Creating
CONCEPT MAP
using
VUE
(Visual Understanding Environment)

Biju K, Ph.D
Central University of Tamil Nadu, India

“How can we help individuals to reflect upon their experience and to construct new, more powerful meanings?”

Joseph D Novak; D Bob Gowin (1984): Learning how to learn,page xi

Teaching and Learning

- Teaching Learning is a multi-dimensional process wherein teachers facilitate learning such that learners will be able to experience and reflect.
- Active participation and involvement of teachers and learners improve the experiences and reflection so that learning process could be enhanced.

- Individuals reflect on their experiences and will be able to construct knowledge.
- Through appropriate experiences individuals will be able to collect data/information/knowledge.
- If the data/information is collected, it need to be processed to convert as information/knowledge.

Components of Science Information

- Terms
- Facts
- Concepts
- Generalizations
- Principles
- Theories

What is a concept?

- Define *concept* as a regularity in events or objects designated by some label.

- "Chair" is the label we use (in English) to designate an object with legs, a seat, and a back that is used for sitting on.

Concepts

- Verified facts
- Examples (yes examples and no examples)
- Attributes + attribute values
- Rule/definition
- Label

- A learner is said to have learned or attained the concept,
  - if she can give examples of the concept learned and
  - also can differentiate non-examples from examples of the concept.

- For example, ice is a non-example of liquid, and common salt is a non-example of acid.
- She can list the characteristics of the concept and can define the concept on the basis of its characteristics.
- Naïve concepts Vs. Misconcpetions

- Based on their experiences of natural world they form some ideas/notions/beliefs of a concept or process.
- These ideas are alternative framework (alternative conceptions) that may be right or wrong.

- If wrong, they should be removed from cognitive framework of the learners. These are misconceptions.
- If learners' previous ideas do not match with the scientific explanations and are partially correct, these are naive concepts.

- **Meaningful learning occurs when new information is linked with existing concepts and integrated into what the learner already understands.**

Concept Map

- Concept maps are graphical tools for organizing and representing knowledge about certain concepts.
- A concept map represents an understanding of the relationship and hierarchy between important set of concepts.

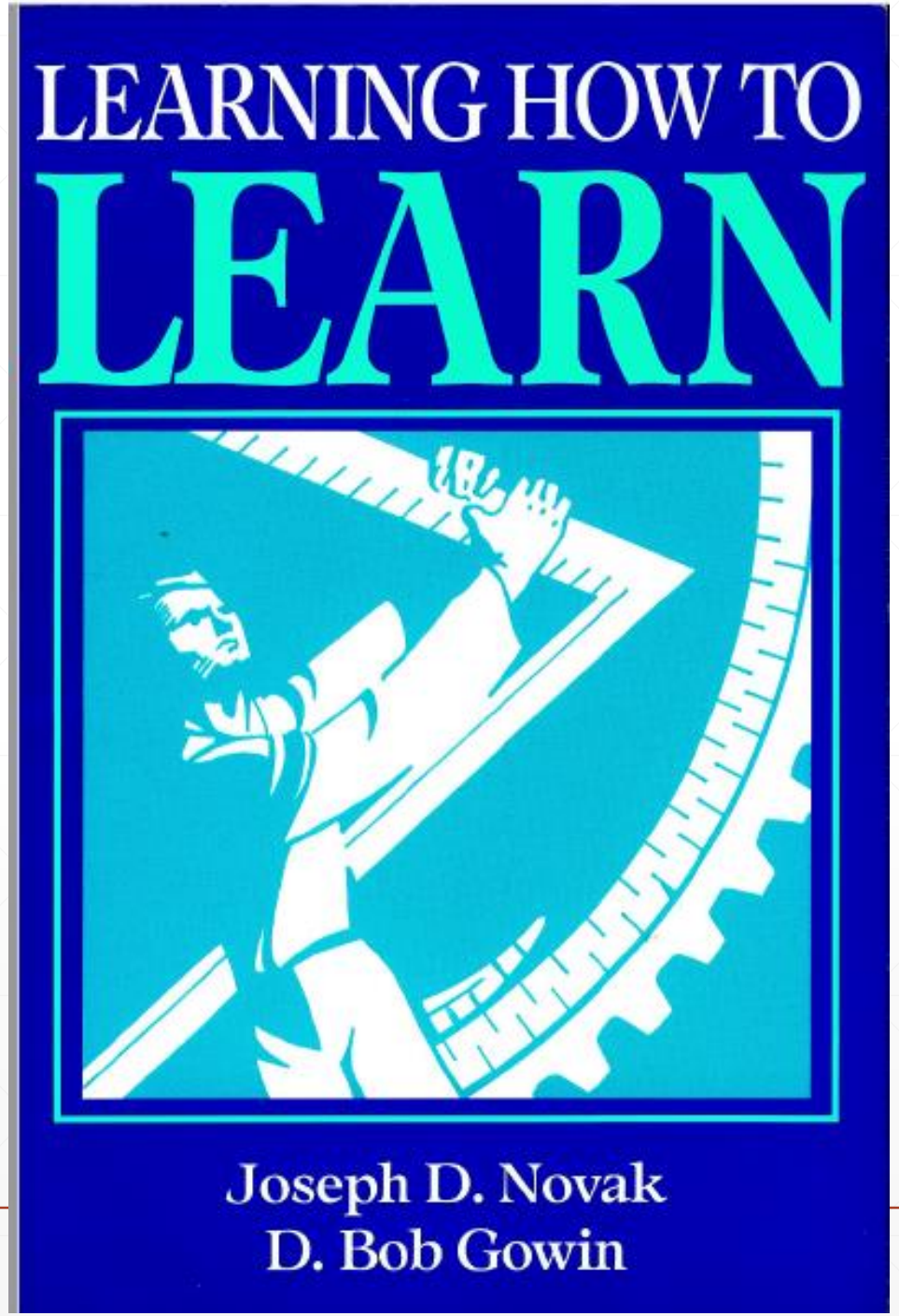
- In a concept map, concepts are usually presented enclosed within a circle or a box.
- The first step is to identify and enlist various key concepts in the topic.

