



JOSEPH HUMFREY – CO-FOUNDER – INKLE

INK: THE NARRATIVE SCRIPTING LANGUAGE BEHIND 80 DAYS AND SORCERY

@inkleStudios @joethephish



£9,779 DAY 30 WEDNESDAY
10:44 AM

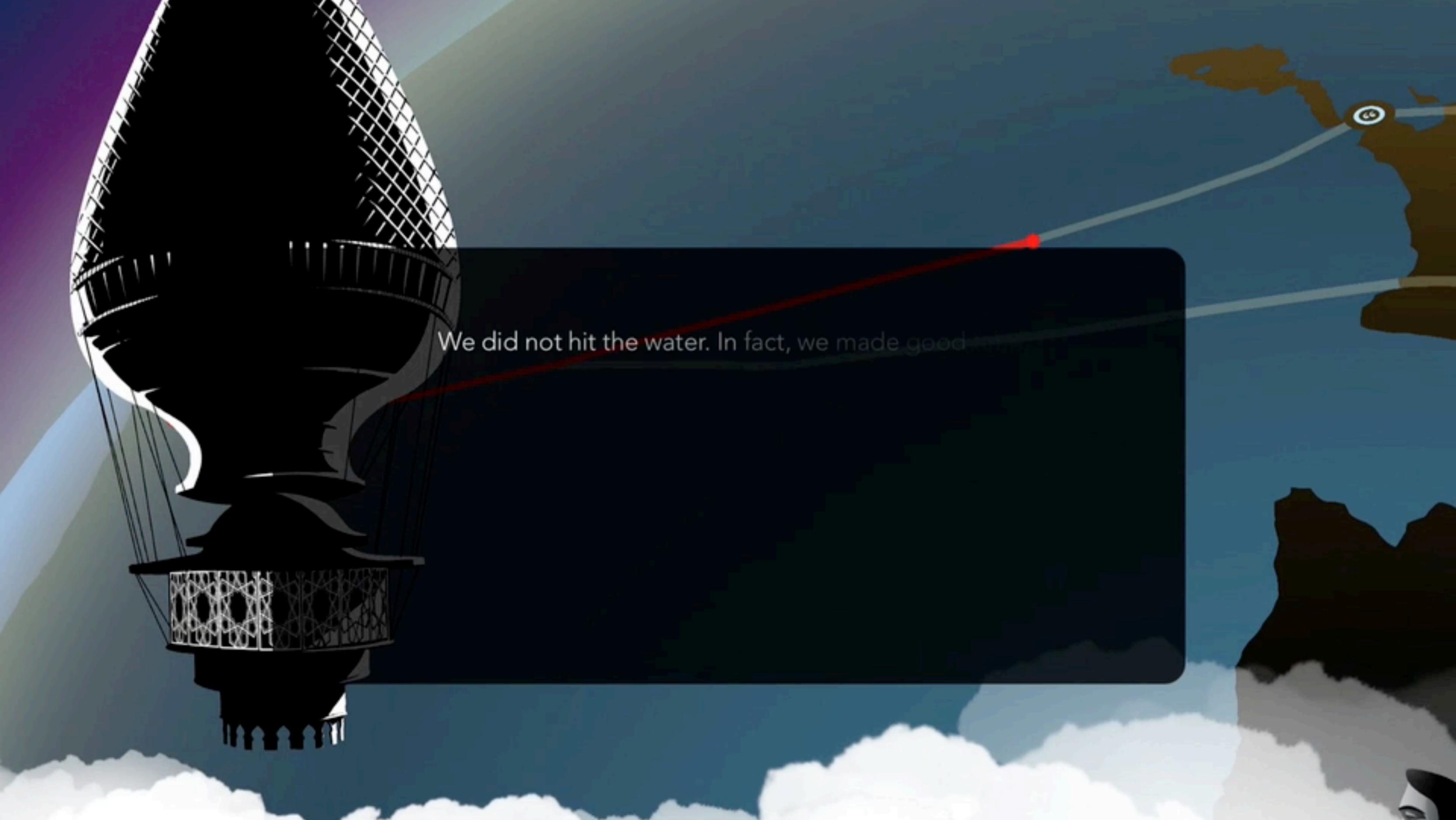


DAY 2
Arrived in Munich at 10:00 PM

80 DAYS



♥ 65

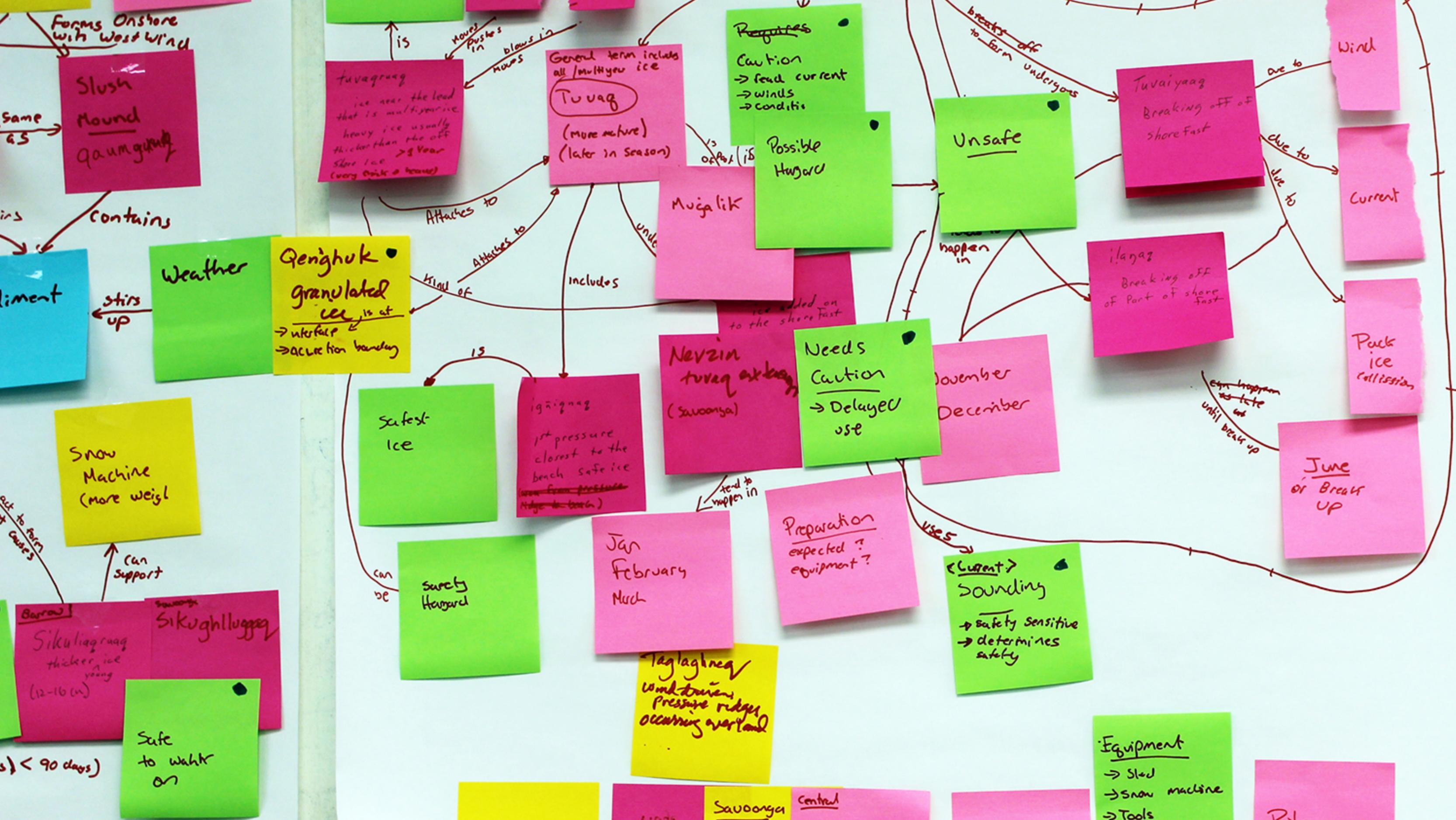


We did not hit the water. In fact, we made good

▶ **PAST** How ink was pivotal for 80 Days and Sorcery

