

# Mini map navigation

## Introduction

Some times you need to make a very extensive flow, this causes the flow to be a lot longer than the web page can handle. This means that you can't see the whole flow on one page and that it shifts outside of the view of the users. For that reason there should be some sort of solution for this that fixes that you could see the whole flow. This research document I will be researching in what type of way I can make the flow viewable for the users. User-friendliness is on the first place for this functionality, so for this I will be researching first what kind of ways there are to navigate through a flow and I will be designing it so that I can user test it on people so they can give their opinion and I can iterate further on that.

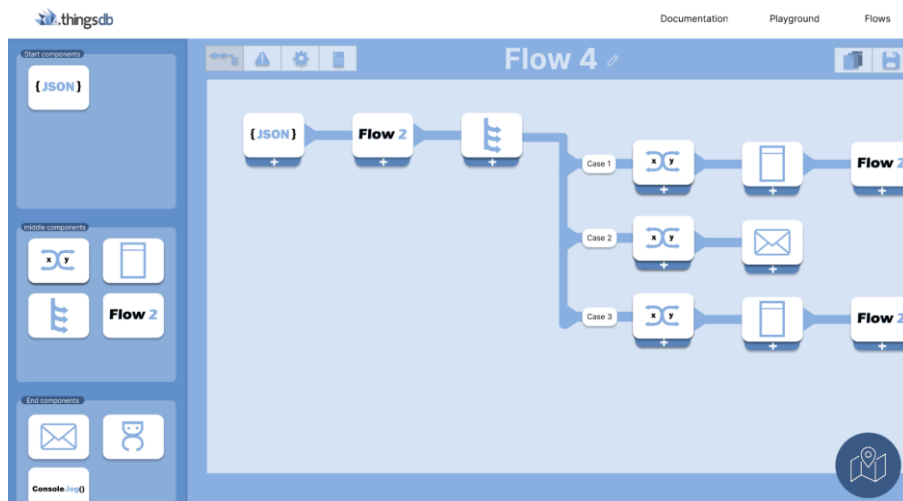
## Research Methods

For this research I started with looking at other applications and existing designs, I took some inspiration from similar applications to see how they worked on this but I also looked at whole different applications to see if this could work for my application as well. To summarize it I have done the library study to find out what kind of design I wanted to have for my navigation. For the user testing I made use of the A/B-testing, as I made several designs. I also made use of the thinking aloud, going hand in hand with usability testing, as I made the user test the usability with my interactive Figma design. I set up a few questions to find out which design was more enjoyable for users. These were all the methods I used to find the answer for my research question and to help me design so that the users get a good experience while using the prototype.

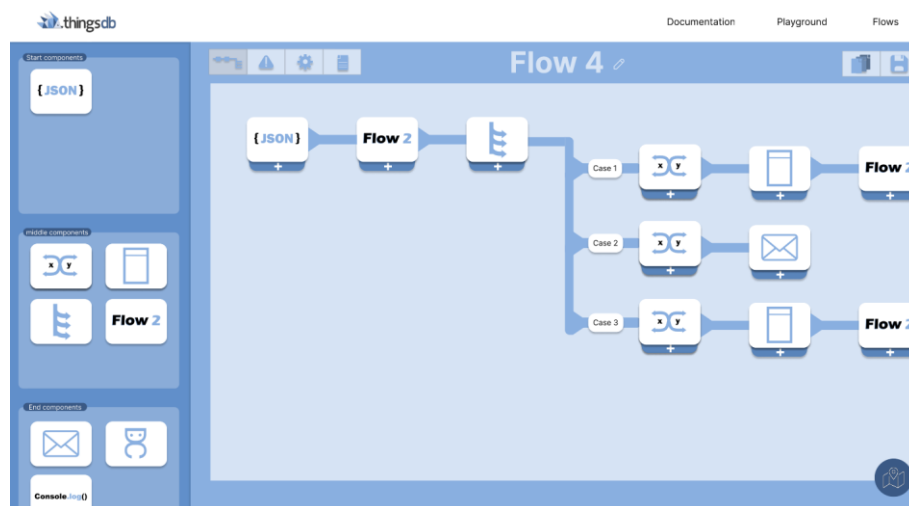
## Designs

First of all I started this research with designing in Figma, I wanted to make a few designs showcasing how it could be possible to navigate through the flow. With some inspiration of websites and applications I have researched before I made a few designs that could work.

