

## Massive Immersion Intro

<b>Massive Immersion Intro</b>	<b>0:00</b>
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Communicating to Non-engineers	0:10
Building Consensus in a Mental Space	0:14
Five Things to Learn from This Video	0:38
Deconstructing the Workspace	0:53
Notes	0:56
Tables	1:06
Tools	1:16
Canvases	1:30
Drawing to Describe Systems	1:35
Drawing to Describe Projects	1:40
Not Freeform Drawing	1:44
The Mingus	1:58
Drawing Drives Tables	2:10
What Does that Mean	2:22
Notes	2:52
Adding Notes or Describing in Words	2:58
Where Can I Add a Note	3:00
How Long Can a Note Be	3:03
Notes Take on the Structure of Drawings	3:06
Notes Make it an Annotated Drawing	3:10
Coupled or Decoupled Canvases	3:42
Working Collaboratively	3:47

## Workspace Basics

<b>Workspace Basics</b>	<b>0:00</b>
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The Canvas List	0:19
The Load Canvases Tab	0:21
The Database You Draw	0:23
Two Canvas Types	0:34
Systems	0:38
Projects	0:39
Loading Existing Canvases	0:41
Creating New Canvases	0:44
Using the Canvas List	0:47
Manage Canvases Tab	1:27
Unlocking a Locked Canvas	1:44

Share Canvases Tab	1:50
Tecknaro Data Folder	2:10
Share Canvases Tab After a New Install	2:23
Default Data Folder in Relative Location	2:26
Additional Data Folders	2:46
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Pointing to a New Data Folder	3:28
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Zoom Center	6:20
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Zooming With the Keyboard	6:45
Opening and Closing Tool Palettes	6:51
From the Main Menu	6:53
By Right-Clicking	6:59
When in Doubt, Right-Click	7:04
Context-sensitive Right-Click	7:14
Variations on Saving	7:43
Rename	7:46
Saving Alternate Versions	7:56
Loading Alternate Versions	8:20
Making an Alternate, the Current Version	8:41
Using Alternate Version in Collaboration with Others	8:50
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## Project Basics

<b>Project Basics</b>	<b>0:00</b>
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Using the Task Mingus Tool	0:52
Placing Multiple Tasks on the Canvas	1:01
Using Ctrl+Enter	1:04
Copy/pasting Tasks from Another Application	1:23
The Task Mingus	1:44
What is a Task Mingus	1:45
Task Name	1:49
Task Status Bar	1:56
Status Indicator	2:01
Changing the Task Status	2:04
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Percent Complete Indicator	2:46
Using the Percent Complete Indicator	2:50
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Using the Task Detail Flag	3:50
Customizing the Task Detail Flag	3:55
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Using the Priority Button	4:28
Schedule Button	4:38
Using the Schedule Button; Setting Schedules	4:41
Start and End Date Brackets in Schedules	4:51
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Setting Duration	5:01
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Resource Assignment Window	5:14
Adding Resources	5:24
Opening the Resource Window	5:25
Adding a New Company	5:29
Adding people	5:40
Displaying Resources in the Assignment Window	5:50
Assigning a Task to a Resource	6:08
Showing Who Is Assigned in the Flag	6:18
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Collapse to Hide; Expand to Show	6:30

## Project Basics II

<b>Project Basics II</b>	<b>0:00</b>
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Inheriting Task Hierarchy from an External Source	1:04
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Blue Status and Percent Complete Indicators	2:06
Roll-up Values	2:10
How Roll-up Status Works	2:16
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Working With an Octopus	3:50
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Forced Roll-up Example	4:16
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Working With a To-do- List	5:19
Promoting a To-do Item to a Task	5:41
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About Notes	6:18
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Navigation Using Alt-click in Tables	7:01

