

This Concept Map was created with
IHMC CmapTools



Concept Maps

Introduction

by:

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October 18, 2005

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- Concept mapping is a technique for representing knowledge in graphs
- Developed by Prof. Joseph D. Novak in the 1970's at Cornell University
- Concept mapping can be done for several purposes:
 1. to generate ideas
 2. to design a complex structure
 3. to communicate complex ideas
 4. for brain-storming

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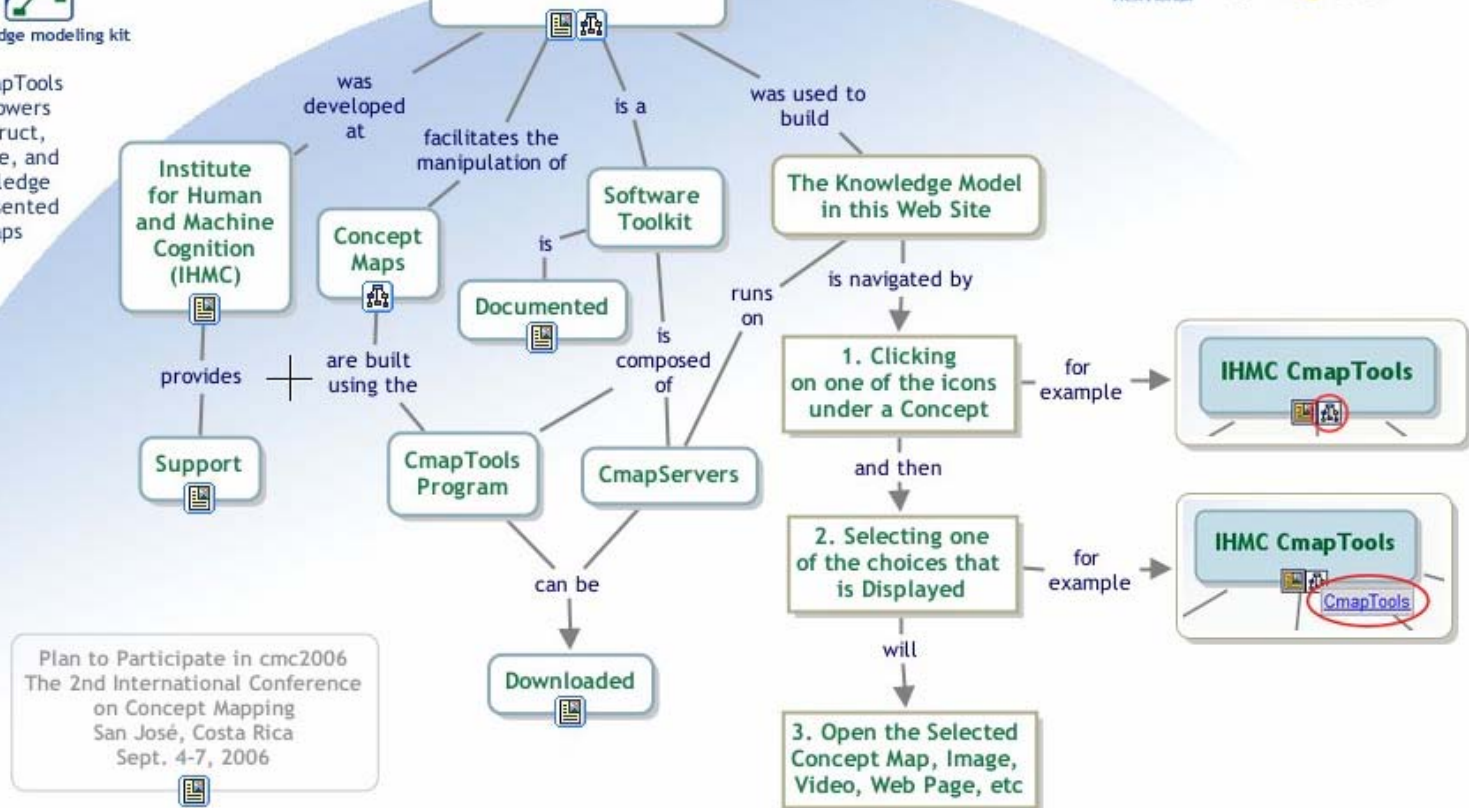


The IHMC CmapTools software empowers users to construct, navigate, share, and criticize knowledge models represented as Concept Maps

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IHMC CmapTools

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Plan to Participate in cmc2006
The 2nd International Conference
on Concept Mapping
San José, Costa Rica
Sept. 4-7, 2006

<http://cmap.ihmc.us/Index.html>

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IHMC CmapTools version 3.9

 **Description.** The CmapTools program empowers users to construct, navigate, share and criticize knowledge models represented as concept maps. It allows users to, among many other features, construct their Cmaps in their personal computer, share them on servers (CmapServers) anywhere on the Internet, link their Cmaps to other Cmaps on servers, automatically create web pages of their concept maps on servers, edit their maps synchronously (at the same time) with other users on the Internet, and search the web for information relevant to a concept map.

The CmapTools client is free for use by anybody, whether its use is commercial or non-commercial. In particular, schools and universities are encouraged to download it and install it in as many computers as desired, and students and teachers may make copies of it and install it at home. (Commercial companies that install their own CmapServer do need to get a separate license for a CmapTools client that will talk to the commercial version of the CmapServer).

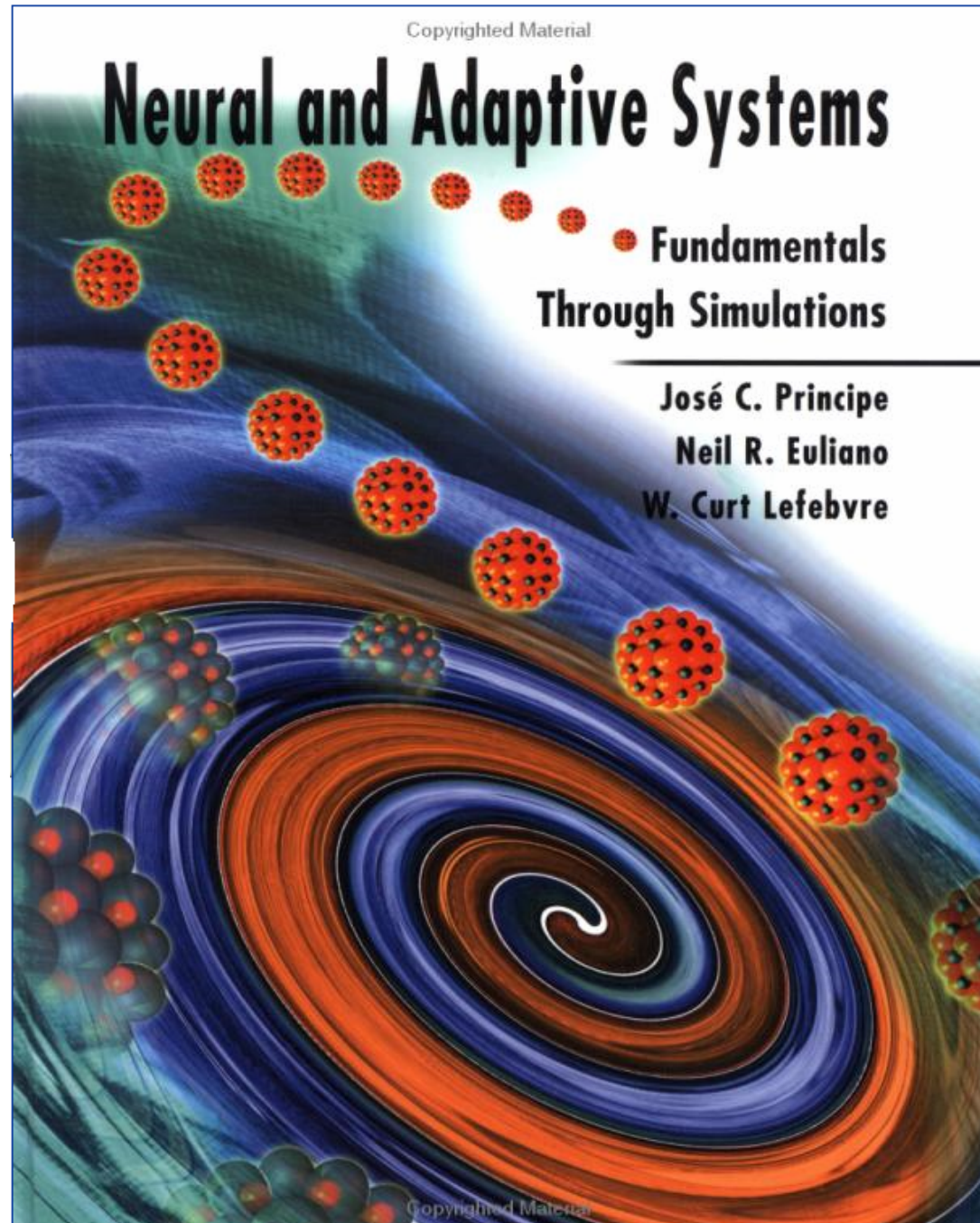
Select a target platform for system requirements and download:

 [Windows](#)  [Mac OS X](#)  [Linux \(Intel\)](#)  [Solaris \(Sparc\)](#)

http://cmap.ihmc.us/download

http://rds.yahoo.com/S=2766679/K=concept+maps+download+software/v=2...ENXNyoA/SIG=11g064dc1/EXP=1125064314/*-http://cmap.ihmc.us/download

C-Maps have many applications like its use in textbooks:



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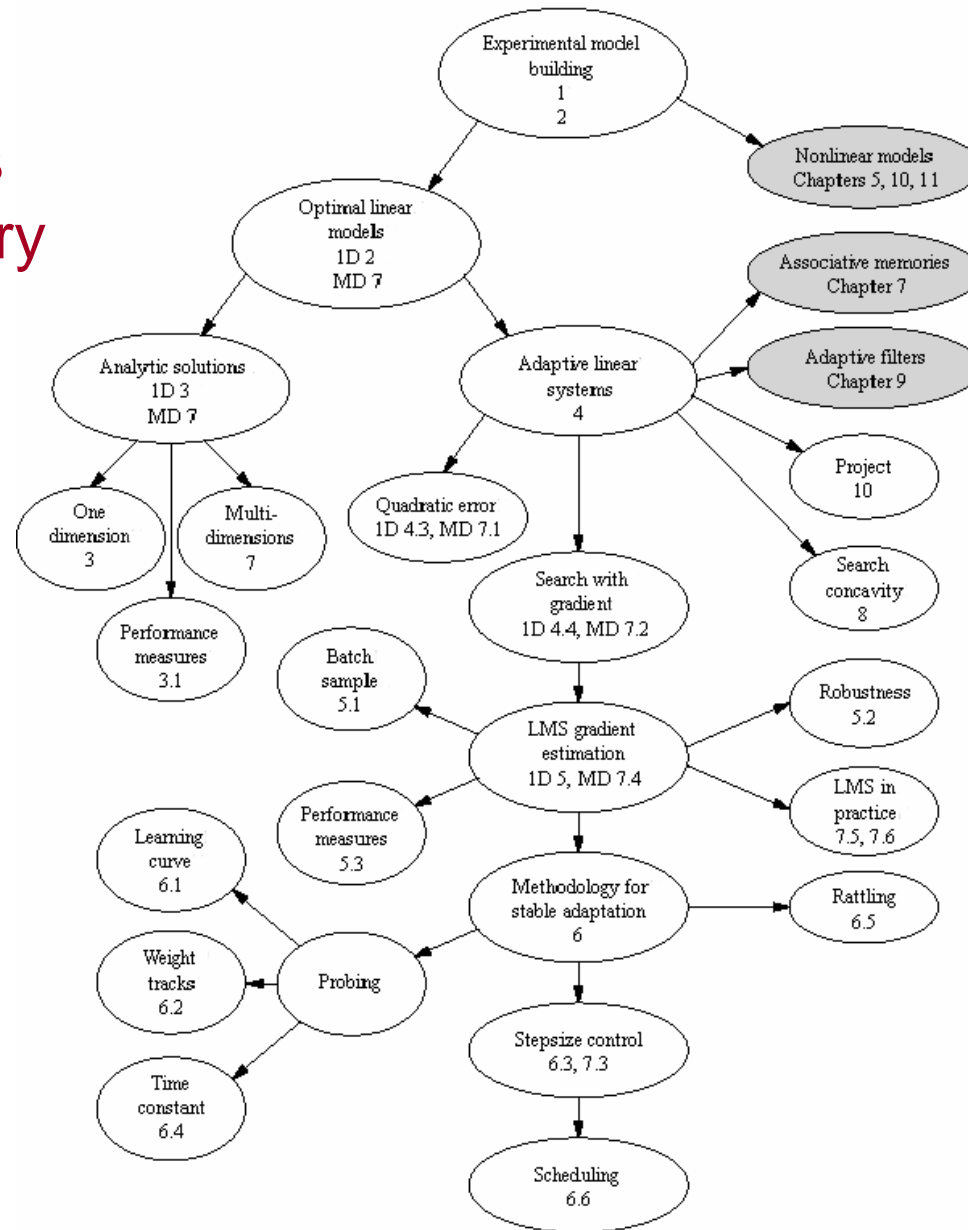
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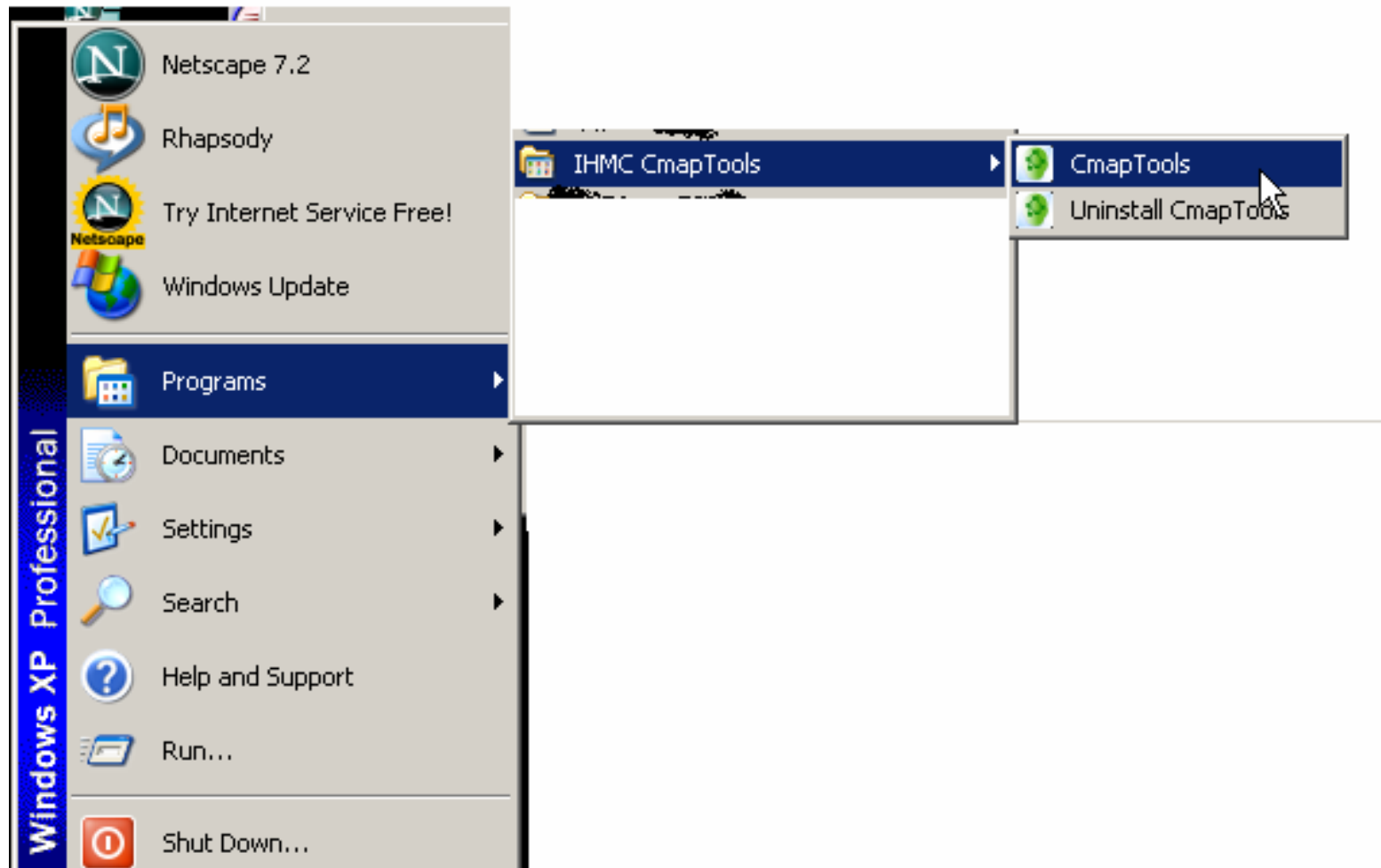
Each Chapter is provided with a C-Map summary

