

Очумелье ручки: пишем плагины для atlassian



Всем привет, я Скобелев Григорий Java backend разработчик в ЮMoney/Яндекс.Деньги в команде backend-platforma. Регулярный спикер. Занимаюсь созданием высоконагруженных систем с помощью Spring, любитель Java и Kafka.

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 <https://github.com/GSkoba>

 <https://t.me/Gskoba>

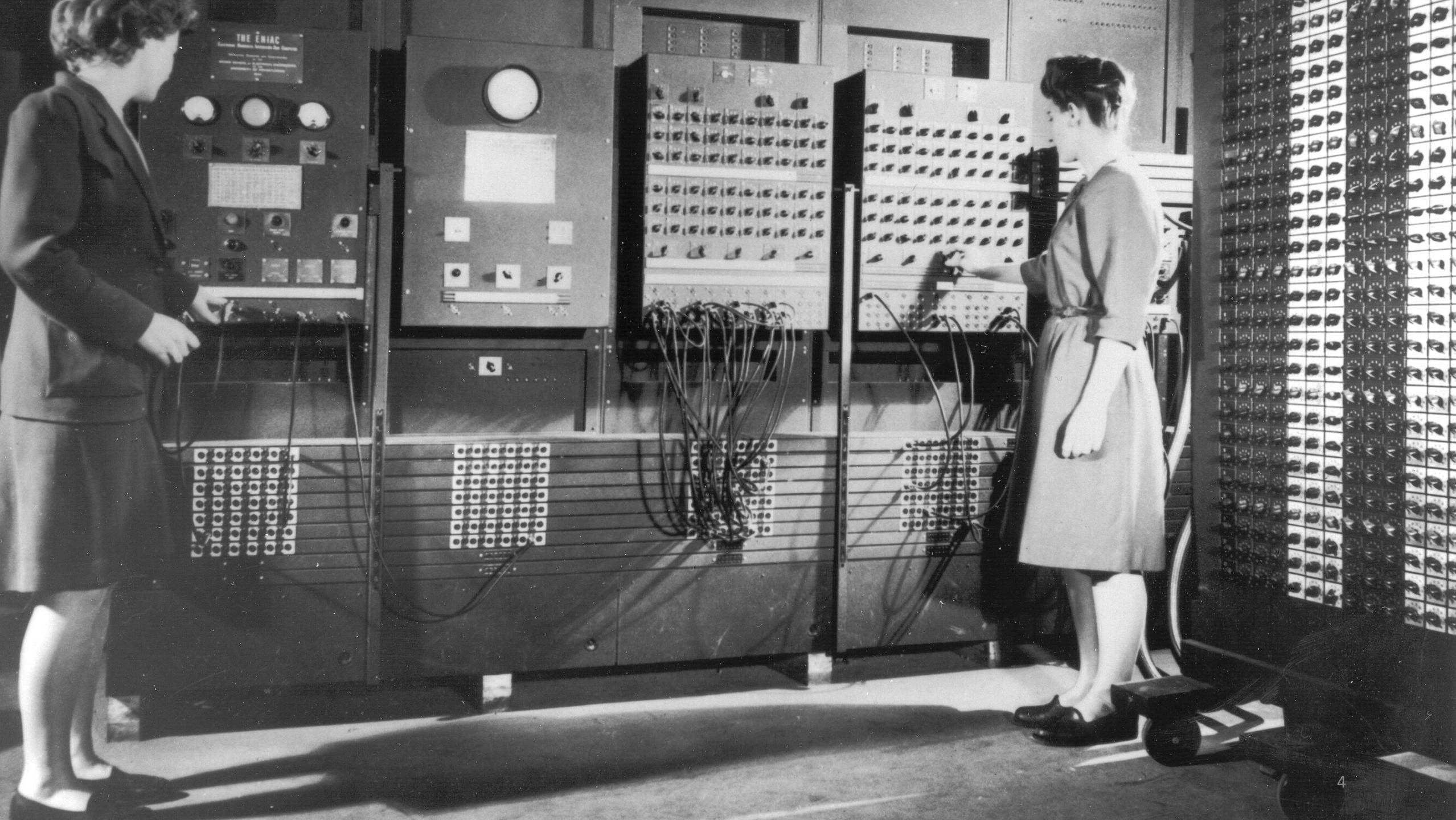


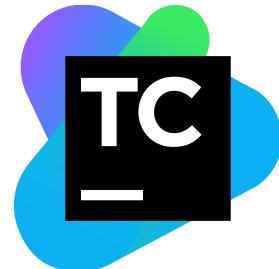
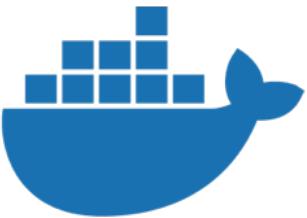
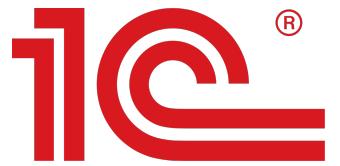
| Yandex Money



План

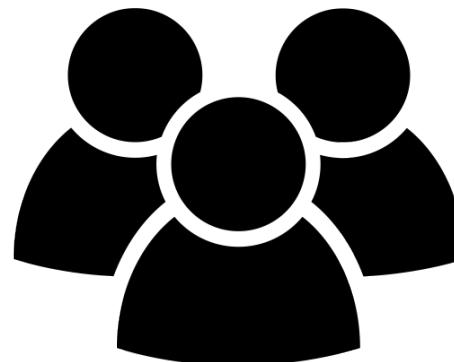
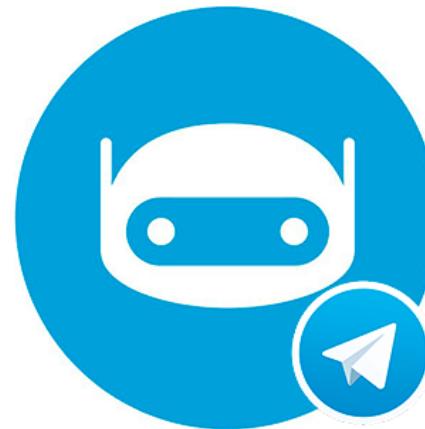
- существующие инструменты
- профит от оптимизации инструментов
- почему стоит делать
- с чего начать
- функционал на примере bitbucket плагина





Краткий список инструментов

- Система телеграмм ботов, оповещения, информация
- Внутреннее приложение для хранения мета информации о сотрудниках
- Набор bitbucket плагинов





Bitbucket

Get visibility into build & deployment info on Jira

+ Follow

+ I use this

Stacks

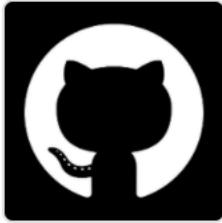
24.5K

Followers

17.9K

Votes

2.8K



GitHub

Get full-stack visibility with Datadog

+ Follow

+ I use this

Stacks

119.7K

Followers

87.6K

Votes

10.1K



GitLab

Integrate commits from GitLab into Jira

+ Follow

+ I use this

Stacks

28K

Followers

20.9K

Votes

2.3K

<https://stackshare.io/stackups/bitbucket-vs-github-vs-gitlab>

Почему стоит задуматься

- Внутреннее решение
- Поддержка бизнес процессов
- Функционал vs стоимость
- Сложно согласовать с службой безопасности

10 users \$10	25 users \$250	50 users \$450
--------------------------------	---------------------------------	---------------------------------

100 users \$830	250 users \$1,800	500 & up Additional pricing details
----------------------------------	------------------------------------	---



Pricing and setup

Open Source

Unlimited public repositories

\$0

Umbrella

[Free Trial](#)

Use Codecov's standard plan with all features and unlimited private repositories

\$12
per user
/ month

Codecov | Code Coverage Reports

Umbrella

Use Codecov's standard plan with all features and unlimited private repositories

- ✓ All Codecov features
- ✓ Unlimited private repositories
- ✓ Unlimited commits
- ✓ Email support

