

Presto Chango!

The magic of block
transforms

What is a block
transform?

Definition

A **block transform** is part of the Gutenberg API that allows a user to change one block into another block.



H2



B

/



TRANSFORM TO



Paragraph



List



Quote



Columns



Group



Pullquote

Use case examples

- Similar blocks that can easily be converted (*e.g. paragraph to heading*)
- Blocks that come with a new theme / content strategy

Simple transform example

User story

My site registers a custom block, called **Introduction**, which contains a single *content* string attribute.

A content editor will likely need to transform this **Introduction** block into the core **Paragraph** block, and vice versa.

block.json (snippet)

```
{  
  "name": "my/intro",  
  "title": "Introduction",  
  
  "attributes": {  
    "content": {  
      "type": "string",  
      "default": ""  
    }  
  }  
}
```


The plan

I need to write 2 transforms:

1. Transform *from* **Introduction** to **Paragraph**
2. Transform *from* **Paragraph** to **Introduction**

transform.js

```
const { createBlock } = wp.blocks;
```

```
const IntroTransform = {  
  to: [  
    {  
      type: 'block',  
      blocks: [ 'core/paragraph' ],  
      transform: ( { content } ) => {  
        return createBlock( 'core/paragraph', {  
          content: content  
        } );  
      },  
    ],  
  },  
  from: [  
    {  
      type: 'block',  
      blocks: [ 'core/paragraph' ],  
    },  
  ],  
};
```

Block registration

```
import { default as Metadata } from './block.json';
import { default as Transforms } from './transforms.js';

const Introduction = ( () => {
  const { registerBlockType } = wp.blocks;

  registerBlockType( Metadata, {
    transforms: Transforms,
    ...
  }
} );
```

Random aside

How did I know what attribute to grab from the core Paragraph block?

The answer lies in Github! (Specifically, the *paragraph block's* `block.json` file)

Ready for
something more
advanced?

User story, take 2

My old **Introduction** block is great, but I need to make it a bit more "fancy" by adding a heading and image to it.

A content editor may want to transform the core **Media & Text** block into this new **Introduction** block.

`block.json` (snippet)


```
{  
  "name": "my/fancy-intro",  
  "title": "Fancy Introduction",  
  
  "attributes": {  
    "content": {  
      "type": "string",  
      "default": ""  
    },  
    "heading": {  
      "type": "string",  
      "default": ""  
    },  
    "image": {  
      "type": "object"  
    }  
  }  
}
```

The plan

- Transform *from* Media & Text to Fancy Introduction
- Media & Text attributes are (mostly) image-related
 - Those attributes become the `image` object
- The Media & Text content are child Paragraph blocks
 - 1st paragraph becomes the `heading` attribute
 - The rest become the `content` attribute

transform.js

```
const { createBlock } = wp.blocks;
```

```
const FancyIntroTransform = {
  from: [
    {
      type: 'block',
      blocks: [ 'core/media-text' ],
      transform: ( attributes, innerBlocks ) => {
        // Initialize the attributes to send to
        // the new block.
        let heading = '';
        let content = '';
        let image;

        // The attributes object is the media object.
        // Make sure it's an image.
        if ( attributes.mediaType === 'image' ) {
          image = {
```

Ta-da!

Presto chango! We have transformed our blocks!

Thank you!



```
{  
  "Name": "Joni Halabi",  
  "Role": "Developer @ Georgetown University",  
  "Socials": [  
    "Twitter @jonihalabi",  
    "Github @thatdevgirl",  
    "https://jhalabi.com"  
  ]  
}
```

References

- [Block transforms API](#)
- [Gutenberg Github repo](#)