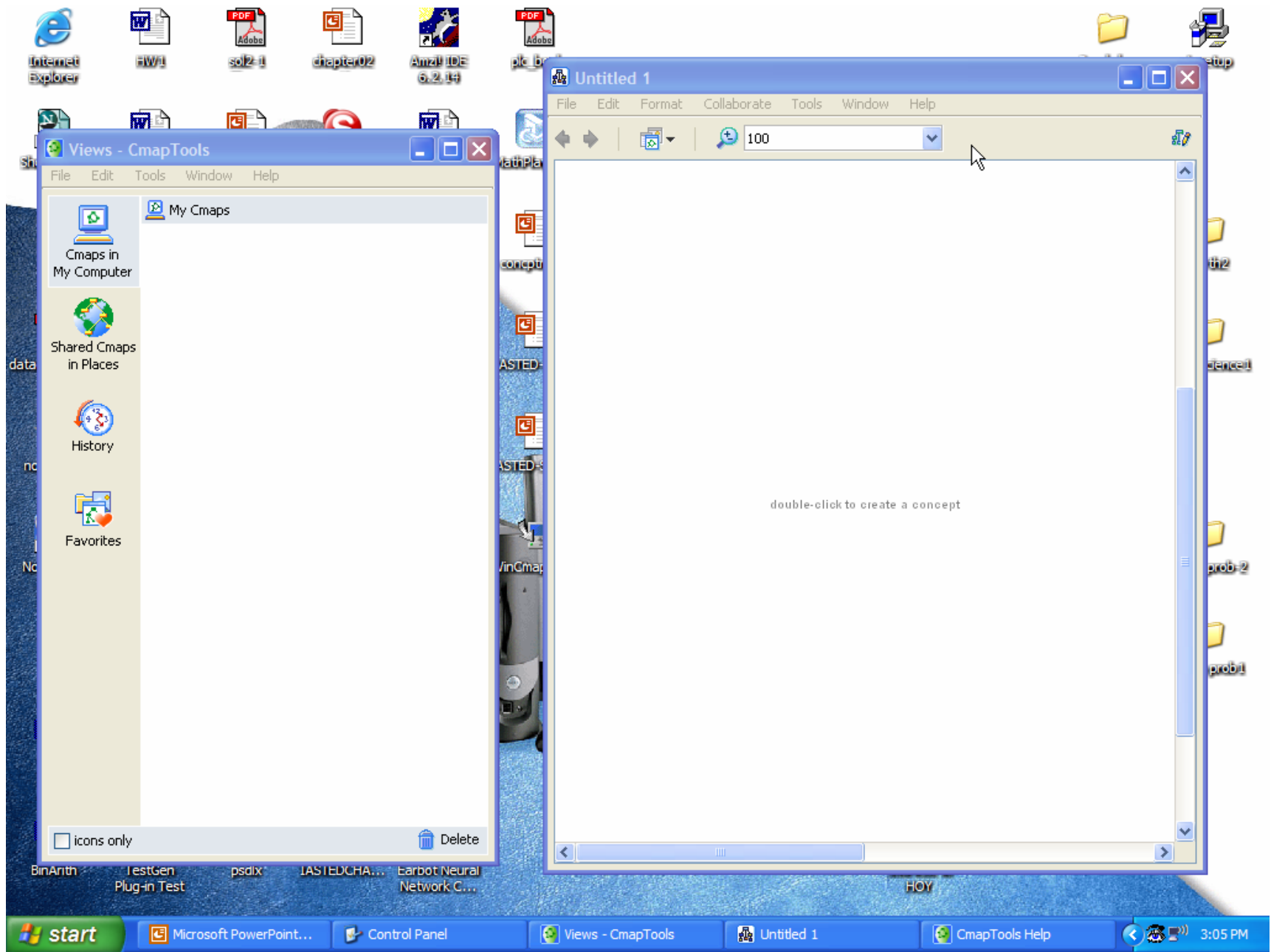
1.14 Concept Map for Chapter 1

Each Chapter has
a C-Map Summary



From the program menu select CMap Tools





Views - CmapTools

File Edit Tools Window Help

- My Cmaps
 - Cmaps in My Computer
 - Shared Cmaps in Places
 - History
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- icons only Delete

Untitled 1

File Edit Format Collaborate Tools Window Help

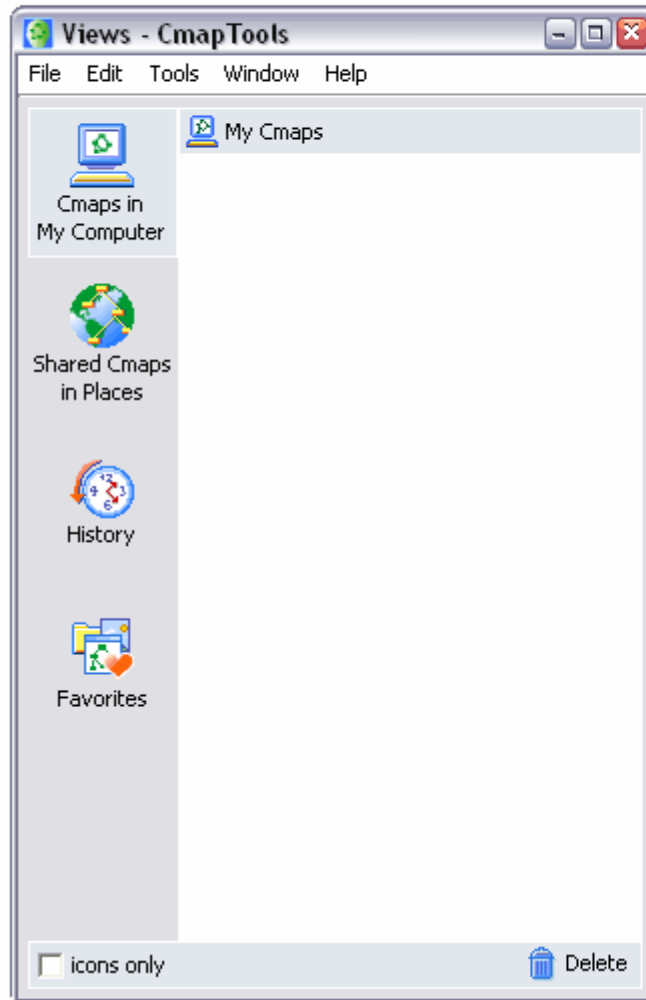
← → [icon] 100 [dropdown]

double-click to create a concept

start Microsoft PowerPoint... Control Panel Views - CmapTools Untitled 1 CmapTools Help 3:05 PM

Using C-Maps Tools

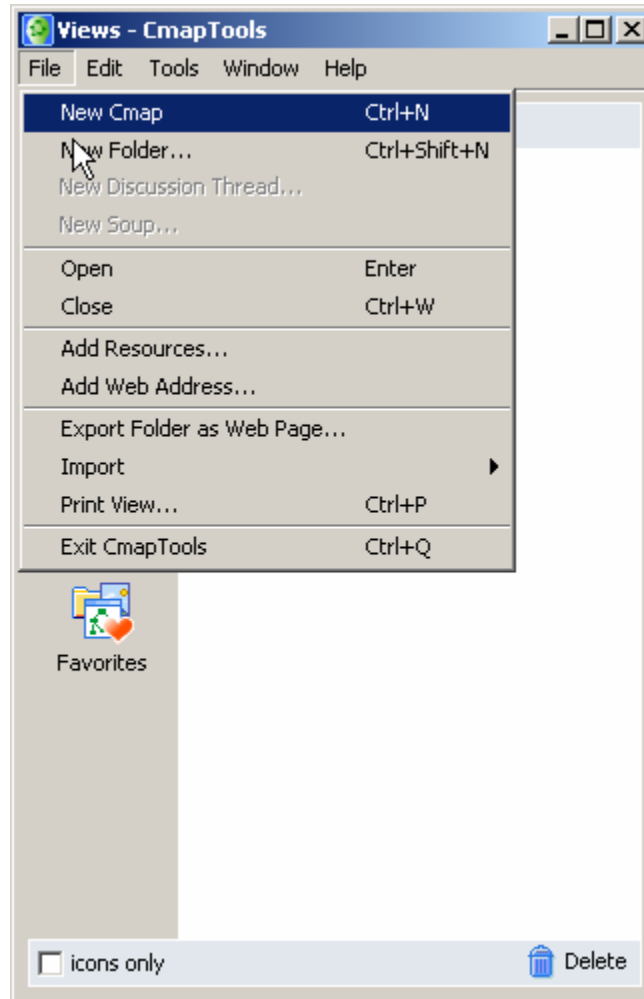
The **Views** window is the organizational center of CmapTools. From here you can organize your Cmaps and Resources in folders, on your computer's hard drive and on remote servers that are shared with the Cmap community.



