

Where do you build a Design System? **About Design System Kit**

UXRoundtable, uxHH, XING 3.9.2018

We are,

Marius Wilms
CTO at Atelier Disko

Christoph Labacher
Interaction Designer at Atelier Disko

DSK

DSK / Example

Style

Components

- Displaying Content
 - List
- Input
- Navigation

Content

- Glossary
- Tone of Voice

Culture

- Code of Conduct

Components / Displaying Content /

List

A List-component displays items in an ordered or unordered list.

PROGRESS/DRAFT RELEASE/0.6

About API

Example

```
<List>
  <ListItem>Item 1</ListItem>
  <ListItem>Item 2</ListItem>
  <ListItem>Item 3</ListItem>
</List>
```

Properties

COMPONENT	PROPERTY	DESCRIPTION	DEFAULT
ListItem	indicator	Which indicator is to be displayed for the list item.	"bullet"

DSK

a workbench for
collaboratively creating
Design Systems

Components / Displaying Content /

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PROGRESS/DRAFT RELEASE/0.6

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- [List Design.sketch](#)
- [List.png](#)

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DSK

DSK
is short for

Design
System
Kit

Components / Displaying Content /

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DSK

- Open Source
- 4 weeks to 0.5
- 7 months to 1.0
- young
- in production

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Our Talk

Not a sales pitch

Components / Displaying Content /

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Our Talk

- What are Design Systems?
- Where do you build a Design System?
- Core Aspects
- Technical Implementation
- The Design Definitions Tree
- Deployment Options
- Architecture & API

What are Design Systems?

What are Design Systems?

Design Systems are repositories of organizational knowledge on design.

Basics

Shopify Polaris

The screenshot shows a web browser window for polaris.shopify.com. The title bar reads "Colors - Shopify Polaris". The main content area is titled "Colors" and contains the following text: "Shopify uses colors purposefully to communicate how things function in the interface. This helps us create visual patterns that can make interacting with our product easier and more predictable for merchants." Below this is a section titled "Guidelines" with the subtext: "These guidelines are the framework upon which we have built our system for how color is used in Shopify." To the right of this text is a circular graphic with horizontal lines of varying lengths in blue and yellow. At the bottom of the page is a decorative footer element consisting of a cluster of overlapping circles in shades of blue and yellow.

GUIDES **CONTENT** **VISUALS** **COMPONENTS** **PATTERNS** Search

COLORS

- Guidelines
- Color palette
- Color combinations
- Color usage
- Accessibility
- Resources

TYPOGRAPHY

ILLUSTRATIONS

ICONS

INTERACTION STATES

SPACING

DATA VISUALIZATIONS

Submit feedback or feature requests on the [Polaris GitHub page](#).

Colors

Shopify uses colors purposefully to communicate how things function in the interface. This helps us create visual patterns that can make interacting with our product easier and more predictable for merchants.

Guidelines

These guidelines are the framework upon which we have built our system for how color is used in Shopify.

COMMUNICATION OVER DECORATION

Although we value an aesthetically pleasing use of color, we place a higher value on clear communication. Our use of color should be purposeful, rational, and should serve to support the purpose of the content.

COLOR SHOULD BE ACCESSIBLE

Our color choices should be made with consideration of merchants who are color blind or have a low visual acuity.

Components

The screenshot shows the Carbon Design System Overview page. The left sidebar lists various components: Overview, Accordion, Breadcrumb, Button, Checkbox, Code Snippet, Content Switcher, Data Table, Date Picker, Dropdown, File Uploader, Form, Link, List, Loading, Modal, Notification, Number Input, Overflow Menu, Pagination, Progress Indicator, Radio Button, Search, Select, Slider, Structured List, Tabs, Tag, TextInput, Tile, Toggle, and Tooltip. The main content area displays nine examples of these components:

- Accordion:** A component with three expandable sections.
- Breadcrumb:** A navigation breadcrumb trail with three items: Crumb 1 / Crumb 2 / Crumb 3 /.
- Button:** A blue rectangular button labeled "Button".
- Checkbox:** A checkbox input field with two options: one checked and one unchecked.
- Code Snippet:** A code editor window showing some code and a file icon.
- Content Switcher:** A component with three tabs: one active tab and two others.
- Accordion:** A component with three expandable sections.
- Breadcrumb:** A navigation breadcrumb trail with three items: Crumb 1 / Crumb 2 / Crumb 3 /.
- Button:** A blue rectangular button labeled "Button".
- Checkbox:** A checkbox input field with two options: one checked and one unchecked.
- Code Snippet:** A code editor window showing some code and a file icon.
- Content Switcher:** A component with three tabs: one active tab and two others.

Design Culture

The screenshot shows the homepage of the Airbnb Design website. The top navigation bar includes links for "Articles", "Events", "Videos", "Projects", and a search icon. Below the navigation, there are several content cards:

- Design Spotlight:** Google highlights our Design Language System. This card features three mobile device screenshots of the Airbnb app interface.
- Building a Visual Language:** Behind the scenes of our new design system. This card features a large graphic of the letters D, S, G, N, L, N, G, G, S, S, T, M arranged in a grid pattern.
- What's in a Word?** Using location context to build better search tools for travel. This card includes a photograph of two people sitting on a ledge outdoors, looking at a tablet.
- The Way We Build:** How rethinking the Airbnb app changed the way we approach design. This card features a stylized illustration of three abstract figures interacting with a pipe-like structure.

At the bottom left, there is a small "Perspectives" section with a single article thumbnail.

Design Systems...

- ... help designers work faster
- ... improve consistency
- ... create a shared language for
designers and developers

Where do you build a Design System?

Where do you build a Design System?

Blank Canvas

?