1

User(s) in this plan

Account: [GSkoba](#) ▾

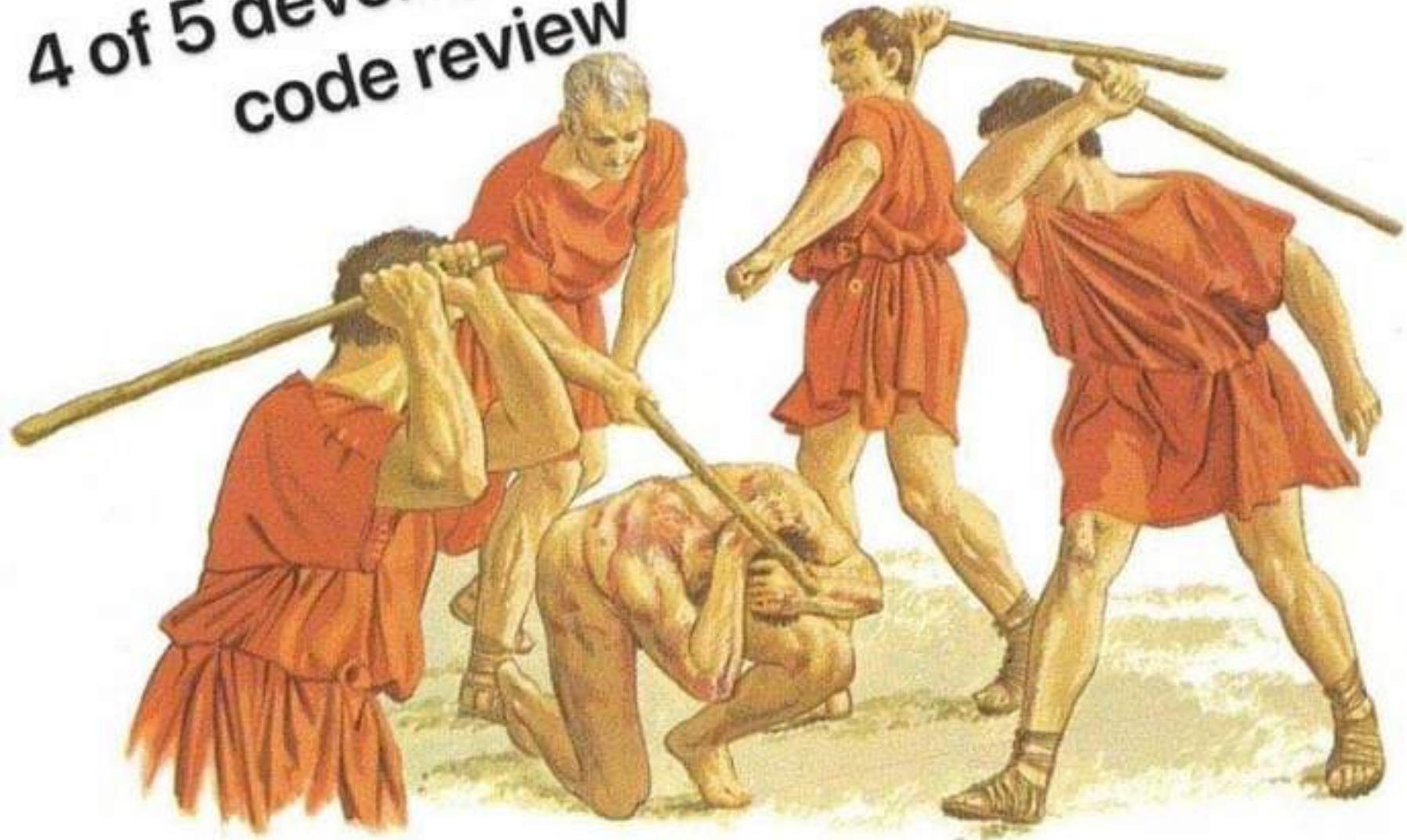
[Try free for 14 days](#)

Next: Confirm location and payment information.



