# FionaDocs

Hauke Bartsch

Jun 08, 2025

# CONTENTS

Welcome to the MMIV documentation guide.

This documentation demonstrates how to create technical documentation using Sphinx.

CHAPTER

ONE

# ABOUT MMIV

The Mohn Medical Imaging and Visualization Centre (MMIV) is a research centre at Haukeland University Hospital in Bergen, Norway.

MMIV focuses on:

- Advanced medical imaging research
- Machine learning applications in healthcare
- Precision medicine through imaging biomarkers
- Clinical translation of research innovations

CHAPTER

TWO

# DOCUMENTATION EXAMPLES

## 2.1 Basic Documentation Elements

This chapter shows basic formatting in reStructuredText.

### 2.1.1 Text Formatting

You can format text in different ways:

- **Bold text** using double asterisks
- *Italic text* using single asterisks
- `Code text` using double backticks

### 2.1.2 Lists

Simple bullet list:

- First item
- Second item
- Third item

Numbered list:

1. First step
2. Second step
3. Third step

### 2.1.3 Links

You can create links:

- External link: https://mmiv.no
- Named link: MMIV Website

### 2.1.4 Tables

Simple table:

| Header 1 | Header 2 | Header 3 |
|---|---|---|
| Row 1 Col 1 | Row 1 Col 2 | Row 1 Col 3 |
| Row 2 Col 1 | Row 2 Col 2 | Row 2 Col 3 |

### 2.1.5 Note Boxes

**Note**

This is a note box for important information.

**Warning**

This is a warning box.

## 2.2 Code Examples

This chapter shows how to include code in documentation.

### 2.2.1 Basic Code Block

Simple code without highlighting:

```
def hello_world():
    print("Hello, World!")
    return True
```

### 2.2.2 Python Code

Python code with syntax highlighting:

```python
def analyze_data(data):
    """
    Analyze input data.

    Parameters:
    -----------
    data : list
        Input data

    Returns:
    --------
    dict
        Results
    """
    result = sum(data) / len(data)
    return {'average': result, 'count': len(data)}
```

### 2.2.3 JavaScript Code

```javascript
function processData(data) {
    const result = data.map(item => item * 2);
    return {
        original: data,
        processed: result,
        length: data.length
    };
}
```

### 2.2.4 Inline Code

You can include inline code like `import numpy` or reference functions like `analyze_data()` within text.

### 2.2.5 Configuration Example

YAML configuration:

```yaml
project:
  name: "Documentation Example"
  version: "1.0.0"

settings:
  output: "html"
  theme: "default"
```

## 2.3 Advanced Features

This chapter shows advanced documentation features.

### 2.3.1 Complex Tables

Feature comparison table:

Table 1: Feature Comparison

| Feature | Version 1.0 | Version 2.0 | Notes |
|---|---|---|---|
| Real-time Processing | No | Yes | Added in v2.0 |
| Multi-format Support | Yes | Yes | Multiple formats |
| GPU Acceleration | Yes | Yes | CUDA support |

### 2.3.2 CSV Table

Table 2: Sample Data

| Name | Age | City |
|---|---|---|
| Alice | 25 | Bergen |
| Bob | 30 | Oslo |
| Charlie | 35 | Trondheim |

### 2.3.3 Mathematical Formulas

Basic math formula:

$$f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{1}{2}\left(\frac{x-\mu}{\sigma}\right)^2}$$

Inline math: $E = mc^2$

### 2.3.4 ASCII Diagrams

Simple diagram:

```
Data Flow:

Input -> Processing -> Output
          |
          v
      Validation
```

### 2.3.5 References

You can reference citations like this [**?**].

### 2.3.6 Glossary

**MMIV**
: Mohn Medical Imaging and Visualization Centre

**API**
: Application Programming Interface

### 2.3.7 Version Info

Added in version 1.0: Initial release.

Changed in version 2.0: Added new features.

CHAPTER

THREE

# CONTACT INFORMATION

- Website: https://mmiv.no
- Location: Haukeland University Hospital, Bergen, Norway

CHAPTER

FOUR

# INDICES AND TABLES

- genindex
- modindex
- search

# BIBLIOGRAPHY

[Smith2024] Smith, J. “Documentation Best Practices”, 2024.