## Sequences & Dependencies

<b>Sequences &amp; Dependencies</b> -----	<b>0:00</b>
Project Structure in Tecknaro-----	0:16
Dependencies in Tecknaro-----	0:47
Sequential (Simple) Dependencies-----	0:50
Sequences-----	0:55
Making Sequences-----	1:01
The Sequence Tool-----	1:04
Using the Sequence Tool-----	1:08
The Connectors-----	1:13
Naming a Sequence-----	1:17
The Sequence Menu-----	1:37
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Toggling Sequence Lines On/off-----	1:58
Selecting All the Sequence Members-----	2:10
Removing a Sequence Member-----	2:13
Breaking up a Sequence-----	2:16
Adding Members in the Middle of a Sequence-----	2:22
Removing a Sequence Member-----	2:37
Using the Sequence Table to Navigate to Members-----	2:43
Using the Navigate Sequence Menu Command-----	3:01
Using the Table to Re-order the Sequence-----	3:08
Described (Complex) Dependencies-----	3:16
Using Dependency to Navigate to Original-----	4:04
The Dependencies Table-----	4:11
Two Sequences Dependent on the Same Single Task-----	4:31

## Schedule & Resources

<b>Schedule &amp; Resources</b>	<b>0:00</b>
Temporal Dimensions of Tasks	0:07
Three Elements in Task Mingus	0:14
Detail Flag	0:17
Schedules	0:18
Resource Assignment Window	0:20
Two States of Tasks in Time	0:39
Tasks Being Estimated	0:42
Tasks Being Performed and Tracked	0:44
Transition between	0:46
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Task Table	1:28
Distinguishing Between Estimating and Tracking	1:31
Estimating Duration	1:41
Expressing Values as Ranges	1:53
Working with Ranges & Duration Notes	1:59
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Setting Start and End Dates	2:19
Certain and Uncertain Appearances	2:28
Decoupling Duration from Start and End Dates	2:33
Expressing Estimated Start Dates as a Range	2:46
Question Mark Showing Uncertainty	2:59
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Setting Real/actual Start and End Dates	3:27
Gray Versus Black Brackets in Schedules	3:34
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Describing Tasks in Uncertain Terms	4:07
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Assigning Resources	4:29
Loading Resources to Assignment Window	4:35
Bulk Loading Resources to the Resource Table	5:03
Assign to Resource	5:35
Schedule Menu Update	5:37
Using the Assignment Wand	5:50
Tasks Accumulating as Stacks in Schedules	6:04
Displaying Task Names in Schedule Stack	6:17
Displaying Individual Resource Schedule Detail	6:35
Schedules in Multi-user Collaborative Environments	6:46
Multi-user Multi-schedule Example	7:02
Resource Schedule Detail in Multi-user Example	7:40
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Opening a Closed Project from a Resource's Schedule-----	8:06
Wormholing-----	8:14
Different Views of Time-----	9:16
Resource Assignment Perspective-----	9:20
Project Structure Perspective-----	9:25
"All Tasks" View in Schedule-----	9:28
The Multi-schedule View-----	9:54
Loading Resources into Multi-scheduler-----	10:02
Working with Ranges to Show Project Risk-----	11:29
Example-----	11:38
Showing Duration Uncertain Tasks in Resource Schedule-----	12:14
Showing Date Uncertain Tasks in Resource Schedule-----	12:44
Assigning a Task to Multiple People-----	13:03
Augmenting Uncertainty with Notes-----	13:19
Assigning to Teams-----	13:24
Making a Team-----	13:30
Assign to Team-----	13:52

## Systems Basics

<b>Systems Basics-----</b>	<b>0:00</b>
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Systems Tool Palette-----	0:19
Four Sections-----	0:26
Systems Tools-----	0:29
Software Tools-----	0:30
Annotation Tools-----	0:31
Hardware Tools-----	0:32
Systems Tools-----	0:37
Systems Mingus Tool-----	0:39
Location Mingus Tool-----	0:40
Connector Tool-----	0:41
Annotation Row Selection Tool-----	0:42
Systems Mingus Tool-----	0:48
Representing Systems-----	0:51
Default Systems Type-----	0:53
Changing the Systems Type-----	0:57
Multi-purpose Systems-----	1:04
Example-----	1:07
Virtual Systems-----	1:20
Changing the Systems Mingus Tool to Make Different Systems Types-----	1:23
Naming a System-----	1:30