Bitbucket-code-review-tools

4 of 5 developers enjoy
code review



Bitbucket-code-review-tools

- Плагин написан на java
- Является внутренним инструментом
- Оптимизирует процессы связанные с code-review
- Поддержка внутренних бизнес процессов

Bitbucket-code-review-tools

- Определение экспертов по проектам и репозиториям
- Автоматический мердж pull request
- Вывод на странице pull request список связанных pull request
- Различные merge check
- И еще более 20 функций 🔥 🔥 🔥

Bitbucket-code-review-tools



Как спасти Code Review и не потерять в качестве (Валерий Чуркин, Яндекс.Деньги)
https://www.youtube.com/watch?v=mIIMCtGX6i0&feature=emb_title
<https://habr.com/ru/company/yamoney/blog/433894/>

Разработка Atlassian плагинов

The screenshot shows the Atlassian Developer website. The header is blue with the Atlassian logo, "ATLASSIAN Developer", "Documentation", "Resources", and a search icon. The main title is "Customize Atlassian products with apps". Below it is a subtext: "Learn about building, deploying, and managing your apps." There are four cards: 1. "Plan your app" with a book icon, subtext: "Before you start working with our product APIs, read the developer guide to understand the high-level concepts.", and a "Read the guide →" link. 2. "Check out the APIs" with a network icon, subtext: "Tap into Atlassian's suite of products using REST APIs that let you integrate with Jira, Confluence, Trello, and more.", and a "Start exploring →" link. 3. "Grow on Marketplace" with a coin icon, subtext: "Launch, promote, and sell your app in Atlassian's Marketplace, our app store for customizations and integrations.", and a "Learn more →" link. 4. "Build with Forge" with a cloud icon, subtext: "Build apps hosted by Atlassian using Forge, our next generation cloud development platform.", and a "Learn more →" link. A "BETA" badge is visible next to the "Build with Forge" section.

Customize Atlassian products with apps

Learn about building, deploying, and managing your apps.

 **Plan your app**
Before you start working with our product APIs, read the developer guide to understand the high-level concepts.
[Read the guide →](#)

 **Check out the APIs**
Tap into Atlassian's suite of products using REST APIs that let you integrate with Jira, Confluence, Trello, and more.
[Start exploring →](#)

 **Grow on Marketplace**
Launch, promote, and sell your app in Atlassian's Marketplace, our app store for customizations and integrations.
[Learn more →](#)

 **Build with Forge BETA**
Build apps hosted by Atlassian using Forge, our next generation cloud development platform.
[Learn more →](#)

Разработка Atlassian плагинов

ATLASSIAN Developer Community

Documentation Log In Search

all categories ► all tags ► Categories Latest Top

Category	Topics	Latest
Announcements The Announcements category is for announcements from Atlassian that affect multiple products, or are product-agnostic. Security Alerts	170	 Welcome to the community! Announcements starter, welcome 30 Aug 3
Jira Development Ask any questions related to development for Jira and Jira Software here. Jira Cloud Jira Cloud Announ... Jira Server Jira Data Center Jira Server Annou...	20 / week	 Cycle-Period header example Atlassian Develop... 2 22h
JSD Development Ask any questions related to development for Jira Service Desk here. JSD Cloud JSD Cloud Announ... JSD Server JSD Server Annou...	4 / week	 How to bypass sso using rest api Jira Server jira-server, rest-api 0 22h
Confluence Development Ask any questions related to development for Confluence here. Confluence Cloud Confluence Cloud Confluence Server	4 / week	 Configure static ngrok hostname Jira Cloud ngrok 3 1d

Documentation Log In Search

all categories ► all tags ► Categories Latest Top

Category	Topics	Latest
Announcements The Announcements category is for announcements from Atlassian that affect multiple products, or are product-agnostic. Security Alerts	170	 Welcome to the community! Announcements starter, welcome 30 Aug 3
Jira Development Ask any questions related to development for Jira and Jira Software here. Jira Cloud Jira Cloud Announ... Jira Server Jira Data Center Jira Server Annou...	20 / week	 Cycle-Period header example Atlassian Develop... 2 22h
JSD Development Ask any questions related to development for Jira Service Desk here. JSD Cloud JSD Cloud Announ... JSD Server JSD Server Annou...	4 / week	 How to bypass sso using rest api Jira Server jira-server, rest-api 0 22h
Confluence Development Ask any questions related to development for Confluence here. Confluence Cloud Confluence Cloud Confluence Server	4 / week	 Configure static ngrok hostname Jira Cloud ngrok 3 1d