Component Library

What we needed

A place for shared thinking

What we needed

A place that allows both structure and chaos

What we needed

A place for fragments and uncertainty

What we needed

Flexibility to suit a non-linear process

Core Aspects of DSK

- Direct Manipulation
- Trees
- Diverse Forms of Expression
- Open Development

DSK

DSK / Example

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COMPONENT	PROPERTY	DESCRIPTION	DEFAULT
ListItem	indicator	Which indicator is to be displayed for the list item.	"bullet"

Web App + File system

Languages & Formats

Backend

+ Frontend

+ Document

+ Config

= <3

Languages & Formats

Go

+ JavaScript

+ Markdown

+ YAML

= <3

Languages & Formats

Go

+ ReasonML

+ HTML

+ JSON

= <3

Languages & Formats

Backend: fixed

- + Frontend: agnostic
- + Document: agnostic
- + Config: agnostic

= <3

The Design Definitions Tree

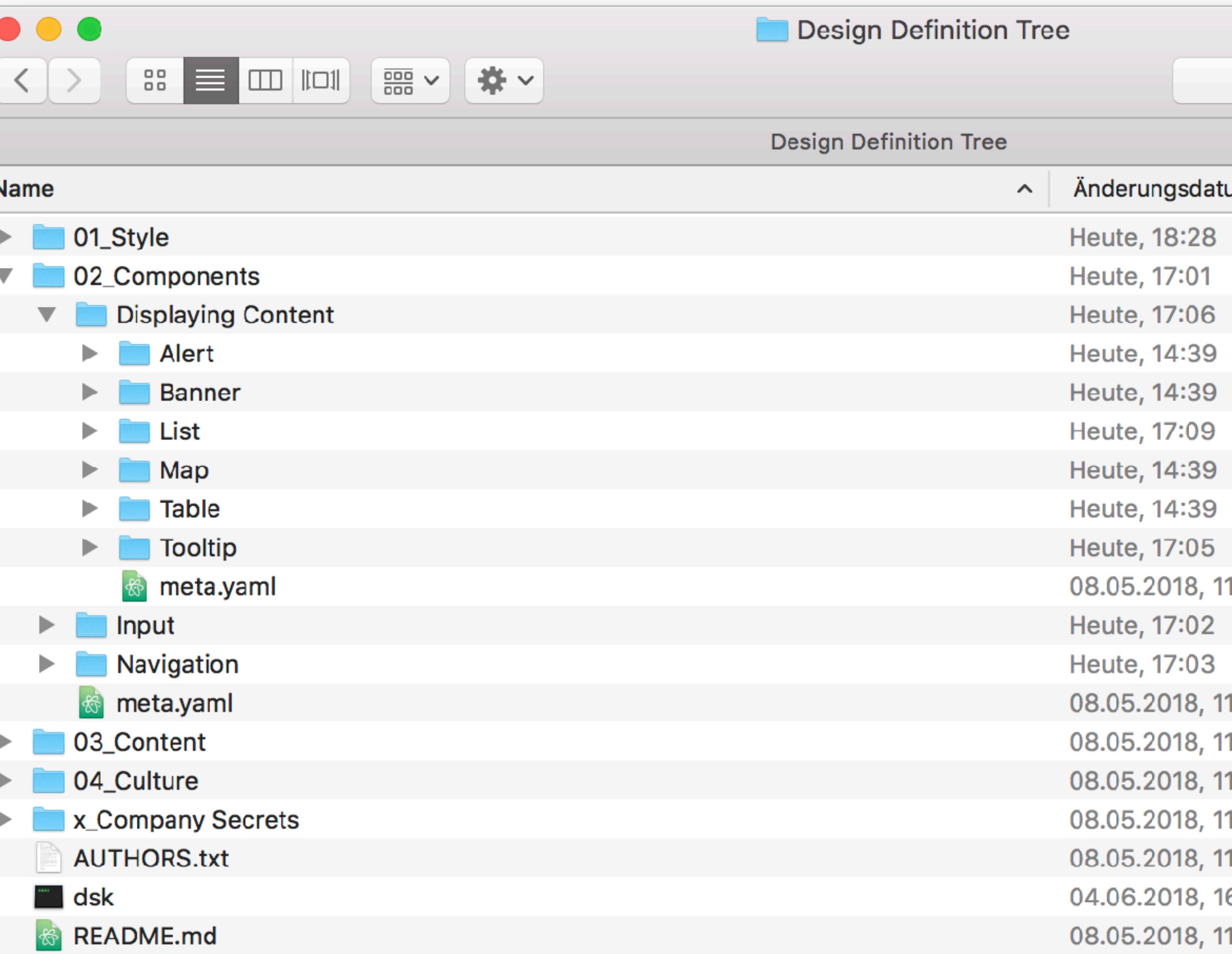
The Design Definitions Tree

“Just a bunch of files and folders”