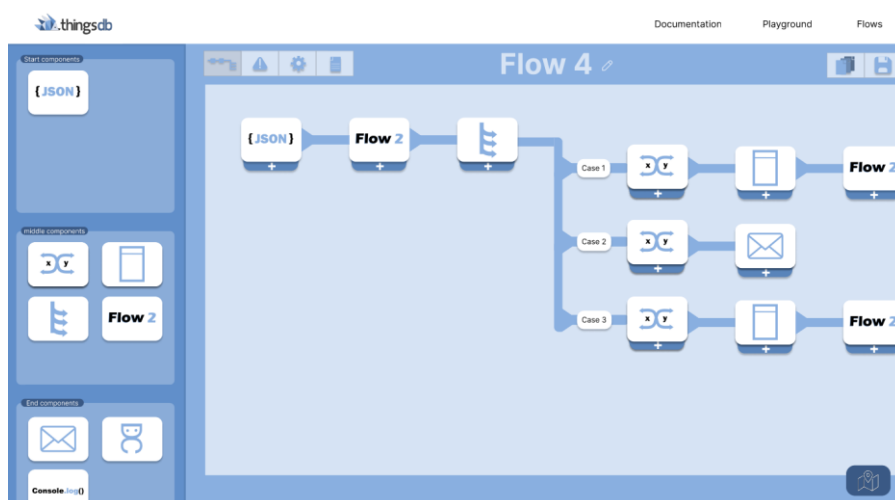
My initial idea that I came up with was to make a navigation map in the right down corner that first serves as a button and opens the map when you click on the button, so that users won't be annoyed by the fact that a map is over the board the whole time and open it when it is needed. My initial design started with a huge circle button in the right hand corner



but when I asked for feedback asking the question how they liked the button and if they wanted to change something most of the people told me that it should be smaller and that it should be less on the board so that is exactly what I did;



I also made another version making it more square, so that I could do a A/B-test to see which people would like the most;



Then I came up with the idea that users could just swipe through the board as well. That they could, for example, hold their mouse button and go through the flow like that. This was a little harder to make in Figma though, so I made this with the only way possible. I made it so that you can drag over the board and that it swipes to the other half of the page and you can also go back by dragging like this. The only problem could be if this would be done without a sort of minimap you could get lost in the board and lose track of where you are. So this functionality could work really good mixed with the minimap.

You can try out the minimap and the drag functionality right here;

<https://www.figma.com/proto/RIRckga4ygXjlpYMYyj278/ThingsFlow?node-id=683%3A3209&scaling=scale-down&page-id=0%3A1&starting-point-node-id=425%3A3202&show-proto-sidebar=1> (If you don't immediately go to the page where you see a minimap you should click on 'minimap functionality' on the left hand side)

I also came up with the idea that the board would expand automatically when you make a bigger flow, so the components will become smaller so that it fits the whole page. This was kind of hard to make in Figma as well but I managed to do this eventually. You can also try it out pressing the link down below;

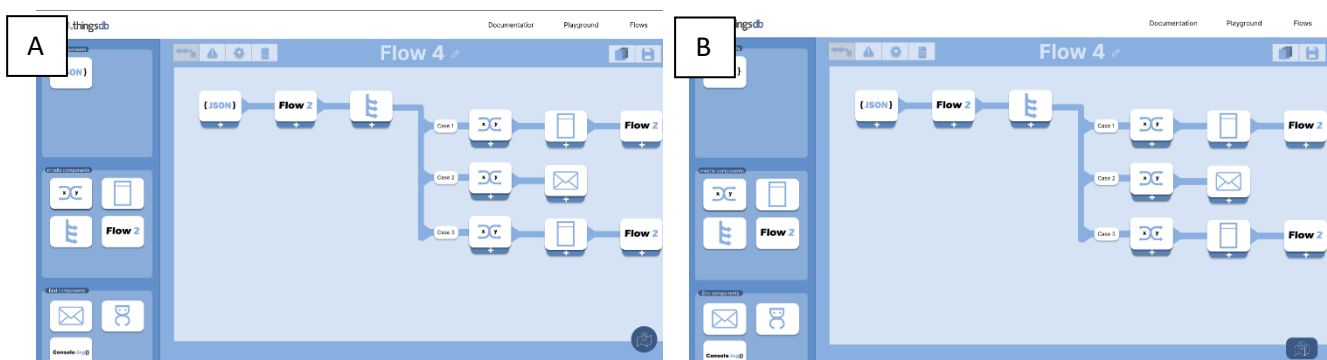
<https://www.figma.com/proto/RIRckga4ygXjlpYMYyj278/ThingsFlow?node-id=744%3A3220&scaling=scale-down&page-id=0%3A1&starting-point-node-id=744%3A3220&show-proto-sidebar=1>

This wasn't really a good idea for most people as they thought that the components would become too small for people to understand and it wouldn't be as uncluttered as for the functionalities given earlier in this document.