Representing Software, Hardware, and Relationships-----	1:36
Two Main Containers-----	1:42
Software Container Subdivisions-----	1:45
Software We Build-----	1:47
Software We Use-----	1:49
The Operating System-----	1:53
A Fixed Set of Containers-----	1:57
The Location Tool-----	2:04
Systems Live in Locations-----	2:07
Showing Virtual Locations-----	2:15
Virtual Entities and Virtual Systems-----	2:24
The Connection Tool-----	2:32
Connecting to Show Relationships and Dependencies-----	2:35
Annotation Row Selection Tool-----	2:49
Selecting Rows in Annotation Mingus Tables-----	3:00
Software Tools-----	3:10
Software Minguses-----	3:12
What They Are-----	3:15
Where They Live-----	3:19
What They Do-----	3:23
A Simple Taxonomy for Software-----	3:28
Software Mingus Examples-----	3:46
Copy/pasting Multiple Systems Names from an Outside Source-----	3:49
Software Minguses Adding First Layer of Detail to a System-----	4:25
Annotation Tools-----	4:32
What They Do-----	4:35
Three Annotation Types-----	4:39
Inner Annotations-----	4:46
What They Are-----	4:48
Where They Live-----	4:51
Example-----	4:55
Adding Load Information to a Server-----	4:55
Adding User Account Types to a Matrix-----	5:09
Copy/pasting Tab Delimited Text-----	5:19
Copy/pasting Data from Existing Spreadsheets-----	5:26
Example-----	5:31
Inner Annotations Add another Layer of Detail to Our System-----	6:06
Interface Annotations-----	6:12
Where They Live-----	6:15
They Are Incoming or Outgoing-----	6:20
Displaying How Software Components Communicate-----	6:23
Example-----	6:29
Calling or Providing Services-----	6:33
Making Connections by Drag and Drop-----	6:50
Displaying the Relationship between a Call and a Provide-----	7:00



Example -----	7:22
Yet Another Layer of Detail in Our System -----	8:08
OS Annotations -----	8:18
Where They Live -----	8:20
What They Do -----	8:26
Example -----	8:32
Adding Annotations to the OS -----	8:34
Adding Network Addresses -----	8:42
Adding a Storage Mount Point -----	8:50
Drag and Dropping to Establish Connections -----	8:53
Establishing Storage Requirement Roll-up -----	9:16
Another Layer of Detail -----	9:35
Hardware -----	9:40
A Simple Taxonomy for Hardware -----	9:46
Placing Descriptions of Software in a Hardware Context -----	9:51
Internal Hardware Minguses -----	10:02
Where They Live -----	10:03
General Hardware -----	10:11
Network Infrastructure -----	10:23
What Does It Do -----	10:29
Example -----	10:36
Choosing Your Level Detail -----	10:40
Declaring Memory Assets -----	10:44
Declaring Storage Assets -----	10:53
Getting into Detail -----	11:00
Adding Motherboard -----	11:03
Declaring the CPU -----	11:07
Adding Slots -----	11:11
Adding Memory to Slots -----	11:26
Displaying Driver Dependencies at the OS Level -----	11:54
RAID Example -----	12:06
Connecting to OS Annotations -----	12:14
Adding Networking Components -----	12:47
Adding Network Hub -----	12:54
Connecting a Network Card to a Hub -----	12:58

## Relationships & Dependencies

<b>Relationships &amp; Dependencies -----</b>	<b>0:00</b>
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The Racks -----	0:38
Connection Points -----	1:09
Lower Right Rack -----	1:21

Version Indicator -----	1:36
Actual Versus Declared Parameter Values -----	1:47
Expires On -----	2:29
Exporting Systems Tables -----	3:06
Don't-install List -----	3:22
Incompatibility List -----	3:56
Can't-run-without List -----	4:35
Declaring Relationships with Connector Tool -----	5:11
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Declaring Disk & RAM Requirements -----	6:54
Upper right rack -----	9:02
Should-be-identical Dependencies -----	9:04
Is-used-by Dependencies -----	9:24
Needs Me Dependencies -----	12:06
Hardware Emulation Dependencies -----	12:22
Annotation Mingus Racks -----	12:43
My-dependent-hardware Connection -----	12:54
My-dependent-software Connection -----	13:08
My-dependent-protocols -----	13:28
Simple Hardware Emulation Example -----	13:36
Hardware Emulation Example II -----	14:03
Hardware Emulation Example III -----	15:06
Declaring OS RAM & Disk Requirements -----	15:40
Hardware Racks -----	15:57
I'm-plugged-into Dependency -----	16:01
Hardware Upper Right Rack -----	16:29
My Driver Connection -----	16:33
My Connected Hardware Connection -----	16:41
My Mount Points -----	16:54
My Network Addresses -----	16:59
Exceptions -----	17:09
Hardware Driver Dependencies -----	17:28
Interface Annotation Racks -----	18:25
Interface Connection Arrow -----	18:47
API -----	19:00
Example -----	19:06
Protocol -----	19:12
Example -----	19:18
API vs. Protocol -----	19:24
Service -----	19:45
API Version Indicator -----	19:54
API Supported Services -----	20:00
Protocol Version Indicator -----	20:07
Protocol Supported Services -----	20:11
Protocol My-network-addresses Connection -----	20:13

