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<tr>
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<th>Main Page</th>
<th>2</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>Announcement/XSS attack</td>
<td>3</td>
</tr>
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<tr>
<td>14</td>
<td>Manual: Extension/FlaggedRevs</td>
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<td>Manual: Extension/FlexiSkin</td>
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<td>Setup: BlueSpice Operating Manual</td>
<td>73</td>
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<tr>
<td>19</td>
<td>Setup: Download</td>
<td>84</td>
</tr>
<tr>
<td>20</td>
<td>Setup: Installation Guide</td>
<td>84</td>
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<td>21</td>
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<td>22</td>
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<td>88</td>
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Main Page

Welcome to the

BlueSpice 4 Helpdesk

Note: The contents of this helpdesk apply to BlueSpice 4. You can reach our helpdesk v.3 here.

News

Latest patch release: 4.1.4 - with cookie-related security fix!
Patch Release 4.1.3 contains an important security fix for a “reflected XSS” attack.
How-to: Display page sections as cards
New template! Easily insert Bootstrap icons on a page.

Installation and Setup

Release-Info | What's new
Download of the current version
Installation guide
System requirements
BlueSpice Operating Manual

First steps

BlueSpice layout
Create a page
Edit a page

Basic functions

Organize content
Bookshelf
Announcement/XSS attack

Event

XSS attack vector in mwstake/mediawiki-component-commonuserinterface.

Evaluation of the vulnerability in BlueSpice

The value from 'title' parameter get's unsanitized to the output (e.g. in 'list-group-item'). Patch release 4.1.3 contains an important security-fix for this attack. The corresponding CVE entry is still pending and will be published soon. It is highly recommended that all users update their installation of BlueSpice 4 as soon as possible.

BlueSpice 4.1

BlueSpice 4.1 is a Minor Release.

Contents

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5 Additional changes in BlueSpice free ..................................................................................... 7
## Point Releases

<table>
<thead>
<tr>
<th>Release</th>
<th>Releasedate</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1.4</td>
<td>June 15, 2022</td>
</tr>
<tr>
<td>4.1.3</td>
<td>April 26, 2022</td>
</tr>
<tr>
<td>4.1.2</td>
<td>March 17, 2022</td>
</tr>
<tr>
<td>4.1.1</td>
<td>February 8, 2022</td>
</tr>
<tr>
<td>4.1.0</td>
<td>January 19, 2022</td>
</tr>
</tbody>
</table>

## Important new features in BlueSpice 4.1 pro

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New standard skin “Discovery”</strong></td>
<td>Modern, light-weight skin. We focused on a neutral design and thought a lot about usability. As an alternative, you can still activate the previous &quot;Calumma&quot; skin.</td>
</tr>
</tbody>
</table>

*With the FlexiSkin*
<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
<th>Screenshot</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FlexiSkin</strong></td>
<td>editor, you can change the logo, colors, and fonts within minutes directly in the wiki.</td>
<td><img src="image" alt="FlexiSkin" /></td>
</tr>
<tr>
<td><strong>Workflows</strong></td>
<td>The workflow function has been completely revised. Workflows are now based on BPMN. This makes it easier to adapt them to special requirements. Four review workflows are already included.</td>
<td><img src="image" alt="Workflows" /></td>
</tr>
</tbody>
</table>

The new "My
<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
<th>Screenshot</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>My tasks</strong></td>
<td>Tasks’ overview page enables users to view and process all pending workflow tasks or read confirmations.</td>
<td><img src="image" alt="My tasks" /></td>
</tr>
<tr>
<td><strong>BPMN diagrams</strong></td>
<td>You can now create business processes in BPMN format. The diagrams can be exported as XML files or in SVG format.</td>
<td><img src="image" alt="BPMN diagram" /></td>
</tr>
<tr>
<td><strong>Two-factor authentication</strong></td>
<td>Logins to the wiki can now also be configured to require an additional one-time password or a physical security key (Fido stick).</td>
<td><img src="image" alt="Two-factor authentication" /></td>
</tr>
</tbody>
</table>

**Additional added Extensions**

Developer: MW=MediaWiki Extension HW: Hallo Welt! Extension

<table>
<thead>
<tr>
<th>Extension</th>
<th>Developer</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Allows for importing and exporting the contents of a wiki’s pages in XML</td>
</tr>
<tr>
<td>Extension</td>
<td>Developer</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DataTransfer</td>
<td>MW</td>
<td>and CSV form, using template calls to define the fields</td>
</tr>
<tr>
<td>EventBus</td>
<td>MW</td>
<td>Propagates state changes (edit, move, delete, revision visibility, etc) to a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RESTful event service, providing consumers of the service with the means</td>
</tr>
<tr>
<td></td>
<td></td>
<td>of tracking changes to MediaWiki content.</td>
</tr>
<tr>
<td>Forms</td>
<td>HW</td>
<td>A new all-purpose forms framework for MediaWiki.</td>
</tr>
<tr>
<td>Loops</td>
<td>MW</td>
<td>Parser functions for performing loops.</td>
</tr>
<tr>
<td>OATHAuth</td>
<td>MW</td>
<td>Provides authentication support using HMAC based one-time passwords.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Now by default activated in BlueSpice pro.</td>
</tr>
<tr>
<td>PageCheckout</td>
<td>HW</td>
<td>Grants a user exclusive rights on a page. Works in conjunction with the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Workflows extension.</td>
</tr>
<tr>
<td>PageHeader</td>
<td>HW</td>
<td>Provides an additional user interface before the page content</td>
</tr>
<tr>
<td>RevisionSlider</td>
<td>MW</td>
<td>Shows a slider allowing selecting and comparing of revisions on a diff page.</td>
</tr>
<tr>
<td>SecureLinkFixer</td>
<td>MW</td>
<td>Rewrites URLs to HTTPS if domain always requires HTTPS.</td>
</tr>
<tr>
<td>StandardDialogs</td>
<td>MW</td>
<td>Provides dialog user interfaces for common page actions.</td>
</tr>
<tr>
<td>WebAuthn</td>
<td>MW</td>
<td>Provides authentication support using WebAuthn protocol.</td>
</tr>
</tbody>
</table>

**Extensions that are no longer included**
- **BlueSpiceBookshelfUI**: Removed since BlueSpice 3.2.
- **BlueSpiceEditNotifyConnector**: Removed since BlueSpice 3.2.
- **BlueSpiceReview** and **BlueSpiceReviewExtended**: Replaced by **Workflows**.
- **BlueSpiceSocialArticleActions**
- **BlueSpiceTagSearch**: Removed since BlueSpice 3.2.
- **BlueSpiceUserMergeConnector**
- **BluespiceVisualDiff**
- **CookieWarning**: Functionality has been integrated in BlueSpicePrivacy.
- **Duplicator** (Copying a page): Replaced by **StandardDialogs**.
- **EditNotify**: Removed since BlueSpice 3.2.
- **Quiz**
- **Page Schemas**
- **Semantic Internal Objects**

**Additional changes in BlueSpice free**
- Removal of the LDAP stack: LDAP extensions are now only bundled with BlueSpice pro.
- **BlueSpicePermissionManager**: Custom settings are only available in BlueSpice pro.

**Manual: All topics**
Helpdesk topics

Setup
Administration
Concepts
Content & Structure
Quality assurance
Personalization
Social wiki
Cloud

Note: If you can't find an answer on these pages, you can also visit our Community Forum.

Setup
BlueSpice Operating Manual
BlueSpice free Download
Installation Guide
Installing BlueSpice free with Docker
Release History
Release Notes
System Requirements

Administration
Config manager
Extended statistics
Footer
Main navigation
Namespace manager

Permissions
Group manager
OATHAuth and 2-Factor-Authentication (2FA)
User manager

Concepts
Creating and using categories
Magic words
Subpage
The pages model
Wikitext

Content and structure
Checklists
Content organization
Subpage
Tag cloud

Editing
Context menu
CountThings
Create Pages
Create pages
Delete pages
Drawio
Edit pages
Embed videos
Filtering tables
Insert a file
Insert a file
Insert links
Insert tags and magic words
Unsaved changes (autosave)
VisualEditor: Insert Images
VisualEditor: Insert Images
VisualEditor: Insert Images
Wikitext

Organization
Books
Category manager
Content organization
Creating and using categories
Creating page lists with DPL3
Generate page lists (smart lists)
Interwiki links
Page lists
Page templates
Recent changes transclusion
SMW queries
Subpage

Page tools

Search
Extended search
Interwiki search
Search field in the page content (TagSearch)

Customization
Attachments
Creating page lists with DPL3
Custom menu
Displaying page sections as cards
An important aspect of the wiki principle is that information can be shared with other people quickly and without any "red tape". Every wiki user with edit rights should therefore be able to create and edit a page at least in one namespace without any prior knowledge or without special privileges to contribute to their knowledge.

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3. Creating subpages............................................................ 11
4. Alternative options.......................................................... 11
5. Tipps ............................................................................. 12
6. Related info ..................................................................... 12
Creating a page

To create a page:

**Click** the *New* button in the header bar. A dialog window opens.

**Enter** a new page name. If the page does not yet exist, you will see a redlink.

Click *Done*.

**Choose Empty page** or a different page template. This step is skipped if there are no available page templates. The page opens in edit mode. You can now switch between visual and source edit mode using the Editor toolbar.

**Save** the page. It is now available in the main namespace of your wiki (unless you added a namespace prefix while creating the page).

Changing the page name

If you want to change the page name after the page has been saved — e.g., to save it in a different namespace — you can move the page.

Creating subpages

To create a subpage for the current page, select the *New Subpage* link from the *New* button menu.

The subpage is then created as *Current Page/Subpage* (e.g., Visual Editor/Tables). If a page has subpages, the path is displayed as breadcrumb navigation at the top of the page.

Alternative options

**Search field:** Maybe information about your topic already exists. Before you create a new page, you can use the search to enter terms for your topic and check existing pages. If no suitable page exists, click on the redlink ‘Create page *[page name]*’ in the search results.

**Address bar:** You can also create a page directly from the address bar of your web browser. Simply exchange the current page name with a new one. Then, click enter to create the new page.

**Form:** In BlueSpice pro, the extension Page Forms is available. It allows to create pages using a form.
Tipps

Redirects: Do you have the impression that an article title is searched more often with a different synonym? Then create a new article with this name and redirect the page to another page that contains the actual information.

Title choice: In a wiki, titles are very important. In wikis with many entries, authors may make references to pages that they deem important in the context of their entry. The page title should, therfore, clearly communicate its content. Single words are very good, but even short sentences like "why wikis work" can be useful names. In addition, meaningful page titles also help readers find their way around when they search for an entry.

Spelling: When linking to an already existing page you should pay attention to their exact spelling. If you e. g. typing a [[hello world]] instead of [[Hello World]] will create a new page as the links are spelled differently. Therefore, consider also capitalization and spaces. Only at the beginning of the letter does it make no difference whether you write a small or capital letter.

Namespaces: If you want to create an article in a different namespace, the namespace must appear before article name. Example: [[namespace:article name]].

Special characters: The following characters **cannot** be used in titles: { } & ? < > \ and ,. For more information, see mediawiki.org/wiki/Manual:Page_title.

Subpages: The character / is used to create a subpage.
What are cards?

Cards are combinations of contiguous page sections that share the same column layout. Each wiki page can contain such cards.

Create card styles

Before sections can be formatted as cards, a user with admin rights must add and save the following information to the page `MediaWiki:Common.css`:

```css
/* Styles for section cards */
.sectionflex {display: flex; flex-wrap: wrap; justify-content: space-between;}
.sectionflex.col1 > div {flex-basis:100%; padding:10px 20px 20px 20px; margin:10px 0;}
.sectionflex.col2 > div {flex-basis:49%; padding:10px 20px 20px 20px; margin:10px 0;}
.sectionflex.col3 > div {flex-basis:32%; padding:10px 20px 20px 20px; margin:10px 0;}
.sectionflex > div h2 {margin:0 0 1em 0; font-size:1.3em}
.sectionflex.frame > div {border: 1px solid #e7e7e7}
.sectionflex.background > div {background: #f1f3f9}
.sectionflex .ve-ce-branchNode-slug, span.mw-editsection {display:none}
@media (max-width: 767px) {}{.sectionflex.col2 > div, .sectionflex.col3 > div {flex-basis:100%; margin-top:2em;}}
```
Create cards

To format sections as cards:

Create a page that contains different sections. Sections are marked by headings.