## User tests

### Type of button

The first user test I did was to see which one of the map buttons was liked the most, so I started off with my A/B-test. The goal of this user test was to find out which button is more likable and I did this by straight up showing the two different designs and asking questions and hearing users out.



### Questions I asked for this user tests were;

- Which one of these two do you like the most?
- Why do you like this one the most?
- Would you still change something with the chosen design?

-Would you maybe want to see something different as a whole?

I asked these questions but I let the conversation go more smoothly so that the users could bring in their own opinion without having to forcibly answer questions, so I could get more information out of the users.

#### **User test 1;**

-“I like the square design more, as it doesn’t really take up too much space of the board which you’ll be needing more than anything.”

-“I’d maybe even move it more to the downside as I wouldn’t like it having a button on my board while working on it”

-“I like the design of the minimap, I think the square button mimics the map more as well so it would be more obvious for users that it’s going to open the minimap.”

#### **User test 2;**

-“I like the round one the best, the first one.”

-“I would change the contrast though, I’d make it a bit bigger as it is a bit unclear as of now. I’d make it white instead of light blue maybe.”

-“Maybe you could make a possibility to make the minimap bigger with a full scale functionality or the possibility to swipe it across the screen so users can choose themselves where they want to put the minimap.”

#### **User test 3;**

-“I’d prefer the round one, because the square one looks similar to the components in the board and this could cause for some confusion.”

-“I don’t have any other preferences I like the way it looks, I wouldn’t be annoyed because it is slightly on top of the board”

-“The map looks good to me, I like the blue cover so you can see where you are. All in all it looks really good to me”

#### **User Test 4;**

-“The round one looks the best to me, the square one looks a bit out of place for me and the circle one just looks right in my opinion”

-“I would put it down a little bit more as it is a bit too much in the board right now, and I don’t think it would be less notable if you put it more in the bottom”

-“I would definitely change the picture, it isn’t really clear to me what the picture means. It should be more clear that you will be opening a minimap.”

Furthermore I had asked my stakeholders which they liked the most, I gathered them around my computer and asked them if they would come take a look at my two designs that I had made and I asked them if they wanted to give their feedback on which one they liked the most. And they had anonymously voted for the round one, as mentioned earlier they also agreed that the square one would be a little bit too similar to the components in the board so this could cause for some

implications with the users. So they liked the round one the best.

If we look at this user test we can conclude that the round button is the most liked by the users, when looking back at our goal of this user test we can definitely say that we have an answer to our question and that we will continue with the round button from now on with a good substantiated reason why.

### **Way of navigating**

As stated earlier I made 3 ways to navigate through the board, personally I had some bias already on which one I wanted to use but therefore I wanted to do a user test again to see if other people would either agree with me or have a whole different opinion about it. I found it fun to hear others' opinion on this because I was so biased on this specific one already. The specific question I wanted answered for this user test was; "which way of navigating would be the most optimal for users?". To help me answer this question I have made the Figma designs to let the user experience how all of the functionalities would feel and I also had a few questions in mind that I wanted to ask while they were playing with it. So I was pretty well prepared for the user tests and I was very curious on what the users' opinion would be.

To showcase the functionalities better I made a video that showcases all three of them and makes it easier for you the reader to understand which ones I will be talking about in the upcoming text, as I will be referring to them in order of the video, which you can see here;

<https://youtu.be/3ETPMViTUPA>

-The first one in the video is the swiping method

-The second one is the minimap method

-and the last one is the resizing method

With these functionalities in mind I also set up a few questions for the users which I would like the users to answer while taking the user test. So I could get more information out of them but I also let them play with it and just make comments on what they liked the most so the opinions would come out naturally.