- These concepts are then arranged in a two dimensional array hierarchically in descending order,
- i.e. the more general concepts are placed at the top followed by the less inclusive concepts.
- Concepts occurring at same level of observation are placed at the same horizontal level.

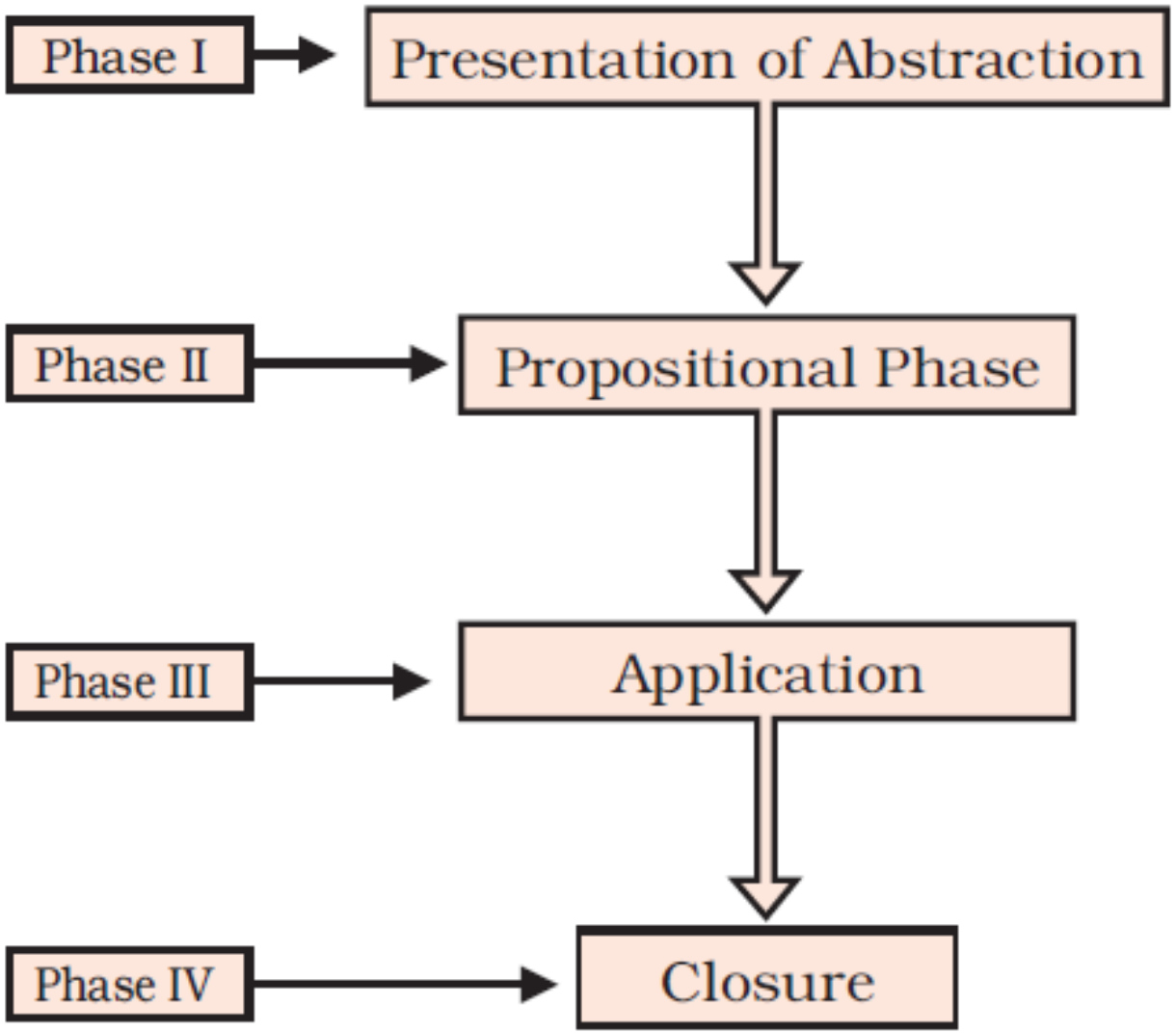
- **Linkages:** They are usually represented by arrows or lines. They link two concepts appropriately.
- **Labels for linkages:** The label for most linkages is a word/s or a phrase— although sometimes we use symbols such as +, –, x or ÷ for linkages in mathematics.

- Labels highlight the relationship between two concepts.
- These labels for linkages are also named as proposition. Two or more concepts can be cross linked, if significant relationship exists between them.