Open the page in source editing mode.

Add the start of a card container as <div class="sectionflex col2 background"> above the first section you want to include in the card display (i.e., above the first heading of that section). A heading starts with two equal (=) signs:

```html
<div class="sectionflex col2 background">
  ==Introduction==
  With more than 165,000 inhabitants, Regensburg is the fourth-largest city in the State of Bavaria after Munich, Nuremberg and Augsburg.
</div>
```

Wrap all sections that you want to include in this card layout in a starting `<div>` and an end `</div>` tag:

```html
<div class="sectionflex col2 background">
  <div>
    ==Introduction==
    With more than 165,000 inhabitants, Regensburg is the fourth-largest city in the State of Bavaria after Munich, Nuremberg and Augsburg.(...)
  </div>
  <div>
    ==Topography==
    Regensburg is situated on the northernmost part of the Danube river at the geological crossroads of four distinct landscapes (...)
  </div>
</div>
```

Close the sectionflex container itself with an end `</div>` tag:

```html
<div class="sectionflex col2 background"> <!-- Start card layout-->
  <!-- Start card -->
  ==Introduction==
  With more than 165,000 inhabitants, Regensburg is the fourth-largest city in the State of Bavaria after Munich, Nuremberg and Augsburg.(...)
  <!-- End card -->
  <!-- Start card -->
  ==Topography==
  Regensburg is situated on the northernmost part of the Danube river at the geological crossroads of four distinct landscapes (...)
  <!-- End card -->
</div> <!-- End card layout -->
```

The two sections should now be displayed as cards:
Introduction

Regensburg (from Latin Castra Regina, also lat. Ratisbona and Ratispona) is the capital of the administrative district Upper Palatinate with seat of the government of the Upper Palatinate as well as the district administrator of the district Regensburg and an independent city in Eastern Bavaria.

Topography

Regensburg is situated on the northernmost part of the Danube river at the geological crossroads of four distinct landscapes:

- to the north and northeast lies the Bavarian Forest (Bayerischer Wald) with granite and gneiss mountains, wide forests and its national park
- to the east and south-east is the fertile Danube plain (Gülboden) which are highly cultivated loess plains

Two sections in the card layout: `<div class="sectionflex col2 background">

Available card formats

You can choose between 1-column ("col1"), 2-column ("col2") or 3-column ("col3") cards with grey background ("background") or grey frame ("frame"). For example:

```
3 columns with frame: <div class="sectionflex col3 frame">
```

Combination of cards

It is possible to combine different card layouts on one wiki page:

```
<div class="sectionflex col2 frame">
    ==Section 1==
    Content section 1
</div>
==Section 2==
    Content section 1
</div>
```

```
<div class="sectionflex col3 background">
    ==Section 3==
    Content section 3
</div>
```
6 Books

In BlueSpice pro, several wiki pages can be displayed for a structured book with chapter navigation. The book can also be printed as a PDF file with a cover sheet.

Contents

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2 Creating a book ........................................................................... 17
  2.1 Adding pages ........................................................................ 18
  2.2 Mass-adding of pages .......................................................... 18
3 Adding metadata .......................................................................... 19
4 Adding a cover image ................................................................ 19
5 Types of books ........................................................................... 19
6 Exporting a book ........................................................................ 19
7 Actions in the book manager ....................................................... 20
8 Configuration .............................................................................. 20
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  8.3 Configuring the file size limits (server) ................................. 22
9 Deleting a book ........................................................................... 22
10 Duplicating a book ................................................................... 22
11 Permissions ............................................................................... 23
12 Tips for working with books ...................................................... 23
13 Related info ............................................................................... 23
Characteristics of books

By default, books are created as a "general book". General books have the following characteristics:

They provide a chapter navigation.
On book pages, the book navigation is displayed instead of the main navigation.
A wiki page that belongs to a general book is identified by a `<bookshelf />` tag in the source code.
Each page can only be included in one general book.
Books can be printed completely or partially as a PDF with a cover sheet.
They are listed alphabetically on the bookshelf. It is not possible to hide individual books.
The bookshelf can be reached via the main navigation.

Creating a book

Books are created from the page `Special:BookshelfBookManager`. This page can be reached from the `Global actions` menu under `Management > Books`.

To create a book:

Click the + -button.
Enter a Book title.
Select "General books" as type of the book.

Click `Done`. The book editor loads next.
**Important!** The book is only created in the wiki when at least one page has been saved in the book.

**Adding pages**
You are now in the book editing mode.

Click the *Plus* button (1). A dialog window opens.
Search for a page in the wiki and select it. Soll in der Buchnavigation ein anderer Name angezeigt werden so können Sie ienen Anzeigetitle angeben (optional).
Click *Done*.
Add additional pages.
Click the arrow of the *Save* button and select *Save and add chapter navigation*. This process inserts the `<bookshelf />` tag into the source code of all wiki pages in the book. This causes a revision of the pages.

**Tip:** You can click a page title of a book page before adding a new book page. This is then inserted as a sub-chapter. You can move pages to the desired position later using drag & drop with the mouse.

The book is now displayed on the wiki bookshelf. The bookshelf can be reached via the entry links in the main navigation.

**Note:** There is no option to go directly from the bookshelf to the book manager.

**Mass-adding of pages**
After clicking "Mass add", a dialog is opened. It contains different criteria for page selection:
All pages of a category
All subpages of a certain page
From a page collection - page collections are lists of pages located in the MediaWiki namespace. They are usually created from search results.
By a semantic property - pages can be selected based on the value of a certain semantic property.
After adding your book pages click Save at the bottom of the page. Now you have created a page in the namespace Book. It simply contains the list of pages that have been added to the book.

**Adding metadata**

While editing a book (adding or removing pages), meta-data for the book can be added. References to these metadata can be included in the PDF template. To edit metadata, select the top-most node of the book (first page) and click the wrench icon. A dialog will be opened where various meta-data can be added or removed:

- Title
- Subtitle
- Author 1 and 2
- Document-ID
- Document type
- Department
- Version

Template (PDF): If you maintain multiple PDF templates for books, you can select one of them here.

Table of Contents (Only article titles, or Embed article TOCs)

**Adding a cover image**

To add a cover photo for the book, add a metadata item Bookshelf image. Select this option from the dropdown and click Add. Once the meta data is added enter the name of the image in the value field. Any image currently uploaded to the wiki can be used. Type the name without the "File:" prefix (enter the image name and file extension).

**Types of books**

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Chapter navigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General books</strong></td>
<td>Visible to all users. Only general books can have a chapter navigation. In almost all cases a book is set up as a &quot;general book&quot;.</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Own books</strong></td>
<td>An own book is only visible in the bookshelf to the user who created the book. Such a book does not have a chapter navigation. Own books are usually created to export wiki pages as a PDF with a cover sheet.</td>
<td>No</td>
</tr>
<tr>
<td><strong>Temporary books</strong></td>
<td>This selection is also available to wiki users who are not logged into the wiki and is therefore mainly useful for public wikis. These books are only temporarily stored in the user's browser and not in the wiki itself. If the browser cache is deleted or the user switches to another browser, the book is no longer available. The main aim of temporary books is so that users can collectively print out wiki pages as PDFs.</td>
<td>No</td>
</tr>
</tbody>
</table>

**Exporting a book**

Books, individual chapters or even individual book pages can be exported as PDF files:

- Open the book in the book manager.
- Select each of the pages or chapters to export by clicking the appropriate check boxes. Sub-chapters are selected automatically.
- Click the Export Selections drop-down menu to open a list of the available formats.
### Actions in the book manager

Der Link Verwaltung > Bücher im Menü *Globale Aktionen* lädt die Seite *Spezial:Bücherverwaltung*. Hier können Sie Ihre Bücher bearbeiten.

<table>
<thead>
<tr>
<th>Title</th>
<th>Assignments</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>General books (3 books)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Manual</td>
<td>No assignments</td>
<td>2 4</td>
</tr>
<tr>
<td>Organization Manual</td>
<td>No assignments</td>
<td>1 3 5</td>
</tr>
<tr>
<td>Quality Hardbook</td>
<td>No assignments</td>
<td></td>
</tr>
</tbody>
</table>

#### Book manager actions

- **Edit** (1): Links to the Book editor where you can edit the book contents and metadata.
- **Delete** (2): Deletes the book page in the namespace *Book without* deleting the wiki pages.
- **Duplicate** (3): Duplicates this book, including all the pages of the book to a different namespace.
- **Export** (4): Exports all wiki pages in this book to PDF.
- **Assign** (5): Assigns the book to designated users. These users are the responsible editors of the book.

#### Configuration

**Display options**

- **Show book chapter pager after content**: Displays previous/next book page navigation at the end of each book page. (1)
- **Show book chapter pager before content**: Displays previous/next book page navigation at the beginning of each book page. (2)
Use the display title from book source on article: Shows the title from the book navigation as page title instead of the page name.

Note: If the page additionally contains a {{DISPLAYTITLE}} tag, the display title of the page is shown instead of the book title.
Prepend article table of contents and headlines with book numberation
Supress namespace prefix of book articles in output

Export
Wiki-Administratoren können folgende Anpassungen für den Buchexport vornehmen:

Configuring the file size limits (server)
By default, the book export is limited to 50MB in file size. To adjust this value, complete the following steps:
In Apache Tomcat, open the file web.xml:
```bash
sudo -s
nano /opt/tomcat/webapps/manager/WEB-INF/web.xml
```
Look for the following lines and adjust the value (e.g. for 250MB=26214400)
```xml
<max-file-size>262144000</max-file-size>
<max-request-size>262144000</max-request-size>
```
The web app BShtml2PDF also has a setting that needs to be adjusted:
```bash
nano /opt/tomcat/webapps/BShtml2PDF/WEB-INF
```
Enter your values in the following lines:
```xml
<param-name>maxMemSize</param-name> <param-value>26214400</param-value>
<param-name>maxFileize</param-name> <param-value>26214400</param-value>
```
Apache Tomcat neu starten
```bash
service tomcat restart
```

Deleting a book
When you delete a book, you only remove the book page of the book (that is, the table of contents) in the "Book" namespace. However, the wiki pages in the book are not deleted. Before deleting the book, a pop-up menu informs you that the bookshelf-tag will not be automatically removed from the pages.
The bookshelf tags have no effect on the wiki pages after deleting the book page. If you want to remove them manually, you can go to the page Special:ReplaceText and do a "find and replace".

Duplicating a book
You can create an entire copy of the book by duplicating it:
To duplicate a book:
Enter a target name: The default value is the book name with the suffix (copy). Change this to create a different book title.
Select a namespace: Choose a namespace that is different from the original namespace.
If you are not careful, you might experience some unintended consequences. By creating a new book, you also create copies of all the wiki pages in the original book. Since a namespace cannot contain the same page twice, you have to copy the files to a different namespace.
About the duplicated files:
Book page: A new page in the namespace book. If you don't enter a new title, the book will be created with the same title and the suffix (Copy). E.g. Employee Manual (Copy). This file includes a copy of the structure of your original book with the corresponding links to the duplicated pages in the new copy.
Wiki pages: All pages contained in the original book are duplicated. The following scenarios are possible:

**Same namespace:** If you duplicate a book in the same namespace, no actual duplicates of the actual wiki are created. Instead, the bookshelf tag is updated to point to the copy of the book. For example, if your original book contains the page `HR:Quality assurance` (the book is in the namespace HR), the `Quality assurance` page now contains the bookshelf tag.

**Different namespace:** If you create the book copy in a different namespace, the bookshelf tag in the original files remains unchanged. The new pages in the different namespace are created with a bookshelf tag for the new book copy. This is most likely the scenario you want.

Permissions

To create and edit books, users need `edit` rights in Book namespace. Additionally, a user can only add pages to the book that that user can read. If a user tries to export a book to PDF that contains pages for which the user does not have permissions, the user will get an error message.