#### **The questions asked:**

- Which one of these functionalities do you like the most, why?
- What would you change about this functionality to make it work better?
- Do you think it would work good if you'd merge two or three of the functionalities together, if yes which one and why?
- Do you think there could be other solutions to navigate through the board?
- Could you make a ranking of most liked to least liked, why did you choose the positions that you did?
- Any more remarks?

### **User test 1;**

- I like the minimap method the most
- Let the user have the freedom to make the minimap itself bigger or possible to zoom in/out
- I think it could work out if you'd merge two methods together, the minimap method and the resizing method
- A sort of ctrl + f function but clickable. So you'd have a search button and when you press it you get

a dropdown menu with the components you have used and then it would highlight them all in the minimap, and you would be redirected to each one of them.

-Minimap-Resize-Swipe

#### **User test 2;**

- Map function, doesn't take away from the readability
- Scalable map, still swipable when the map is open
- map and swiping
- not any ones that would be any better than the ones given, I feel like other ideas will just be the same if not worse because these ideas are pretty baseline and solid.
- swiping, map, scaling
- Scaling would work better if the text scaled with it or became smaller icons that still convey the functionality. if it remains text it would be unreadable after a few blocks. by using easy to understand icons you could prevent this, and still show the text when clicking on a module

#### **User test 3; (This user test was kind of short as he didn't have much time)**

- The resizing method is the best.
- You can definitely make it better by making it scrollable instead of pressing on a button
- I'd say yes to merging but then you should have a function to swipe next to scrolling
- I'd rank them resizing, swiping, minimap

#### **User test 4;**

- I like the one with the minimap the most because it looks like the most familiar but you should also be able to use the swiping function holding down the middle mouse button like most programs do
- I would add a function that scrolling also works besides the minimap
- A combination of a minimap and automatically panning to a new block would be nice
- There aren't any solutions that are better than scrolling and a minimap in my opinion
- Minimap, Swiping, Resizing
- It should be a minimap, be able to go anywhere holding down middlemouse button to navigate through the screen and automatically pan to a new block when it is added, with the block being in the middle of the screen

#### **User test 5: (Stakeholder)**

-Which one of these methods do you like the most, why?  
personaly I like the combination of all three.

- For smaller flows, swiping as this more quicker and feels more natural
- The minimap is I think a must for navigation large flows.
- Zoom in and out should I think always be an option as we want to see the overall picture and look at details.

-What would you change about this methods to make it work better?

- I would not pick one but implement them all three; if time is a concern I would add the minimap in a later stage.

-Do you think it would work good if you'd merge two or three of the methods together, if yes which one and why?

As said I would merge them ;-)

-Do you think there could be other solutions to navigate through the board?

no

-Could you make a ranking of most liked to least liked, why did you choose the positions that you did?

1. swiping, as this is the first we will need
2. Zoom in and out as this works for all scenario's
3. Minimap as this is a nice to have

-Any more remarks?

How do scroll bars fit into this solution?

Some pointing devices support horizontal scrolling; will this work in the proposed swiping solution?

### **User Test 6; (Employee at Cesbit)**

-Which one of these methods do you like the most, why?

I like the swiping method the most because it seems like the one that works the fastest and it gives you more freedom to move the panel in all directions. So it seems like the most dynamic method.

-What would you change about these methods to make it work better?

I would make the mouse pointer look like a grabbing hand when you click, so it looks more intuitive.

-Do you think it would work good if you'd merge two or three of the methods together, if yes which one and why?

Yes, I think combining all three would be great. The swiping method is the most dynamic and works also for fine-tuning. The minimap gives a good overview and works nice if you want to jump to a particular section, especially if the flow map is large. And the resizing method is nice to have when a flow map is very large.

-Do you think there could be other solutions to navigate through the board?

No, I think having a combination of the swiping method with the minimap would work great.

-Could you make a ranking of most liked to least liked, why did you choose the positions that you did?

1. swiping method
2. minimap method
3. resizing method

1 and 2 give more freedom in moving around and are the most effective, especially combined together. The swiping method is in 1st place, because I think I would use it the most.

3 is nice to have (but not essential). Especially if a flow map is very large, then it is always nice to zoom out a bit. But on its own, not having the other two options, navigating would be a bit rigid.

-Any more remarks?

Nope.