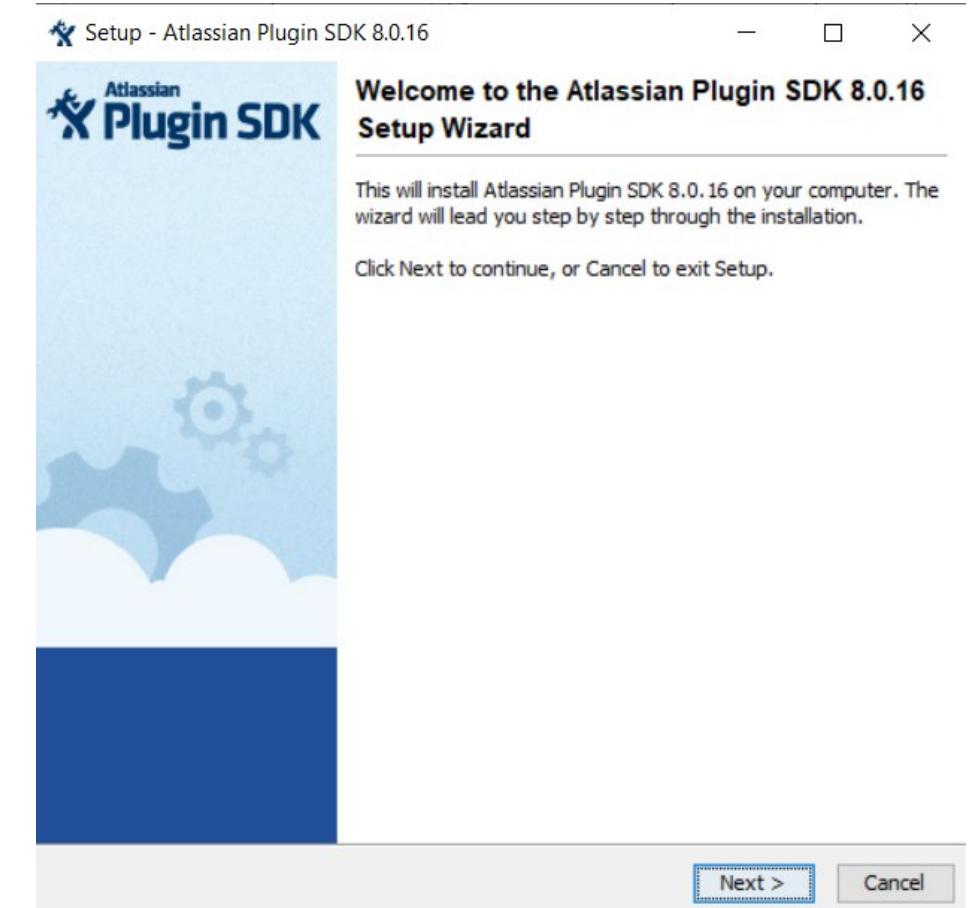
Разработка Atlassian плагинов

1. Устанавливаем Atlassian Plugin SDK
2. Генерируем проект
3. Делаем сборку проекта
4. Запускаем тестовую среду
5. Деплоим плагин

Установка Atlassian Plugin SDK

- 1 sudo sh -c
`'echo "deb https://packages.atlassian.com/debian/atlassian-sdk-deb/ stable contrib" >>/etc/apt/sources.list'`

- 2 wget <https://packages.atlassian.com/api/gpg/key/public>
- 3 sudo apt-key add public
- 4 sudo apt-get update
- 5 sudo apt-get install atlassian-plugin-sdk