- Concept mapping (as developed in its standard form by Novak in 1984) is considered to be an offshoot of the Ausubelian approach.
- Novak himself asserts: "My work and the work of my students on concept mapping has been based upon Ausubel's theory of meaningful learning (1963, 1968).


LEARNING HOW TO
LEARN
Joseph D. Novak
D. Bob Gowin

PHASES


Phase I
Presentation of Abstraction
Phase II
Propositional Phase
Phase III
Application
Phase IV
Closure

Concept Map using VUE

https://vue.tufts.edu/

VUE Search · Organize · Present

About Gallery Features Forums FAQ Documentation Contact

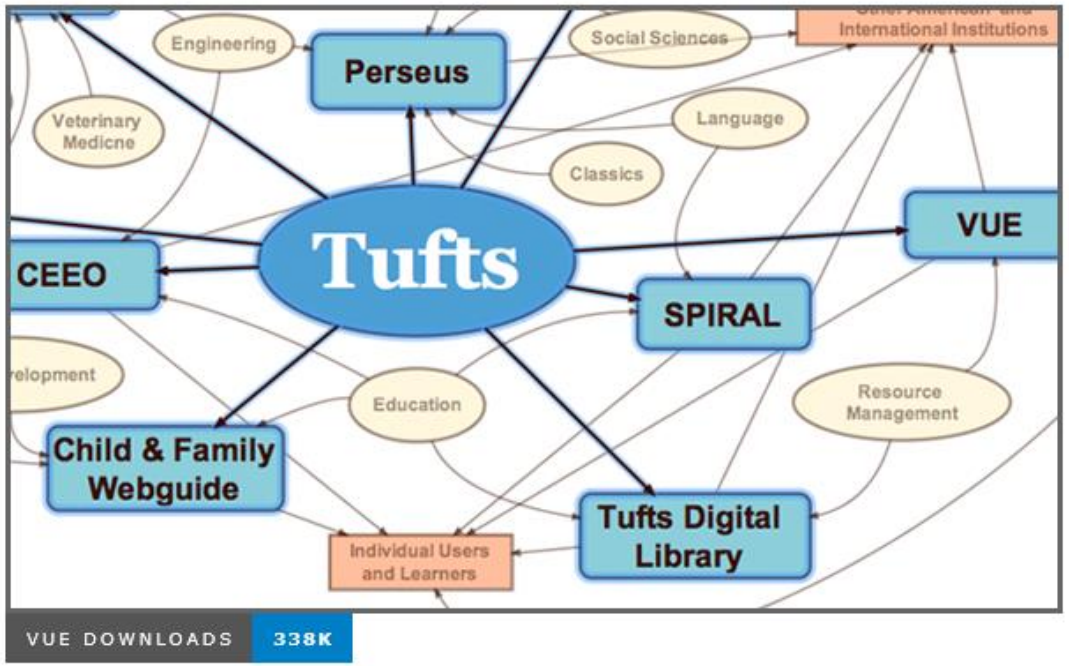
Fork me on GitHub

Visual Understanding Environment

Flexible concept mapping tools for managing and integrating digital resources in support of teaching, learning and research.

Download

Mac / Windows / Linux



What is VUE?

- At its core, the Visual Understanding Environment (VUE) is a concept and content mapping application, developed to support teaching, learning and research and for anyone who needs to organize, contextualize, and access digital information.

- Using a simple set of tools and a basic visual grammar consisting of nodes and links, faculty and students can map relationships between concepts, ideas and digital content.
- VUE can be used by anyone interested in visually structuring digital content, whether in support of teaching difficult to understand concepts or more generally, a tool for organizing personal digital resources.

VUE Search · Organize · Present

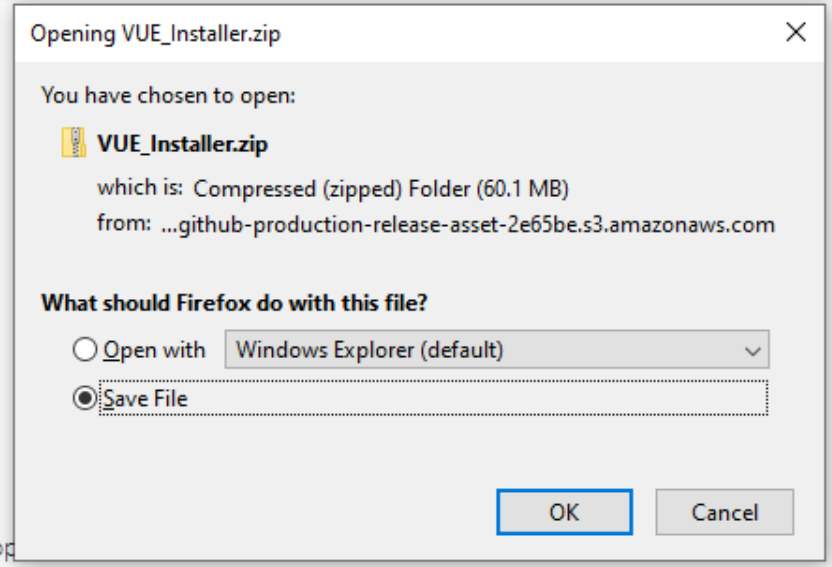
About Gallery Features Forums FAQ Documentation Contact

Fork me on GitHub

Downloads

3.3.0 is available for download.