freedom in storage and editing

Natural usage of folders and files
means less to learn

Little/not DSK specific
makes sense on their own

Folders

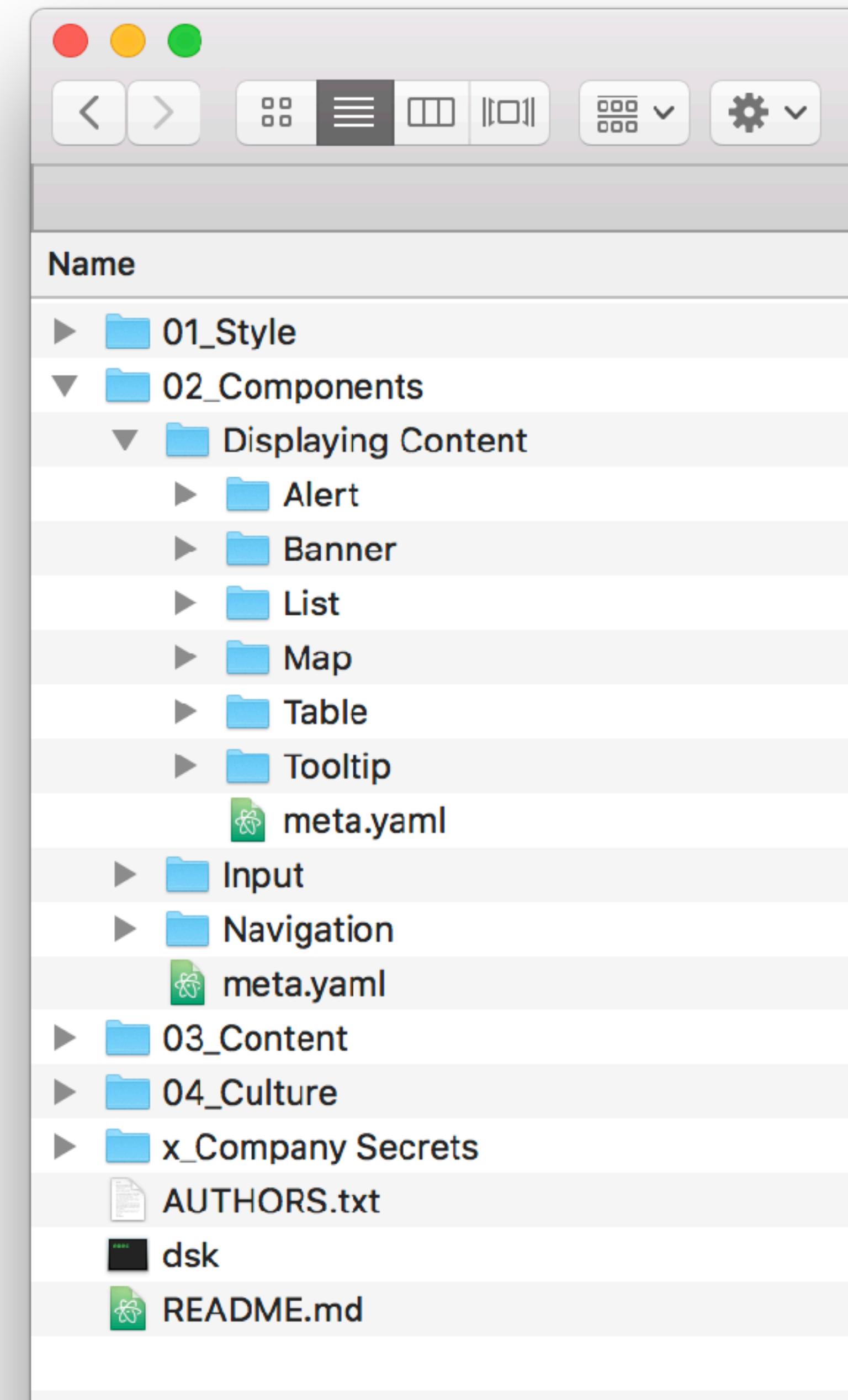


The screenshot shows a Mac OS X Finder window titled "Design Definition Tree". The window displays a hierarchical list of files and folders. The columns are labeled "Name" and "Änderungsdatum" (Change Date). The "Änderungsdatum" column is partially cut off on the right.

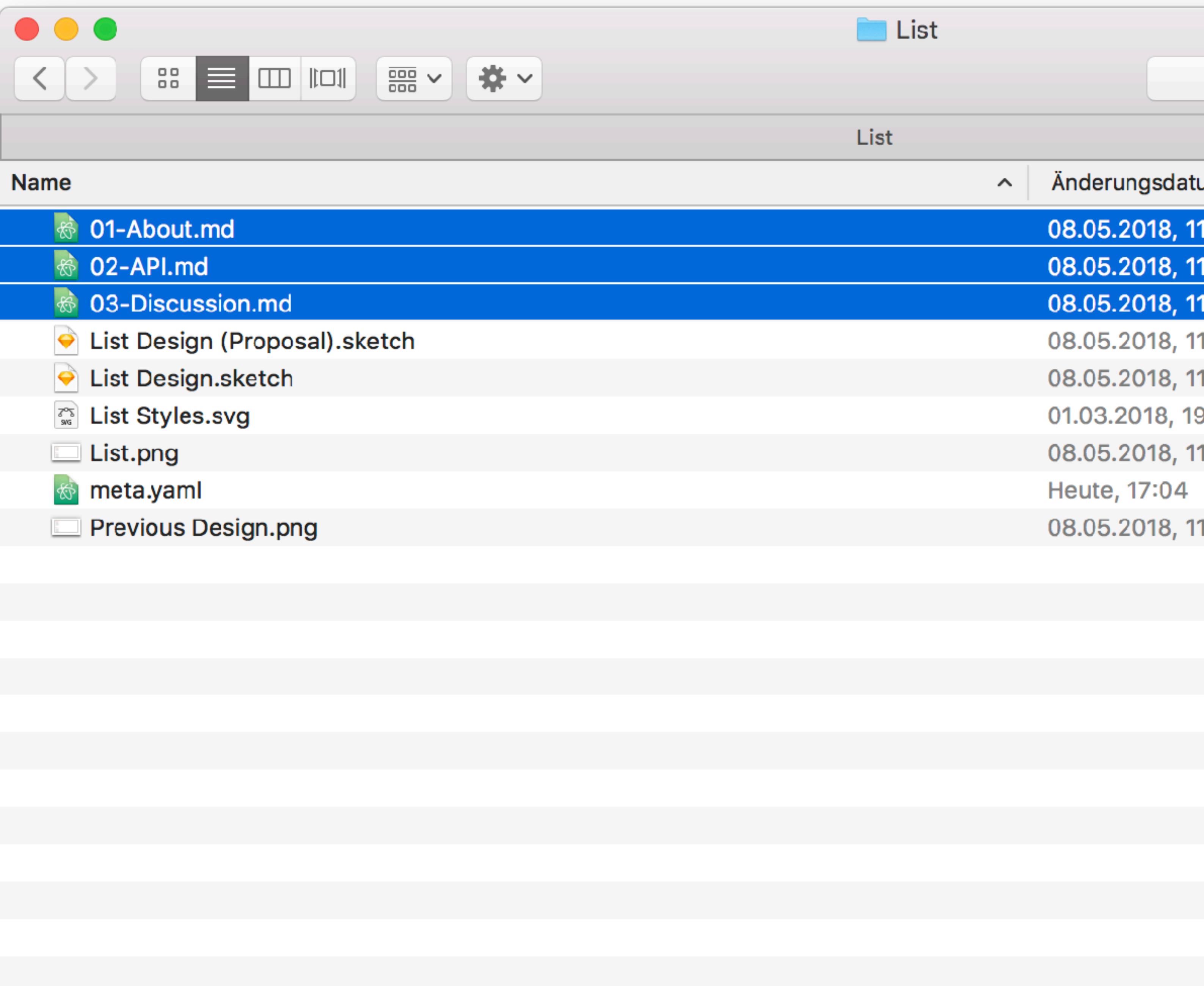
Name	Änderungsdatum
► 01_Style	Heute, 18:28
▼ 02_Components	Heute, 17:01
▼ Displaying Content	Heute, 17:06
► Alert	Heute, 14:39
► Banner	Heute, 14:39
► List	Heute, 17:09
► Map	Heute, 14:39
► Table	Heute, 14:39
► Tooltip	Heute, 17:05
meta.yaml	08.05.2018, 11
► Input	Heute, 17:02
► Navigation	Heute, 17:03
meta.yaml	08.05.2018, 11
► 03_Content	08.05.2018, 11
► 04_Culture	08.05.2018, 11
► x_Company Secrets	08.05.2018, 11
AUTHORS.txt	08.05.2018, 11
dsk	04.06.2018, 16
README.md	08.05.2018, 11