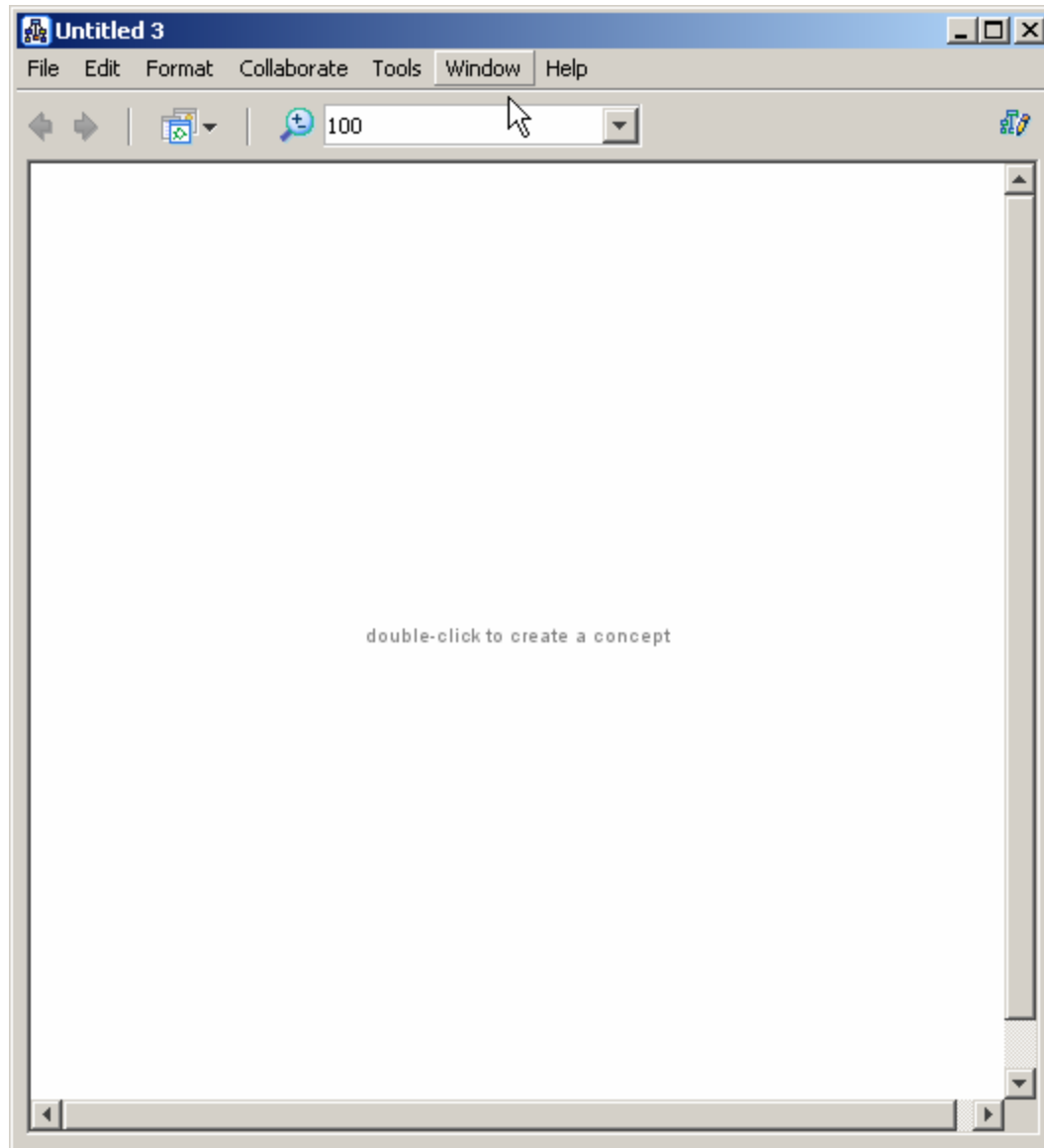
Create a New C-Map

Click on File

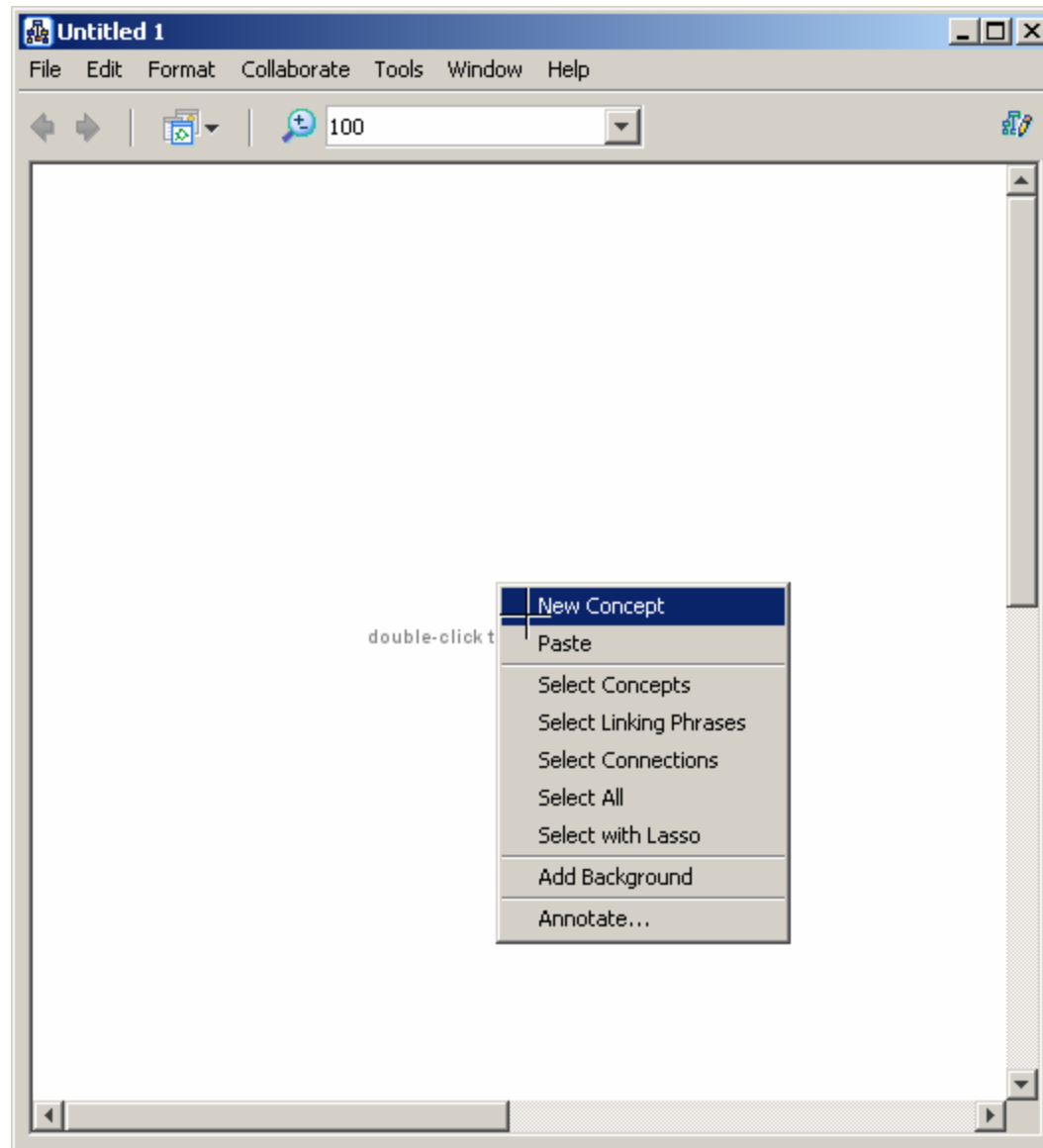
New Cmap



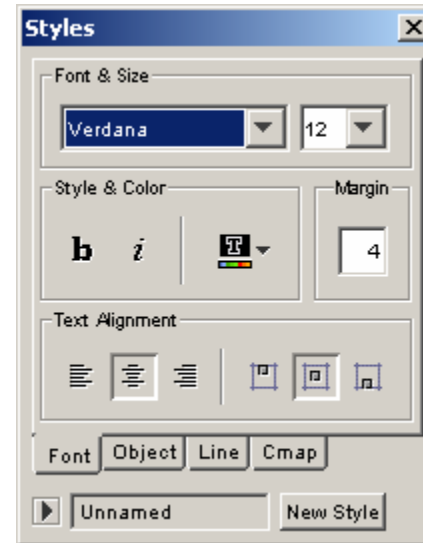
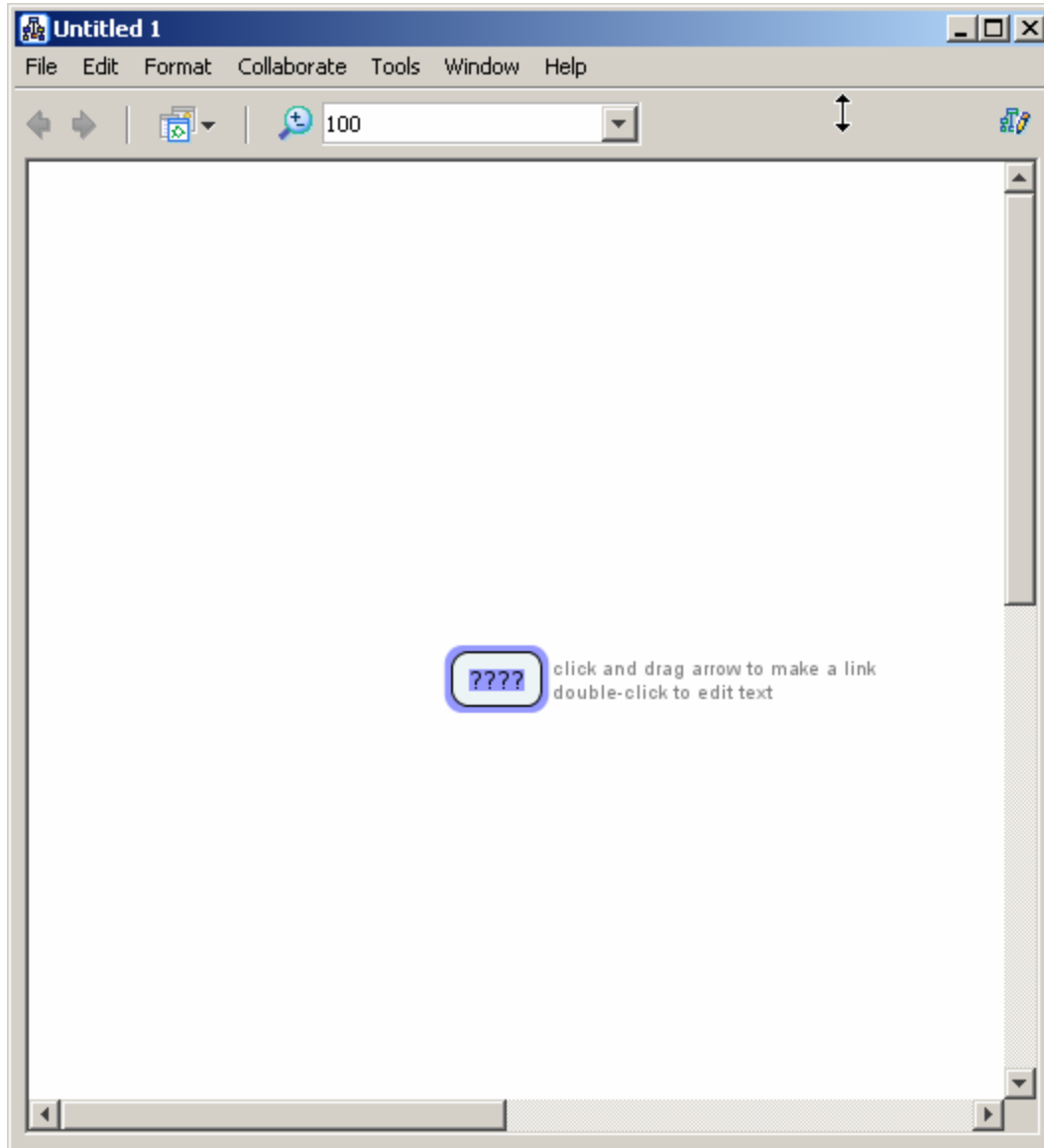
A new Untitled Window Map will be open



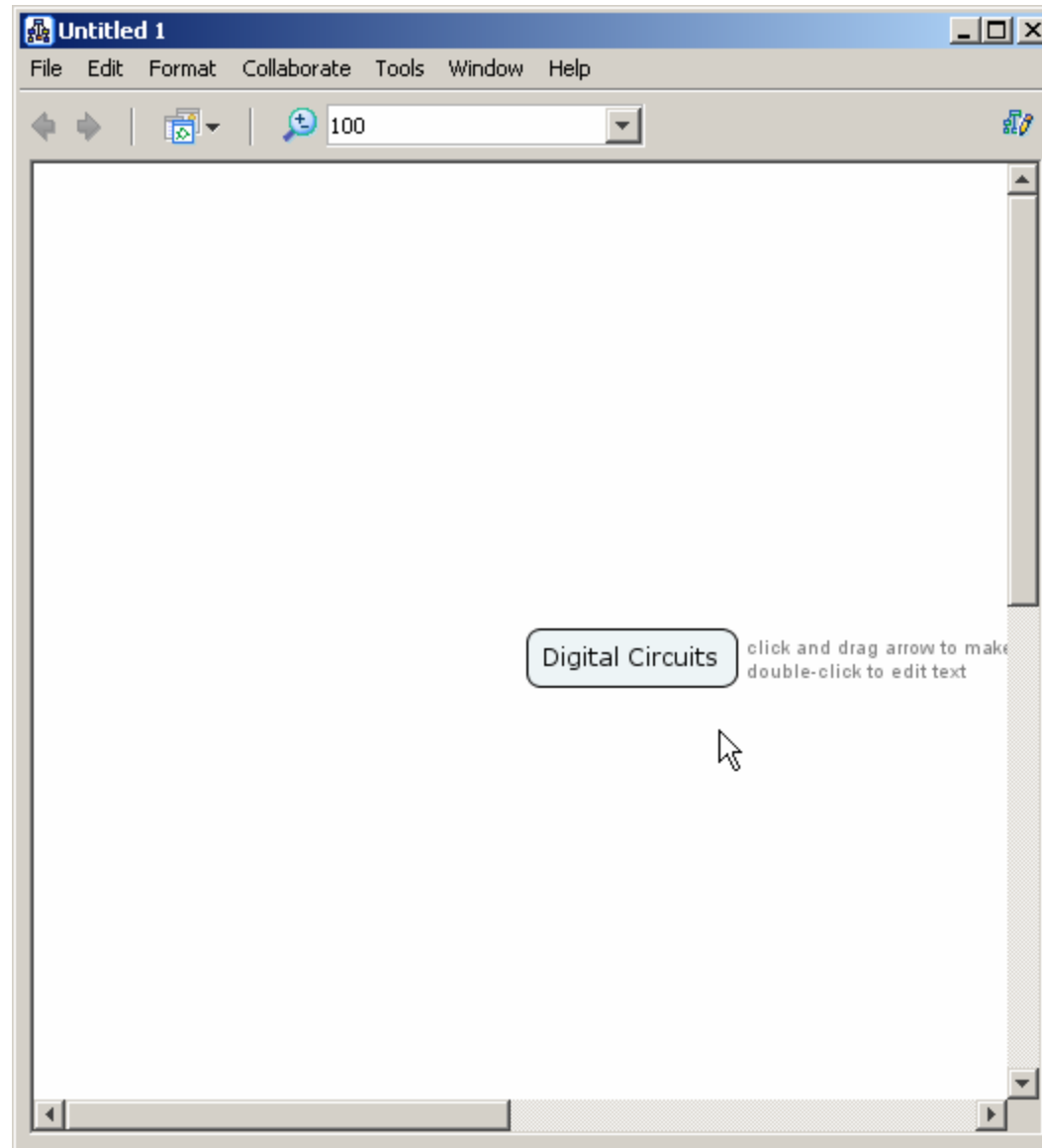
Right click the mouse on
“New Concept” to get a Concept on the window



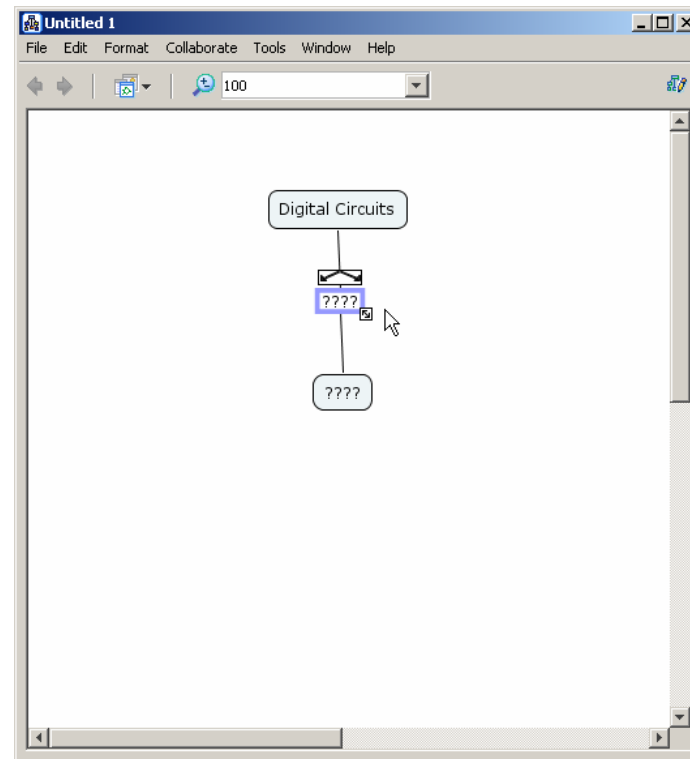
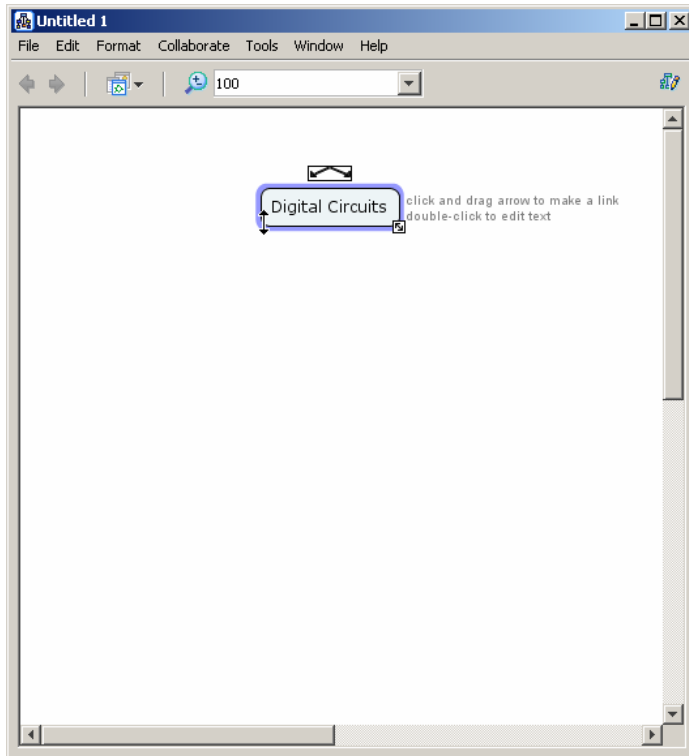
The Concept box will show up on the screen



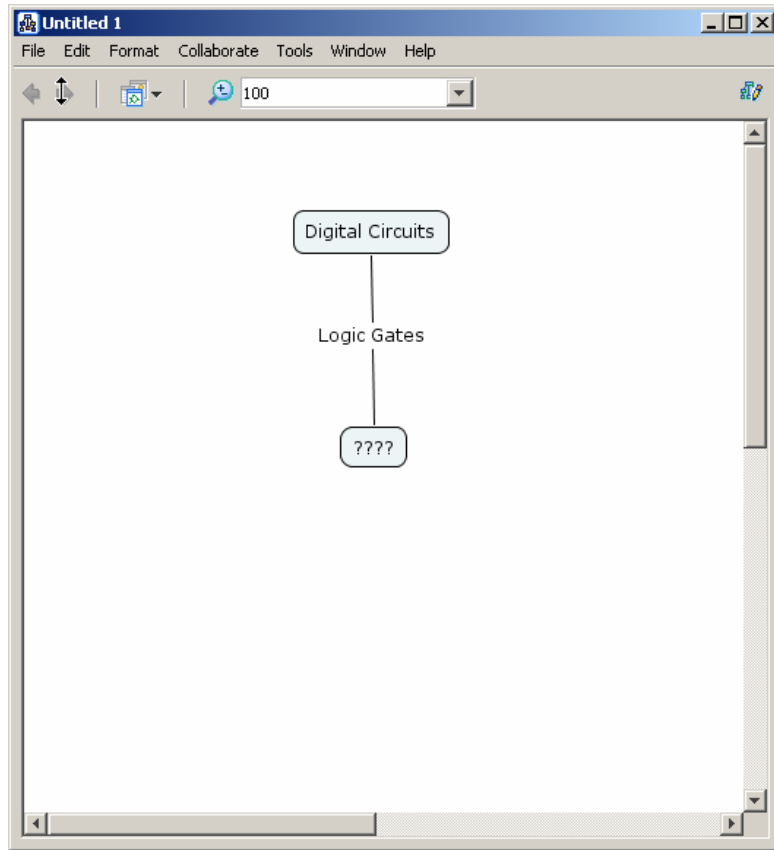
Type a label or concept inside the box, and left click outside the concept.