Tips for working with books

Use a competent team to decide on the content that should be transferred into an online book.

Decide on how to handle existing numerations or references.

Seize the opportunity: Get rid of unnecessary content (or don't include it in your book).

Decide on standards for documents: When does it make sense to link documents in the wiki? When is it sensible to include the document's content into a wiki article?

Decide on a fitting course of action: Do you want to create the articles in the wiki first, and compile them in a book structure afterwards, or do you want to create the book structure first, and create and edit the articles contained gradually?

### Related info

- Reference:BlueSpiceBookshelf
- Customizing page breaks

### Layout

#### Contents

1. BlueSpice Layout ........................................................................................................................................ 24
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7. Footer ...................................................................................................................................................... 27
BlueSpice Layout

The user interface is divided into distinct areas that group various wiki functions in a meaningful way. Here you get an overview of all features of the standard skin "Discovery".

<table>
<thead>
<tr>
<th>Bereich</th>
<th>Beschreibung</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Header bar</td>
<td>Contains important elements such as the logo area, the search field and the buttons for various navigation menus (mega menus).</td>
</tr>
<tr>
<td>2-Main navigation</td>
<td>The &quot;heart&quot; of the site organization. The navigation links can be customized by admin users. This area also displays the book navigation.</td>
</tr>
<tr>
<td>3-Page tools</td>
<td>Contains all the actions that can be performed on a page. In addition, information such as the version history or the page information can be accessed from here.</td>
</tr>
<tr>
<td>4-Work area</td>
<td>All content is created and edited here. The work area is divided into the title area and the actual page content.</td>
</tr>
<tr>
<td>5-Page appendix</td>
<td>Additional information such as category membership, discussions and attachments are displayed in the supplementary area. In addition, page recommendations and ratings are displayed if they are activated for the page.</td>
</tr>
<tr>
<td>6-Footer</td>
<td>The footer contains links to legal information as well as to external websites relating to MediaWiki.</td>
</tr>
</tbody>
</table>
# Header bar

The header contains important elements such as the logo area, the search field and the buttons for various navigation menus (mega menus).

<table>
<thead>
<tr>
<th>Funktion</th>
<th>Beschreibung</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a-Main navigation toggle</td>
<td>Allows users to show and hide the main navigation.</td>
</tr>
<tr>
<td>1b-Logo</td>
<td>The logo can be changed using the special page FlexiSkin.</td>
</tr>
<tr>
<td>1c-Search field</td>
<td>Page titles that match the search expression are displayed in a quick menu while the search term is being entered. Pressing the Enter key takes you to the search center, which displays the results of a full-text search and allows filtering the results.</td>
</tr>
<tr>
<td>1d-&quot;New content&quot; button</td>
<td>The &quot;New&quot; button allows to create a new page. A subpage can be created directly via the submenu or a new file can be uploaded. A multi-upload is only possible via the Manual:Extension/ExtendedFileList.</td>
</tr>
<tr>
<td>1e-Custom menu</td>
<td>Allows users with admin rights to create an additional mega menu. The button is only displayed once the additional menu has been created.</td>
</tr>
<tr>
<td>1f-Global actions</td>
<td>Direct links to many special pages as well as administrative pages of the wiki.</td>
</tr>
<tr>
<td>1g-Language selection</td>
<td>If a page includes links to pages in different versions via language codes that were defined in the Interwikilinks, a mega menu is shown for the language selection.</td>
</tr>
<tr>
<td>1h-User menu</td>
<td>Users manage their own settings, tasks and notifications here. A red circle appears above the user avatar if unread notifications exist.</td>
</tr>
<tr>
<td>1i-Page tools toggle</td>
<td>Allows users to show and hide the page tools of a page.</td>
</tr>
</tbody>
</table>

# Main navigation

Links to the most important wiki pages are shown here. Administrators have the option to customize the main navigation.

# Page tools

The page tools area contains all the actions that can be performed on a page. In addition, information such as the version history or the page information can be called up from here.
**Funktion** | **Beschreibung**
--- | ---
3a-Standard actions | *Move*, Copy, Delete, Refresh
3b-Work actions | *Start a workflow*, *Set expiry*, Set reminder, Set page assignments, *Add to book*
3c-Quick actions | Export options, Share, Add to watchlist
3d-Page details | Page history, Page information, *Browse properties*
3e-All actions | Opens a dialog window, in which all possible actions on this page are listed.

**Work area**

**Breadcrumb navigation**
The breadcrumb navigation at the beginning of the work area consists of links that map the path of the current page:

*Namespace (=root node) > Pagename > Subpage level 1 > ... > Subpage level x*
If the page `<namespace>:`Main_Page (language variations: de:Hauptseite / fr:Accueil / zh:) exists, the root node links to that page.
If this page does not exist, the root node links to "All pages" (Special:Allpages) with the namespace selector preset to the respective namespace. If the root node should link to a different page (e.g., `<namespace>:`Portal), then this page needs to be redirected to the page `<namespace>:`Main_Page.

### Page appendix

**Footer**

The footer contains links to legal information as well as to external websites relating to MediaWiki. The links to the legal information can be adjusted by wiki administrators via pages in the MediaWiki namespace.

**Customize the footer**

### 2 Customize the main navigation

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 How does the main navigation work?</td>
<td>28</td>
</tr>
<tr>
<td>2 Adding links</td>
<td>28</td>
</tr>
<tr>
<td>3 Deactivating standard links</td>
<td>29</td>
</tr>
<tr>
<td>4 Group-specific navigation</td>
<td>29</td>
</tr>
<tr>
<td>5 Additional customizations</td>
<td>29</td>
</tr>
</tbody>
</table>
How does the main navigation work?

By default, some links are provided as entry points to the wiki. Wiki administrators can deactivate these links in the configuration manager if needed. In addition, custom links can be added here. Please note that no hierarchical links can be created. Therefore, it makes sense to mainly set up links to the most important topics and to portal pages that contain additional links or page lists.

Adding links

To add new links:

Open the page MediaWiki:Sidebar from the browser's address bar.

Change to edit mode.

Create one or more navigation links (with or without section heading). The following example shows a link to the page "Company" with the label "Our company" and an external link to the BlueSpice website with the label "Website". The links are grouped together under the section heading "Quicklinks":

*Quicklinks
**Company|Our company
**https://www.bluespice.com/de|Website

Save the page. The links are now shown in the main navigation.

Note: As soon as you have created at least one additional link, a direct edit link to the MediaWiki:Sidebar page is displayed when you move the mouse over such a link (see screenshot above).

Link labels may collide with system messages. If this is the case, simply append the HTML-code for an empty space to the description:
**Portal|Portal#160;**

**Deacivating standard links**
The standard links can be deactivated in the configuration manager. The following settings are available under Feature > Skinning:

BlueSpiceBookshelf:
Show entrypoint "Bookshelf"
BlueSpiceDiscovery:
Show entrypoint "Mainpage"
Show entrypoint "All pages"
Show entrypoint "Recent changes"
BlueSpiceSocial:
Show entrypoint "Timeline"
BlueSpiceSocialBlog:
Show entrypoint "Blog"

**Group-specific navigation**
It is possible to show navigation elements for specific user groups only. Please note that the pipe symbol (|) between the page name and its label has to be escaped as {{!}} within this function. This syntax is defined in the extension UserFunctions.

```
{{#ifingroup:sysop,widgeteditor |
  *Test2
  **somepage{{!}}Some page
|}}
```

**Additional customizations**
Display icons with navigation links
Multi-language navigation

**5 Namespace manager**
The Namespace manager allows a user with administrative rights to create, edit, and delete namespaces and to change the settings of these namespaces.

**Contents**

1 Where to find the namespace manager ................................................................. 30
2 Creating a namespace .......................................................................................... 30
3 Editing a namespace ............................................................................................ 31
4 Deleting a namespace .......................................................................................... 32
5 Related info .......................................................................................................... 33
Where to find the namespace manager

The navigation link to the Namespace manager is located under *Global actions > Management > Namespaces*. This link opens the page *Special:NamespaceManager*.

Creating a namespace

**Note:** If you haven't created namespaces before, familiarize yourself with the concept of namespaces first to understand when it makes sense to set up a namespace. Although it is theoretically possible to create a large number of namespaces, the BlueSpice user interface supports at best a number of 10-30 user-created additional namespaces. If you need more namespaces, consider using several individual wikis or a wiki farm.

To create a namespace:
Click the “Plus” icon at the top of the page. A dialog opens.

![Namespace manager](image)
Enter the name for the new namespace and select the namespace options. Make sure that the name for the namespace is as short as possible, since the name becomes part of the page name of the pages in this namespace. This makes it easier to type in page names, e.g. using search fields in the wiki. Search results and all types of page lists are also displayed more clearly in this way. Examples: QM (for the namespace "Quality Management"), RM (for "Risk Management). Optionally, an alias can also be specified for the namespace. This name can then be used at any time in the wiki instead of the actual name.

Choose the features you want to activate.

Usually, the following features are activated: Subpages, Content namespace, PageTemplates, VisualEditor, Semantic MediaWiki. Description of the available features:

Subpages: It is possible to create subpages. If this feature is deactivated the syntax Pagename/withslash does not produce a subpage in the wiki.

Content namespace: This checkbox needs to be activated so that users can create wiki pages in this namespace. See also mediawiki.org/wiki/Manual:ContentHandler.

CategoryCheck: Each time the user saves a page, the save-dialog shows a checkbox to confirm that the users reviewed the categories on the page. This applies to all pages in this namespace and makes sense when a wiki is organized primarily through manual categorization of pages by users.

Secured page assignments

PageTemplates

Visual editor: Activation of the extension VisualEditor. If this is not activated, the pages can only be edited in source editing mode. If this setting is activated after pages already exist in the namespace, it will take a few minutes for the visual editor to work on the pages.

Rating: Allows users to rate each page from 1 to 5 stars. An overview page in the wiki shows rated pages sorted by rating.

Recommendations: Allows users to recommend a page. An overview page in the wiki shows recommended pages by number of recommendations.

Read Confirmation: Assigned users must mark a checkbox to confirm that they have read the changes to a page.

Semantic MediaWiki: Enables the functionality of the SemanticMediaWiki extensions. This also enables Semantic MediaWiki's query function on a page.

Approval: New versions of a page are initially processed as drafts. These remain in place until a user with approval rights reviews and approves the page.

Click Done. The namespace is now ready to use.

Note: The corresponding talk namespace for the new namespace is automatically created. This namespace allows users to discuss a page in the wiki on an associated discussions page.

Editing a namespace

A namespace can be edited by clicking on the "wrench"-icon in the table row or above the table when a namespace is selected.
Edit a namespace

When renaming a namespace, all pages in the namespace are automatically renamed as well. Links to the renamed pages as well as page lists that filter by the original namespace designation are **not** renamed and therefore no longer work.

Discussion namespace names and system namespace names (File, MediaWiki, etc. cannot be changed manually.

**Deleting a namespace**

Only namespaces created by users can be deleted. The corresponding button (2) is only displayed in such namespaces.

After clicking the delete icon, a dialog box opens.

```
Are you sure that you want to delete this namespace? Deleting a namespace cannot be undone.
Pages in this namespace:
- Will be deleted
- Will be moved into "(Pages)"
- Will be moved into "(Pages)" with the suffix "(from [namespace name])"
```

*Will be deleted*: deletes the pages in this namespace together with the namespace
*Will be moved into "(Pages)"*: moves the pages of this namespace into the main namespace
*Will be moved into "(Pages)" with the suffix "(from [namespace name])"*: moves and appends the pages with "from [namespace]"

Talk namespaces are deleted with their corresponding namespace and cannot be deleted separately.
4.2 Permission manager

The permission manager can be accessed from the Global actions menu under Administration > Permissions. This link loads the page Special:PermissionManager.

There are four different permission settings. The default setting is "Private wiki". If you want to grant different permissions in different namespaces, the setting "Custom setup" is required.
## Settings

An administrator can choose between three types of settings. The setting **Private Wiki** is activated by default.

