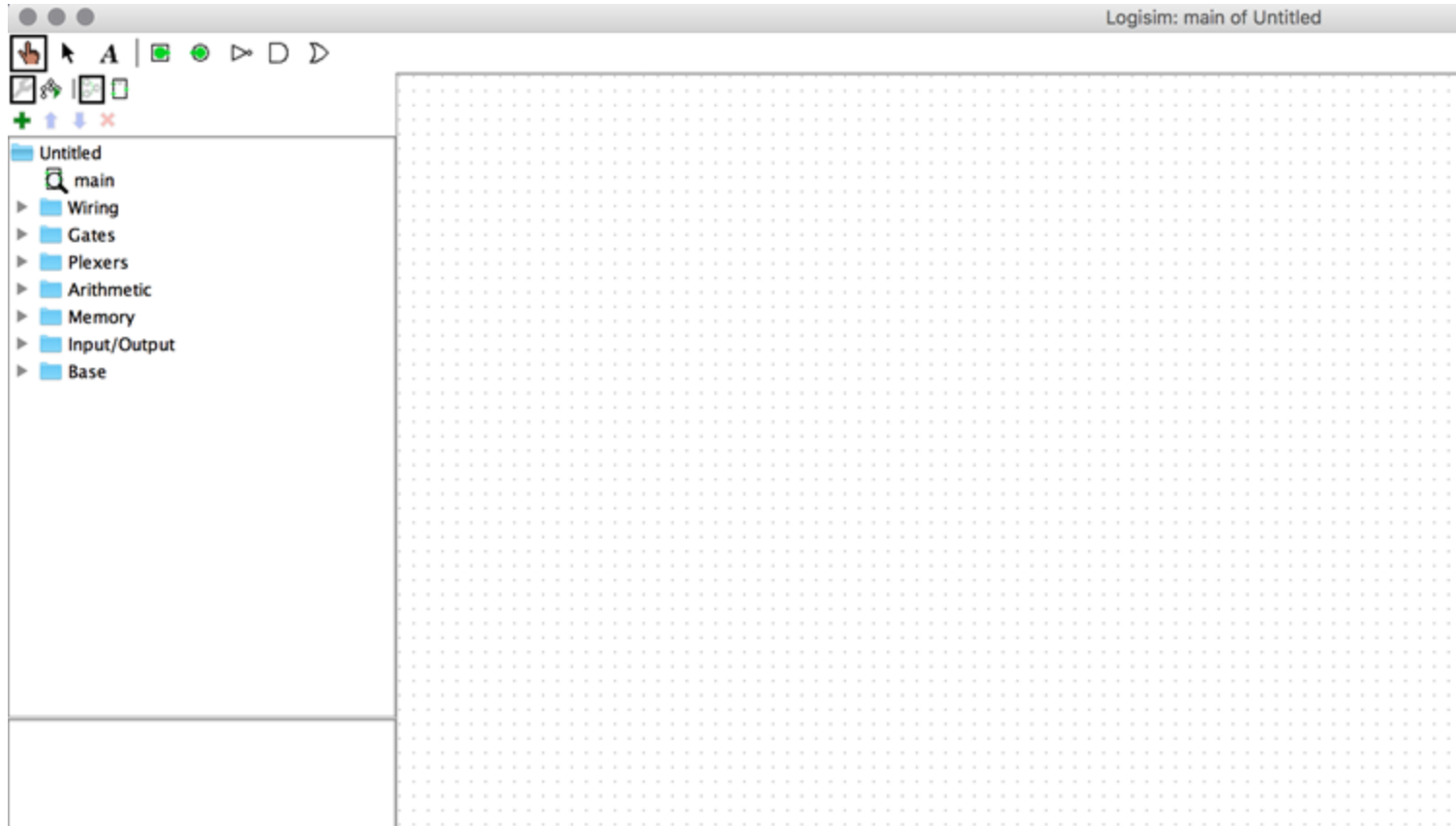
Computer Architecture



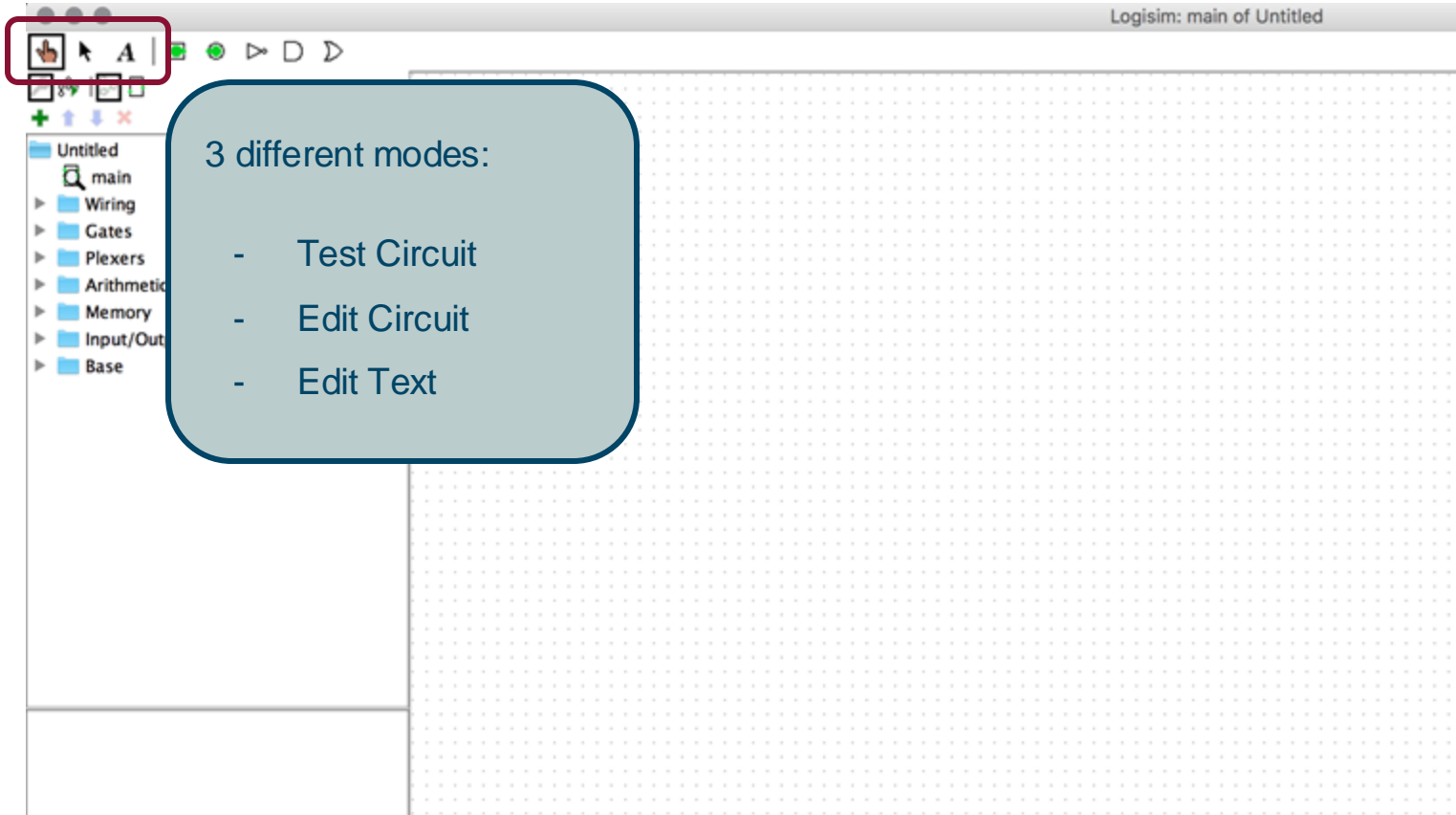