Folders represent...

- components
- chapters
- design aspects



Documents



...to explain

Visual Design

The following visual design has been agreed upon by our team:

! [detail screen](List.png)

Usage Rules

We use lists when we have to convey large amounts of information, but still keep it well structured. As they can easily grow very large, we try to keep the number of lists in our interfaces down to a minimum.

Not to be confused with ...

We use both lists and [tables](/Components/Display) display content in an orderly fashion, list are to used for listed data, while table must only be used for tabular data. Duh.

...to explain

The screenshot shows a web browser window with the URL [DSK / example

Style

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Components / Displaying Content / List

A List-component displays items in an ordered or unordered list.

PROGRESS/DRAFT RELEASE/0.6

About API

Visual Design

The following visual design has been agreed upon by our team:

UNORDERED LIST

- List Item 1
- List Item 2
- List Item 3
- List Item 4

ORDERED LIST

Download

- List Design
- List.png](http://127.0.0.1:8080/tree/Components/Displaying-Content>List. The page is titled)

...to describe

```
# Example  
```  
<List>
 <ListItem>Item 1</ListItem>
 <ListItem>Item 2</ListItem>
 <ListItem>Item 3</ListItem>
</List>
```
```

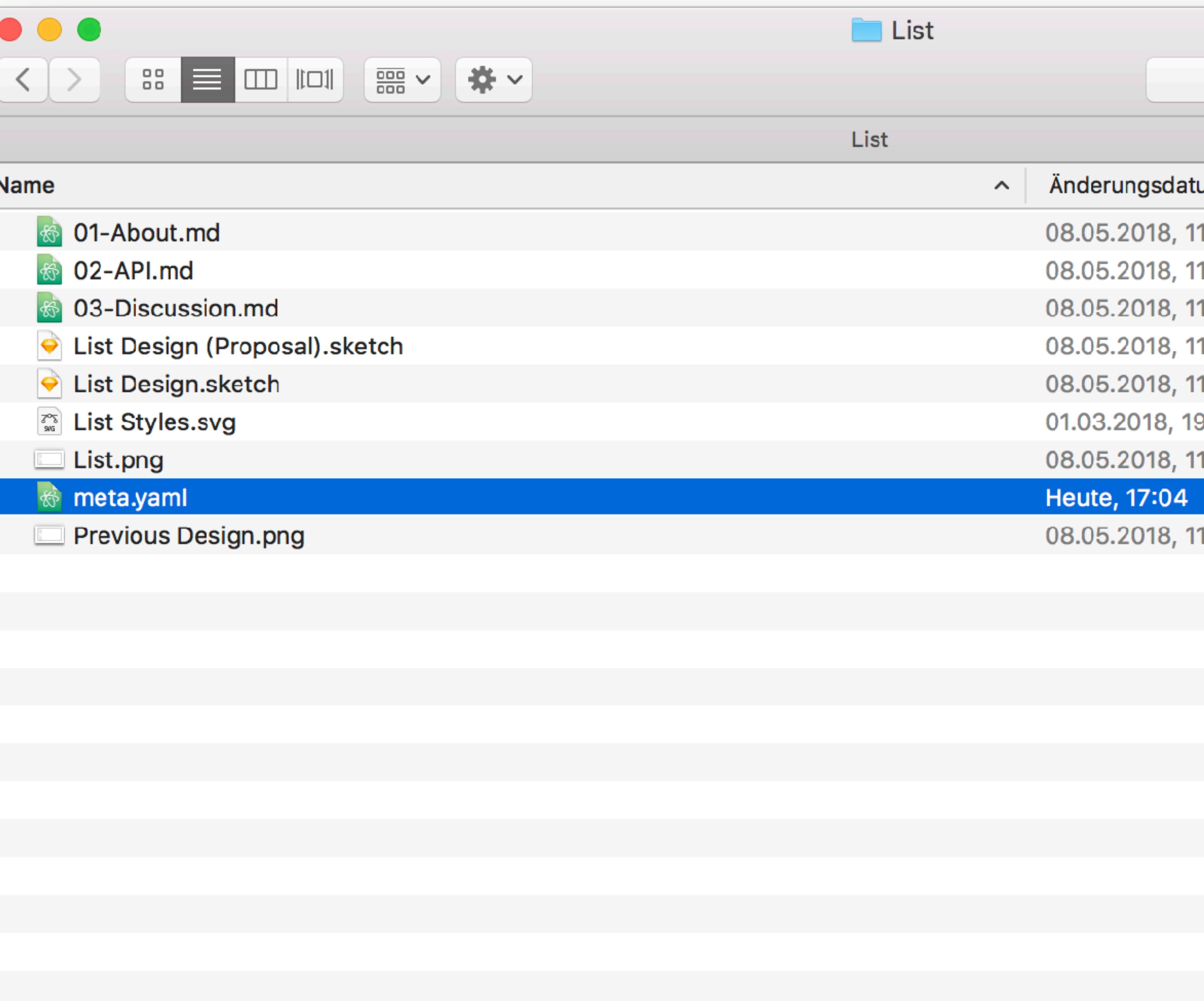
Properties

Component	Property	Description
ListItem	`indicator`	Which indicator is to be displayed for the item.