Latest release: October 8, 2015 / 3.3.0



Windows

Download VUE for Windows

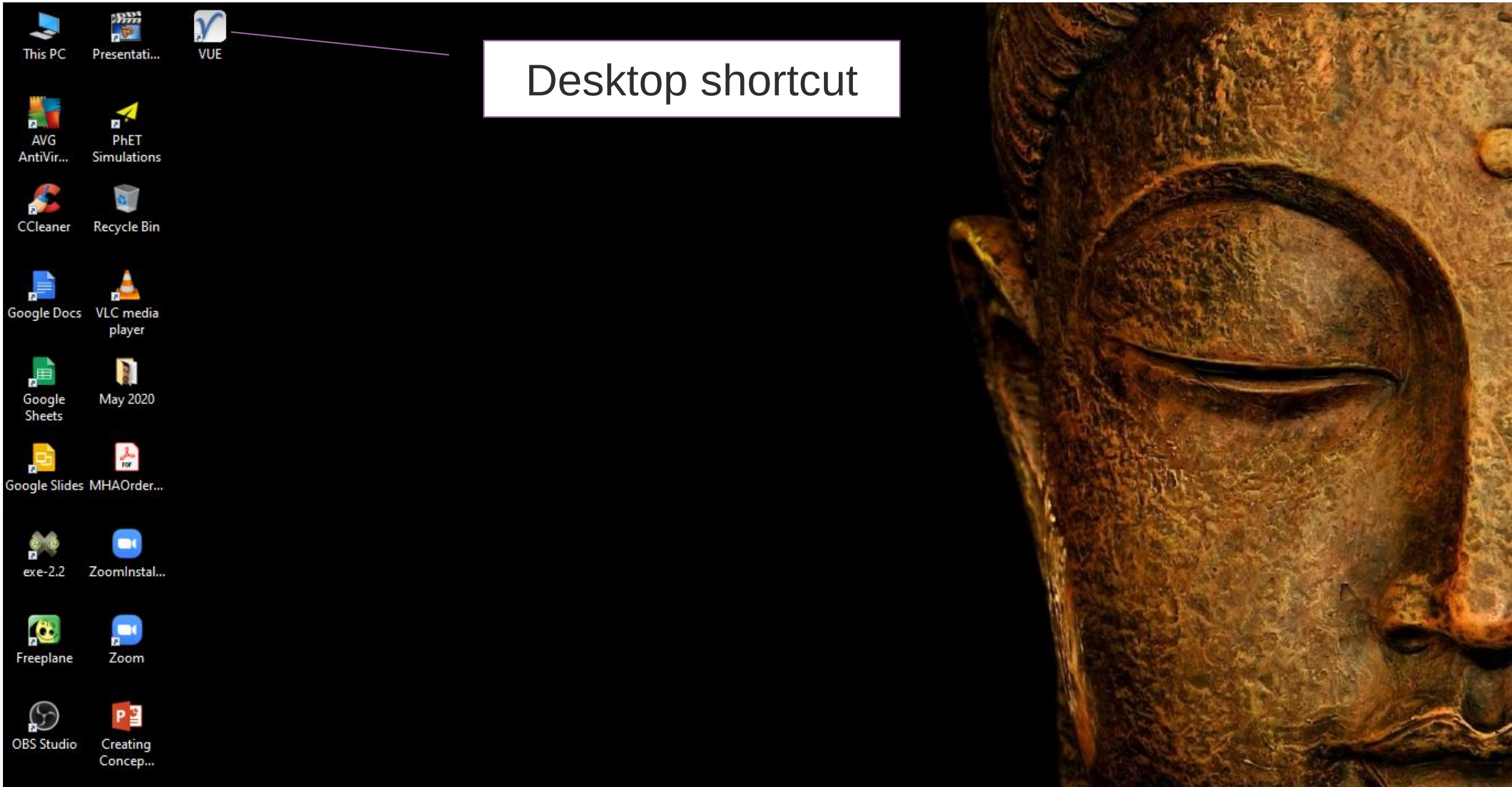
After downloading, double-click on the vue.exe icon on your desktop