▶ **FUTURE** What we learned, and the improvements we made

▶ **YOUR GAME** Getting started with ink in your own game

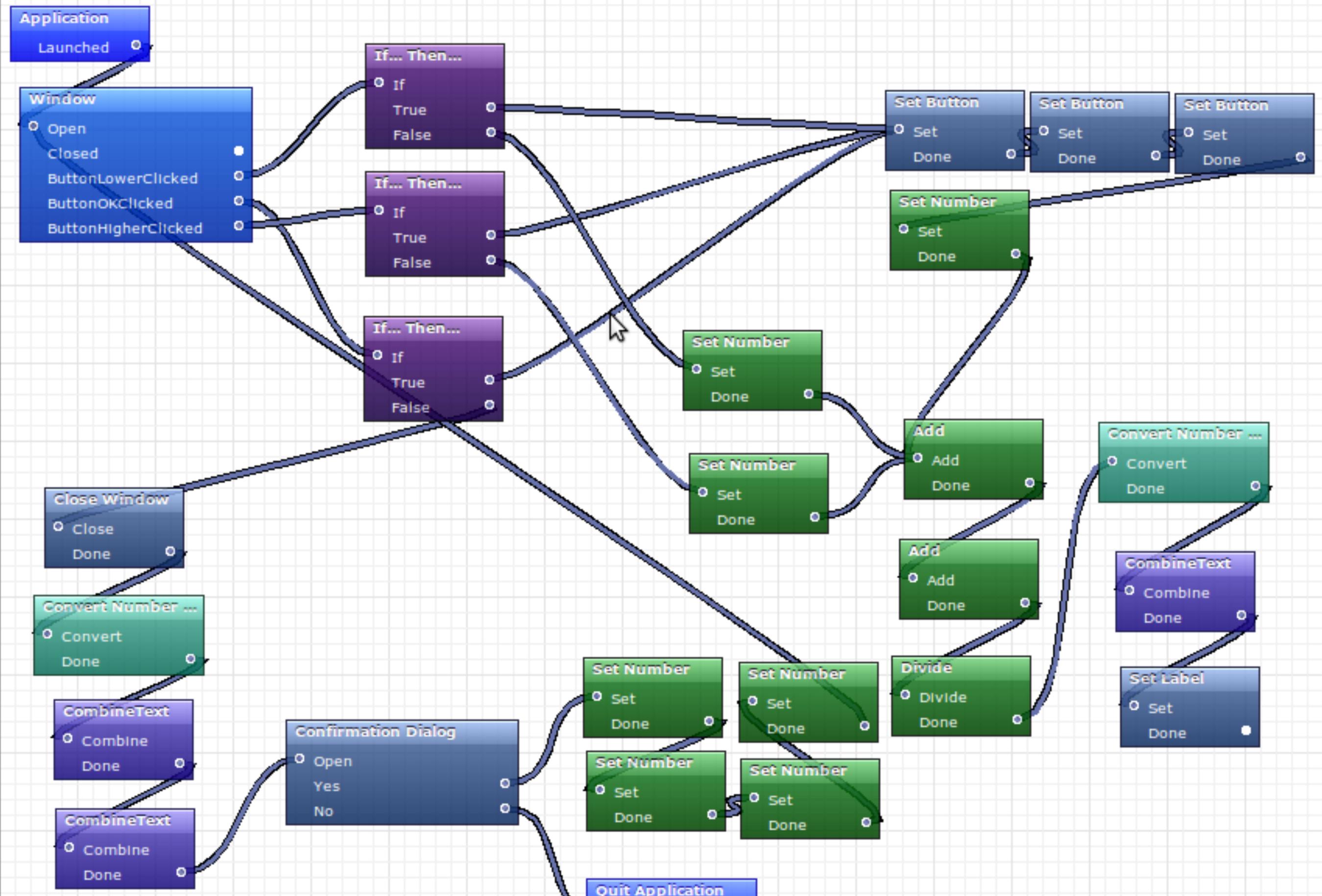


User Interface

- Window
- Close Window
- Message Box
- Confirmation Dialog
- Set TextBox
- Get TextBox
- Set Label
- Set TextField
- Get TextField
- Set ProgressBar

Variables

- Right (Text)
Default = THAT'S RIGHT!
- HigherMsg (Text)
Default = Higher
- LowerMsg (Text)
Default = Lower
- Two (Number)
Default = 2
- One (Number)
Default = 1
- First (Number)
Default = 1
- High (Number)
Default = 100
- Low (Number)
Default = 0
- CurrentGuess (Nu...)
Default = 0
- Guesses (Number)
Default = 0
- GuessesText (Text)



sign in

new

restart tutorial

contents

write

read

Unlink

Interactive what?