**User test 7;**

- I would say the minimap method as it grants the most flexibility, I think the resizing method could be very useful but a problem would arise when the scale of a flow would become so big that you can't distinguish the individual nodes anymore. And I feel the swiping method would be annoying to use as you don't have that much control over where you will end up.
- I would make the resizing method a zoom method where users can zoom in/out using ctrl + scroll, so users have more control of their screen. I would also make the swiping method a scroll method where you can scroll through the page, vertically using scroll and horizontally using shift + scroll.
- I think it would be nice to have the scroll and zoom methods mentioned above, combined with the minimap method so you can have a overview of the entire board.
- Just like I mentioned before, I think scrolling and zooming would be a nice way to navigate the board.
- Minimap, Resizing, swiping. I think the minimap is the most useful and can work in combination with a bunch of other methods. Resizing because it would be nice feature at first but get annoying when the board gets too big. And I think the swiping method is too difficult to control to be very useful.

**User test 8;**

- I like the resizing method the best, figuring it seems the most natural to use and seems simple.
- I'd maybe add some kind of shortcut to resize the board if I would change anything.
- Merging the resizing of the board with another method doesn't sound very useful to me, because they're vastly different methods but I can see the other 2 methods working decently well together(swiping and minimap).
- Another solution to navigate through the board could be just a simple slider but that might be too sensitive.
- I liked resizing the board the most, then the swiping method and lastly the minimap. The resizing of the board felt the most natural while the minimap seemed a bit clunky to use.

**User test 9;**

- I like the minimap version the most, it feels the most intuitive. And it is also similar to how things like Scratch/Blockly work
  - The minimap should always be visible, right now I think it would get difficult to understand where you are when the project gets bigger.
  - I think the minimap and the resizing one would work really nicely. This way it would feel the most natural to navigate around the flow. It would also be basically identical to things like Scratch, which is a good thing IMHO
  - Having a sort of "painters canvas" where you can just roam around with dragging the cursor and zooming in, would I think be optimal.
- 2 - 3 - 1

**User test 10;**

- I like the minimap because it shows you where you are in the wider scope
- I think the swipe idea misses a factor that the minimap has. When you combine the two ideas I think



you have a complete package because swiping is a universal recognized action these days, but you don't exactly know how large the map is. Therefore I would recommend combining both features.  
-Minimap, Swiping, resizing

#### User test 11;

- I would use a combi of minimap and the resizing. By resizing you could access the items that are 'just' off-screen and the minimap could take you to where ever.
- Read above
- I think you got 'em all
- minimap, resizing, swiping. Swiping is not obvious for some people

#### User test 12;

- Resizing is the best I think, when I'm more familiar with the flow then the minimap would be the best.
- I can't think of a better solution than you have shown me
- I don't think that there are functionalities that should be merged, but I do think that resizing and dragging is in the same category.
- I think the minimap is very cool.
- Minimap, resizing, swiping

Placements (first – second – last)

Swiping Method	Minimap Method	Resizing Method
3-4-5	7-2-3	2-6-4

Should the functionalities be merged?

Yes	No
10	2

Which one should be merged?

Swiping-Minimap	Minimap-Resizing	Swiping-Resizing	All three together
3	5	2	2

## Conclusions

After doing the first user test we could conclude that the round button was the best fit for the application, but it should be a bit more out of the view of the board as this could distract people from the most important part of the application. People also came up with great ideas for extra functionalities from the minimap such as dragging it across the screen so you can choose yourself where you want it to be and having the freedom to scale it yourself so people can choose themselves how and where they want their minimap to be. This was a great idea in my opinion as it gives the

users more freedom and it doesn't make the minimap as static as it is right now.

With the second user test I got a lot of data as well, people liked the minimap the most, secondly they liked the resizing method and lastly the swiping method. But the odd thing is that the swiping method got more first placements than the resizing method. In my eyes this didn't mean that the swiping method was bad as it didn't come in last place by a huge difference. When looking at the other data you could see that the majority of people didn't just want one functionality but also wanted them merged together. When people had to choose which one they wanted to merge the swiping method was more chosen together with the minimap than the swiping and resizing together but the minimap and resizing was chosen the most. With everything being so close together I thought that it would be a pretty good conclusion that all three of the functionalities should be included as there weren't any clear dislikes about any of them and the answers were very close together. This means that the minimap, the resizing and the swiping method will all be included for users to have a good user experience and go through the board when it is too long to fit on the screen.