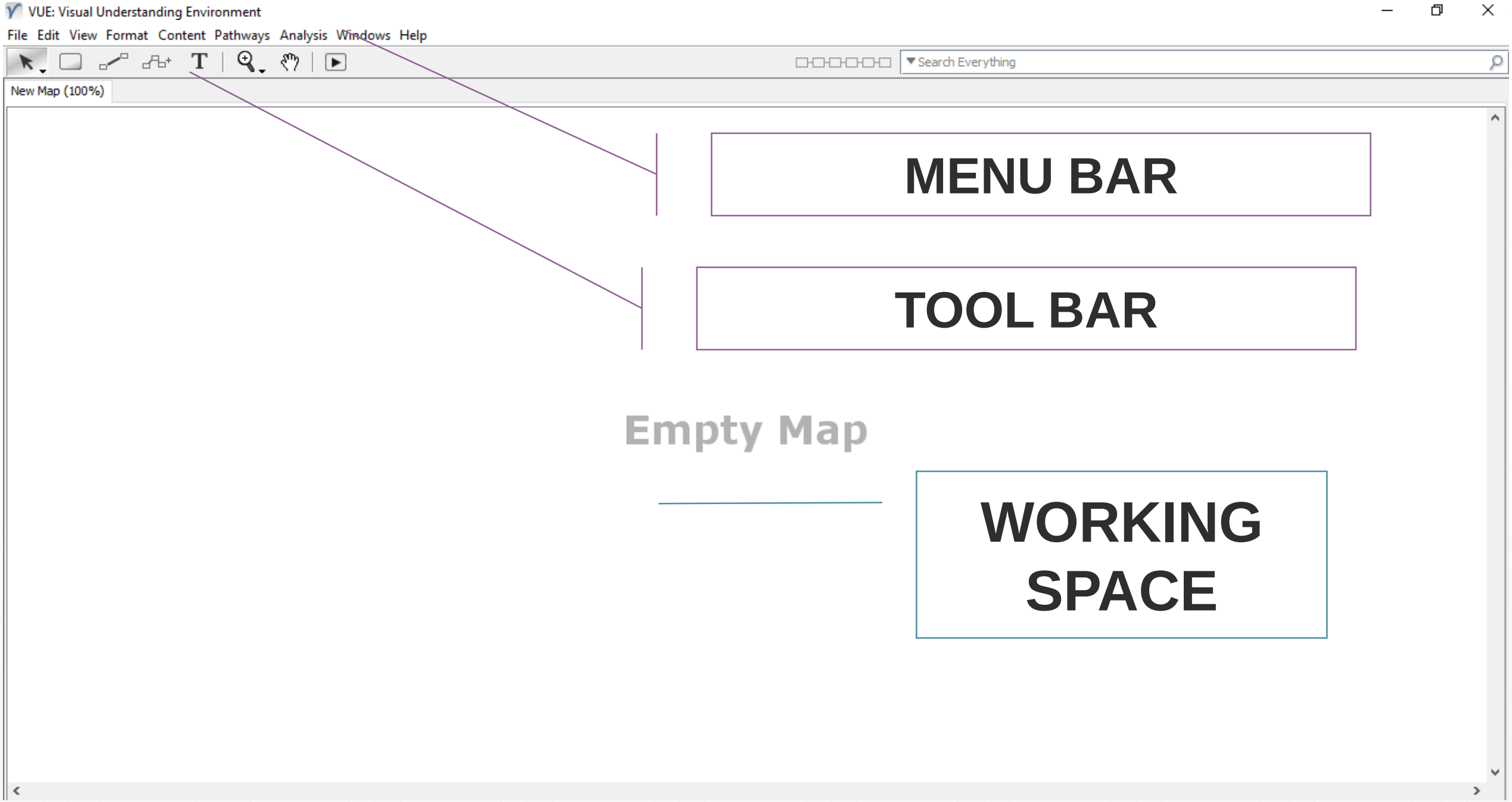
Mac OS

Download VUE for the Mac OS

After downloading, double click the VUE.pkg and it will install VUE.app to your applications folder.

Linux / Generic JAR-only version (no installer included)


This PC
Presentati...
VUE
AVG AntiVir...
PhET Simulations
CCleaner
Recycle Bin
Google Docs
VLC media player
Google Sheets
May 2020
Google Slides
MHAOrder...
exe-2.2
ZoomInstal...
Freeplane
Zoom
OBS Studio
Creating Concep...
Desktop shortcut