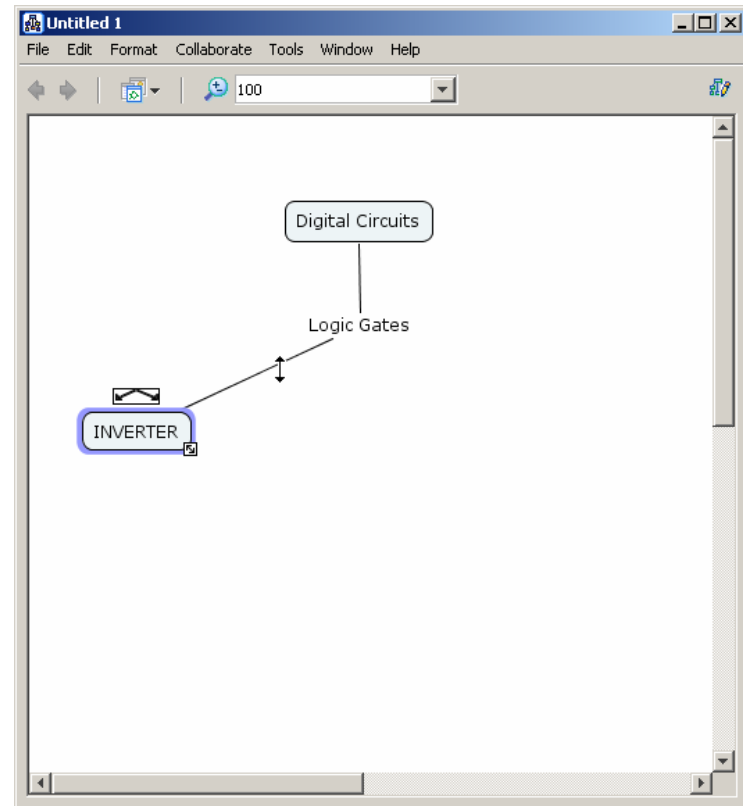
Left-click on the concept and drag from the arrows to add a concept



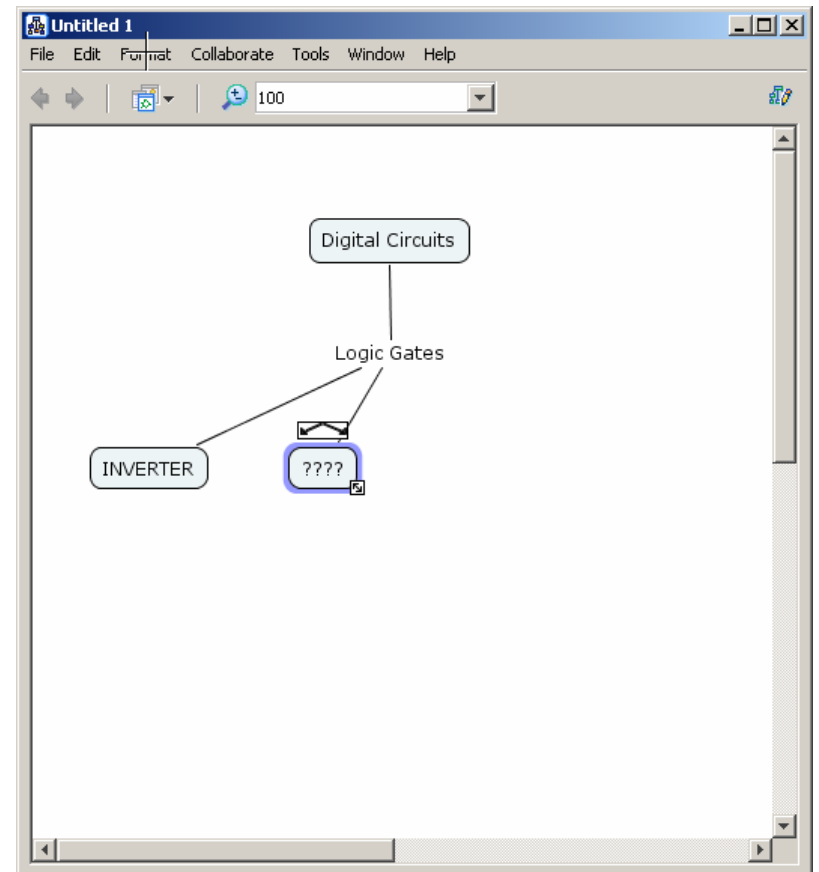
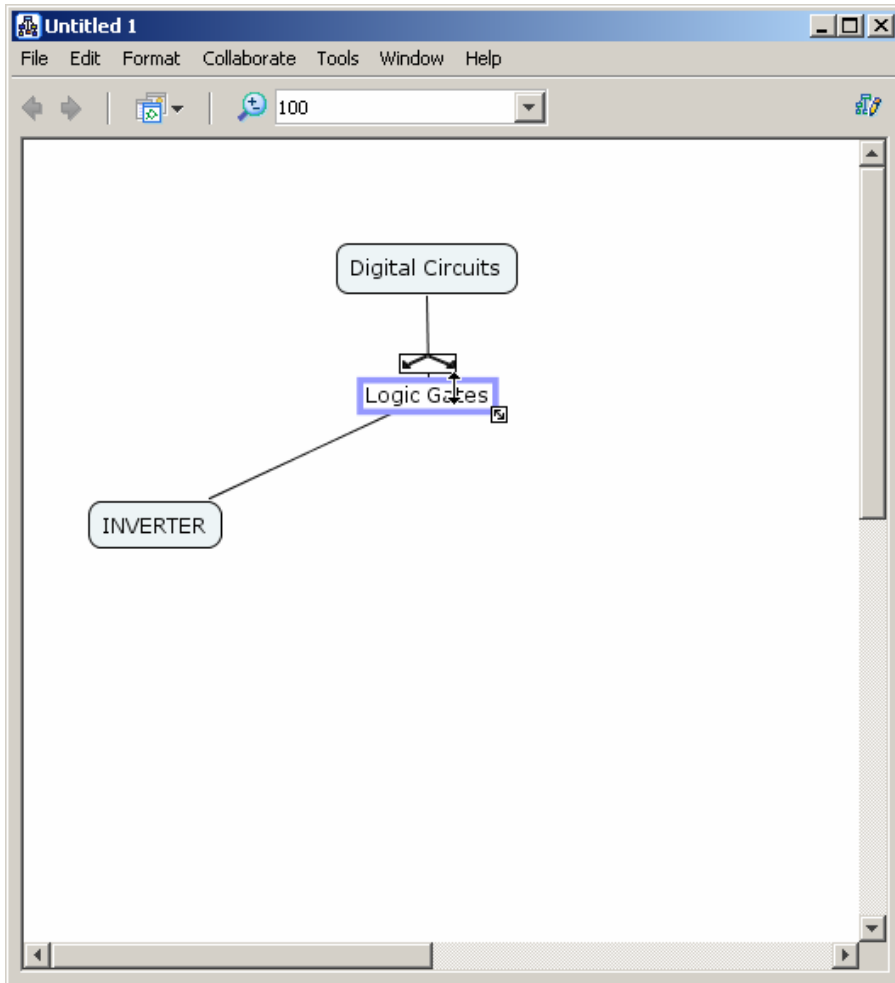
Type a “linking phrase” inside the rectangle.



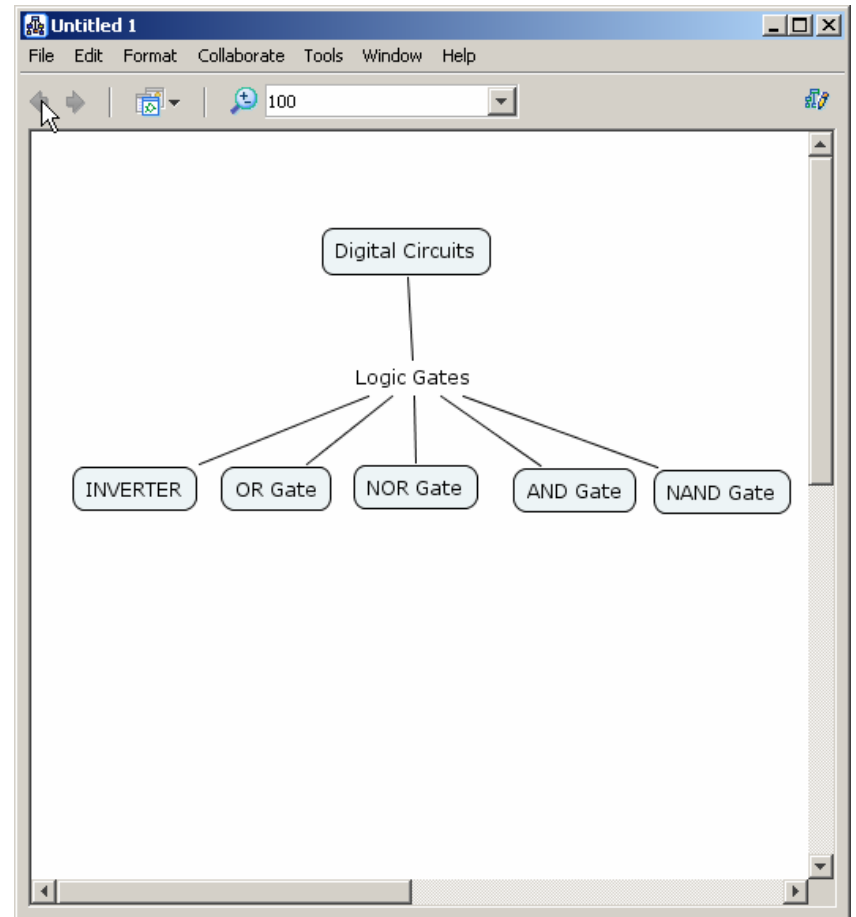
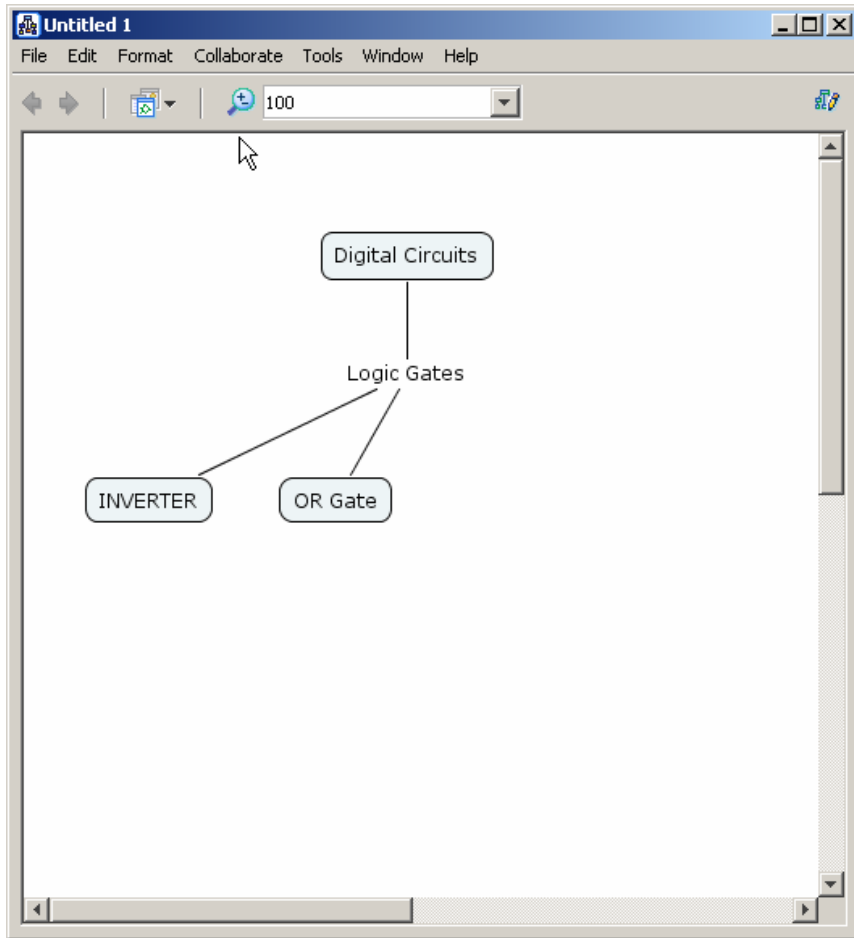
Click on the box with ??? and type the Concept. Then, left-click outside the box to end.