Computerarchitectuur: Gates and Wires

Logisim

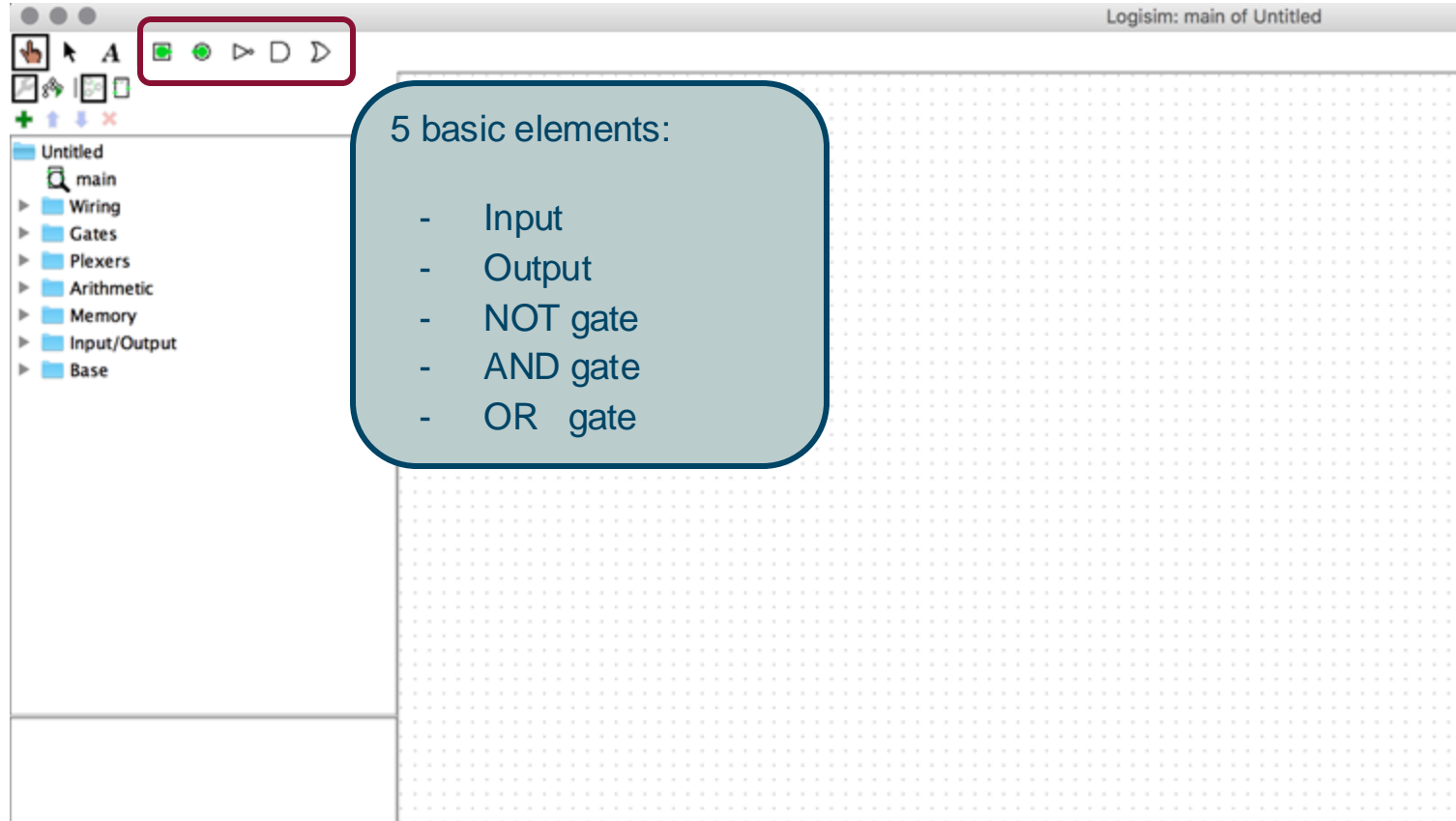