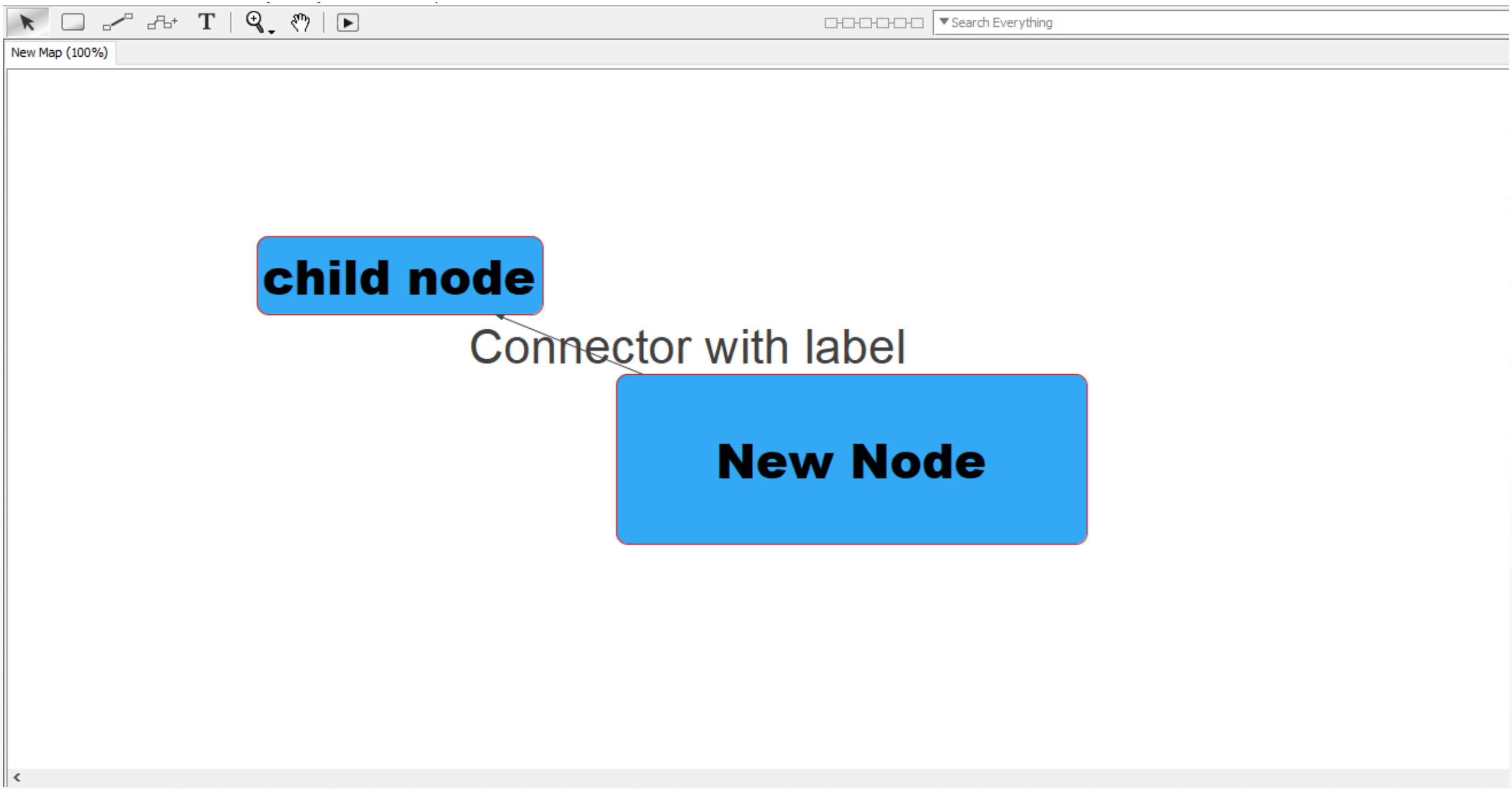

VUE: Visual Understanding Environment
File Edit View Format Content Pathways Analysis Windows Help
Search Everything
New Map (100%)
MENU BAR
TOOL BAR
Empty Map
WORKING SPACE