Установка Atlassian Plugin SDK

```
1 atlas-version
2
3 ATLAS Version:  8.0.16
4 ATLAS Home:     /usr/local/Cellar/atlassian-plugin-sdk/8.0.16/libexec
5 ATLAS Scripts:   /usr/local/Cellar/atlassian-plugin-sdk/8.0.16/libexec/bin
6 ATLAS Maven Home: /usr/local/Cellar/atlassian-plugin-sdk/8.0.16/libexec/apache-maven-3.5.4
7 AMPS Version:   8.0.2
8 -----
9 [INFO] Project POM found
10 Executing: /usr/local/Cellar/atlassian-plugin-sdk/8.0.16/libexec/apache-maven-3.5.4
11   /bin/mvn --version -gs /usr/local/Cellar/atlassian-plugin-sdk/8.0.16/libexec/apache-maven-3.5.4/conf/settings.xml
12 Apache Maven 3.5.4 (1edded0938998edf8bf061f1ceb3cfdeccf443fe; 2018-06-17T21:33:14+03:00)
13 Maven home: /usr/local/Cellar/atlassian-plugin-sdk/8.0.16/libexec/apache-maven-3.5.4
14 Java version: 14.0.1, vendor: Oracle Corporation, runtime: /Library/Java/JavaVirtualMachines/openjdk-14.0.1.jdk/Contents/Home
15 Default locale: ru_RU, platform encoding: UTF-8
16 OS name: "mac os x", version: "10.15.7", arch: "x86_64", family: "mac"
```

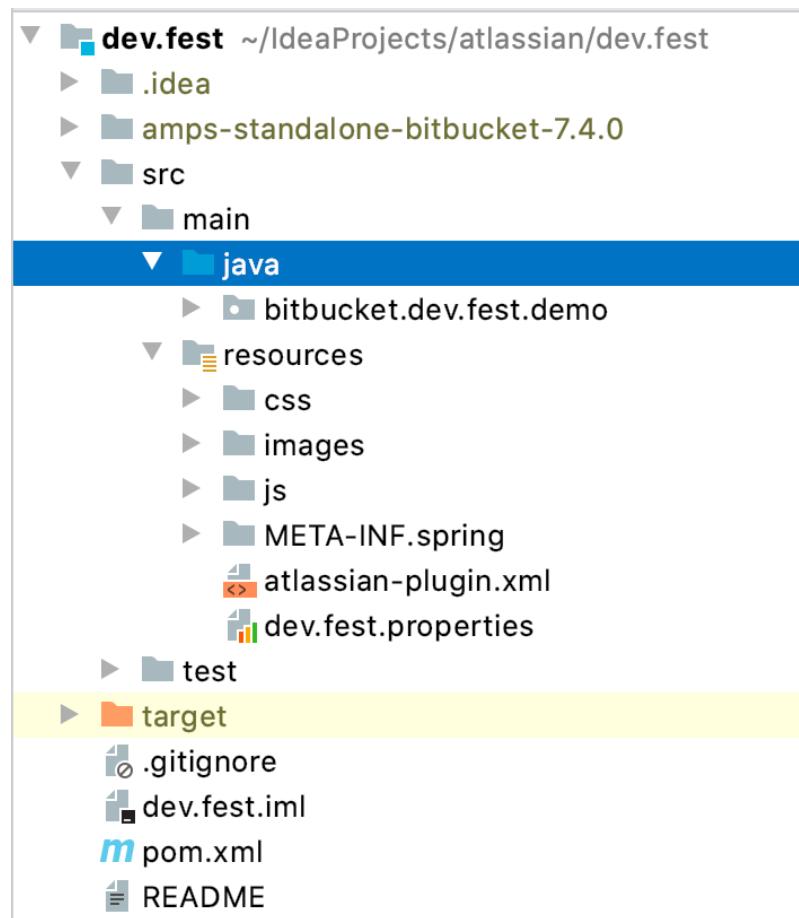
Генерация maven проекта

```
1  atlas-create-bitbucket-plugin
2  [INFO] Scanning for projects...
3  [INFO]
4  [INFO] -----< org.apache.maven:standalone-pom >-----
5  [INFO] Building Maven Stub Project (No POM) 1
6  [INFO] -----[ pom ]-----
7  [INFO]
8  [INFO] --- bitbucket-maven-plugin:8.0.2:create (default-cli) @ standalone-pom ---
9  [INFO] Google Analytics Tracking is enabled to collect AMPS usage statistics.
10 [INFO] Sending event to Google Analytics: AMPS:bitbucket - Create Plugin
11 [INFO] using stable product version: 5.16.0
12 [INFO] using stable data version: 5.16.0
13 Define value for groupId: : bitbucket-test
14 Define value for artifactId: : bitbucket-test
15 Define value for version: 1.0.0-SNAPSHOT:
16 Define value for package: bitbucket-test:
```