What is an interactive story? Well, you're reading one!

Except of course, this isn't really a story. This is a tutorial. In most interactive stories, you - the reader - would be telling the story what you want the main character to do, by making choices.

But for now, we're trying to learn how it works. So let's get going.

2 links.

Okay

I still don't get it. An example, please?

Add option

Contents

▶ The beginning 1 end

▶ Introduction

▼ Interactive what?

What is an interactive story? Well, you're reading one!

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But for now, we're trying to learn how it works. So let's get going.

2 links.

Oh, okay. Here goes. Um...

▶ Example story

▶ Choose a tutorial

▶ Sharing stories

▶ Changing the flow 1 end

▶ Options 1 end

▶ The Contents List

Map - Section 1



Section 1

The king died and then the queen died of grief.

The king was thought to have died, and the queen, believing it, died of grief.

The king died, and so the queen decided to fake her own death.

The king died. Since the queen had been parasitically feeding upon him throughout his life, when he died she was deprived of sustenance, and wasted away as well.
End.

The king arranged with his Court Physician to pretend that he had died, and left the castle. The queen, believing he was gone, died of grief.

The king disappeared from the kingdom because he was kidnapped by an evil wizard. Then the queen died of grief.

The king died, and so the queen decided to fake her own death so that she could leave the kingdom.
End.

The king died. The queen was suspicious that someone had killed him, so she faked her own death.

The king arranged with his Court Physician to pretend he had died. He left a note for the queen with the physician.

The king arranged with his Court Physician to pretend that he had died, in order to deceive his wife the queen, from

The king disappeared from the kingdom because he was kidnapped by an evil wizard. Everyone thought he might be

The king died. The queen was suspicious that someone had killed him. Fearing that the murderer wished to kill

The king died. The queen was suspicious that someone had killed him. Wishing to investigate the murder, she

INK

INK: BASICS

```
== par198 ==
```

```
= intro
```

```
~ learn_name_of_cantopani_innkeeper = true
```

```
'I'm a hungry traveller and need to eat.'
```

```
He motions you on ahead. 'You'll find the inn in the centre  
of the village. It's run by Amella. There isn't much there, but  
you'll get something for your belly.'
```

```
* [Thank him] -> thank
```

```
* [Shove him aside] -> shove
```

```
= thank
```

```
'I thank you,' you reply, with a slight bow. He bows in  
reply, but the movement looks awkward on him, like he was a  
performing bear. -> par81
```

```
= shove
```

```
You shove him carelessly aside and he falls into the mud.
```

```
-> par81
```

A hand-drawn map of a village. At the top, a string of colorful prayer flags hangs across the scene. Below it, a river flows through a valley. In the center, a large gate is labeled 'CANTOPANI GATE'. To the left, a road leads towards the gate, with some buildings and a fence. To the right, there are more buildings and a cluster of trees. The map is drawn with black ink outlines and colored washes of green, brown, and blue. The sky is filled with white, fluffy clouds.

CANTOPANI GATE

'I'm a hungry traveller and need to eat.'

He motions you on ahead. 'You'll find the inn in the centre of the village. It's run by Amella. There isn't much there, but you'll get something for your belly.'

Thank him

Shove him aside

A hand-drawn map of a village named 'CANTOPANI'. The map features a winding river, a mountain range in the background, and a string of colorful prayer flags hanging across the top. The village is depicted with various buildings and structures. The text is overlaid on a piece of parchment paper.