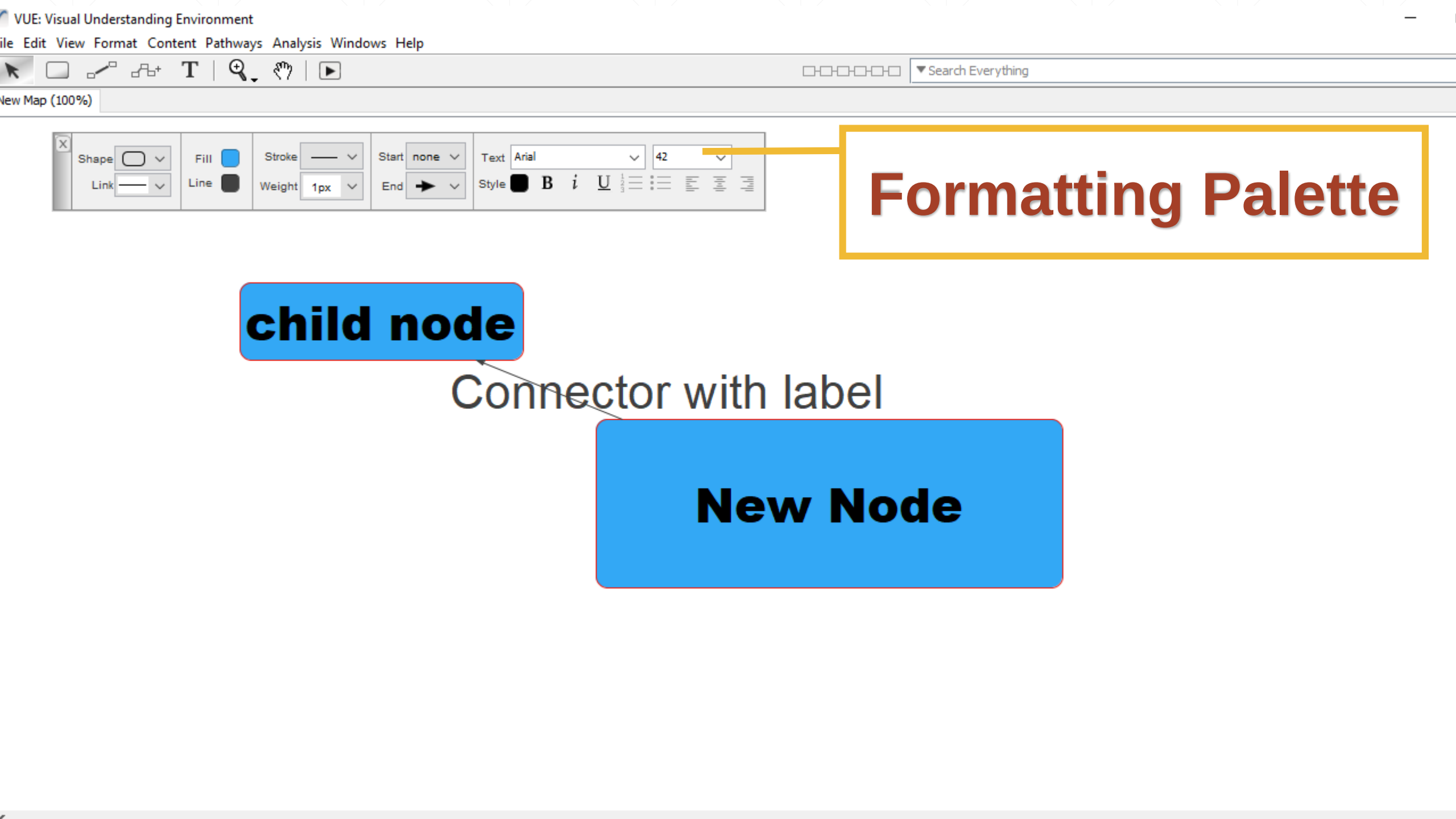

VUE: Visual Understanding Environment
File Edit View Format Content Pathways Analysis Windows Help
New Map (100%)