<table>
<thead>
<tr>
<th>Permission type</th>
<th>Description</th>
<th>Special permissions</th>
</tr>
</thead>
</table>
| **Public wiki** | The wiki is visible to and editable by anyone, including anonymous users (that means users that are not logged in).  
- All users have edit rights by default.  
- To approve a page (if the approval mechanism is activated in a namespace), the groups “editor” and “reviewer” must be assigned to a user.  
- To manage the wiki (administrative tasks), the group "sysop" must be assigned to a user.  

Sonderverrechtung:[1]  
// Anonymous and logged-in users can read and edit  
$this->groupRoles ['*']['reader'] = true;  
$this->groupRoles ['*']['editor'] = true; |  |
| **Protected wiki** | The wiki is visible to anyone. Only logged-in users can edit the wiki.  
- All users have edit rights by default.  
- To approve a page (if the approval mechanism is activated in a namespace), the groups “editor” and “reviewer” must be assigned to a user.  
- To manage the wiki (administrative tasks), the group "sysop" must be assigned to a user.  

Sonderverrechtung:[1]:  
// Anonymous users can read, logged-in users can edit  
$this->groupRoles ['*']['reader'] = true;  
$this->groupRoles ['*']['editor'] = false;  
$this->groupRoles ['user']['editor'] = true; |  |
| **Private wiki** | Only logged-in users can view and edit the wiki.  
- Logged-in users only have view permissions.  
- **Important!** To edit a page, users must be assigned to the “editor” group manually.  
- To approve a page (if the approval mechanism is activated in a namespace), the groups “editor” and “reviewer” must be assigned to a user.  
- To manage the wiki (administrative tasks), the group "sysop" must be assigned to a user.  

Sonderverrechtung:[1]  
// Only logged-in users can read. The group "editor" has to be manually assigned to users.  
$this->groupRoles ['*']['reader'] = false;  
$this->groupRoles ['*']['editor'] = false;  
$this->groupRoles ['user']['reader'] = true;  
$this->groupRoles ['user']['editor'] = false;  
$this->groupRoles ['editor']['editor'] = true;  
$this->groupRoles ['sysop']['editor'] = true; |  |
1.0 1.1 1.2 Global permissions (modified by the special permissions shown in the table above):

```php
'bureaucrat' => [
    'accountmanager' => true
],
'sysop' => [
    'reader' => true,
    'editor' => true,
    'reviewer' => true,
    'admin' => true
],
'user' => [
    'editor' => true
],
'editor' => [
    'reader' => true,
    'editor' => true
],
'reviewer' => [
    'reader' => true,
    'editor' => true,
    'reviewer' => true
]
```

Custom setup

Die Tabelle zeigt typische Standardeinstellungen für eine einfache Benutzerverwaltung:

<table>
<thead>
<tr>
<th>Group</th>
<th>Default roles</th>
<th>Purpose of the group</th>
<th>Suggested roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>anonymous user (*)</td>
<td>-</td>
<td>Determines if anonymous users can read wiki pages.</td>
<td>(no role assignment) or reader</td>
</tr>
<tr>
<td>user</td>
<td>reader, editor</td>
<td>Determines the rights authenticated users have if they don’t belong to any other groups. All groups except for anonymous users initially inherit permissions from this group.</td>
<td>reader or reader, editor</td>
</tr>
<tr>
<td>editor</td>
<td>(von user geerbt), editor</td>
<td>Group members can edit the wiki.</td>
<td>(editor)*</td>
</tr>
</tbody>
</table>

Note: In BlueSpice pro Cloud, it is not possible to assign edit, comment, or upload rights to anonymous users.
### Group Default roles Purpose of the group Suggested rolees

<table>
<thead>
<tr>
<th>Group</th>
<th>Default roles</th>
<th>Purpose of the group</th>
<th>Suggested rolees</th>
</tr>
</thead>
<tbody>
<tr>
<td>reviewer</td>
<td>reviewer</td>
<td>Group members can approve page revisions if the approval feature is activated.</td>
<td>reviewer</td>
</tr>
<tr>
<td>sysop</td>
<td>(von user geerbt), editor, admin</td>
<td>Grants administrator rights to the wiki. Included in roles: admin, maintenanceadmin</td>
<td>(editor)*, admin</td>
</tr>
</tbody>
</table>

* can be inherited through the group "user"

---

**Note:** If you have saved the personalized settings at least once and then switch back to a "protected" or "private" wiki, you do not lose your latest personalized settings. You can simply resave the latest saved settings to switch back to a wiki with personalized permissions.

---

### About role-based permissions

Roles represent a **collection of individual permissions** that are necessary to perform certain functions in the wiki. For example, for a user who is supposed to only read the wiki, many permissions in addition to the "read" permission are needed: The ability to change their own settings, to search the wiki, to view page ratings, and so on.

All permissions that make up a logical group are encapsulated in a role, in this example the role "reader". If wiki administrators want to grant read-only rights to a user group, they only need to assign that group the "reader" role, instead of assigning many individual permissions that are needed to create a "read"-user.

By assigning roles to a group, all users belonging to that group receive the rights of these roles. Roles are never assigned directly to users, but always to groups instead. Users are then assigned to one or more groups.

---

### The roles matrix

The permission manager consists of the group tree (1) and the role matrix (2):

---
The **group tree** shows all existing groups:
- **Group "*":** all non-logged-in (anonymous) users
- **Group "user":** all logged-in users, the default group for all users
- **Subgroups of group "user":** all groups that are defined on the wiki, either by default, by MediaWiki, or custom groups created in the [Group manager](https://www.mediawiki.org/wiki/Manual:Group_manager) by an administrator. System groups, created by MediaWiki, can be hidden by unchecking the "Show system groups" checkbox above the tree.

The columns in the **role matrix** are:
- **Role information** (info icon): Clicking the icon shows all the permissions in a role. This list is exportable.
- **Role name**
  - **Wiki:** Assignment of a role to the entire wiki. By assigning the role in this column, a user group gets permissions in this role on the wiki (all namespaces).
  - **Individual namespaces:** The following columns list every (applicable) namespace on the wiki. Roles can be assigned to individual namespaces. For example, the group **user** can get the **editor** role only in the namespace Public. **Users in this group cannot edit content in any other**. By granting a role to a particular group in a particular namespace, means that all other groups will lose permissions from this role, eg. granting role "reader" in namespace "Private" to group "sysop" means that all users in any other groups won't be able to read pages in "Private" namespace, even if they have "reader" role granted on the wiki level ("Wiki" column).

The same role can be granted to multiple groups for the same namespace. Additional namespaces can be added in the matrix by clicking on the arrow in table header, then "Columns". Then the namespaces can be selected.
Role inheritance

By default, all roles granted to the (*) group will be granted to the user group, and all roles granted to the user group are granted to its subgroups. If a group inherits the role from an upper-level group field, this is indicated in the role matrix with a green background, but the checkbox is empty.

Default roles

By default, the Permission manager includes a number of predefined roles that serve most user needs. The individual permissions contained in a role can be seen by clicking the info icon in front of the role name. It opens a dialog with a permissions list for the role.

**bot:** exists to achieve recurring system actions. This role is assigned to the user BSMaintenance in Bluespice via the group bot. The group bot should not be changed.

**admin:** Grants access to all administrative special pages and to all typical administrative features.

**maintenanceadmin:** Similar to the admin role, but with extended admin rights for maintaining wiki integrity.

**author:** all permissions necessary for creating content on the wiki. Editing, moving, or deleting pages is not possible.

**editor:** create content, edit and delete content.

**reviewer:** If you have activated the review function and, therefore, work draft pages in a namespace, there must be at least one group with the role of reviewer. By default, the group “reviewer” is available for this purpose. Only users in the reviewer role can approve draft pages. Reviewers generally need read, write and review rights via the corresponding three roles of reader, editor and reviewer. However, if you have not activated the review function in any namespace, you do not need this role in your wiki.

**accountmanager:** enables the administration of user accounts. Since user accounts are managed independently of namespaces in the wiki, this role cannot be restricted to individual namespaces. Grayed-out namespaces have no meaning here as long as the role in the wiki itself is highlighted in green.

**structuremanager:** allows some actions for wiki maintenance such as moving pages, mass deleting pages or searching and replacing text, as well as renaming namespaces.
**accountselfcreate**: enables the automatic creation of new user accounts and is required for single-sign-on. You can assign this role, for example, to anonymous users who can create their own account.

**commenter**: allows the creation of discussion contributions and page ratings, but not of the pages themselves. The editor role includes all the rights of the commenter role. If a group has editor rights, it does not need special commenter rights.

**reader**: Basic read access. Users can also edit their personal settings.

### Restricting read permissions

It is possible to limit read permissions in a namespace by explicitly assigning the role *reader* to one or more particular groups. When users in other groups try to access a page in such a namespace, they will get a message that the permissions are denied.

![Permission error](image)

While a user cannot access the content of the page, the wiki still shows links to these pages to all users in some contexts, even if a user does not have permissions to access the page content itself.

The following lists show which extensions or functionalities do not show links to restricted pages — because they are permissions-aware — and where the links are shown regardless of permissions.

#### Extensions that are permissions-aware

Query results and page lists provided by the following extensions do not show links to pages to which the current user has no access on the namespace level:

- `ExtendedSearch` (and functionality based on Extended Search in general, e.g. `TagSearch`, `ExtendedFilelist`)
- `Semantic MediaWiki`
- `TopList`

#### Extensions and special pages that are not permissions-aware

Extensions that provide page lists and that do not hide links to read-restricted pages to the affected users. Examples:

- `DynamicPageList3`
- `SmartList`
- `WatchList` (both the tag and the special page)

In general, all MediaWiki special pages do not check permissions and therefore list these pages for the affected users. Most common examples:

- `Special:All pages`
- `Special:RecentChanges`
Special:Bookshelf *(Note: If this is an issue, you can limit access to the namespace *Book* to selected groups. The page *Special:Bookshelf* then won't show any links to books to users who do not have access to the *Book* namespace. Links to individual books can then be provided on various portal pages as needed.)*

Category pages: All pages in the namespace *Category*

---

**Technical info**

**Logging**

Every change to the roles is logged in *Special:Log*, in the *Permission Manager log*. These logs are available only to wiki administrators (users in groups with the role *admin*).

**Configuration**

All changes to the role matrix are backed up. By default, the last 5 backups are kept. This limit can be changed in *Config manager*, under extension BlueSpicePermissionManager.

**Backup limit:** Sets the number of backups for the permissions manager. Each time the page *Special:PermissionManager* is saved, a backup is created. If the backup limit is set to 5, the last five versions of the permissions configuration are saved as backups.

---

**Related info**

- Reference:BlueSpicePermissionManager
- Group manager

---

### 9.1 Blog

<table>
<thead>
<tr>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 About the blog</td>
</tr>
<tr>
<td>2 Characteristics and features</td>
</tr>
<tr>
<td>3 Adding the blog to a page</td>
</tr>
<tr>
<td>4 Blog parameters</td>
</tr>
<tr>
<td>5 Output type examples</td>
</tr>
<tr>
<td>6 Configuration</td>
</tr>
<tr>
<td>7 Related info</td>
</tr>
</tbody>
</table>
The extension BlueSpiceSocialBlog is part of BlueSpiceSocial, the communications module of BlueSpice. In addition to the type blog, there are other types of so-called social entities, such as comment, discussion topic, attachment, or microblog.

### About the blog

Basically, a blog is a list of comments, questions, or feedback from different users. The blog is often sorted chronologically. Lively communication can arise when blog entries are further commented, recommended, linked with related articles, or placed on a personal watchlist. The blog is ready to use on the special page Special:Blog. This page is linked directly from the main navigation in every new wiki installation. So you can start using the blog right away.

![Blog Entry](image)

### Characteristics and features

A blog entry consists of a title and content.

**Comments:** Users can leave comments to each blog entry.

**Actions:**

- **Delete:** Editors can delete their own posts. Administrators can delete all posts. Deleted posts are no longer displayed. Exception: Administrators see deleted items with a red background and can restore them.
- **Recommend:** Blog posts can be recommended. It is possible to generate a list of posts with the most recommendations via the timeline filter. (See: Embedding the blog on a page)
- **Linked page:** Every blog entry is connected to a wiki page by the system. By default, this is the main page of the wiki. However, other pages can be added as "Linked page". Blog entries can then be filtered for linked pages via the Special:Timeline page.
- **Watch:** Own blog posts and comments are automatically added to the watch list.
- **Permissions:** It is possible to allow users with read permissions on the wiki to comment on blog entries. See: BlueSpiceSocial Permissions.