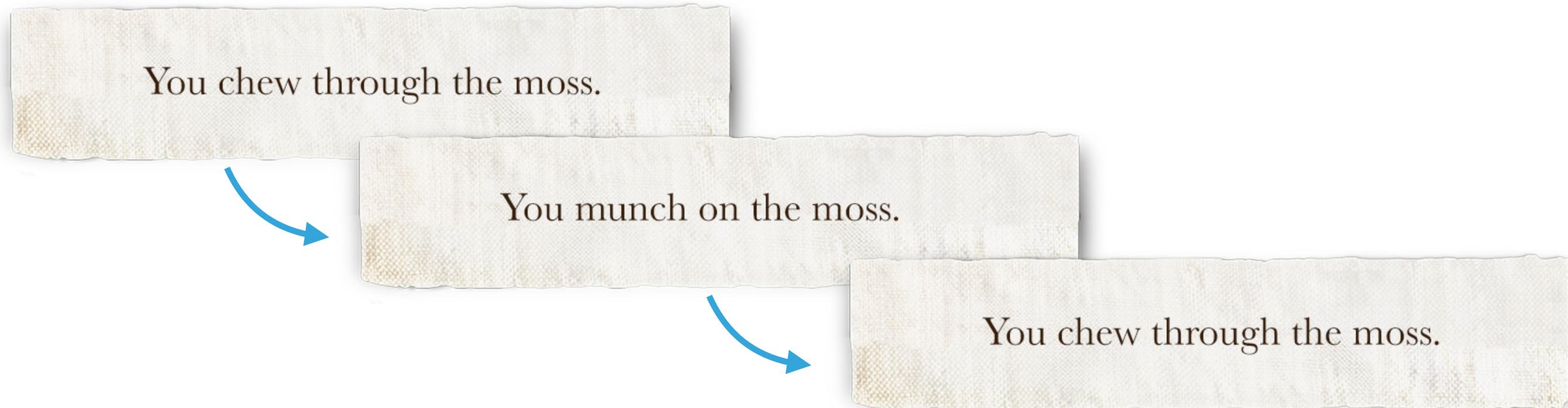
'I'm a hungry traveller and need to eat.'

He motions you on ahead. 'You'll find the inn in the centre of the village. It's run by Amella. There isn't much there, but you'll get something for your belly.'

'I thank you,' you reply, with a slight bow. He bows in reply, but the movement looks awkward on him, like he was a performing bear.

INK: INLINE LOGIC

CYCLES: You `{&chew through|munch on}` the moss.



INK: INLINE LOGIC

CONDITIONALS: It is much like the last bunch you

`{eatit:ate|{tasteit:tasted|did not dare to taste}}.`

Has visited = `eatit` ? →

It is much like the last bunch you ate.

Has visited = `tasteit` ? →

It is much like the last bunch you tasted.

Has visited neither? →

It is much like the last bunch
you did not dare to taste.

INK: APPROACHING PROCEDURAL NARRATIVE

```
{&Laying your pack down|{&{&Setting|Putting} down|{&Removing|Unstrapping}} your pack}  
{on_the_ground()}}, you try to {&settle|stretch out|rest} despite the {drenched:shivering  
cold of your still-wet clothing|{&cold|{landscape == TREES:unsettling noises in the trees|  
wind}}|strange noises that float across the landscape}}.
```

Laying your pack down by the cliff-edge, you try to settle despite the cold wind.

Putting down your pack by the roots of a tree, you try to stretch out despite the shivering cold of your still-wet clothing.

INK: WEAVE

```
== par198 ==
```

```
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```

```
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* 'I thank you[.]', you reply, with a slight bow. He  
bows in reply, but the movement looks awkward on him, like he  
was a performing bear.
```

```
* [Shove him aside] You shove him carelessly aside and he  
falls into the mud.
```

```
- -> par81
```

INK: WEAVE

* 'I thank you[.'], ' you reply.

1 2 3

Choice (1 & 2):

'I thank you.'

Game output (1 & 3):

'I thank you,' you reply.

INK: WEAVE IN 80 DAYS

```
== bangalore ==
```

```
- We spent most of our time in Bangalore Cantonment rather than the City proper, as it was administered directly by the Raj.
```

```
    I had a few hours spare, so
```

```
    * I was happy to pretend I was still in Europe[] if I could. {lower(style)}
```