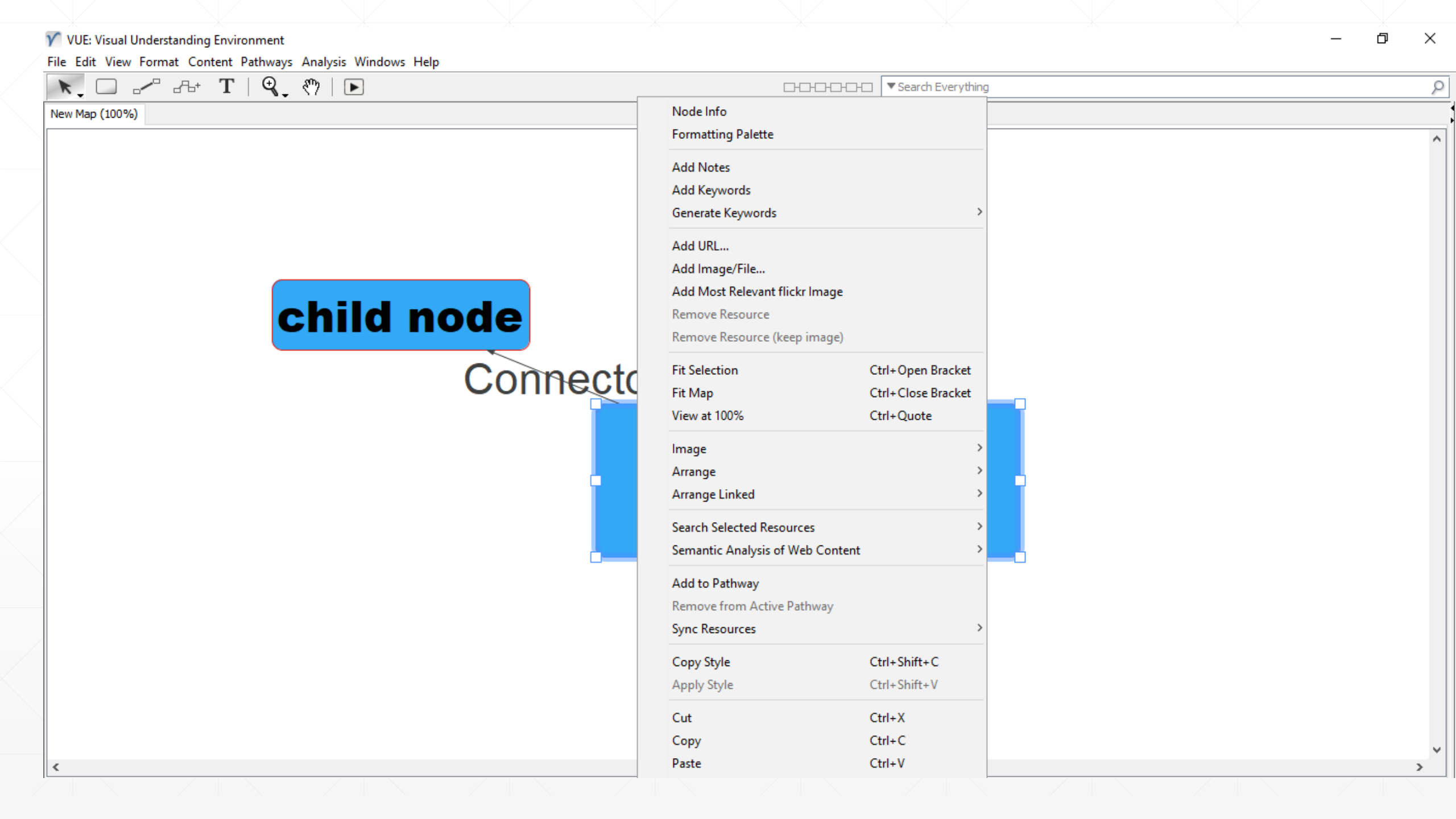
Connector Tool

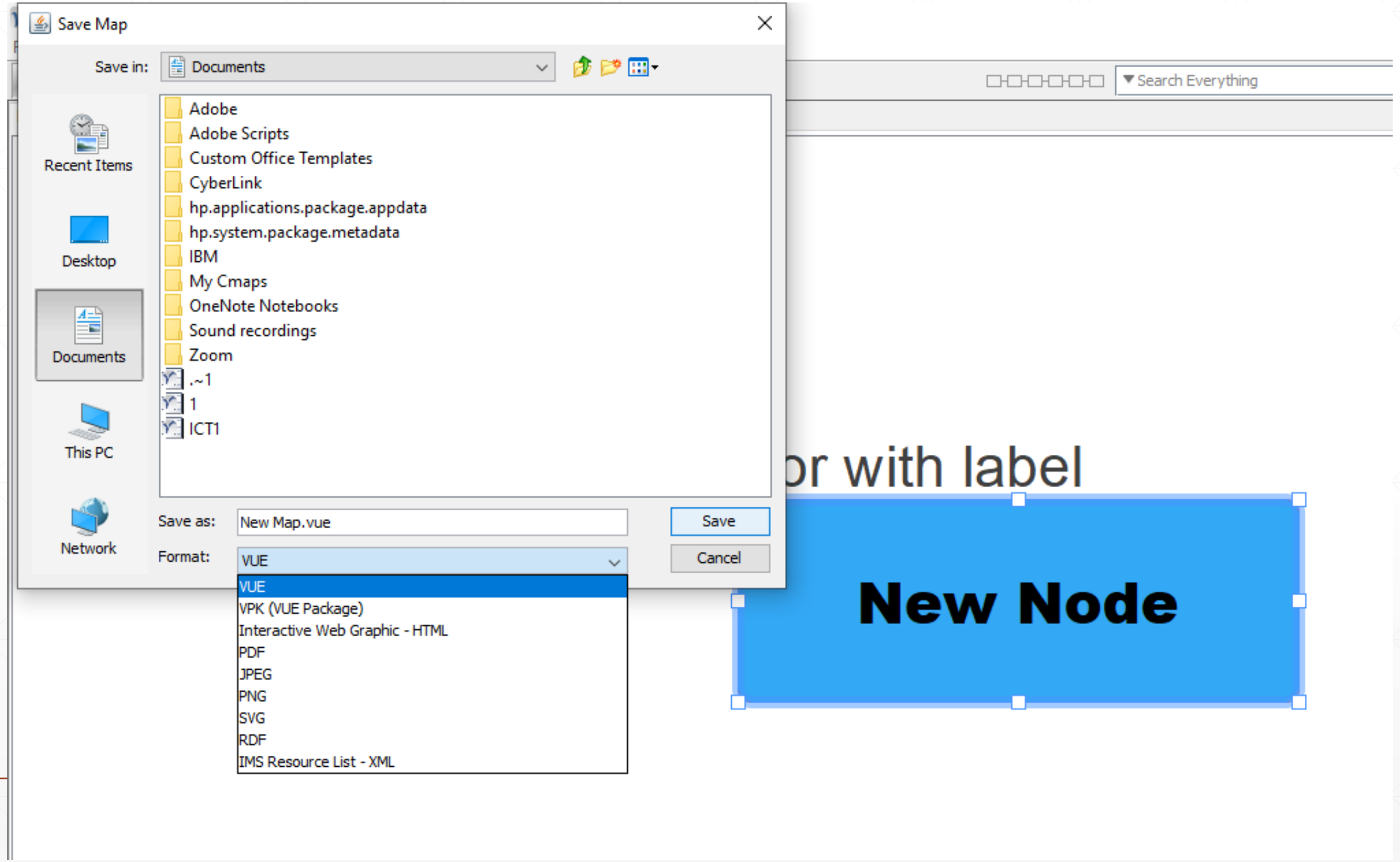
Node Tool

Selection Tool (s)


Search Everything
New Map (100%)
child node
Connector with label
New Node


VUE: Visual Understanding Environment
ile Edit View Format Content Pathways Analysis Windows Help
Search Everything
New Map (100%)
Shape
Link
Fill
Line
Stroke
Weight
1px
Start
none
End
Text
Arial
42
Style
B
i
U
Formatting Palette
child node
Connector with label
New Node


VUE: Visual Understanding Environment
File Edit View Format Content Pathways Analysis Windows Help
Search Everything
New Map (100%)
child node
Connecto
Node Info
Formatting Palette
Add Notes
Add Keywords
Generate Keywords
Add URL...
Add Image/File...
Add Most Relevant flickr Image
Remove Resource
Remove Resource (keep image)
Fit Selection Ctrl+Open Bracket
Fit Map Ctrl+Close Bracket
View at 100% Ctrl+Quote
Image
Arrange
Arrange Linked
Search Selected Resources
Semantic Analysis of Web Content
Add to Pathway
Remove from Active Pathway
Sync Resources
Copy Style Ctrl+Shift+C
Apply Style Ctrl+Shift+V
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V


Save Map
Save in:
Documents
Recent Items
Desktop
Documents
This PC
Network
Adobe
Adobe Scripts
Custom Office Templates
CyberLink
hp.applications.package.appdata
hp.system.package.metadata
IBM
My Cmaps
OneNote Notebooks
Sound recordings
Zoom
.~1
1
ICT1
Save as:
New Map.vue
Format:
VUE
Save
Cancel
VUE
VPK (VUE Package)
Interactive Web Graphic - HTML
PDF
JPEG
PNG
SVG
RDF
IMS Resource List - XML
Search Everything
or with label
New Node