### Adding the blog to a page

It is also possible to include the blog functionality on any wiki page. Social contributions of many types can be consolidated and displayed chronologically in a timeline and filtered and sorted as needed.

If you want to include a view of your blog on another page of your wiki, for example your homepage, you need to insert the necessary codeblock in the source code of your page.

**To include a blog view:**
- **Go to** the page where you want to insert the blog or create a new page.
- **Open the page** in Source editing mode.
- **Copy the following code block** to the section in your page where you want to show the blog.
After saving the page, you will see a list of existing blog entries based on the filter and sorting criteria you provided.

**Blog parameters**

**Output format**

The following table shows the blog elements and the necessary parameters to create the output.
<table>
<thead>
<tr>
<th>Element</th>
<th>Parameters</th>
<th>Parameter and element description</th>
<th>Type</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - header</td>
<td>headlinemessagekey</td>
<td>Header text</td>
<td>string</td>
<td></td>
</tr>
<tr>
<td></td>
<td>showheadline</td>
<td>Show the header text</td>
<td>boolean</td>
<td>true</td>
</tr>
<tr>
<td></td>
<td>showentitylistmenu</td>
<td>Show or hide the blog menu</td>
<td>boolean</td>
<td>true</td>
</tr>
<tr>
<td></td>
<td>showentityspawn</td>
<td>Show the menu item for creating a blog entry</td>
<td>boolean</td>
<td>true</td>
</tr>
<tr>
<td></td>
<td>availablesorterfields</td>
<td>Determines which data fields are included as sorting options in the sort menu. Example: allow sorting only by date created or by the user who created a blog entry:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;availablesorterfields&quot;:</td>
<td>array</td>
<td>all</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[&quot;timestampcreated&quot;,&quot;ownerid&quot;]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>availablefilterfields</td>
<td>Determines which data fields are included as filter options in the filter menu. Example: allow filtering based on Creation date and Linked pages:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;availablefilterfields&quot;:</td>
<td>array</td>
<td>all</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[&quot;timestampcreated&quot;,&quot;tags&quot;]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 - blog menu</td>
<td>lockedoptionnames</td>
<td>Determines which settings for sorting the user cannot change.</td>
<td>array</td>
<td>[]</td>
</tr>
<tr>
<td></td>
<td>availablefilterfields</td>
<td>Determines which data fields are included as filter options in the filter menu. Example: allow filtering based on Creation date and Linked pages:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;availablefilterfields&quot;:</td>
<td>array</td>
<td>all</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[&quot;timestampcreated&quot;,&quot;tags&quot;]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lockedfilternames</td>
<td>Determines which settings for filtering the user cannot change. Example: a user cannot change the filter values for Linked pages. The text field is greyed out:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;lockedfilternames&quot;:</td>
<td>array</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[&quot;tags&quot;]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Element</td>
<td>Parameters</td>
<td>Parameter and element description</td>
<td>Type</td>
<td>Default</td>
</tr>
<tr>
<td>---------</td>
<td>------------</td>
<td>-----------------------------------</td>
<td>------</td>
<td>---------</td>
</tr>
<tr>
<td>lockedfilternames</td>
<td></td>
<td>Initial settings and custom sort and filter settings are included in the page url. The url can then be used to create a link to the page with the same filter and sort settings.</td>
<td>array</td>
<td>[]</td>
</tr>
<tr>
<td>persistsettings</td>
<td></td>
<td>&quot;persistsettings&quot;:true</td>
<td>boolean</td>
<td>false</td>
</tr>
<tr>
<td>3 - new blog entry</td>
<td>preloadentities</td>
<td>Shows the text field for creating a new blog entry. If it is not set, the text field is not available. To show the text field: &quot;preloadedentities&quot;: [{&quot;type&quot;:&quot;blog&quot;}]</td>
<td>array of objects</td>
<td>-</td>
</tr>
<tr>
<td>4 - existing blog entry</td>
<td>outputtypes</td>
<td>It defines the display format of the blog entry. Standard types are: List, Short, Default, Page. (see examples) Each blog entry is a &quot;social entity&quot;.</td>
<td>object</td>
<td>Default</td>
</tr>
<tr>
<td>limit</td>
<td></td>
<td>Defines how many social entities are loaded initially.</td>
<td>object</td>
<td>Default</td>
</tr>
<tr>
<td>4a - avatar</td>
<td>-</td>
<td>Shows the avatar of the user who created the blog entry or comment. It is displayed in all output types except List.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4b - info area</td>
<td>-</td>
<td>Link to the comments and &quot;last edit&quot; info.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4c - blog entry content</td>
<td>-</td>
<td>Shows the text body of a blog entry. The output type Default collapses the blog entry content after the first paragraph with a &quot;More&quot; link.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4d - action menu</td>
<td>-</td>
<td>Actions: edit, delete, recommend, Linked page, watch</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
### Element Parameters

<table>
<thead>
<tr>
<th>Element</th>
<th>Parameters</th>
<th>Parameter and element description</th>
<th>Type</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - new comment</td>
<td>-</td>
<td>Text field for creating a new comment.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6 - existing comment</td>
<td>-</td>
<td>Comments include the social tag <em>Recommend</em>. Each comment is a &quot;social entity&quot;.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7 - &quot;more&quot; button</td>
<td>morelink</td>
<td>Link target of the &quot;more&quot; button. For blogs, it makes sense to link to the page <em>Special:Blog</em>.</td>
<td>str</td>
<td>SpecTim</td>
</tr>
<tr>
<td></td>
<td>useendlessscroll</td>
<td>More blog entries are automatically loaded after the user scrolls to the end of the blog.</td>
<td>boolean</td>
<td>true</td>
</tr>
<tr>
<td></td>
<td>showentitylistmore</td>
<td>Shows a &quot;more&quot; button below the blog which loads more blog entries on click. This is only possible if useendlessscroll is set to false.</td>
<td>boolean</td>
<td>false</td>
</tr>
</tbody>
</table>

### Sorting

Most commonly, a blog shows the latest blog entries first. However, there are many different options for sorting the list of blog entries.

#### Syntax

```json
[
  "property": "timestamptouched",
  "direction": "DESC"
]
```

#### Properties

There are some common properties of a blog entry that are useful for sorting:

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>timestampcreated</td>
<td>creation date</td>
</tr>
<tr>
<td>timestamptouched</td>
<td>last edit date</td>
</tr>
<tr>
<td>commentcount</td>
<td>number of comments</td>
</tr>
<tr>
<td>ratingcount</td>
<td>number of ratings</td>
</tr>
<tr>
<td>ownerid</td>
<td>username of the creator of a blog entry</td>
</tr>
</tbody>
</table>
**Direction**
Blog entries can be sorted in descending and ascending order. Descending is the default order.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESC</td>
<td>sorts the blog entries in descending order</td>
</tr>
<tr>
<td>ASC</td>
<td>sorts the blog entries in ascending order</td>
</tr>
</tbody>
</table>

**Filtering**
Without setting the filter parameter, there will be no output on the page.
To show the blog entries of your wiki, include the following codeblock like shown in the code example above:

```json
"filter": [ {
  "type": "list",
  "property": "type",
  "value": [ "blog" ],
  "comparison": "ct"
}
]
```

This filter includes all social entities which match the type blog. Since we only want to show social entities of type blog, we only include blog entries in our filter. If you want to create a social timeline rather than a blog view, you can also add other types of social entities. The following example shows a timeline view that includes blog entries, discussion entries from wiki pages, and user profile information:

```json
"filter": [ {
  "type": "list",
  "property": "type",
  "value": [ "blog","topic","profile" ],
  "comparison": "ct"
}
]
```

**Output type examples**
The output type for a blog is added using the `outputtypes` parameter. Don't forget to include a comma before and after this parameter (unless this is the last parameter in your code):

```json
"outputtypes": {
  "blog": "Default"
}
```

**Default**
The output type Default shows the content of a blog entry truncated after the first paragraph. To view the full text, users can click on the More link.
"Default" output

**Short**
The output type *Short* does not show the content of the blog entry. To view the content, a user has to click on the title of a blog entry. This loads the actual page for the selected blog entity.

"Short" output

**Page**
The output type *Page* shows all blog elements, including the comments, in an expanded view.

"Page" output
List
The output type *List* only shows the title and the timestamp.

<table>
<thead>
<tr>
<th>Suggestion for improving search results</th>
<th>Created one hour and 56 minutes ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greg Rundlett über BlueSpice</td>
<td>Created 2 months ago</td>
</tr>
</tbody>
</table>

“List” output

Configuration
In the Config manager, you can change the following settings:

**Use teaser text for blog entries in the timeline:** When you create a blog entry, you can create a teaser text for it by clicking the cogwheel symbol in the blog entry form. If this setting is active, the teaser text will be shown on the page *Special:Timeline* instead of the first part of the content.

![Blog teaser text](image)

Related info
- Micro-Blog
- Discussions and Attachments
- Discussion topics
- Social comments
- User Profile
- Linked pages
- Reference:BlueSpiceSocial
## 7.1 Approval

FlaggedRevs is a MediaWiki extension that activates an approval mechanism. New versions of a page are initially marked as drafts and remain so until a user with `review` rights approves the page.

### Contents

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1.1 Existing pages ......................................................................................... 51
1.2 New pages ............................................................................................. 51
2. Accepting a page ...................................................................................... 52
3. Setting read permissions for drafts .......................................................... 53
4. Changes to embedded templates and files ............................................. 54
5. Effects on Semantic MediaWiki properties .......................................... 55
6. Quality management overview ............................................................... 55
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Activating the acceptance feature

Activating the acceptance feature is done on the namespace level. A user with admin permissions activates the feature in *Global actions > Management > Namespace manager* for individual namespaces. The dialog window opens after clicking the edit icon (wrench) in the *Actions* column. Select *Approval* and click *Done*.

![Dialog window for activating the approval feature](image)

Existing pages

After activating *Approvals* for a namespace, all pages in the namespace are set into *first draft* mode.

![Audits](image)

Each page in the namespace now displays the acceptance status in the title area.

New pages

When a new page is created and first saved, it will automatically be visible to all users. Subsequent page edits will be collected in the draft version of the page. If a page is edited and saved multiple times while in draft mode, each edit gets logged in the version history:
Draft revisions

The revisions in draft status have a dotted border and are highlighted in orange. In addition, they are marked as *pending review*. These revisions can be compared before the pending changes of the page are accepted.

**Accepting a page**

Users with *review* rights can accept a draft page any time they save a page (*Accept this unreviewed page*):

![Image of accepting a page](https://example.com/image.png)

Accepting pending changes

If the page is not accepted at this point, it can be accepted independently from the editing process. A user with *review* rights can accept the page quickly with the review feature in the title section of the page. The draft message will display an arrow which includes the *accept* function:
When accepting the page, the reviewer can leave a comment. This comment will then be shown in the version history of the page. The page status now shows the page version as accepted.

**Setting read permissions for drafts**

By default, all users can see the drafts of a page, even readers. To hide drafts from readers, the group *user* has to be removed from the configuration. An administrator deletes the group user form "Show unstable pages for the following groups" in *Global actions > Management > Config manager*.

**Warning!** If the group *user* is removed from the *BlueSpiceFlaggedRevs* configuration, users in this group will not be able to see draft versions when they are added as reviewers in a review process.
When the group user is removed, only *sysop* and *reviewer* users can access drafts. If you want other groups, for example *editor*, to see draft versions, you need to add them to the configuration and save it:

The two checkboxes *Automatically set the page to stable*... (checkbox is available until version 3.1.) and *Automatically delete the workflow*... determine what happens at the end of a workflow, if there is an active Review for a page. A page can be set to accepted status by a workflow and the workflow can be deleted after the page is marked as stable.