...to describe

The screenshot shows a web browser window with the URL [```
<List>
 <ListItem>Item 1</ListItem>
 <ListItem>Item 2</ListItem>
 <ListItem>Item 3</ListItem>
</List>
```](http://127.0.0.1:8080/tree/Components/Displaying-Content>List</a>. The page is titled )

# Metadata



# Metadata

description: >

A List-component displays items in an ordered or unordered list.

tags:

- Progress/Draft
- Release/0.6

version: 1

# Claiming Ownership

authors:

- barb@holli.com

description: >

A List-component displays items in an ordered or unordered list.

tags:

- Progress/Draft
- Release/0.6

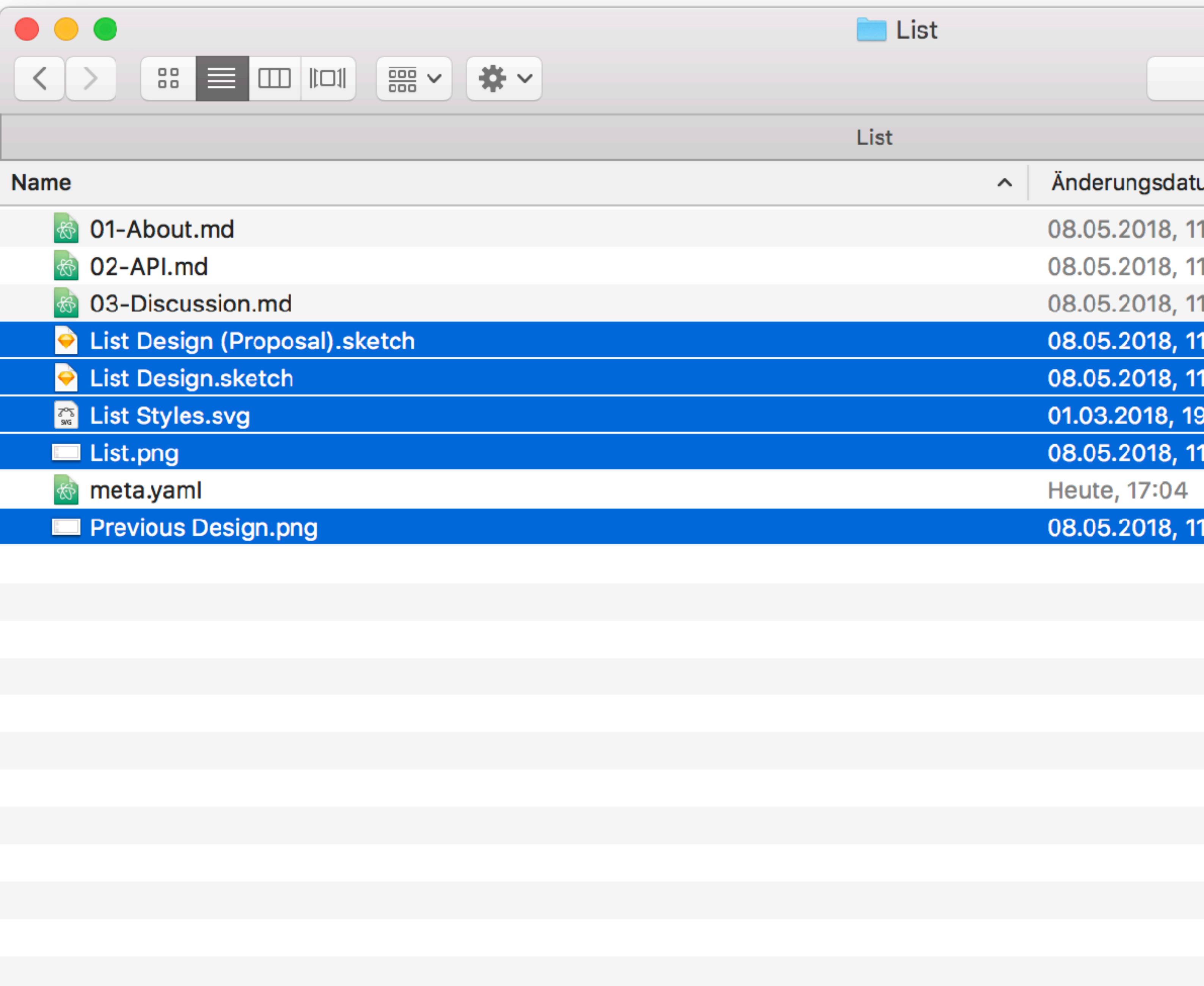
version: 1

# Name resolution

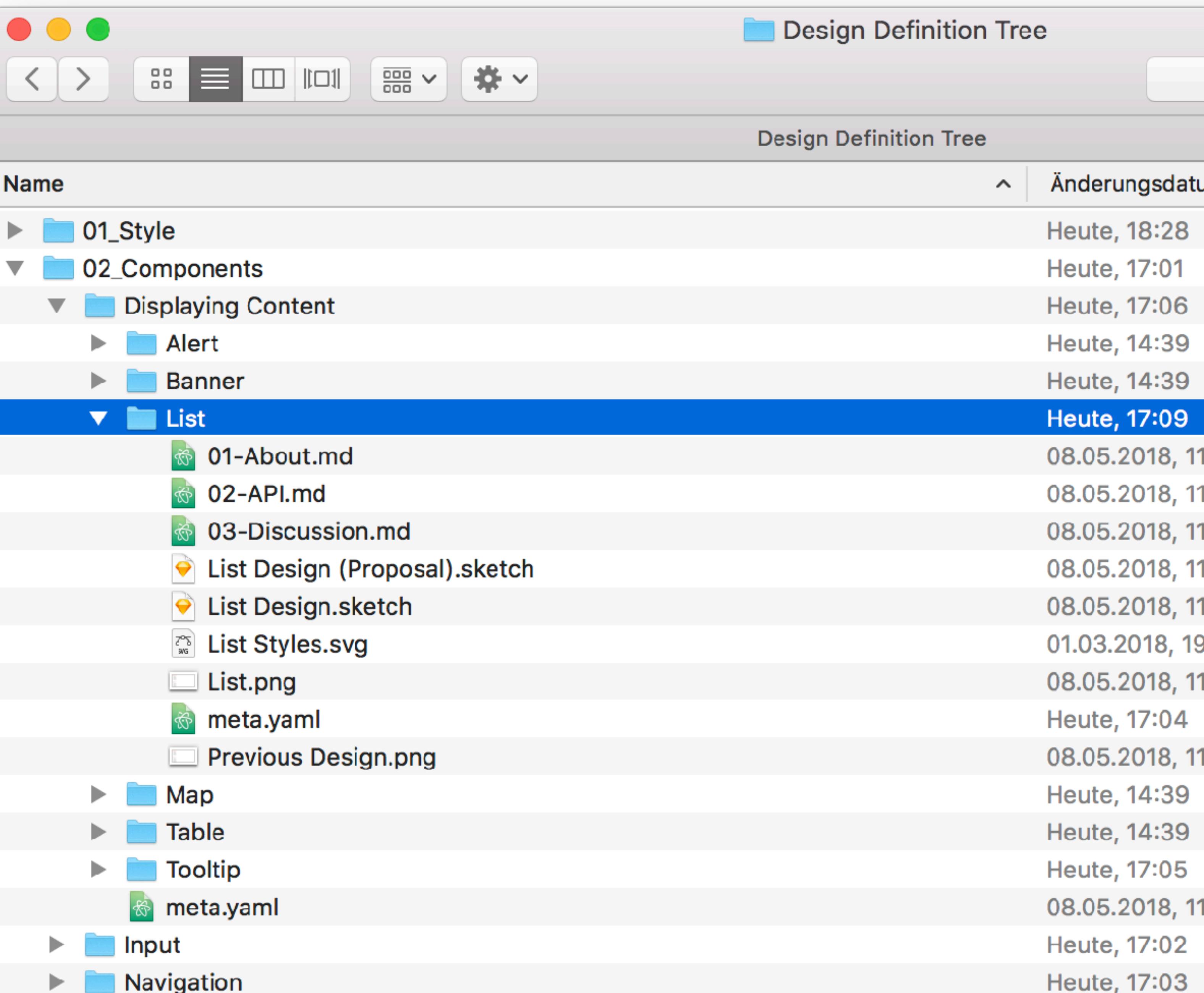
```
AUTHORS.txt
```