```
-
```

```
    * ... I stayed indoors[] with Monsieur Fogg, tending to his needs, while we plotted our departure with haste.
```

```
        -> DONE
```

```
    * ... I took a walk in Meade's Park[], where a group of off-duty cavalry officers were playing a game of cricket under the shade of peepul trees.
```

```
- "Fancy playing with us?" a young chap with a sparse, optimistic moustache called out.
```

```
    * "I don't play cricket."[] I told him
```

```
        ** ...ruefully[].
```

```
        ** ...with a shrug[].
```

```
        -- "/Don't play cricket?/" He looked utterly
```

aghast. "My dear fellow, my dear fellow. How can this be?"

Clearly, he was of that particular mould of Englishman who ordered their life around the cricket-lawn and the fox hunt.

```
        ** "No interest, really[.]", I replied.
```

"No... /interest/?" He repeated my words to himself several times, as if that would somehow alter their meaning. He squinted at me as though he were an Artificer, and I a particularly troublesome automaton. "You are quite serious?"

```
        *** "I do not care for sport."
```

```
        *** "Association football is more my style."
```

```
        --- He looked quite ill at my statement.
```

"You Continentals," he said in an odd, strangled tone. "You're even stranger than the natives; at least /they/ like a cricket match, same as any Englishman."

```
            -> end_bangalore
```

```
        ** "I have always wanted to learn[.]", I replied.
```

A smile leapt to his face. "Then today is your chance!" He handed me the red-leather cricket ball.

INK: WEAVE

- ➔ - "Well, Poitou? Suicide or... murder?"
- * "Suicide!"
- "Really, Poitou? Are you quite sure?"
- * * "Quite sure."
- * * "It is perfectly obvious."
- * "Murder!"
- "And who did it?"
- * * "Detective-Inspector Jape!"
- * * "Captain Hasty!"
- * * "Myself!"
- - "You must be joking!"
- * * "Mon ami, I am deadly serious."
- * * "If only..."
- Mrs. Christine lowered her manuscript a moment.
The rest of the writing group sat, open-mouthed.

IN GAME:

"Well, Poitou? Suicide or... murder?"
"Suicide!"
"Murder!"

INK: WEAVE

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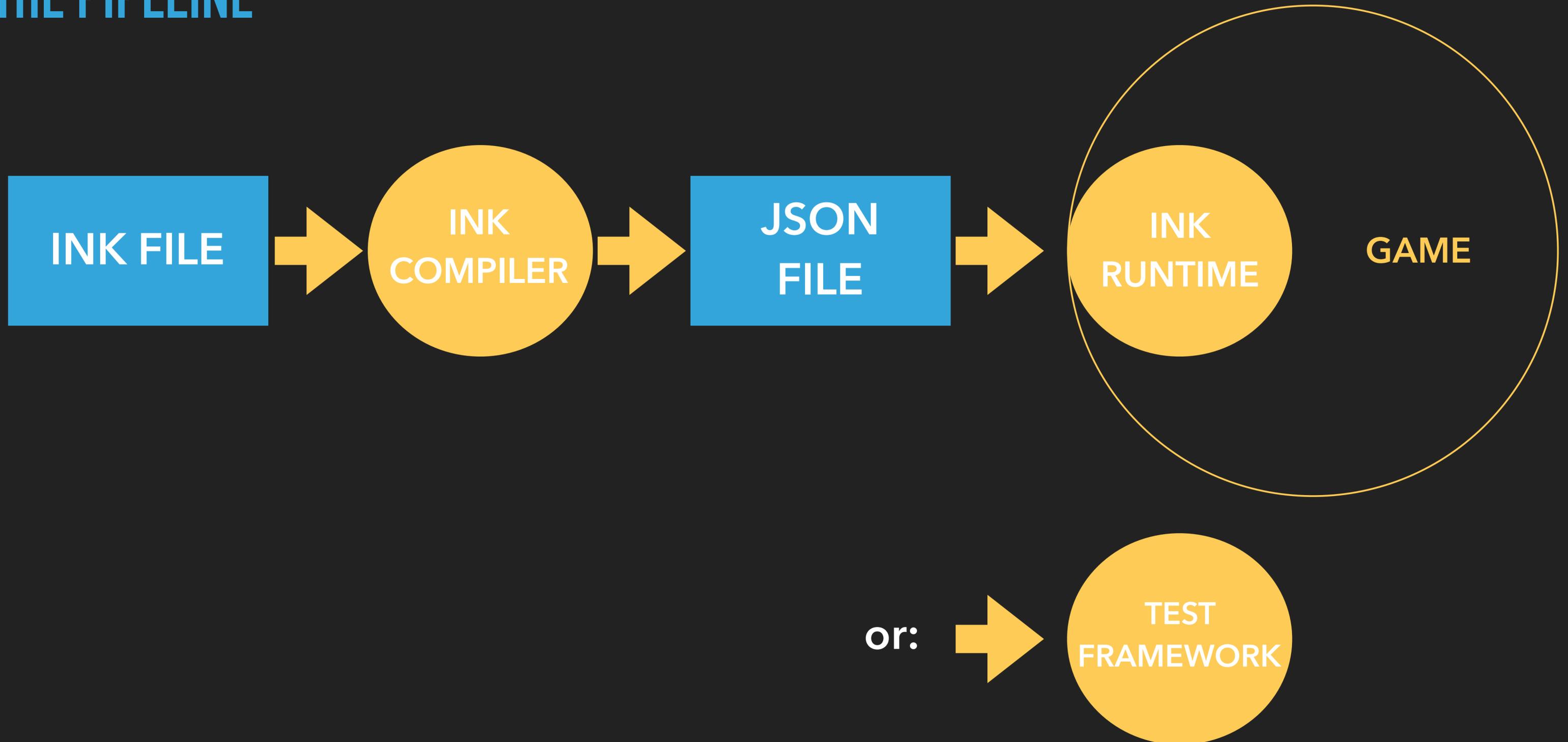
WEAVE: DECLARATIVE FORWARD FLOW

- ▶ Emphasis on content, not flow
- ▶ Great for dialog
- ▶ A "sub-format" of ink

MOTIVATIONS FOR INK 2

- ▶ More maintainable
- ▶ Future proof
- ▶ Weirdly, I like compilers :-)
- ▶ Open source?

THE PIPELINE



INK 2 - "HELLO WORLD" EXAMPLE