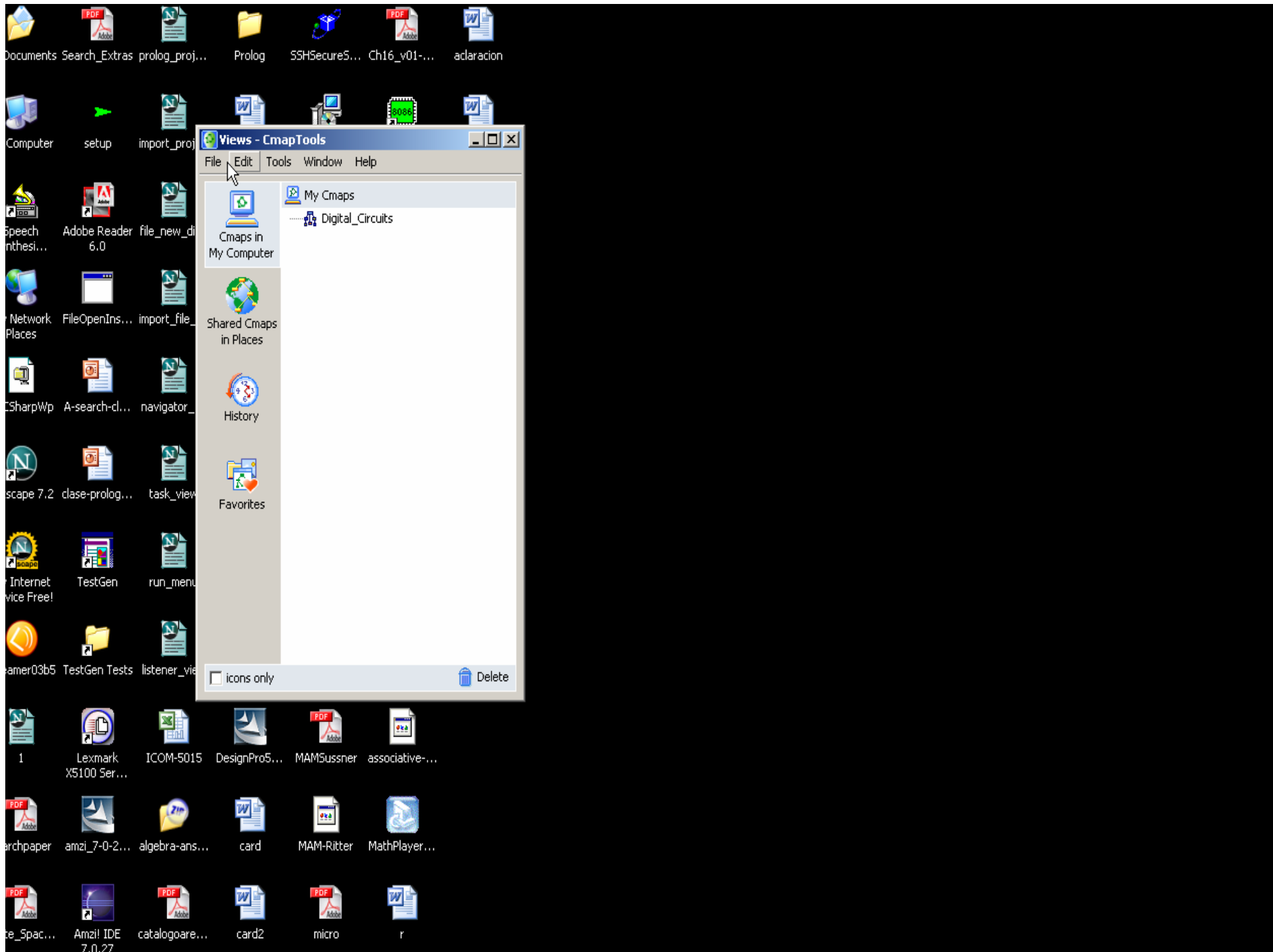


Add other concepts left-click on the connection “Logic Gates”



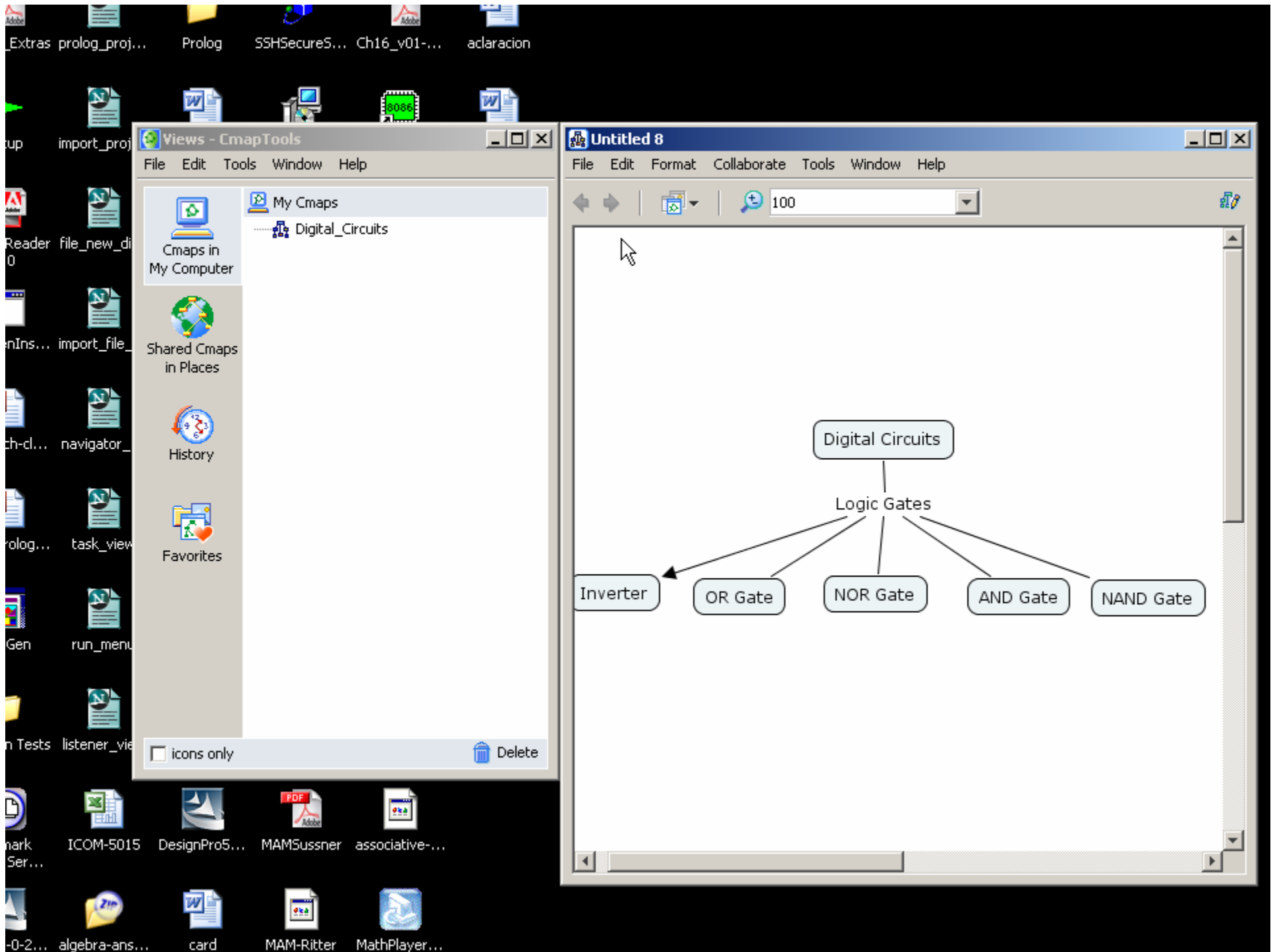
Type the new concept and Continue adding more boxes as needed.





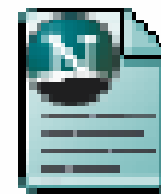
Save the Map

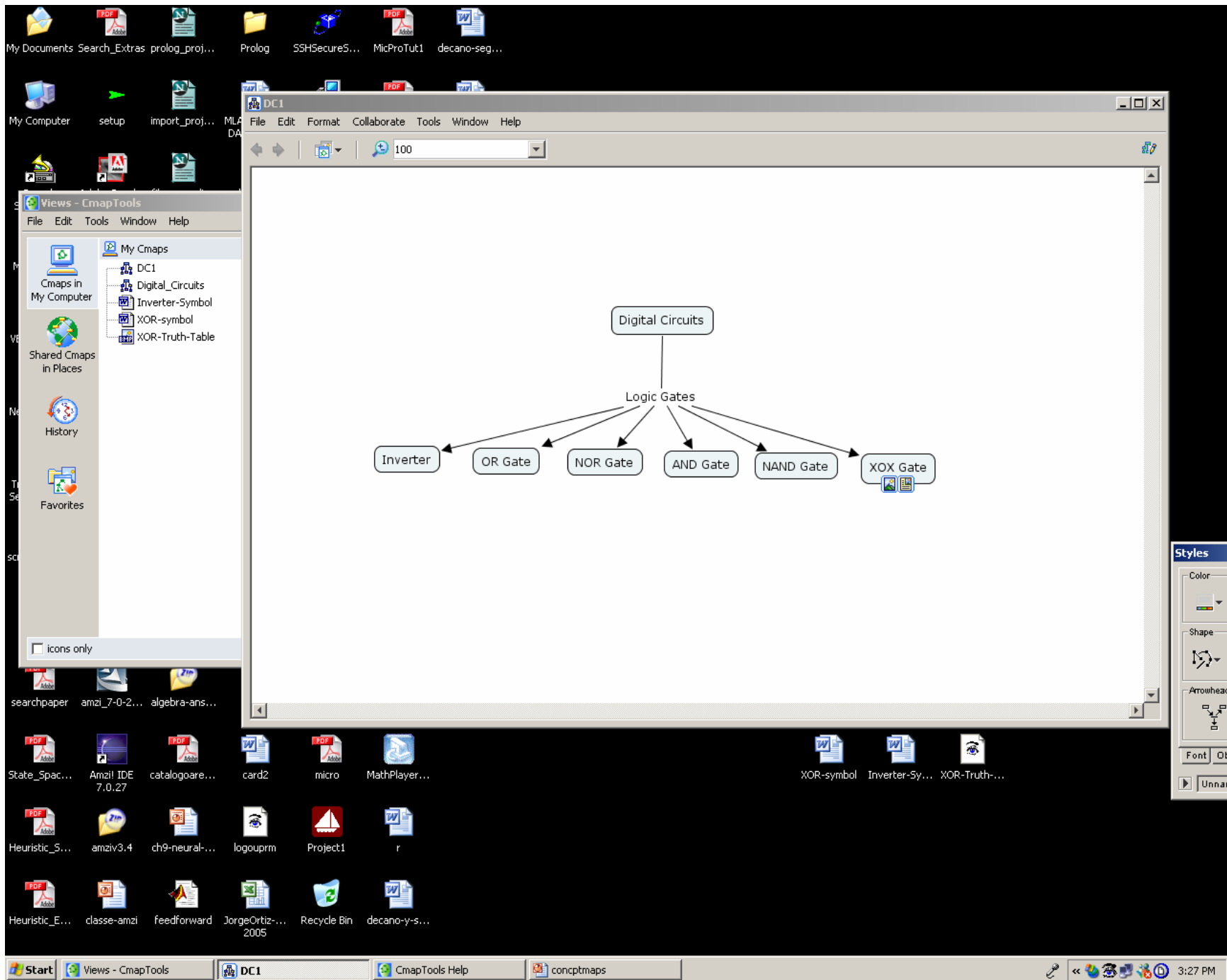
- After the map is complete or just or want to save it, click on File and save it with a name that you selected.
- Watch the movie

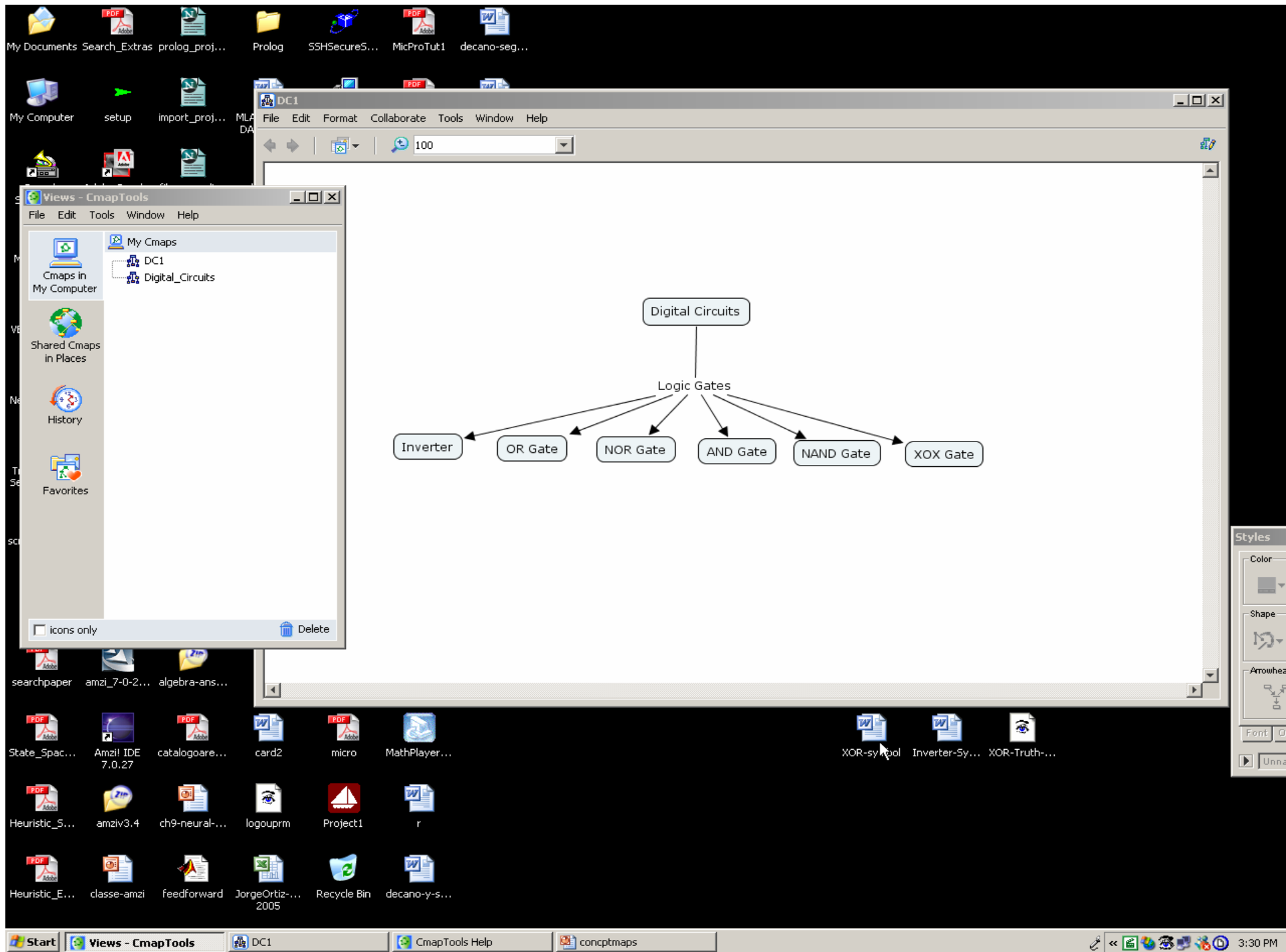


Adding Resources to the C-Map

- Save the resource you want to add on the desktop and drag it to the C-Map.
- Figures, documents and other resources can be added to each concept.