```
Barbara M. Grayson <barb@hooli.com>
Melisa Mosher <melisa@acme.io>
Randall Hyman <randall@evilcorp.org>
```

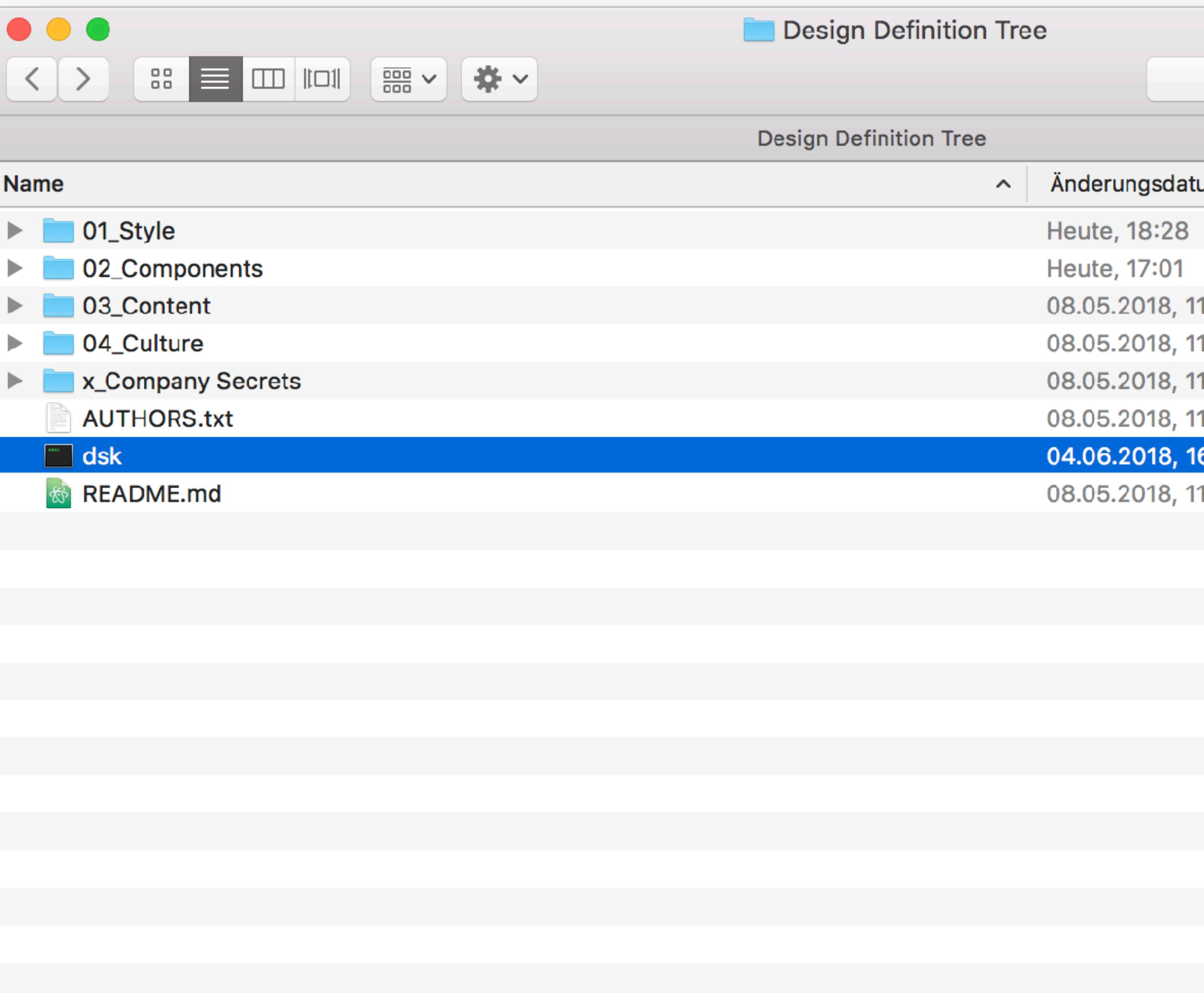
# Assets



# Nesting



# Starting DSK



# Starting DSK

```
Last login: Mon Jun 11 18:28:50 on ttys000
christophlabacher — dsk — dsk —
~ > /Users/christophlabacher/go/src/github.com/atelierdisko/dsk/Design
DSK
Version head-549927b

Starting message broker...
Detecting tree root...
Tree root found: /Users/christophlabacher/go/src/github.com/atelierdisko/dsk/Design
Begin watching tree for changes...
Opening tree...
Synced tree with 27 total node/s in 20.416925ms
Mounting APIv1...
Mounting frontend...
Starting web interface on 127.0.0.1:8080....