Logisim



Logisim



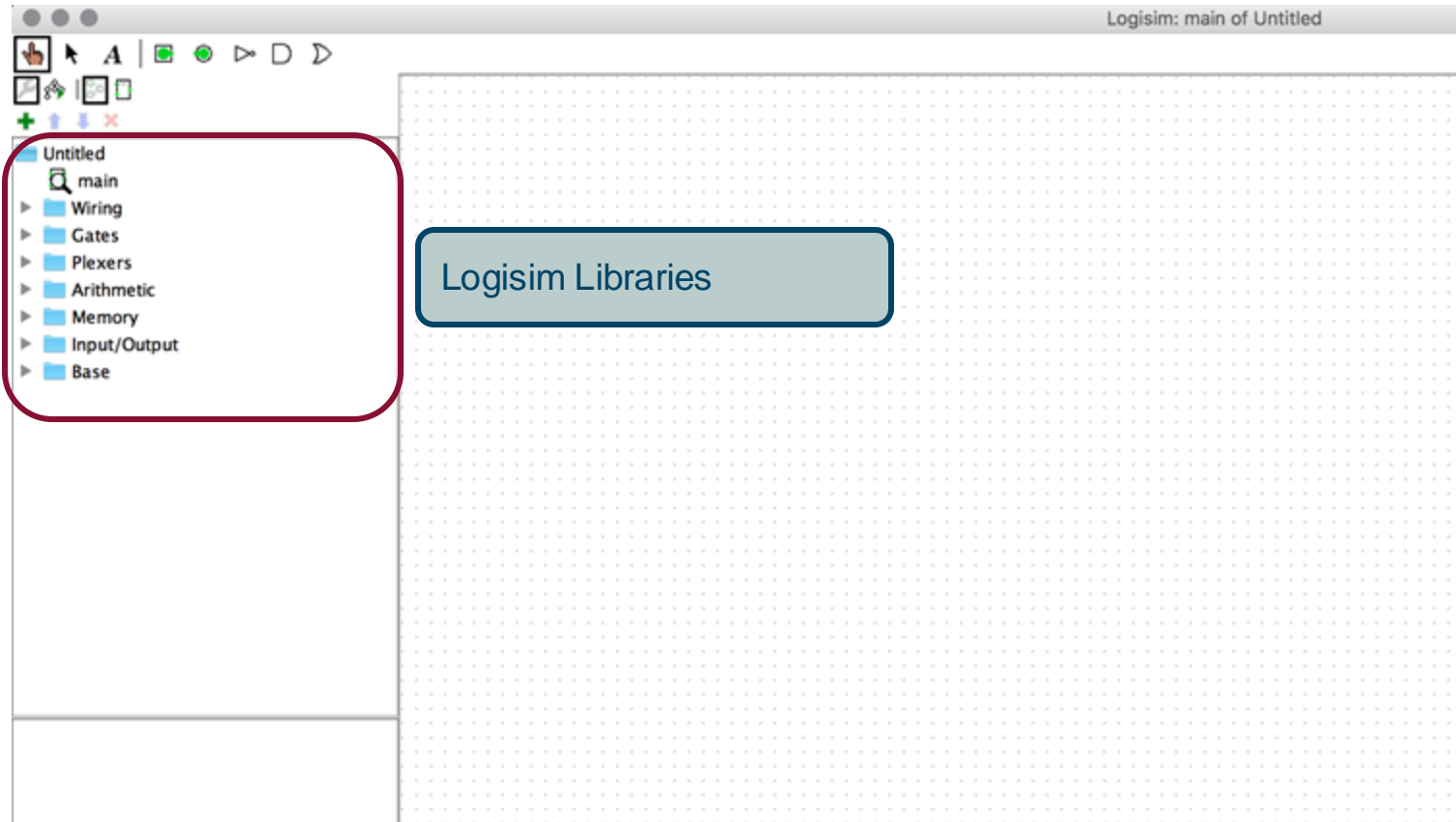
Logisim



5 basic elements:

- Input
- Output
- NOT gate
- AND gate
- OR gate

Logisim



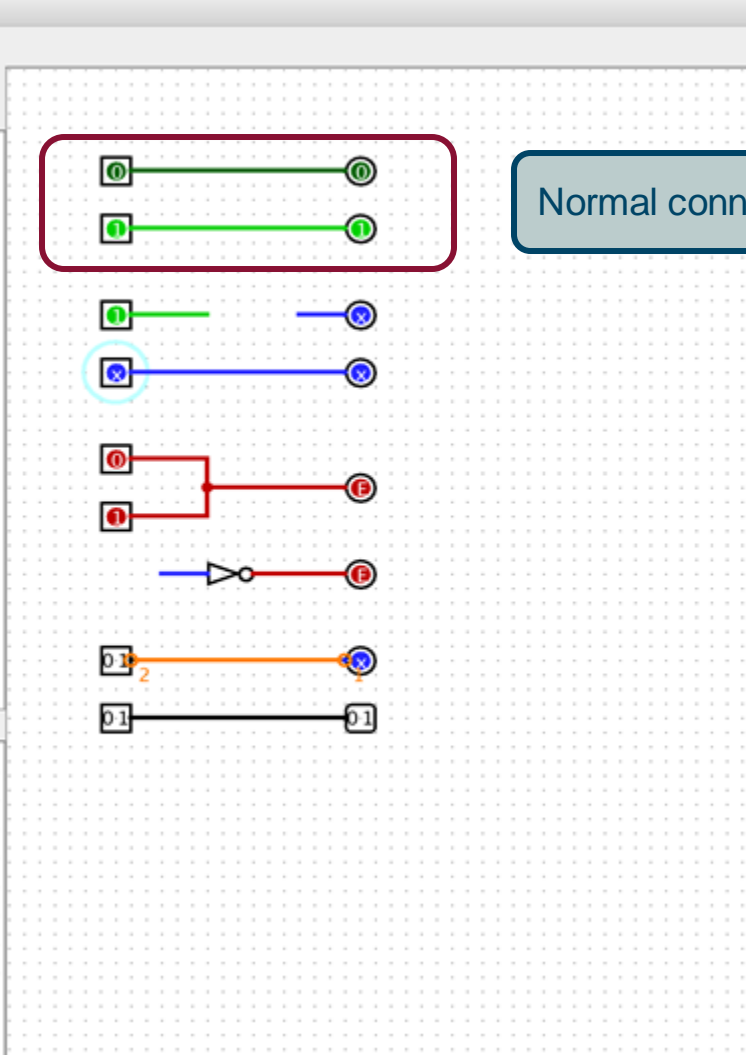
Untitled*

- main
 - Wiring
 - Gates
 - Plexers
 - Arithmetic
 - Memory
 - Input/Output
 - Base

Pin	
Facing	East
Output?	No
Data Bits	1
Three-state?	Yes
Pull Behavior	Unchanged
Label	
Label Location	West
Label Font	SansSerif Plain 12

- Untitled*
- main
 - Wiring
 - Gates
 - Plexers
 - Arithmetic
 - Memory
 - Input/Output
 - Base

Pin	
Facing	East
Output?	No
Data Bits	1
Three-state?	Yes
Pull Behavior	Unchanged
Label	
Label Location	West
Label Font	SansSerif Plain 12



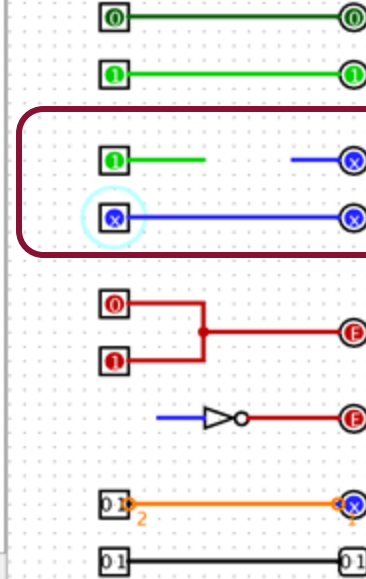
Normal connection: 0 or 1



- Untitled*
- main
- Wiring
- Gates
- Plexers
- Arithmetic
- Memory
- Input/Output
- Base

Pin

Facing	East
Output?	No
Data Bits	1
Three-state?	Yes
Pull Behavior	Unchanged
Label	
Label Location	West
Label Font	SansSerif Plain 12