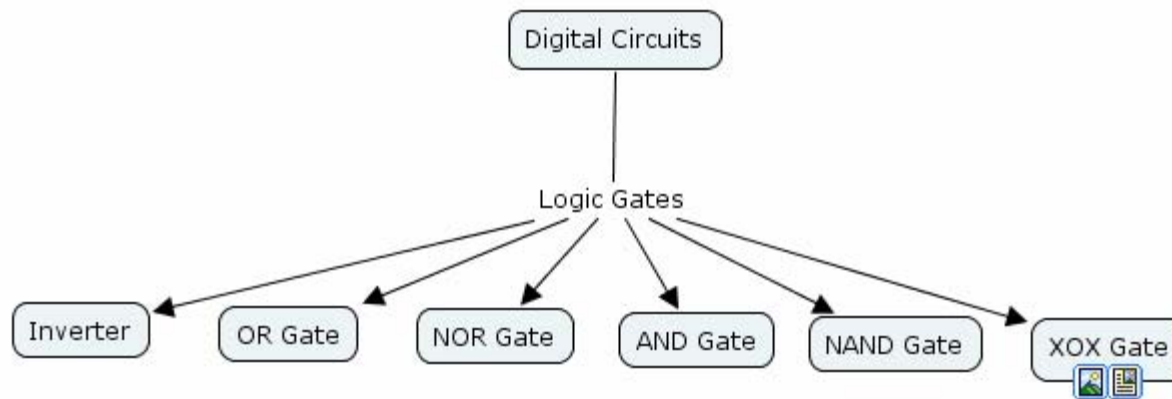






How to Look at the Resources

- Left click on the resource symbol
- Left click on the resource title

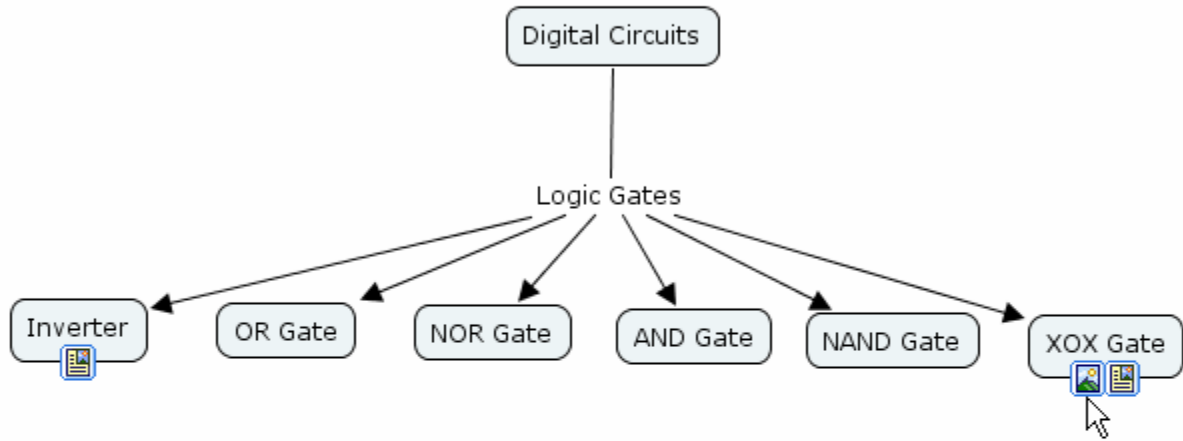




Help

ps

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rter-Symbol
-symbol
-Truth-Table



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atalogoare...

card2

micro

MathPlayer...

XOR-symbol

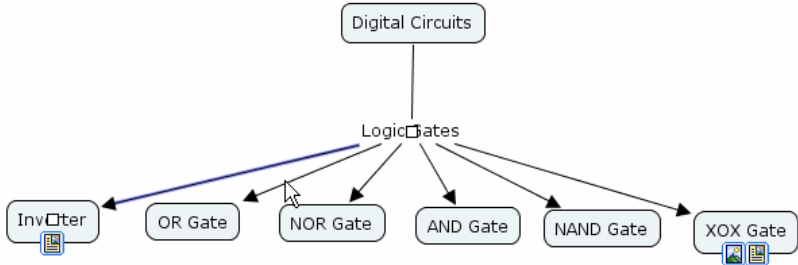
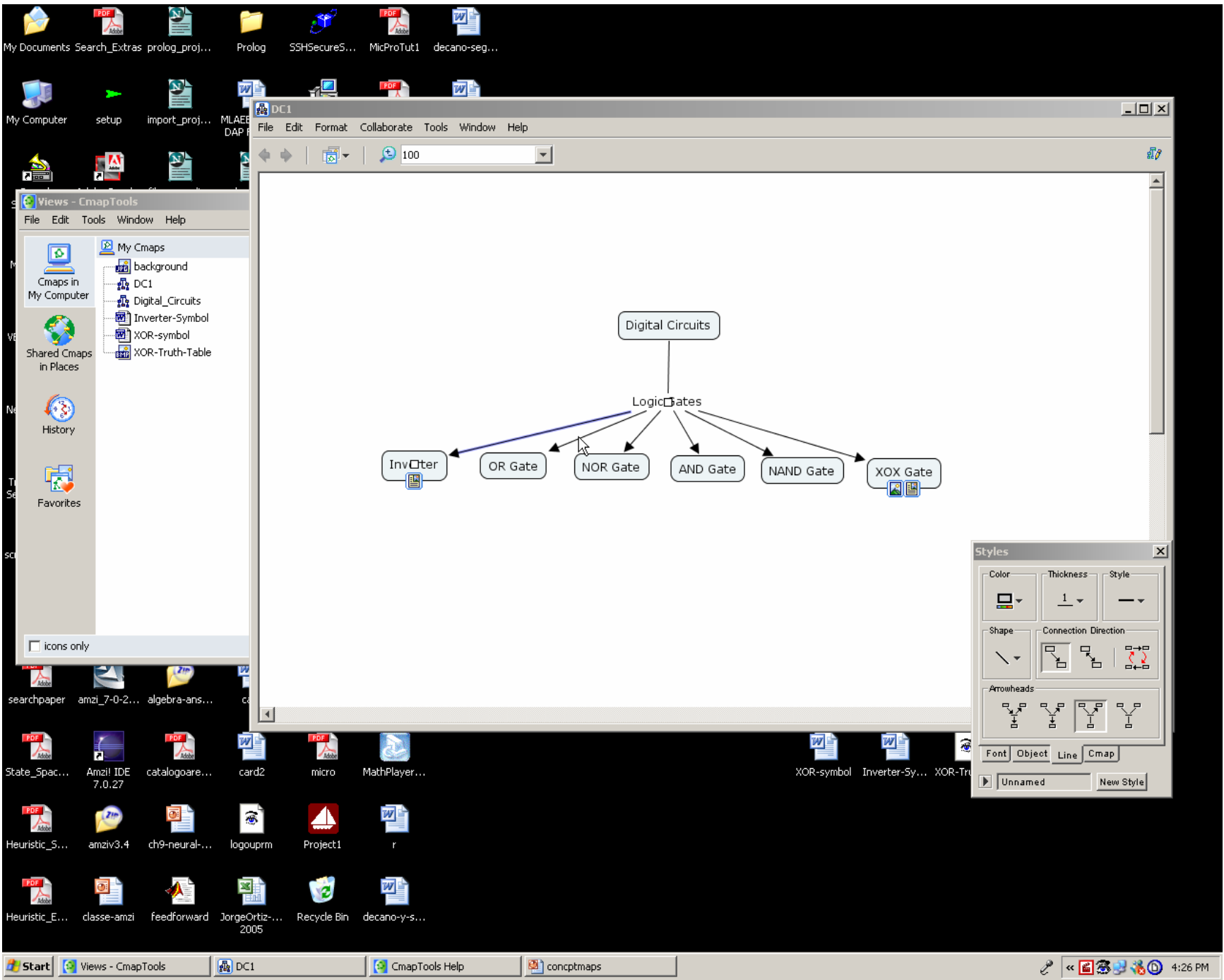
Inverter-Sy...

XOR-Truth-...



Change Line Colors

- Left click on the line
- Look at the Styles Window
- Left click on colors and select one



Styles

Color	Thickness	Style	
	1	—	
Shape	Connection Direction		
Arrowheads			
Font	Object	Line	Cmap
Unnamed		New Style	

Microsoft PowerPoint - [concptmaps]

File Edit View Insert Format Tools Slide Show Window Help

Type a question for help

89% Arial 18 B I U S

Outline Slides

Slide Layout

DC1

File Edit Format Collaborate Tools Window Help

100

```
graph TD; DC[Digital Circuits] --> LG[Logic Gates]; LG --> Inv[Inverter]; LG --> OR[OR Gate]; LG --> NOR[NOR Gate]; LG --> AND[AND Gate]; LG --> NAND[NAND Gate]; LG --> XOR[XOR Gate];
```

Click to add notes

Styles

Color Thickness Style

Line Color Fill

Added Colors

More Colors...

Other Layouts

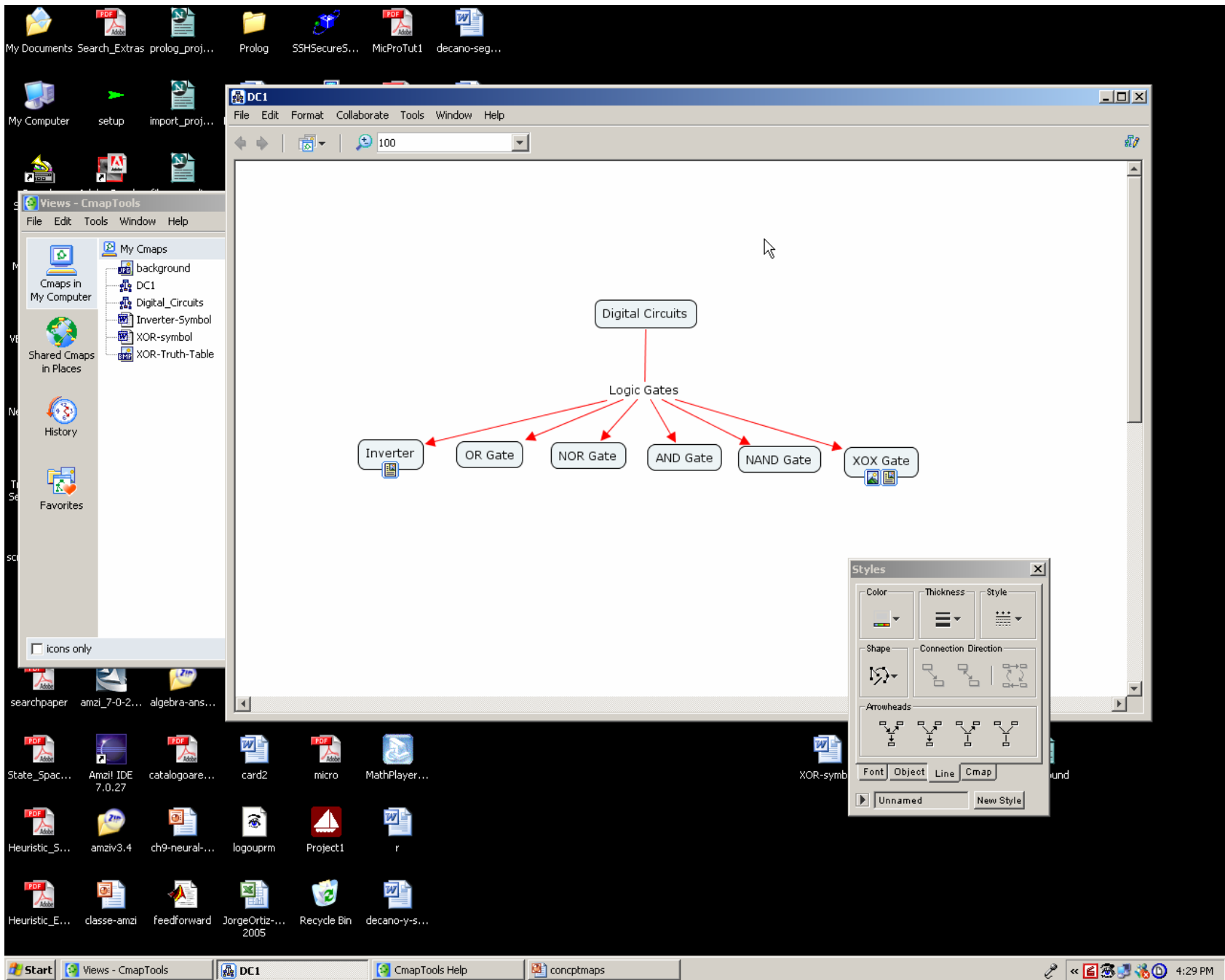
Show when inserting new slides

Slide 25 of 27

Default Design English (U.S.)

Start Views - CmapTools DC1 CmapTools Help concptmaps Print Screen Deluxe

4:27 PM



Change Background

- To place an image on the background
- Right click on the clear portion of the background
- Then left click on “Add Background”
- Look at the movie

My Documents Search_Extras prolog_proj... Prolog SSHSecureS... MicProTut1 decano-seg...

My Computer setup import_proj...

Views - CmapTools

File Edit Tools Window Help

My Cmaps

- DC1
- Digital_Circuits
- Inverter-Symbol
- XOR-symbol
- XOR-Truth-Table

Cmaps in My Computer

Shared Cmaps in Places

History

Favorites

icons only Delete

DC1

File Edit Format Collaborate Tools Window Help

100

Digital Circuits

Logic Gates

Inverter OR Gate NOR Gate AND Gate NAND Gate XOR Gate

Styles

Color

Shape

Arrowheads

Font Object

Unnamed

searchpaper amzi_7-0-2... algebra-ans...