```
Hello world.
```

INK: MIXED WEAVE SYNTAX

What's your favourite colour?

* Blue[], I thought to myself. -> but

* [Red] -> red

= red

Red, I thought angrily.

-> but

= but

But there was no time to answer.

COUNTER-INTUITIVE QUIRKS OF INK

- ▶ More markup than programming language
- ▶ We embrace GOTO
- ▶ Punctuation heavy (!?) :-)

THE SMALL FOOTPRINT

```
using Ink.Runtime;

// 1) Load story
Story story = new Story.CreateWithJson(sourceJsonString);

// 2) Game content, line by line
while(story.canContinue)
    Console.WriteLine(story.Continue());

// 3) Player makes a choice
Console.WriteLine(story.currentChoices[0].choiceText);
story.ChooseChoiceIndex(0);

// 4) Back to 2
...
```

HOW WE DO DIALOG (WE DON'T)

Anna (shocked): You said WHAT?! #closeup

INK 2: ADVANCED STRUCTURING

TUNNELS: `-> sleep -> dream -> wake ->`

THREADS: `<- desert_interactions`

`<- anna_conversation`

INK: DIFFICULTIES AND DOWNSIDES

LOCALISATION & AUDIO?

THE PROBLEMS:

- ▶ Quantity
- ▶ Word-by-word variability

INK: DIFFICULTIES AND DOWNSIDES

Original ink:

“{Hello|Hi there}, {world|everybody}”

Minimum versions,
full variability

“Hello, world”

“Hi there, everybody”

Translated versions

“Bonjour, le monde”

“Salut, tout le monde”

Automatically
re-encode?

“{Bonjour|Salut}, {|tout} le monde”

(is this even possible
without errors?)

INK: DIFFICULTIES AND DOWNSIDES

CAN YOU HELP?

INK IS OPEN SOURCE!

www.github.com/inkle/ink

My email address:

joe@inklestudios.com