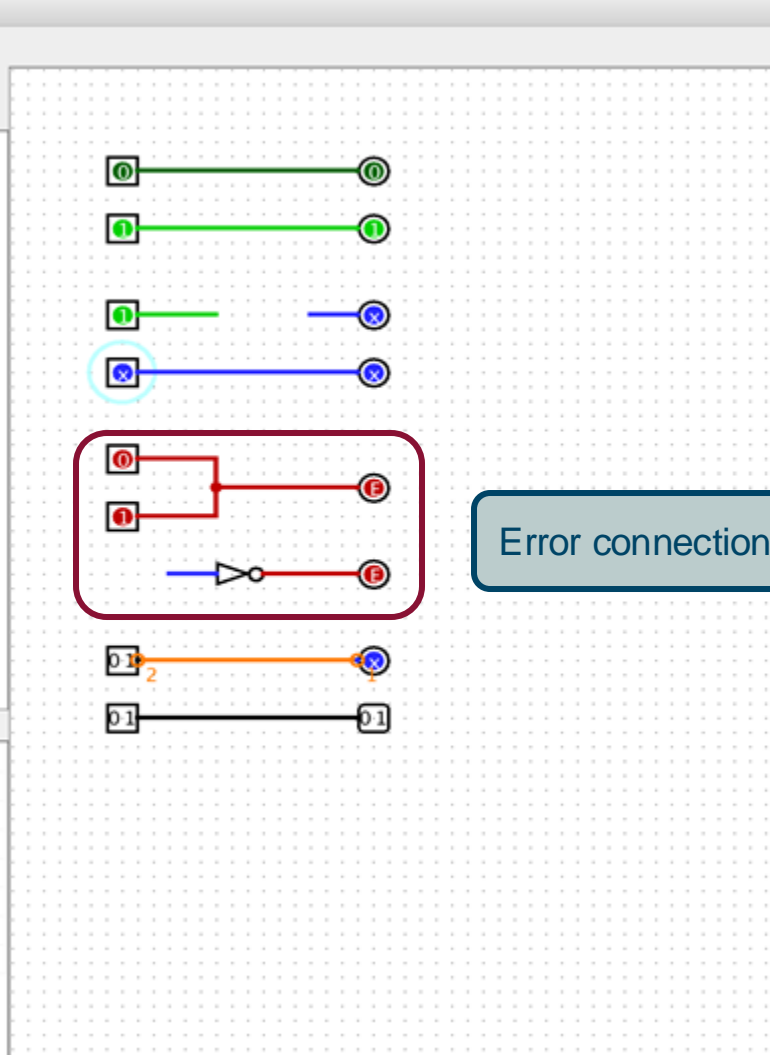


Broken connection

Untitled*

- main
- Wiring
- Gates
- Plexers
- Arithmetic
- Memory
- Input/Output
- Base

Pin	
Facing	East
Output?	No
Data Bits	1
Three-state?	Yes
Pull Behavior	Unchanged
Label	
Label Location	West
Label Font	SansSerif Plain 12