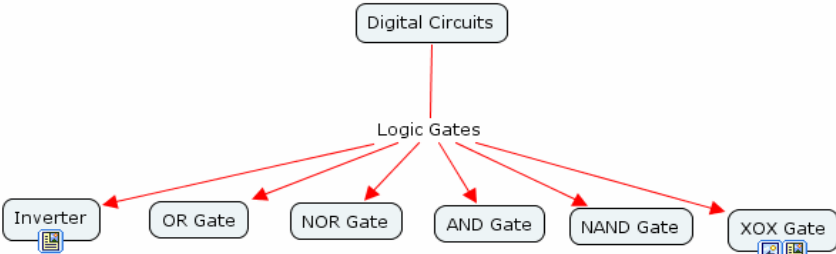
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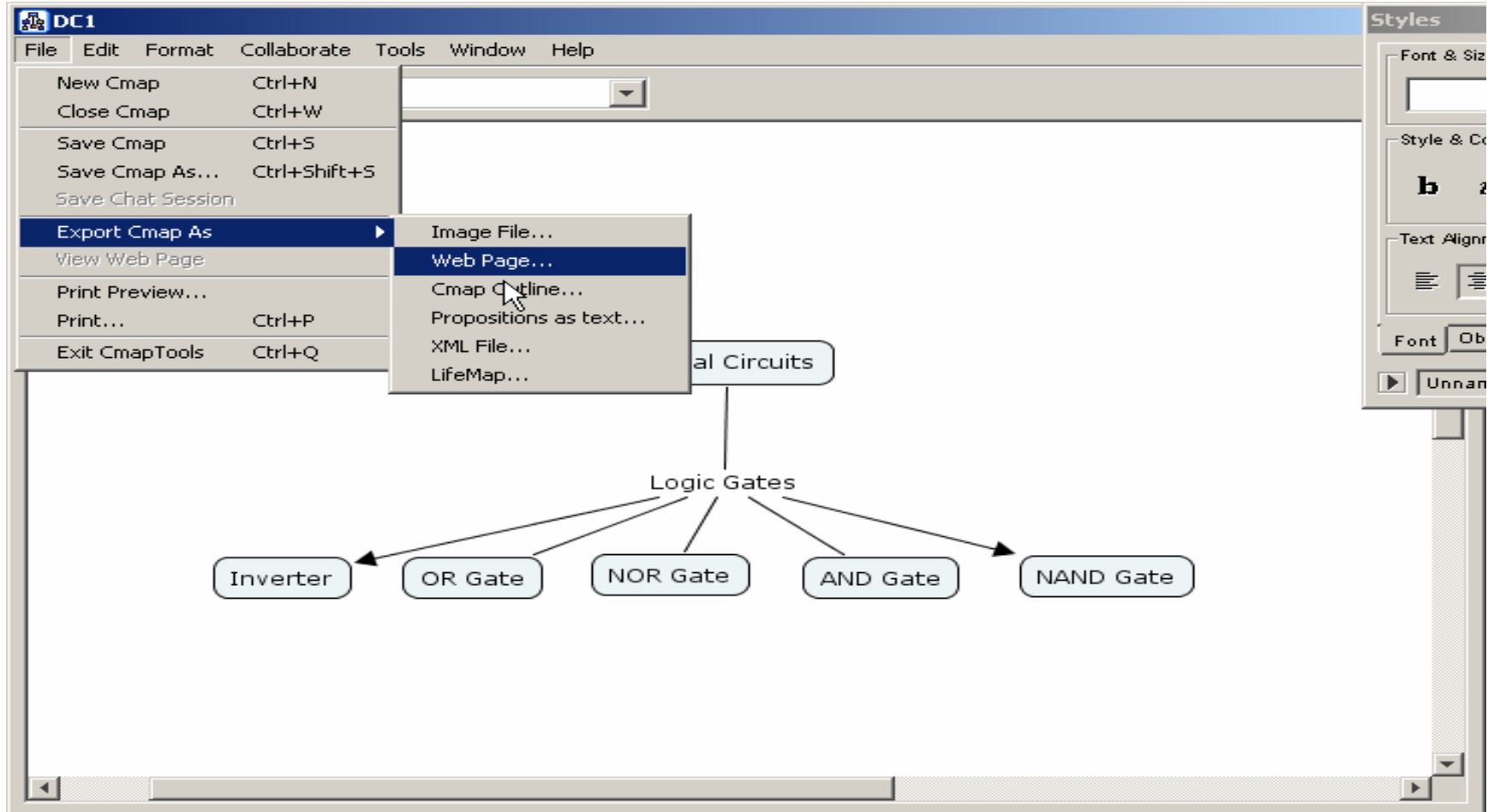
Start Views - CmapTools DC1 CmapTools Help concptmaps 4:30 PM

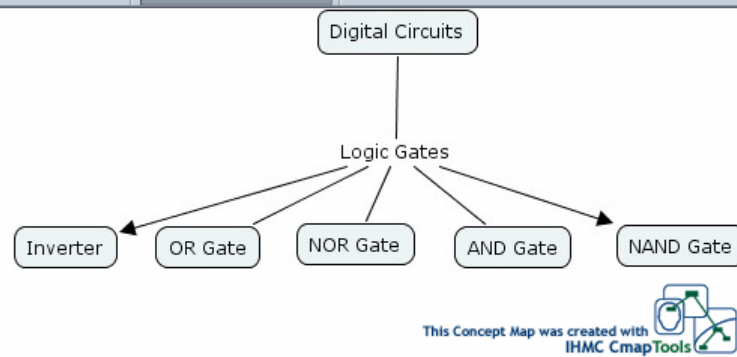
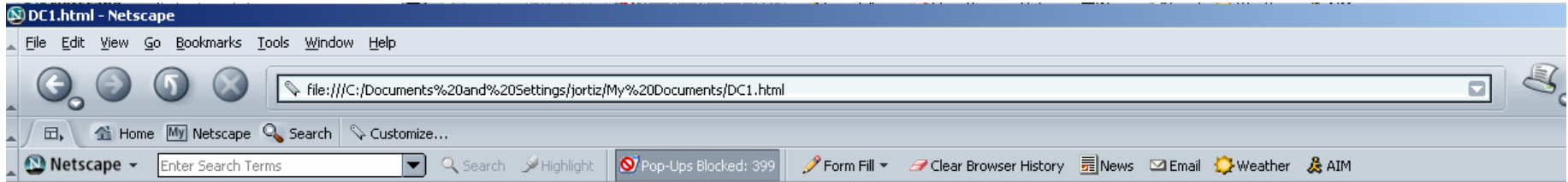