**Note:** If no user groups are specified in the configuration field, not even reviewers and sysops users will see a visual status indication of a page. They will have access to drafts through the revision history of a page instead.

Anyone with edit permissions will receive a notification that there are pending changes for the page when they access the page in edit mode:

![Pending changes notification](image)

**Changes to embedded templates and files**

If a page uses templates or contains other files such as images and embedded PDFs and these files have been modified since the page was approved, those changes must also be approved. The wiki can be set up in two different ways to achieve this approval:

**The embedded resource is located in a namespace without approval feature:** If the embedded resource is in a namespace without its own approval function, the resource version at the time of the page approval is displayed. The draft version of the page shows the most recent version of the embedded resource. To approve the resource change, the page itself must be approved again. The approval has to be done on all pages that have this resource embedded.

*Information about automatic mass approval via server script.*

**The embedded resource is located in a namespace with approval feature:** The pages that include the changed resource do not give any indication that the resource has been changed. Which version of the included resource is displayed depends on the configuration of the wiki:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always shows the approved (stable) version of a resource, even if it was approved after the page that includes the resource was approved (this works only if the resource is located in a namespace</td>
<td></td>
</tr>
</tbody>
</table>
### Setting | Description
--- | ---
FR_INCLUDES_STABLE (default) | with active approval feature.
FR_INCLUDES_CURRENT | Always shows the latest version of the included resource (this works only if the resource is located in a namespace with active approval feature).

#### Effects on Semantic MediaWiki properties

Wenn in einem Namensraum gleichzeitig mit der Seitenfreigabe auch [Semantic MediaWiki](https://www.semantic-mediawiki.org/wiki/Semantic_MediaWiki) aktiviert ist, sind je nach Freigabestatus der Seite folgende Attribute für SMW-Abfragen verfügbar:

<table>
<thead>
<tr>
<th>Document state</th>
<th>Available properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>First draft</td>
<td>Current values</td>
</tr>
<tr>
<td>Approved</td>
<td>Values of the approved (stable) version</td>
</tr>
<tr>
<td>Draft</td>
<td>Values of the approved (stable) version (default setting)</td>
</tr>
<tr>
<td>Implicit draft</td>
<td>Values of the approved (stable) version</td>
</tr>
</tbody>
</table>

The availability of the semantic properties is determined by the following configuration setting:

```
$bsgFlaggedRevsConnectorStabilizeSMWPropertyValues = true;
```

The value for this setting can be set to `false` in the `LocalSettings.php` of the server file system. If set to `false`, the property values of the draft version are used for semantic queries instead of the values for the stable version.

#### Quality management overview

The Special page `Special:Quality_management_overview` allows all users to view and filter a list of wiki pages and their review status. Pages for which a user does not have read permissions are not shown.
An approved page has an implicit draft, if there have been changes to embedded resources (e.g., a template or an image) since the last page approval.

3 FlexiSkin

With FlexiSkin you can customize your wiki design — for example: logo, colors, or fonts — in minutes.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Free CSS</td>
<td>61</td>
</tr>
<tr>
<td>5.1 Neutral page tools (right sidebar)</td>
<td>61</td>
</tr>
<tr>
<td>5.2 Neutral top bar backgrounds and hovers</td>
<td>62</td>
</tr>
</tbody>
</table>
Where do I find FlexiSkin?
The FlexiSkin settings are available on the page Special:FlexiSkin. (Please note the spelling of FlexiSkin with an uppercase "S".)

Logo and Favicon

Logo
To upload your logo:
Click Select a file to choose a file from your file explorer or drag the file into the dotted area of the Logo upload area.

Click the Preview button on the page and check the placement of the logo.
Click Save & activate. The logo is now visible for all users.
To use a different logo, click the "x" symbol in the upload area of the logo and repeat the steps above.

Favicon
The favicon is the image that is shown in the browser tabs. Follow the steps for uploading a logo, just use the favicon upload area instead.

Layout colors
Here you can adjust the colors of the individual layout areas.
**Flexiskin layout colors**

**Header color (3):** Color settings for the header bar. These colors also apply to the mega menus.

**Sidebar colors (4):** Color settings for the main navigation and the page tools.

**Footer colors (5):** Color settings for the footer.

The following options to enter a color value are available:

**Standard color palette:** A standard color can be selected by clicking on a color preview.
**Pencil symbol:** Click on the pencil symbol to select a color from the color mixer. 
**Manually entering a value:** To provide a custom value (e.g., your for your CI colors), enter the hex-value for the color. 
If you delete a color and FlexiSkin is saved with one or more empty color values, the standard colors of the Discovery skin are saved as values instead.

### Standardfarben des "Discovery"-Skin

<table>
<thead>
<tr>
<th></th>
<th>Background</th>
<th>Foreground</th>
<th>Highlight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Header</td>
<td>#ffffff</td>
<td>#252525</td>
<td>#3e5389</td>
</tr>
<tr>
<td>Sidebar</td>
<td>#f1f3f9</td>
<td>#252525</td>
<td>#3e5389</td>
</tr>
<tr>
<td>Footer</td>
<td>#d3d3d3</td>
<td>#454545</td>
<td>-</td>
</tr>
</tbody>
</table>

**Content**

These settings apply to all styles of the content area of a wiki page:

**Colors**

Here you can adjust the background, font and link colors. Broken links in the wiki are shown in red by default so that they can be easily identified. You should carefully consider whether you want to deviate from this convention. If you want to color visited links differently than standard links, you can insert the following setting in the Free CSS area:

```
#mw-content-text a:visited,[class^="mw-content-"] a:visited {color: #951b81;}
```

**Font**

The font settings only apply to the text in the content area. The text in other areas such as B. in the navigation and toolbars or in the menus is not affected.

**Layout**

If you want to change the layout width just test it on many devices to make sure your setting works as intended. Other wiki users work with different display settings and can be negatively affected by this change. Unless you have a specific reason to change the content width, you shouldn't adjust this setting. The standard content width is 61.25 rem.
Headers

You can adjust the color, font size and underlining for all heading levels. You can also change the unit for the font settings (e.g. `px` instead of `rem`). If you are not familiar with the differences between these units, just leave the default setting, `rem`. This is based on the superordinate size setting in the wiki. In contrast, `em` sizes are in relation to the enclosing container.

<table>
<thead>
<tr>
<th>Heading Levels</th>
<th>Ctrl+0</th>
</tr>
</thead>
<tbody>
<tr>
<td>h1</td>
<td>Page title</td>
</tr>
<tr>
<td>h2</td>
<td>Heading</td>
</tr>
<tr>
<td>h3</td>
<td>Sub-heading 1</td>
</tr>
<tr>
<td>h4</td>
<td>Sub-heading 2</td>
</tr>
<tr>
<td>h5</td>
<td>Sub-heading 3</td>
</tr>
<tr>
<td>h6</td>
<td>Sub-heading 4</td>
</tr>
<tr>
<td>Preformatted</td>
<td>Ctrl+7</td>
</tr>
<tr>
<td>Blockquote</td>
<td>Ctrl+8</td>
</tr>
</tbody>
</table>

Free CSS

**Note:** If the same styles are defined in both FlexiSkin or FlexiSkin Free CSS and in MediaWiki:Common.css, the styles from Common.css are applied.

For additional customizations that are not possible with the FlexiSkin settings, you can use the Free CSS field if you are familiar with CSS. Here are some examples.

Neutral page tools (right sidebar)

If you select a color for your left navigation bar, you sometimes don't want the color to be applied to the right sidebar (the page tools). To keep the light-grey background, add the following Free CSS:

```css
/*right sidebar*/
#sb-sec-cnt {background-color:#efefef; color:#252525;}
#sb-sec-cnt .card-header.menu-title {color:#747474;}
```
Example of Free CSS

Neutral top bar backgrounds and hovers
When you set the header highlight color, it can happen that the automatically calculated values for the searchbar as well as the button hovers and backgrounds don't fit your needs.

Flexiskin highlights standard
In this case, you can neutralize them to grey.
Neutral highlight colors

Add the following Free CSS:

```css
/*top bar neutral search box, button backgrounds and hovers */
#nb-pri form input, #nb-pri form button{border-color:#f1f3f3}
#nb-pri form input, #nb-pri form button,#sb-pri-tgl-btn, #sb-pri-tgl-btn:hover,.mws-dropdown-primary.dropdown-menu a:hover,a.ico-btn:hover,.mws-button-primary:hover {background-color:#747474; color:#fff}
/*top bar neutral bottom border*/
#nb-pri {box-shadow: 0 0 4px 0 #747474}
.card.mega-menu {box-shadow: inset 0 2px 3px -2px #747474}
/*mega menu neutral bottom overlay*/
@media (min-width: 768px){.dropdown-menu.megamenu .mm-bg {background-color:#747474}}
```

7.2 Workflows

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5 How to add a custom workflow
Introduction

In BlueSpice 4.1, workflows are based on BPMN 2.0. Four different types of page-based workflows are already integrated. Their purpose is a page review to obtain feedback via a user vote or to trigger a page approval. In the following, these workflows are therefore called review workflows.

Types of reviews

<table>
<thead>
<tr>
<th>Workflow type</th>
<th>Participants</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single user approval</td>
<td>1 user</td>
<td>A single user is asked to vote about a page. If a user submits a positive vote, the page is automatically approved.</td>
</tr>
<tr>
<td>Expert document control</td>
<td>3 users</td>
<td>After a page has been edited by a specific user, the page is reviewed by an expert and then approved by a user who is responsible for approvals.</td>
</tr>
<tr>
<td>Group feedback</td>
<td>1 group</td>
<td>A group (which needs to exist in the group manager) is requested to leave a comment on a page.</td>
</tr>
<tr>
<td>Single user feedback</td>
<td>1 user</td>
<td>A user is asked to send a comment regarding a page.</td>
</tr>
</tbody>
</table>

Notifications and reports

When a task gets assigned: When a user needs to complete a workflow task, both a notification and a task are created.

At the end of a workflow: After a workflow has ended, the initiator receives a notification and an email is sent to a report recipient (as defined at the beginning of the workflow).

When a workflow gets aborted:
A notifications are sent to users with a pending workflow task
A notifications are sent to the originator if a workflow got aborted
Participants of past or future steps don't receive a notification

Workflow activities

All approval workflows start with a form where the necessary workflow data is entered by the workflow initiator. Each workflow results in one or more workflow activities.

Single user approval

Purpose: Approval of a draft page by a user with approval rights. This workflow only makes sense if the approval function (FlaggedRevs) is activated on a page.