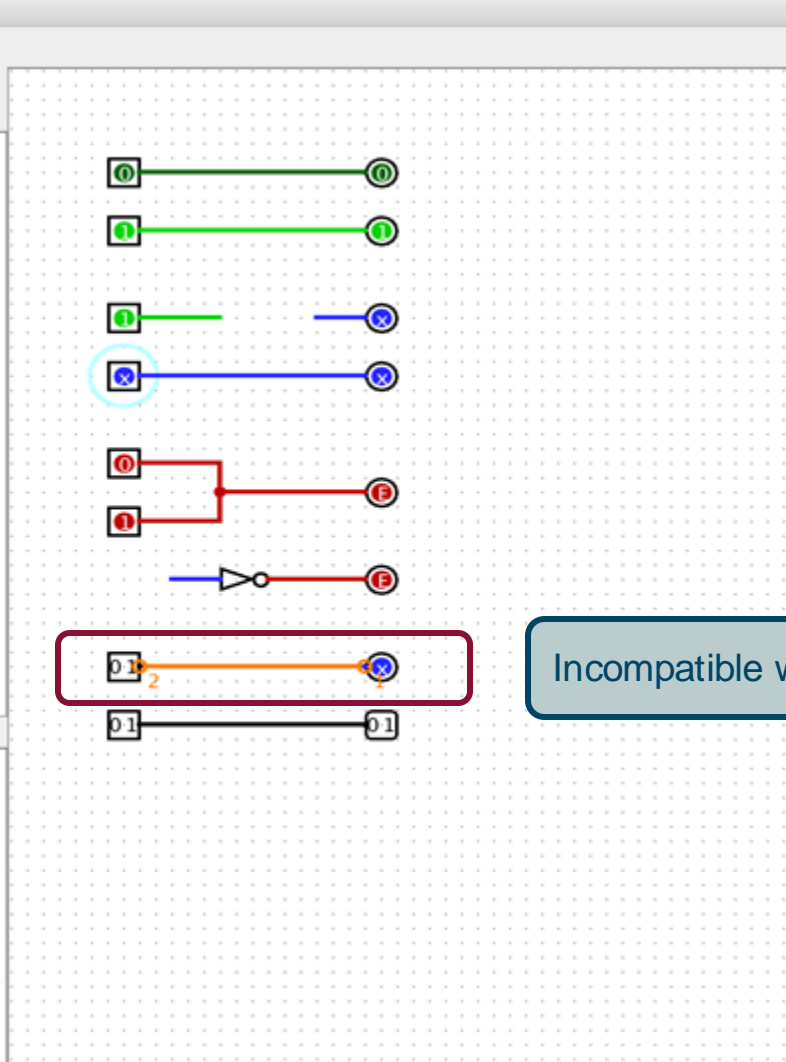


Error connection

Untitled*

- main
- Wiring
- Gates
- Plexers
- Arithmetic
- Memory
- Input/Output
- Base

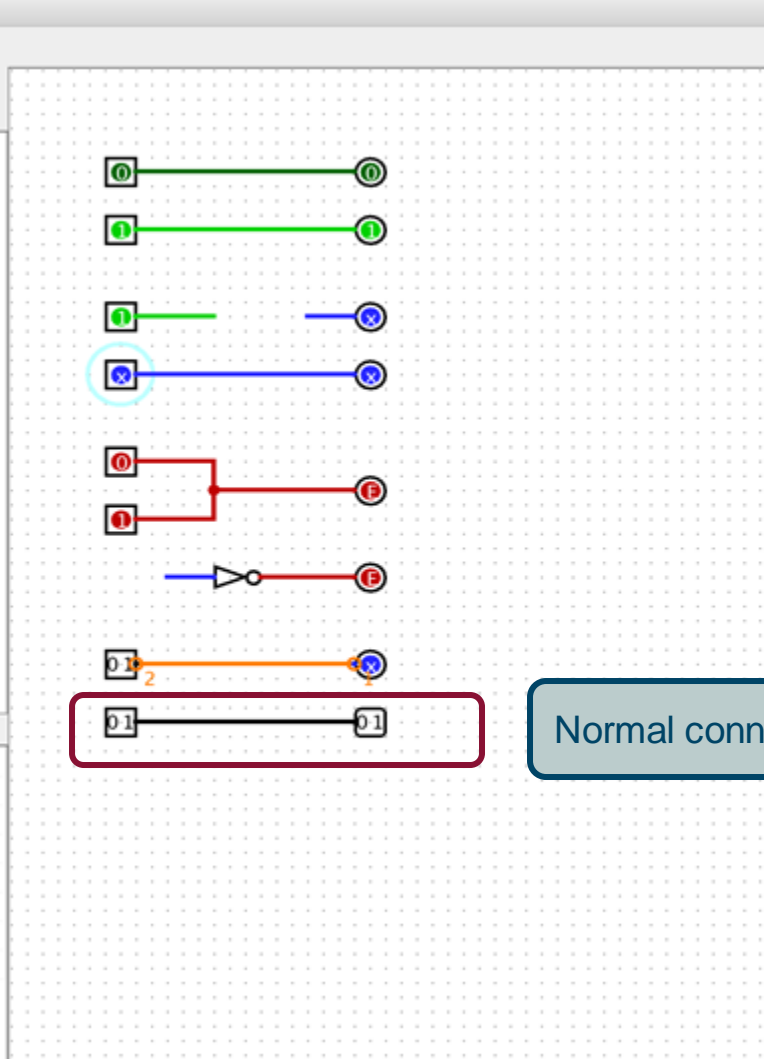
Pin	
Facing	East
Output?	No
Data Bits	1
Three-state	Yes
Pull Behavior	Unchanged
Label	
Label Location	West
Label Font	SansSerif Plain 12



Untitled*

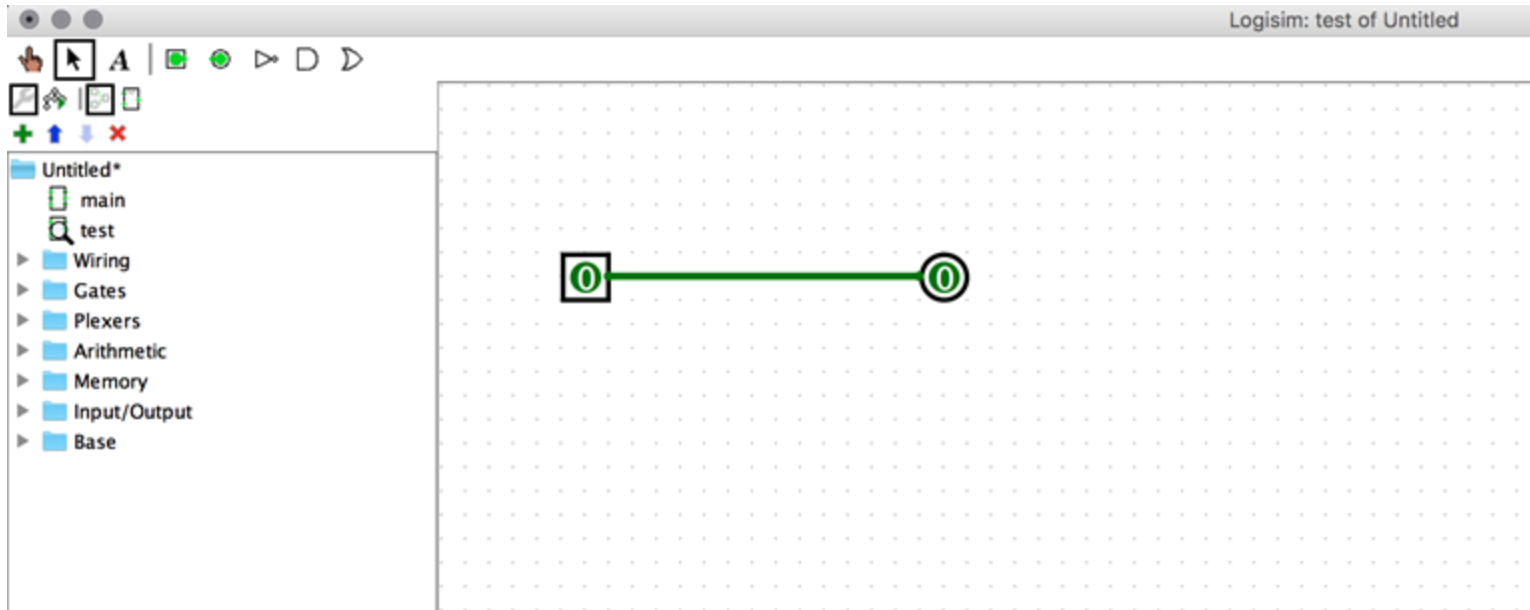
- main
 - Wiring
 - Gates
 - Plexers
 - Arithmetic
 - Memory
 - Input/Output
 - Base