Please visit: http://127.0.0.1:8080
Hit Ctrl+C to quit
```

# Starting DSK

The screenshot shows a web application window titled "DSK / Design Definition Tree". The main content area is titled "List" and contains the following text: "A List-component displays items in an ordered or unordered list." Below this text are two green buttons: "PROGRESS/DRAFT" and "RELEASE/0.6". At the bottom of the page, there are links for "About", "API", and "Discussion". On the right side, there is a "Download" section with a list of links. The left sidebar lists components under "Style" and "Components".

DSK / Design Definition Tree

Components / Displaying Content / List

A List-component displays items in an ordered or unordered list.

PROGRESS/DRAFT RELEASE/0.6

Style

- Colors
- Spacing
- Typography

Components

- Displaying Content
  - Alert
  - Banner
  - **List**
  - Map
  - Table
  - Tooltip
- Input
  - Checkbox
  - Dropdown
  - Textfield
- Navigation
  - Breadcrumbs
  - Header
  - Pagination

About API Discussion

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ORDERED LIST

Download

- [List Design](#)
- [List Design](#)
- [List Styles](#)
- [List.png](#)
- [Previous D](#)

# Deployments

## Getting it out there

# Getting it to the user

App = Dropbox

Content = Dropbox

# Getting it to the user

App = Dropbox

Content = Git

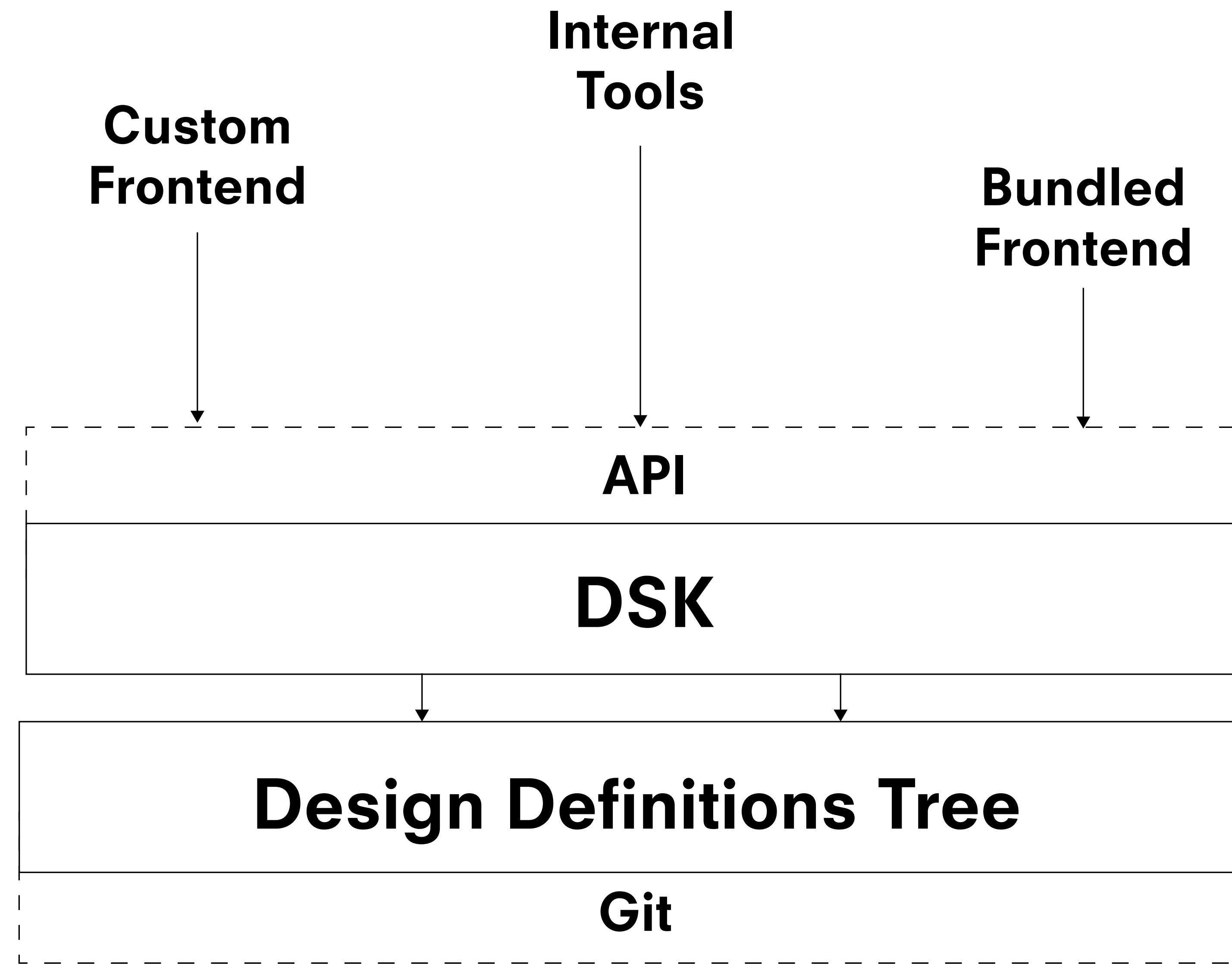
# Getting it to the user

App = Server

Content = Git

# Architecture

# Architecture



# API

# API Endpoints

/hello  
/tree  
/tree/{path}  
/tree/{path}/{asset}  
/search?q={query}  
/messages

# API Endpoints

/hello (version and greeting)  
/tree (full tree)  
/tree/{path} (single aspect)  
/tree/{path}/{asset} (aspect asset)  
/search?q={query} (fuzzy search)  
/messages (websocket)

# API Endpoints (versioned)

/api/v1/hello  
/api/v1/tree  
/api/v1/tree/{path}  
/api/v1/tree/{path}/{asset}  
/api/v1/search?q={query}  
/api/v1/messages

# API Response (Metadata)

```
{
 "hash": "d3f81...",
 "url": "Components/Displaying-Content>List",
 "title": "List",
 "description": "A List-component displays...",
 "authors": [
 {
 "email": "barb@hooli.com",
 "name": "Barbara M. Grayson"
 }
],
 "modified": 1528721196,
 "version": "1",
 "tags": [
 "Progress/Draft",
 "Release/0.6"
],
 ...
```

# API Response (Documents)

```
...
"docs": [
 {
 "title": "About",
 "html": "<h1>Visual Design</h1>...",
 "raw": "# Visual Design..."
 },
 {
 "title": "API",
 "html": „<h1>Example</h1>...“,
 "raw": "# Example..."
 }
],
"downloads": [
 {
 "url": "Components/Displaying-Content>List\List",
 "name": "List Design.sketch"
 },
 ...
],
...
...
```

# API Response (Related)

```
...
"parent": {
 "url": "Components/Displaying-Content",
 "title": "Displaying Content"
},
"children": [...],
"crumbs": [
 {
 "url": "Components",
 "title": "Components"
 },
 ...
],
"related": [...],
"prev": { "url": ... },
"next": {
 "url": "Components/Input",
 "title": "Input"
}
}
```

# Custom Frontend

Easy to build your own:

- Language Agnostic Frontend
- Decoupled Architecture
- Versioned API

# Custom Frontend

From workbench to storefront

# Future

- More Governance
- Classic Component Library
- Git Live Sync
- Native (Wrapper) App
- Fulltext search

# Merci.

# Atelier Disko

## Design System Kit

## Data Entry

- **Data Entry**
    - Components
    - Counter
    - Counter
    - Datepicker
    - Datepicker
    - MultiSelect
    - MultiSelect
    - SingleSelect
    - SingleSelect
    - Enumeration
    - Enumeration
    - RadioButton
    - RadioButton
  - **TextField**
    - TextField
    - Email
    - Email
    - Number
    - Number
    - Password
    - Password

# Displaying Data

- Badge
  - Carousel
  - ExpandableSection
  - Hyperlink
  - List

# Merci.

Project page:

[github.com/atelierdisko/dsk](https://github.com/atelierdisko/dsk)

Download these slides:

[share.atelierdisko.de/where-uxhh2018.pdf](https://share.atelierdisko.de/where-uxhh2018.pdf)