Student working on his C-Map



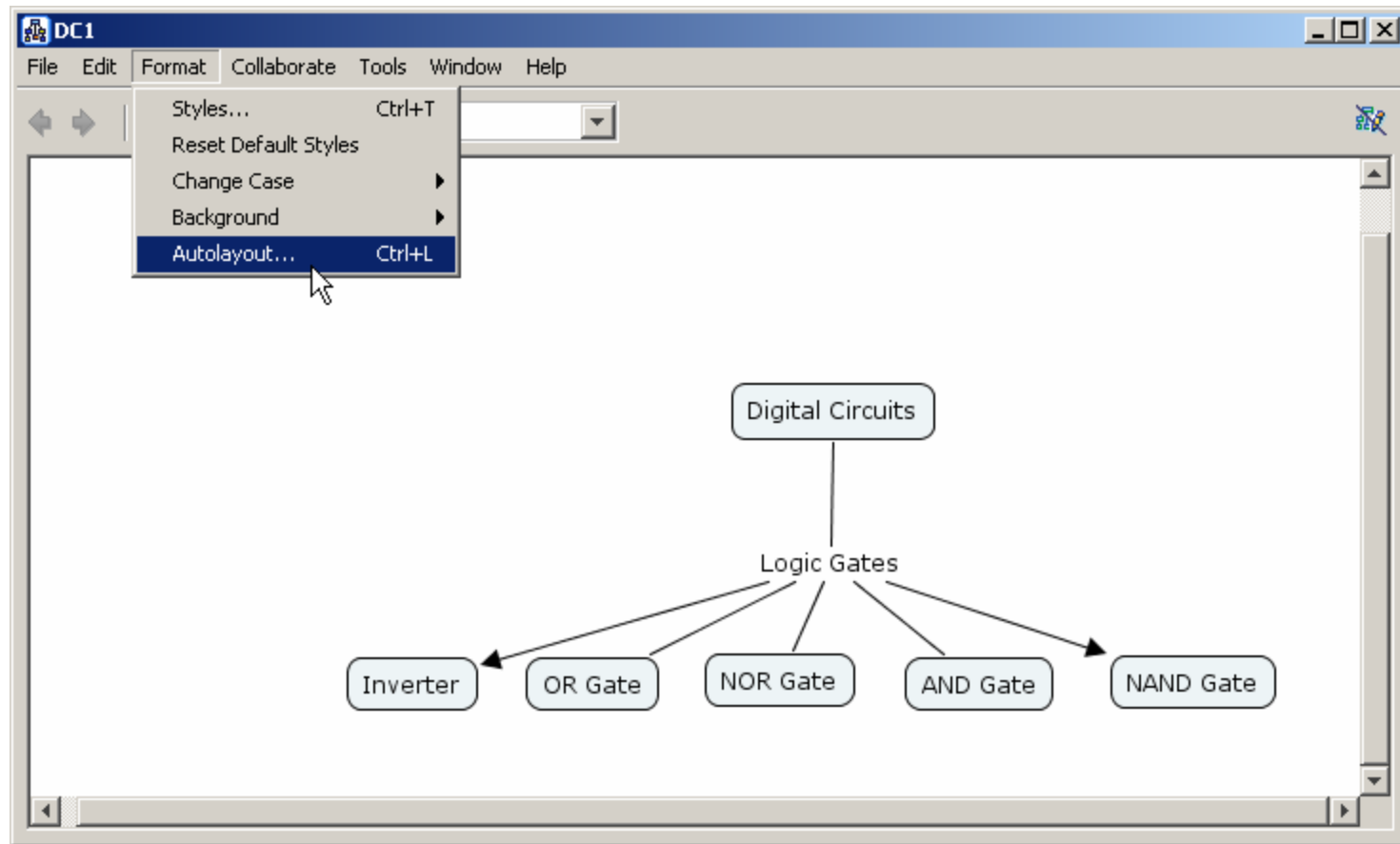
View C-Map as a Web Page



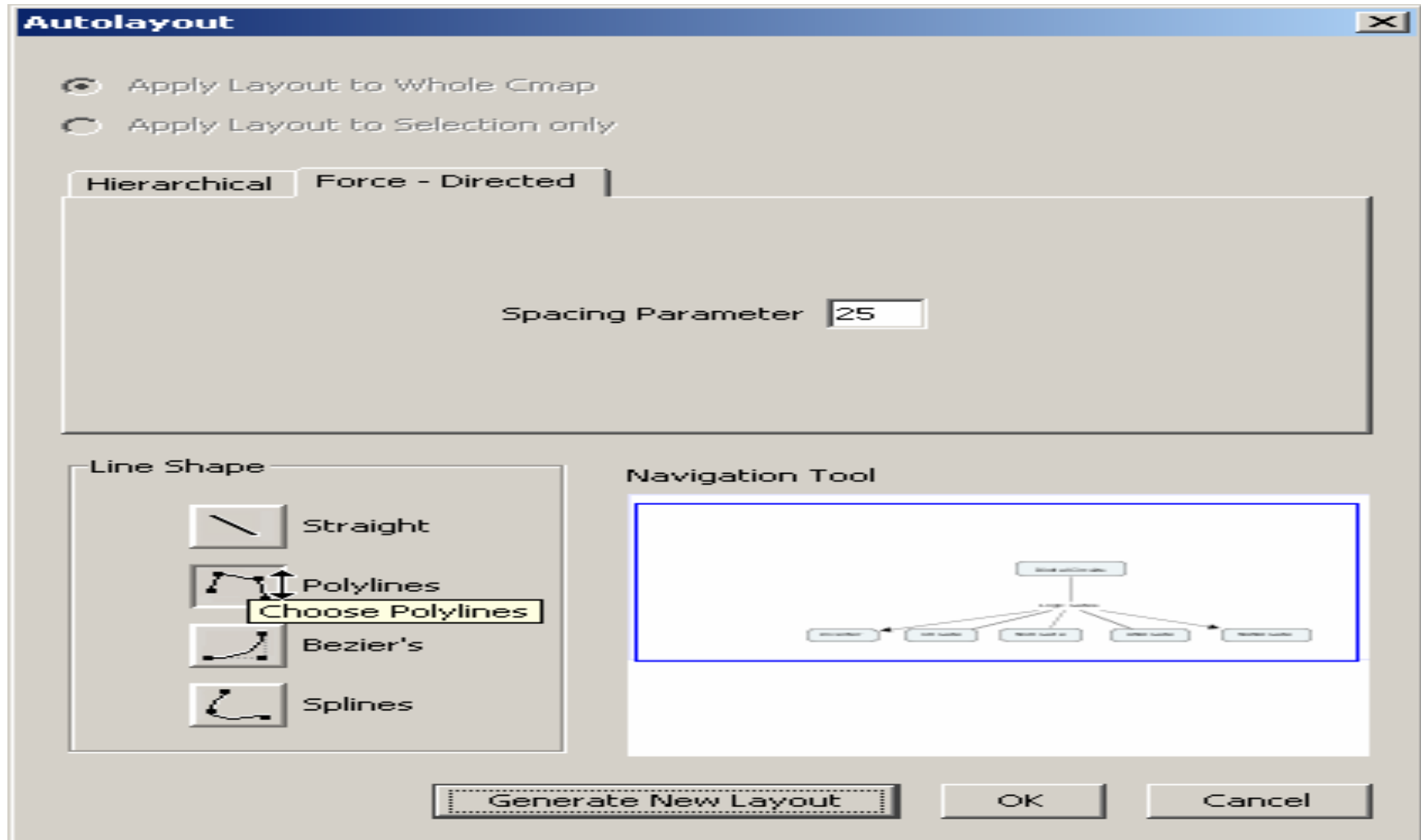


Using Auto Layout

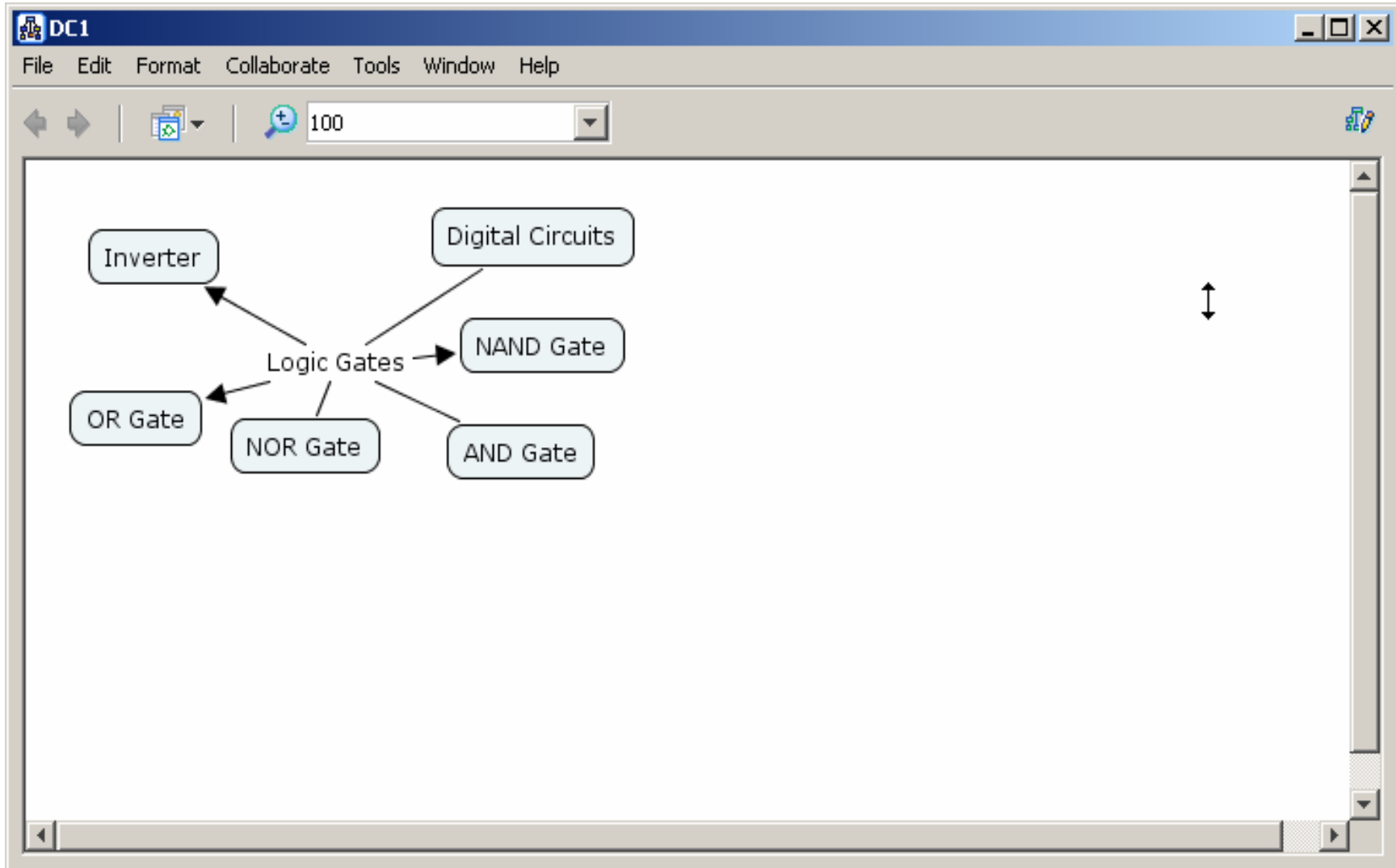
- Change the layout of the map



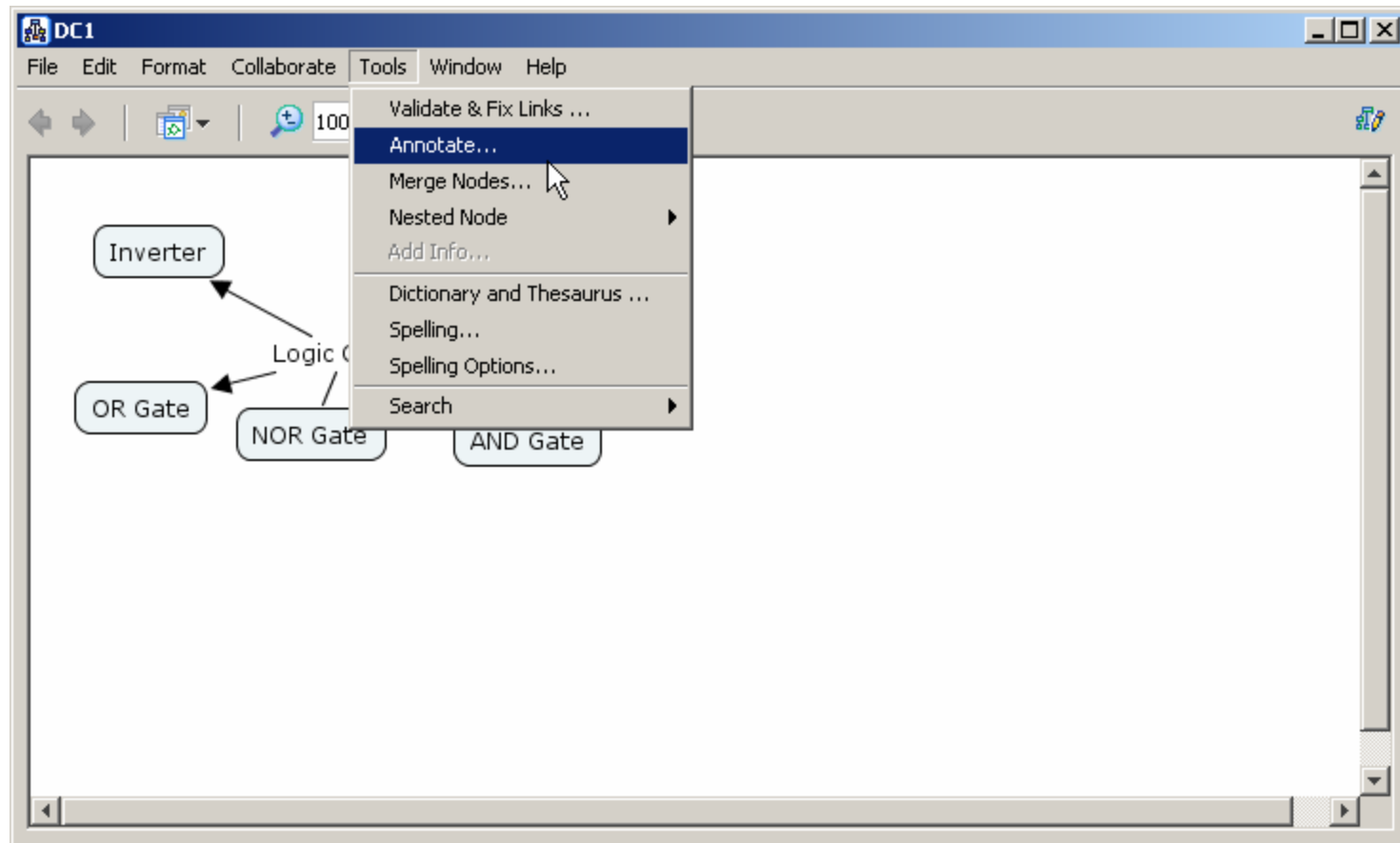
Click on Polylines and Generate New Layout



New Layout



Adding Annotation or Comments to a C-Map



Type the annotation or comment you want to add.

The screenshot shows a software application window titled "DC1" with a menu bar (File, Edit, Format, Collaborate, Tools, Window, Help) and a toolbar. The main content area displays a diagram with a central node "Logic Gates" connected to six other nodes: "Inverter", "OR Gate", "NOR Gate", "AND Gate", "NAND Gate", and "Digital Circuits".

An annotation box is overlaid on the right side of the diagram. The box has a yellow background and a blue border. It contains the following text:

Annotation

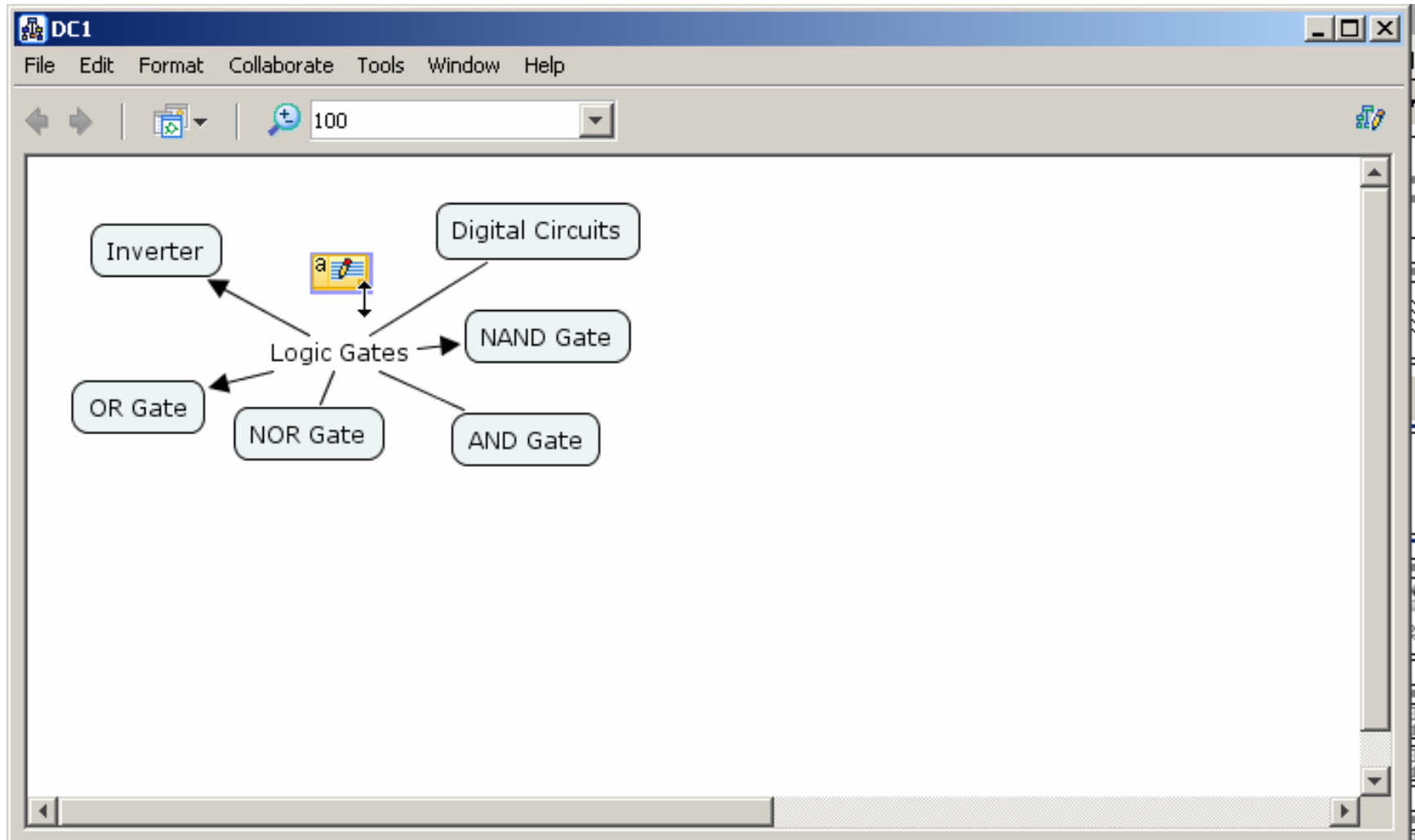
Look at the textbook at page 235 for example problems.

by: Jorge Ortiz

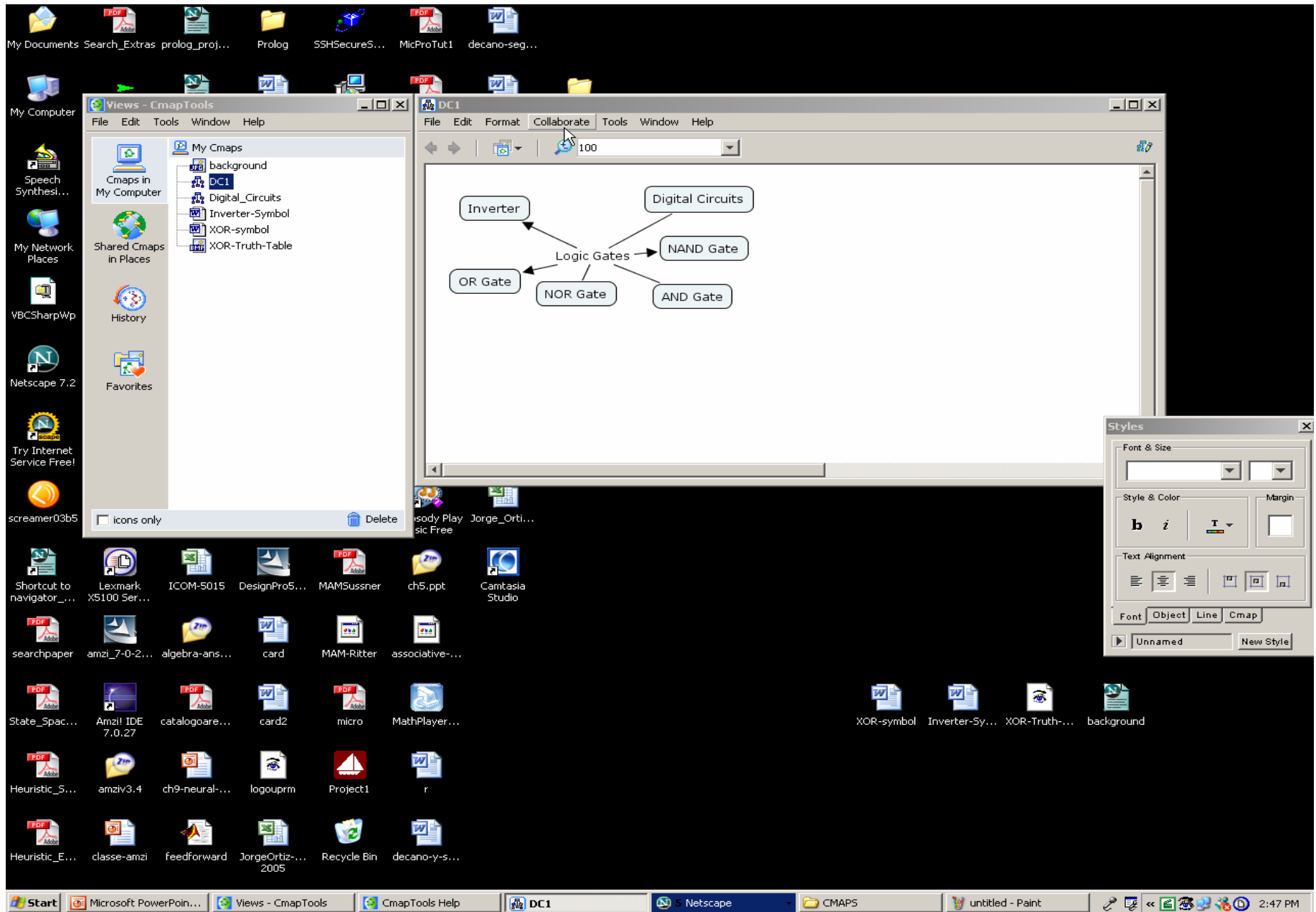
e-mail: jortiz@ece.uprm.edu

To the right of the annotation box, there is a red text label: <--Minimize it

After minimizing and moving to the desired position.



Watch the movie



General information and Links to C-Maps

Concept map - Wikipedia, the free encyclopedia - Netscape

File Edit View Go Bookmarks Tools Window Help

http://en.wikipedia.org/wiki/Concept_mapping

Netscape Enter Search Terms Search Highlight Pop-Ups Blocked: 399 Form Fill Clear Browser History News Email Weather AIM Create account / log in

article discussion edit this page history

Concept map

From Wikipedia, the free encyclopedia.
(Redirected from [Concept mapping](#))

Concept mapping is a technique for [visualizing](#) the relationships between [concepts](#). Concept mapping serves several purposes. One, which takes place via knowledge elicitation, is to represent the mental models, i.e., the [cognitive map](#) of individuals, teams and organizations. Another, which takes place by knowledge capture, is to represent the structure of knowledge gleaned from written documents. A **concept map** is a diagram showing the relationships between concepts. Concepts are connected with labelled arrows, in a downward-brancing hierarchical structure. The relationship between concepts is articulated in linking phrases, e.g., "gives rise to", "results in", "is required by," or "contributes to". The addition of knowledge resources, e.g., diagrams, reports, other concept maps, spreadsheets, etc., to the concept nodes (attached during or after construction) has been found to significantly improve the level of meaningful learning of the concept mapper.

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- Empirical evidence
- See also
- External links

Usage

Concept maps are used to stimulate idea generation, and are believed to aid [creativity](#). For example, concept mapping is sometimes used for [brain-storming](#). Although they are often personalized and idiosyncratic, concept maps can be used to communicate complex ideas.

Formalized concept maps are used in [software design](#), where a common usage is [Unified Modelling Language](#) diagramming amongst similar conventions and development methodologies.

Concept mapping can also be seen as a first step in [ontology](#)-building, and can also be used flexibly to represent formal argument.

Concept maps are widely used in education and business for:

- Note taking and summarizing
- Knowledge elicitation for individual expert knowledge and team knowledge
- Knowledge capture: gleaning key concepts, their relationships and hierarchy from documents and source materials
- New knowledge creation: e.g., transforming tacit knowledge into an organizational resource, mapping team knowledge
- Institutional knowledge preservation (retention), e.g. eliciting and mapping expert knowledge of employees prior to retirement
- Collaborative knowledge modeling and the transfer of expert knowledge
- Facilitating the creation of shared vision and shared understanding within a team or organization
- Instructional design: concept maps used as Ausubelian "advanced organizers"
- Training: concept maps used as Ausubelian "advanced organizers" to represent the training context

Example concept map, created using IHMC CmapTools

Example concept map, created using IHMC CmapTools

Practice to Draw a C-Map

- Select your own topic
- Open the C-Map window
- Start building your own C-Map