Pin	
Facing	East
Output?	No
Data Bits	1
Three-state?	Yes
Pull Behavior	Unchanged
Label	
Label Location	West
Label Font	SansSerif Plain 12

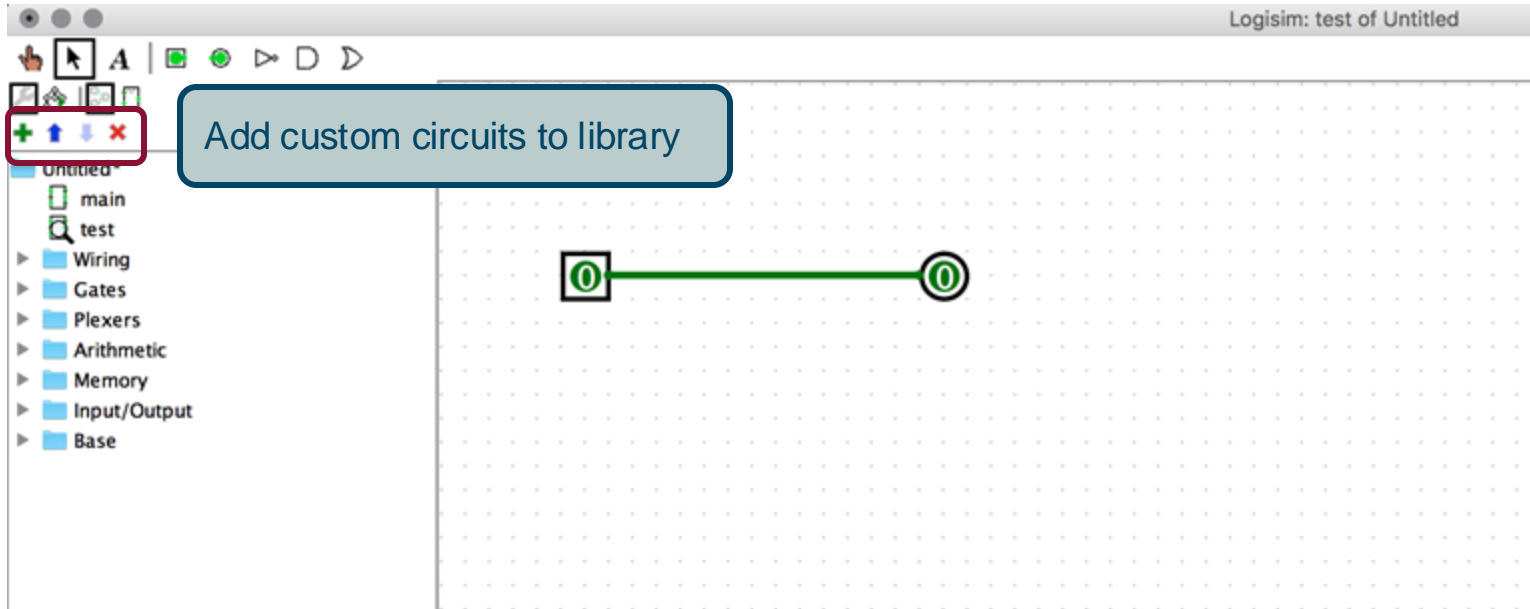