Example-----	20:22
Services Version Indicator-----	20:29
Runs-over Connection-----	20:31
Example-----	20:37
Virtual Systems Connections-----	20:45
Is Rendered from Connection-----	20:53
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## Pretasks

<b>Pretasks-----</b>	<b>0:00</b>
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Minguses Describing Systems-----	0:28
The Intersect of Systems and Projects-----	0:31
What Pretasks Do-----	0:35
User Authentication Example-----	0:54
Adding a Pretask-----	1:07
The Pretask Table-----	1:12
A Hierarchic Representation of All Canvas Elements-----	1:15
The <u>T</u> Link-----	1:33
Unrendered Pretasks-----	1:39
Adding More Pretasks-----	1:48
Thinking of Tasks While Drawing Systems-----	2:04
Rendering Pretasks as Tasks in a Project Canvas-----	2:22
Opening a Linked System from Inside its Related Tasks-----	2:57
Rendering Pretasks as To-do Items-----	3:00
Inter-canvas Synchronization and Updates-----	3:24
Wormholing to tasks from the Related Systems Canvas Table-----	3:58
One-to-many/many-to-one Relationships between Systems and Tasks-----	4:19
Linking Existing Project Tasks to Pretasks in a New Systems Canvas-----	4:28
Linking Existing Project To-do Items to Pretasks in a New Systems Canvas-----	4:51
Pretask Links Behavior within Alternate Versions-----	4:53
Creating Project Templates Based on Systems Descriptions-----	5:11
Using Pretasks as a Project/systems Blueprint-----	5:38

## Managing Uncertainty

<b>Managing Uncertainty</b>	<b>0:00</b>
Many References to Uncertainty	0:08
Distinguishing Between Estimated and Actual	0:11
Question Marks in Task Minguses	0:15
The Octopus	0:18
Ranges	0:20
Visual differences Between Certain and Uncertain Durations	0:24
Projects as the Accumulation of Certainty and the Reduction of Uncertainty	0:31
Uncertain Not Blank	0:38
Gathering Certainty as Workflow	0:43
In This Video	0:49
Suggesting Alternatives	0:50
Drawing Attention to Differences of Opinion	0:51
Creating Dependencies to Reduce Uncertainty	0:54
Creating Tasks to Reduce Uncertainty	0:57
Connection Uncertainties	1:00
Managing Differing Opinions about Project Attributes	1:11
Suggest an Alternative View	1:18
Uncertainty as a Dark Frame around a Value	1:25
Adding Notes to Explain Disagreements	1:51
Seeing Who Made the Differing Suggestion	1:57
Displaying Alternative Suggestions in the Table View	2:12
Drawing Attention to Differences of Opinion	2:21
Creating a Dependency to Resolve Disagreements	2:31
Resolving a Disagreement	2:55
The Disagreement Report	3:05
Uncertainty and Disagreements in Systems	3:10
Simple Disagreements	3:16
Disagreements Inside Rack Parameters	3:22
Disagreements Inside Annotation Tables	3:26
Other Uncertainty Types	3:30
Maybe It's This/maybe It's That	3:36
Dotted Connection Lines	4:04
Simultaneously Showing Certain and Uncertain Connections in the Same Connector	4:08
Interface Connection Uncertainty	4:38
Example	4:41
Creating a Pretask to Solve an Uncertainty	5:10
Declaring Uncertain Connections	5:18