Workflow instances: Only one approval workflow can run per page.
BPMN diagram of a "Single user approval" workflow

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
</table>
| CollectData   | In the first workflow step, the workflow initiator enters the settings:  
  - *User:* the user who is assigned to the task.  
  - *Instructions:* A comment or instructions for the user to understand the task.  
  - *Send report to:* An email report with the results will be sent to this email address when the review is finished. If a username is specified here, an email address must be stored in the user administration so that the report can be sent. |
| PageCheckout  | The page is locked for editing by other wiki users. Only the user with the workflow task can edit while this workflow is running.                                                                            |
| UserVote      | The assigned user carries out a vote and either accepts the page or rejects it. Alternatively, the task can be delegated. In the event of a rejection, the workflow skips the next step (ApprovePage).                     |
| ApprovePage   | **Only if** the user has submitted a positive vote (accept), the page is set to an approved state.                                                                                                          |
| SendMail      | An email report is sent to the report recipient who was specified in the first step.                                                                                                                       |
| PageCheckin   | The page is unlocked.                                                                                                                                                                                       |

**Expert document control**

**Purpose:** Approval of a draft page according to the "4-eyes principle".

**Workflow instances:** A page can only have one approval workflow at a time.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
</table>
| CollectData   | In the first workflow step, the workflow initiator enters the settings: *User*: User who is assigned to a task. Three different users have to be specified: *Editor, Reviewer, Approver*  
*Instructions*: A comment or instructions for the users to understand their tasks.  
*Send report to*: An email report with the results will be sent to this email address when the review is finished. If a username is specified here, an email address must be stored in the user administration so that the report can be sent. |
<p>| PageCheckout  | The page is locked for users who do not participate in the workflow. Only the <em>Editor</em> (first workflow participant) and <em>Reviewer</em> (second participant) of the workflow can edit the page during checkout. |
| EditPage      | The <em>Editor</em> user can edit the page and completes the task without comment.                                                                                                                                  |
| UserVote      | After the <em>Editor</em> step has been completed, the <em>Reviewer</em> user can edit the page and submit a vote. As an alternative, the <em>Reviewer</em> can delegate the task. If the vote is positive (Approve), the workflow continues. If the <em>Reviewer</em> rejects, the workflow goes back to the <em>Editor</em>. |
| PageCheckin   | After the <em>Reviewer</em> submits a positive vote (accept), the page is checked in and the workflow continues.                                                                                                  |
| PageCheckout  | In this step, the page checkout locks the page for editing completely. The <em>Approver</em> user will not be able to change the page, but needs to approve it.                                                         |</p>
<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ApprovePage</td>
<td>The Approver can either complete or delegate the task. After the Approver (or the delegate) finishes the assigned task, the page is set from &quot;draft&quot; to &quot;approved&quot; status if the page was in draft status (only if the approver submits a positive vote). If not, this step is skipped.</td>
</tr>
<tr>
<td>SendMail</td>
<td>If an email or user was specified in the workflow settings, the report is now getting sent to that user.</td>
</tr>
<tr>
<td>PageCheckin</td>
<td>The page gets unlocked for editing.</td>
</tr>
</tbody>
</table>

**Group feedback**

**Purpose:** Obtaining feedback from the members of a user group. The group must exist in the group manager.

**Workflow instances:** Several feedback workflows can run independently of one another on one page at the same time.

![BPMN diagram of the "Group feedback" workflow](image)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
</table>
| CollectData    | In the first workflow step, the workflow initiator enters the settings:  
  - **Group:** User group who is assigned to the task.  
  - **Instructions:** A comment or instructions for the users to understand their task.  
  - **Send report to:** An email report with the results will be sent to this email address when the review is finished. If a username is specified here, an email address must be stored in the user administration so that the report can be sent. |
| GroupFeedback  | All users in the assigned group provide feedback via a comment field. This is a parallel workflow, which means that the order of the feedback does not matter. |
| SendMail       | If an email or user was specified in the workflow settings, the report is now getting sent to that user.                                      |

**Feedback**

**Purpose:** Obtaining feedback from a single user on a page.

**Workflow instances:** Multiple feedback workflows can run independently of one another on one page at the same time.
BPMN diagram of the “Single user feedback” workflow

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
</table>
| CollectData| In the first workflow step, the workflow initiator enters the settings:  
- **User**: User who is assigned to the task.  
- **Instructions**: A comment or instructions for the users to understand their task.  
- **Send report to**: An email report with the results will be sent to this email address when the review is finished. If a username is specified here, an email address must be stored in the user administration so that the report can be sent. |
| UserFeedback| The assigned user sends a comment.                                                                                                          |
| SendMail   | If an email or user was specified in the workflow settings, the report is now getting sent to that user.                                    |

**Overview page**

All workflows in the wiki are listed on the page *Special:Workflows overview*. A view for all active workflows and a view for all workflows can be selected.

**Tasks overview**

Users are informed about new and pending tasks in their notifications. They can view assigned workflows on their *My tasks* page.
How to add a custom workflow

Users can upload an xml-file of a BPMN diagram with custom activities to the wiki. Currently, the following predefined activities exist:

**Extension: Workflows**
- CustomForm
- UserVote
- GroupVote
- UserFeedback
- GroupFeedback
- SendMail
- EditRequest

**Extension: PageCheckout**
- PageCheckOut
- PageCheckIn

**Extension: BlueSpiceFlaggedRevsConnector**
- ApprovePage

Example of a customized workflow (coming soon)

# Semantic MediaWiki Basics

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Scope and terminology

Semantic MediaWiki (SMW) is a MediaWiki extension that enables you to define and query data on a wiki page.

The following steps are usually taken to work with data-based content in your wiki:

**Define properties:** Properties determine which values can be queried in the wiki.

**Create a template:** This creates the output format of the data set on the wiki pages.

**Create a form:** Using this form, Wiki users can comfortably enter their data.

**Assign a category:** Each page that contains a semantic query is usually tagged with a category that was created for this purpose. This, in addition to the attributes, provides an important means of querying and filtering the pages. It also creates a form editing mode for the wiki pages that contain this category.
Properties

List of properties

1. Has First contact + of type Date (0 uses)
2. Has contact person + of type Text (0 uses)
3. Has location + of type Text (0 uses)

Semantic properties

Template

<table>
<thead>
<tr>
<th>Location</th>
<th>Regensburg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact</td>
<td>Jane Doe</td>
</tr>
<tr>
<td>First contact</td>
<td>2020/12/21</td>
</tr>
</tbody>
</table>

Hallo Welt! was founded to make the technology and concept

Since 2007 Hallo Welt! builds collaborative platforms of knowl online documentation and quality management.
Define properties

To make information available as data on a wiki page, we create so-called properties. For example, if we want to semantically record customer data, we create a wiki page for each customer. We collect customer data such as location on every customer page. To do this, we create a property that records the location of the customer.
Afterwards I can list all customers at a certain location or all customers with their associated locations in the wiki.

**Create a template**

Since we often want to display several such properties and their values on one page at the same time, we format a special area that clearly shows the collected page attributes. This requires a (data) template, which can then be used on any wiki page.

### Data template

<table>
<thead>
<tr>
<th>Location</th>
<th>Regensburg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact</td>
<td>Jane Doe</td>
</tr>
<tr>
<td>First contact</td>
<td>2020/12/21</td>
</tr>
</tbody>
</table>

**Create a form**

To support our users with data entry tasks, we create an input form. The input form is shown when users switch to the edit mode of a wiki page that has the semantic template included.

### Data entry form

**Location:** Regensburg

**Contact person:** Jane Doe

**First contact:** 21/12/2020

**Assign a category**

Wiki pages that use semantic templates are tagged with a category. This category enables the assignment of the input form to the wiki page. The category is also used to query the data collected via the template and display it anywhere in the wiki.

**Example**

On the following pages, we will create an example that collects and displays customer data in the wiki.

**Example: Collect customer data**
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Objective

The objective of this operating manual is to enable you to run BlueSpice smoothly and successfully in your IT environment. It aims to answer your questions as deciders, IT auditors and server administrators, such as:

Where do I get information about BlueSpice and its development?
What do I have to consider when operating BlueSpice?
How do I backup and monitor BlueSpice?

The most current version can be found at https://wiki.bluespice.com. This manual is designed to provide general information. Feel free to copy it over to your local BlueSpice and amend it according to your process and documentation requirements. Since the IT environment can change over time through updates and restructuring, it is advisable to check the information in the operating manual for being up-to-date.

The structure of this manual is based on the recommendations of the German Federal Office for Information Security, which can be found here.

Overview

System overview

BlueSpice is a webbased client-server application. On the server side, it uses a web server (Apache, IIS, Nginx), the script language PHP, a database (MySQL or MariaDB), a JAVA application server (Tomcat or Jetty), and Elasticsearch. There are several binaries required on the server, such as phantomJS and Imagemagick. Until version BlueSpice ≤ 3.2.x, a NodeJS service (Parsoid) is used as well.

BlueSpice can be run in a distributed environment. All services can be put on individual servers (web server + PHP, database, application server, Elasticsearch). A common scenario is to scale the web server and PHP horizontally.

Typically, inhouse deployments of BlueSpice consist of a production environment and a corresponding test environment. In scenarios with elevated SLAs, an additional QA environment is used as an intermediary before production.

Owners, responsible persons and contacts

BlueSpice is developed and maintained by Hallo Welt! GmbH
Maximilianstraße 9
93047 Regensburg
https://www.hallowelt.com

For technical questions, please contact Hallo Welt! GmbH support at support@hallowelt.com. For questions about your contract, please contact the Hallo Welt! GmbH sales team at sales@hallowelt.com.

Operating times

Typically, BlueSpice instances run 24/7. Operations are managed by the organization's IT department or their service providers. Hallo Welt! provides support and guidance during their office hours (8am - 6pm CET/CEST).

System and version history

All BlueSpice versions are documented in the BlueSpice helpdesk: https://en.wiki.bluespice.com/wiki/Setup:Release_History
All changes can be retraced in our current and archived release notes: https://en.wiki.bluespice.com/wiki/Setup:Release_Notes
**Documentation**
BlueSpice maintains an online documentation which is continuously kept up to date: [https://en.wiki.bluespice.com](https://en.wiki.bluespice.com)
**User_Manual_Introduction**
**Admin_Manual_Introduction**
In addition, there is a community forum: [https://sourceforge.net/p/bluespice/_list/tickets](https://sourceforge.net/p/bluespice/_list/tickets)
News about the product can be found in our blog: [https://bluespice.com/category/news-know-how/](https://bluespice.com/category/news-know-how/)
Also, BlueSpice maintains a newsletter. Sign up here: [https://bluespice.com/](https://bluespice.com/)
For more information, follow us on Twitter: [https://twitter.com/BlueSpiceTweets](https://twitter.com/BlueSpiceTweets)

**Installation manual Windows/Linux (including upgrade instructions)**

**System architecture and interfaces**
The following section gives an overview of the components of BlueSpice and how they interact with each other and the environment.

**System integration**
BlueSpice is a web application which can be integrated with your IT environment, most notably LDAP and email.

**Server architecture**
Internally, BlueSpice has several components which are responsible for parts of the functionality.
Vertically distributed architecture
For simple scaling, some services can be externalized to other physical or virtual servers.
**Horizontally distributed architecture**

For high traffic or high availability demands, BlueSpice can be set up to scale horizontally.
Components and responsibilities

Servers, operating system, licenses and software infrastructure are typically managed by your organization's IT.

Hallo Welt! typically manages the application and required components. There may be special contractual agreements.

**External interfaces (to other organizations)**

**Technically**, BlueSpice can be set up to operate completely self-contained (contact our support if you have questions about your instance). On the server, no external sources are queried. In the standard installation, there are content modules which draw data from external sources on the client side (browser):

- **draw.io**: The diagram tool is loaded directly from draw.io. All content remains on the BlueSpice wiki.
- **maps**: Embedded maps are collected from Google or OpenStreetMap.
- **widgets**: The purpose of widgets is to display content from public sources like YouTube.
**chemical formulas**: The formula rendering uses an external service via Wikimedia's REST API.

On the **organizational** side, the team of Hallo Welt! GmbH typically provides 3rd level support for subscribed BlueSpice instances. Hallo Welt! GmbH teams up with the internal IT of the organization as well as with IT infrastructure providers of our customers.

**IT internal interfaces**

A standard BlueSpice installation connects to the following services in order to be fully functional:

**User directory**: BlueSpice can be configured to authenticate against a company user directory (typically Active Directory). The protocols used are LDAP and SAML.

**Email**: BlueSpice needs to be connected to an email server in order to send notifications.

**API**

BlueSpice comes with an API interface. For instructions on how to handle the API, see here: [https://www.mediawiki.org/wiki/API:Main_page](https://www.mediawiki.org/wiki/API:Main_page)

For a comprehensive list of API modules, see here: [https://en.wiki.bluespice.com/w/api.php](https://en.wiki.bluespice.com/w/api.php)

**Installation and system requirements**

**System requirements**


**Software catalogue**


**Changes in configuration**


**Start and Interrupt the service**

**Startup**

In order to start up BlueSpice, all the required services need to be running. Please make sure you start the services in the order given here:

**Database**

Linux: `service mysql start` OR `systemctl start mysql`

Windows: `services.msc`

**Application server** (Tomcat or Jetty)

Linux: `service jetty9 start` OR `systemctl start jetty9`

Windows: `services.msc`

**Elasticsearch**

Linux: `service elasticsearch start` OR `systemctl start elasticsearch`

Windows: `services.msc`

**Parsoid** (not required since BlueSpice 4.0)

Linux: `pm2 start /opt/parsoid/bin/server.js` OR `systemctl start parsoid`

Windows: `services.msc`

**Web server**

Linux: `service apache2 start` OR `systemctl start apache2`

Windows: `services.msc`

**Shutdown**

In order to shut down BlueSpice, all the required services need to be stopped. Please make sure you stop the services in the order given here:
Web server
Linux: `service apache2 stop` OR `systemctl stop apache2`
Windows: `services.msc`

**Parsoid** (not required since BlueSpice 4.0)
Linux: `pm2 stop /opt/parsoid/bin/server.js` OR `systemctl stop parsoid`
Windows: `services.msc`

Application server (Tomcat or Jetty)
Linux: `service jetty9 stop` OR `systemctl stop jetty9`
Windows: `services.msc`

Elasticsearch
Linux: `service elasticsearch stop` OR `systemctl stop elasticsearch`
Windows: `services.msc`

Database
Linux: `service mysql stop` OR `systemctl stop mysql`
Windows: `services.msc`

**Configuration changes**
After changes to the configuration, the service with the changed configuration needs to be restarted.