Normal connection: 2 bit

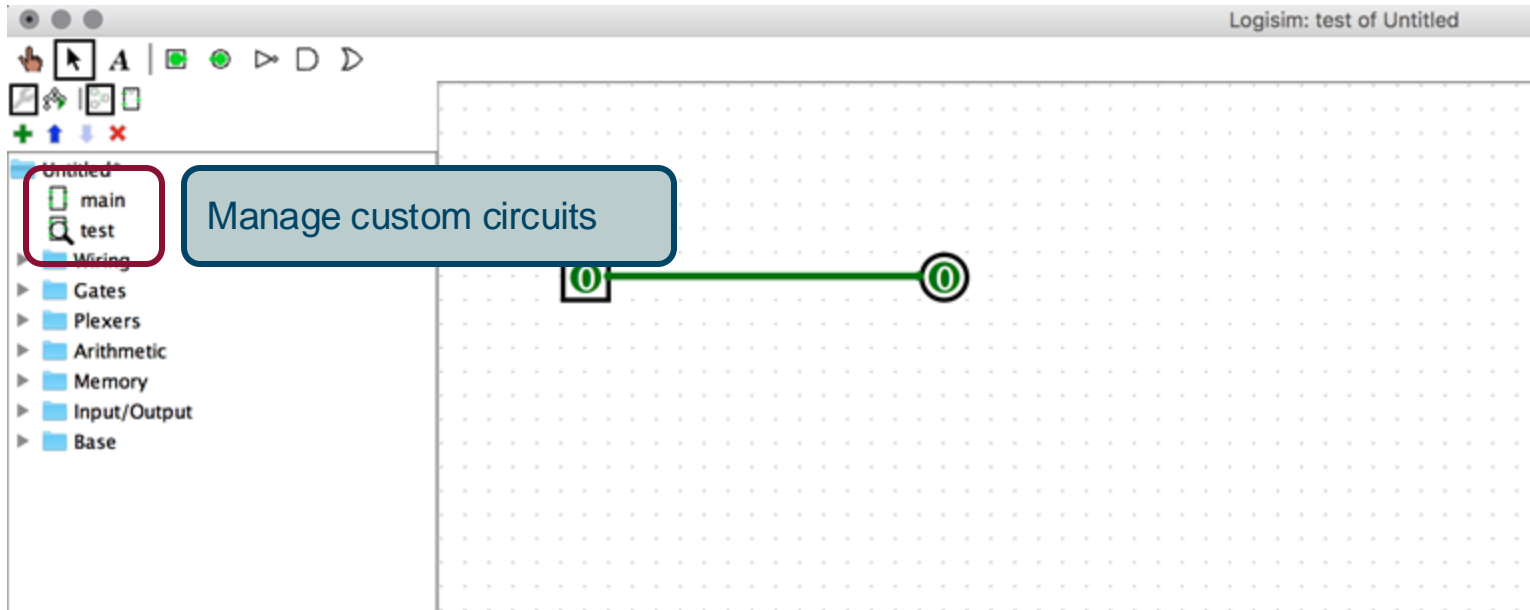
Logisim



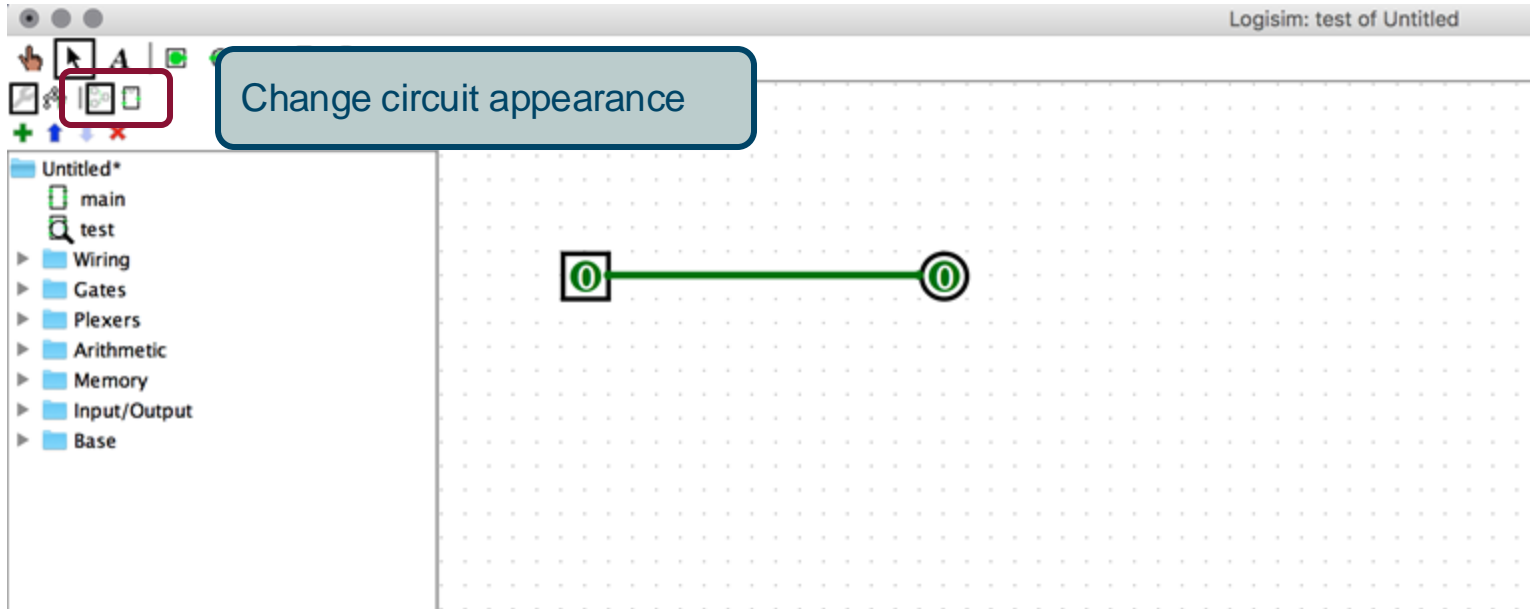
Logisim



Logisim



Logisim



Logisim