Webserver
Linux: `service apache2 restart`
Windows: `services.mmc`

Parsoid (not required since BlueSpice 4.0)
Linux: `pm2 restart /opt/parsoid/bin/server.js`
Windows: `services.mmc`

Application server (Tomcat or Jetty)
Linux: `service jetty9 restart`
Windows: `services.mmc`

Elasticsearch
Linux: `service elasticsearch restart`
Windows: `services.mmc`

Database
Linux: `service mysql restart` OR `systemctl restart mysql`
Windows: `services.mmc`

Unplanned server outage
Identify which service is not running and restart this service.

**Standard operations**

User management
All users are managed in the application. For details, see https://en.wiki.bluespice.com/wiki/Manual:Extension/BlueSpiceUserManager

Recurring background tasks
BlueSpice is set up to conduct some tasks in the background. These are `maintenance/runJobs.php`

Backup
Detailed backup instructions can be found here: https://en.wiki.bluespice.com/wiki/Setup:Installation_Guide/Advanced/Backup
Monitoring
Apart from the common parameters to monitor (disk space, CPU load, memory usage), the following services can be monitored for availability:
Web server: ping the login page of the wiki: <wiki_url>/Special:Login
Database: check database connectivity with username and password authentication.
Parsoid: check port 8000 connectivity via 127.0.0.1 (not required since BlueSpice 4.0)
Elasticsearch: check port 9200 connectivity via 127.0.0.1
If any of those services is not available, BlueSpice is either not operational or experiencing functional restrictions.

Diagnostics
In case of errors, please consider the error logs. These are:
In the web browser, open the console and check for JavaScript errors
For the web server, check the web server's error log and php error log.

Troubleshooting
If one or more services are not working:
Check the available system resources, in particular the free disk space
Restart all services
If the problem persists, contact BlueSpice support.

Key performance indicators
Server
Standard parameters for servers apply:
Disk space < 80% usage
CPU load should not peak to 100% for more than 1s
Load average should not be more than CPU core count
Average memory usage should not exceed 90%
For GNU/Linux systems, try to avoid high swap space usage.
For a standard server sizing (4 cores, 8 GB ram), the number of average simultaneous users is optimized for 25 per server. This means, one server can handle about 125 concurrent users.
The php error log should not report any FATAL or WARNING messages

Client
The reference page Special:Version should load under 4s without browser cache and under 2.5s with browser cache enabled.

Known restrictions
Functional restrictions
This is now services map onto BlueSpice functionality:
Web server: required for BlueSpice basic operations
Database: required for BlueSpice basic operations
Tomcat: required for PDF and VisualDiff
Elasticsearch: required for ExtendedSearch and various title select boxes. Will fallback to standard MediaWiki search if not available.
PhantomJS: required for rendering article preview images.
Parsoid: required for VisualEditor. Note: since BlueSpice 4.0 this is no longer required.
All services other than web server and database are optional. If not present, the named functionality will not be available.

Technical restrictions
Updates of major and minor level might require a system downtime due to database migration operations.
**Resource related restrictions**
Response times are dependent on the server resources, foremost CPU power.
The number of concurrent users a server can handle is directly related to server memory size and CPU power.
Please note: we strongly recommend having a separate testing system. This can be used for update/upgrade preparation, debugging and collecting sizing information. If no testing system is present, occasional downtimes may occur when debugging and maintenance operations are conducted.

**Archiving and deletion of data**

**Variable data (Strongly growing data)**
The following locations store variable data, which is not recoverable in case of data loss, and must be backed up regularly:
The database stores most data of BlueSpice, including articles, users and action logs.
The images folder stores all uploaded files.
There is some secondary data stored in Elasticsearch (for BlueSpice Social and Statistics). This data can be fully recovered from the primary data stored in the database.

**Master data (Slowly growing data)**
The following locations store master data, which requires considerable effort to recover in case of data loss and should be backed up regularly:
Configuration:
LocalSettings.php and LocalSettings.BlueSpice.local.php contain the basic configuration including sitename, security keys and database access.
settings.d folder contains information about activated extensions.
extensions/BlueSpiceFoundation/config folder holds information about namespace setup and permission configuration.
Templates and skins
extensions/BlueSpiceFoundation/data folder holds PDF templates.

**Log files and error files**
Php error log: /var/log/php-fpm.log (Only for php-fpm service)
Apache access log: /var/log/apache2/*access.log
Apache error logs: /var/log/apache2/*error.log (Also includes PHP errors)
Browser console
Parsoid log: pm2 logs OR /var/log/parsoid.log (systemd and init.d) (not required since BlueSpice 4.0).
Elasticsearch: /var/log/elasticsearch/
Tomcat: By default logging is turned off. Depending on system, logging can be enabled via configuration XML files.
Windows event log: MS Windows logs are not txt format. Access is possible via Event Viewer

**Security and compliance**

**Internet access**
For standard operations, BlueSpice does not require Internet access. BlueSpice does not make any outgoing calls. See section External interfaces for details.
In our default setup, the client will access draw.io for editing diagrams. Here, only application data is loaded from the site. No content data will be passed on to draw.io. On request, Hallo Welt! can install an on-premise version of draw.io (additional charges apply).
**Auxiliary service data access**

Tomcat, Elasticsearch and PhantomJS will receive data from BlueSpice core components. They are agnostic to access rights and do have full access to all data stored on BlueSpice. It is therefore recommended to restrict access to these services to localhost or the web server's IP address. In case Hallo Welt! performs the installation, this is the default setup. No external access to these services shall be permitted.

**Privacy**


**Legal information**

For all legal information, including the Subscription contract, GDPR information and DPA, Anti Bribery Policy and Software catalogue, please refer to the BlueSpice homepage: [https://bluespice.com/legal-documents-and-guidelines/](https://bluespice.com/legal-documents-and-guidelines/)

**BlueSpice free Download**

**Download options**

BlueSpice free is available at the following websites:

- **BlueSpice homepage:** BlueSpice free is downloaded as Installer which includes a MediaWiki 1.35.
- **Sourceforge** (Downloads also for previous BlueSpice free versions)

**Before using the Installer**

For a successful installation with the BlueSpice free Installer, it is important to review the system requirements and to configure the server environment. We have prepared detailed instructions for preparing your system:

- **BlueSpice system requirements**
- **BlueSpice system preparation**
- **Windows (currently being revised)**
- **Linux**

To make your BlueSpice setup as easy as possible, we provide installation instructions for installing BlueSpice with Installer. These can be found in our **Installation Guide**.

**Setup: Installation Guide**

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**Note:** For general questions regarding the installation, maintenance, and usage of BlueSpice free, go to our **SourceForge help forum**.

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**Introduction**

We are happy that you decided to install the latest version of BlueSpice 4.

Please follow these steps:
- Check the system requirements
- Prepare the server environment
- Install the BlueSpice application
- Optimize the configuration

**Check the system requirements**

System requirements

**Prepare the server environment**

Linux server environment
Windows server environment

**Install the BlueSpice application**

Please select which installation type you need:
- Full BlueSpice installation
- Extended Functions: VisualEditor, ExtendedSearch
- BlueSpice WikiFarm installation
- Docker image

**Upgrade and patch updates**

- Patch update from BlueSpice 4.1.x to a higher version 4.x
- Upgrade from BlueSpice free 3.2.x to BlueSpice pro 4.1.x
- Upgrade from BlueSpice free 4.1.x to pro 4.1.x

**Migration from MediaWiki to BlueSpice**

Migration from MediaWiki to BlueSpice

**Optimize the configuration**

If you don't need to set up a server environment "from scratch", you can directly refer to the setup instructions for individual system components. Just make sure that you really have everything configured as needed:

**Webservices for Apache Tomcat**
- PDF-Export

**Additional settings and optimizations**
- Caching
- Cronjobs
- Time Zone

**Security settings**
- File System Permissions
- Deactivating installcheck file
- Save Directories

**Compendium**
- Backup
- Configuration Folder settings.d
- ExtendedSearch Configuration
- Folder structure under Windows
- Mathoid
- Performance Optimization
- Performance Optimization/ManualRecache
Setup: Release History

Note: Support für BlueSpice 3.x ends on March 15, 2023.

BlueSpice versioning follows the *Semantic Versioning Specification* from [semver.org](http://semver.org).

<table>
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**System Requirements**

For a trouble-free installation of the current version BlueSpice 3.4, we recommend the following system requirements. The application BlueSpice is tested by Hallo Welt! for Windows and Linux.

**Browser**

- Microsoft Edge
- Google Chrome
- Firefox
Server Environment

Warning! PHP version 8 is currently not supported!

Operating system: Microsoft Windows Server >= 2016 or Linux (common distributions)
Webserver: Apache 2.4.x, IIS >= 10 or nginx 1.x (nginx not possible in WikiFarm)
PHP 7.4.x starting at 7.4.3
MySQL: >= 5.6 oder MariaDB >= 10.3
Main memory: 16 GB (minimal 8 GB)
Available hard drive space: > 20GB (depends on the planned storage of data)
CPU: 8 (minimal 4) cores
Apache Tomcat >= 9 oder Jetty >= 9 (for PDF export and LaTexRenderer)
ElasticSearch 6.8 with plugin "ingest-attachment"
OpenJDK >= 10
NodeJS 16

Templates download/Icon
This template makes it possible to insert Bootstrap icons on a page.

Importing the template
The import file is included in the archive file HW-Icon.zip. Unpack the zip file first.
On the page Special:Import, follow these steps:
- **Select file** and choose HW-Icon.xml.
- **Enter** an interwiki prefix. Since this field is required, simply add hw (for hallowelt).
- **Keep** the selection Import to default locations.
- **Click** Upload file...

The template is now available in your wiki.

Pages included in the import
The xml import creates the following file in your wiki:
Template:Icon
Using the template

Find a bootstrap icon from the Bootstrap website at [https://icons.getbootstrap.com/](https://icons.getbootstrap.com/)

Click on the icon you would like to use. The icon page shows you the class-name of the icon on the right side of the page:

Highlight the class name (it has the format `bi bi-myicon`) and copy it to your clipboard (ctrl+c).

Go back to your wiki page.

Enter `{}` in visual editing mode at the cursor position where you want to insert the icon. The template editor opens.

Copy the icon class from your clipboard:
Change the font size (optional) if you want the size to be different from the text surrounding it (e.g., from the size of a heading if the icon is placed in the heading or of the paragraph text if the icon is placed in the flow-text. Smaller than text icons are usually sized no smaller than 0.85em and larger icons up to 2.5em.

**Color:** If you want the color to be different from the surrounding text, you can specify any web color (e.g., a color name like blue or a hex-value such as #0059b3 for a more specific blue). A list of web colors can be found at [https://www.w3schools.com/colors/colors_picker.asp](https://www.w3schools.com/colors/colors_picker.asp)

**Vertical alignment:** It should not be necessary to provide an alignment value. The standard is set to text-top and usually works in headings and in flow-text. If it looks a little off, you can try other vertical-alignment values, such as text-bottom. For a full list of possible values, see [https://www.w3schools.com/cssref/pr_pos_vertical-align.asp](https://www.w3schools.com/cssref/pr_pos_vertical-align.asp).

Click *Apply changes*.

The icon is now displayed on the page.