Генерация maven проекта

```
1 [INFO] Parameter: bambooVersion, Value: 6.8.0
2 [INFO] Parameter: platformVersion, Value: 5.0.0
3 [INFO] Parameter: artifactId, Value: bitbucket-test
4 [INFO] Parameter: crowdVersion, Value: 3.3.3
5 [INFO] Project created from Archetype in dir: /Users/grisha/IdeaProjects/bitbucket-test
6 [INFO] -----
7 [INFO] BUILD SUCCESS
8 [INFO] -----
9 [INFO] Total time: 18.616 s
10 [INFO] Finished at: 2020-10-15T01:51:11+03:00
11 [INFO] -----
```

Генерация maven проекта



Генерация maven проекта

```
1 <atlassian-plugin key="${atlassian.plugin.key}" name="${project.name}" plugins-version="2">
2   <plugin-info>
3     <description>${project.description}</description>
4     <version>${project.version}</version>
5     <vendor name="${project.organization.name}" url="${project.organization.url}" />
6     <param name="plugin-icon">images/pluginIcon.png</param>
7     <param name="plugin-logo">images/pluginLogo.png</param>
8   </plugin-info>
```

Генерация maven проекта

```
10      <!-- add our i18n resource -->
11      <resource type="i18n" name="i18n" location="dev.fest"/>
12
13      <repository-merge-check key="test" class="bean:testMergeCheck" configurable="false"/>
14
15      <!-- add our web resources -->
16      <web-resource key="dev.fest-resources" name="dev.fest Web Resources">
17          <dependency>com.atlassian.auiplugin:ajs</dependency>
18
19          <resource type="download" name="dev.fest.css" location="/css/dev.fest.css"/>
20          <resource type="download" name="dev.fest.js" location="/js/dev.fest.js"/>
21          <resource type="download" name="images/" location="/images"/>
22
23          <context>dev.fest</context>
24      </web-resource>
25
26  </atlassian-plugin>
```

Сборка плагина

```
1 atlas-mvn clean package
2 [INFO] Project POM found
3 [INFO] Scanning for projects...
4 [INFO]
5 [INFO] -----< bitbucket.dev.fest.demo:dev.fest >-----
6 [INFO] Building dev.fest 1.0.0-SNAPSHOT
7 [INFO] -----[ atlassian-plugin ]-----
8 [INFO] Building jar: /Users/grisha/IdeaProjects/atlassian/dev.fest/target/dev.
fest-1.0.0-SNAPSHOT-tests.jar
9 [INFO] -----
10 [INFO] BUILD SUCCESS
11 [INFO] -----
12 [INFO] Total time: 7.333 s
13 [INFO] Finished at: 2020-10-15T01:43:51+03:00
14 [INFO] -----
15
```

Разработка Atlassian плагинов

The screenshot shows the Docker Hub interface for the `atlassian/bitbucket-server` repository. The top navigation bar includes the Docker Hub logo, a search bar, and links for Explore, Pricing, Sign In, and Sign Up. Below the navigation, the repository path `Explore > atlassian/bitbucket-server` is shown. The main card for the repository features a blue hexagonal icon, the repository name `atlassian/bitbucket-server` with a star icon, and a pull count of `10M+`. It also shows the owner `atlassian`, the update time `21 hours ago`, and a description: `On-premises source code management for Git that's secure, fast, and enterprise grade.` A `Container` button is present. The page is divided into sections: `Overview` (selected), `Tags`, `Docker Pull Command` (`docker pull atlassian/bitbucket-se`), and `Owner` (Atlassian). The `Overview` section contains a large image of a Bitbucket logo and a detailed description of Bitbucket Server as an on-premises solution for Git.

atlassian/bitbucket-server ☆

By [atlassian](#) • Updated 21 hours ago

On-premises source code management for Git that's secure, fast, and enterprise grade.

Container

Overview Tags

Bitbucket Server is an on-premises source code management solution for Git that's secure, fast, and enterprise grade. Create and manage repositories, set up fine-grained permissions, and collaborate on code - all with the flexibility of your servers.

Learn more about Bitbucket Server: <https://www.atlassian.com/software/bitbucket/server>

Docker Pull Command

```
docker pull atlassian/bitbucket-se
```

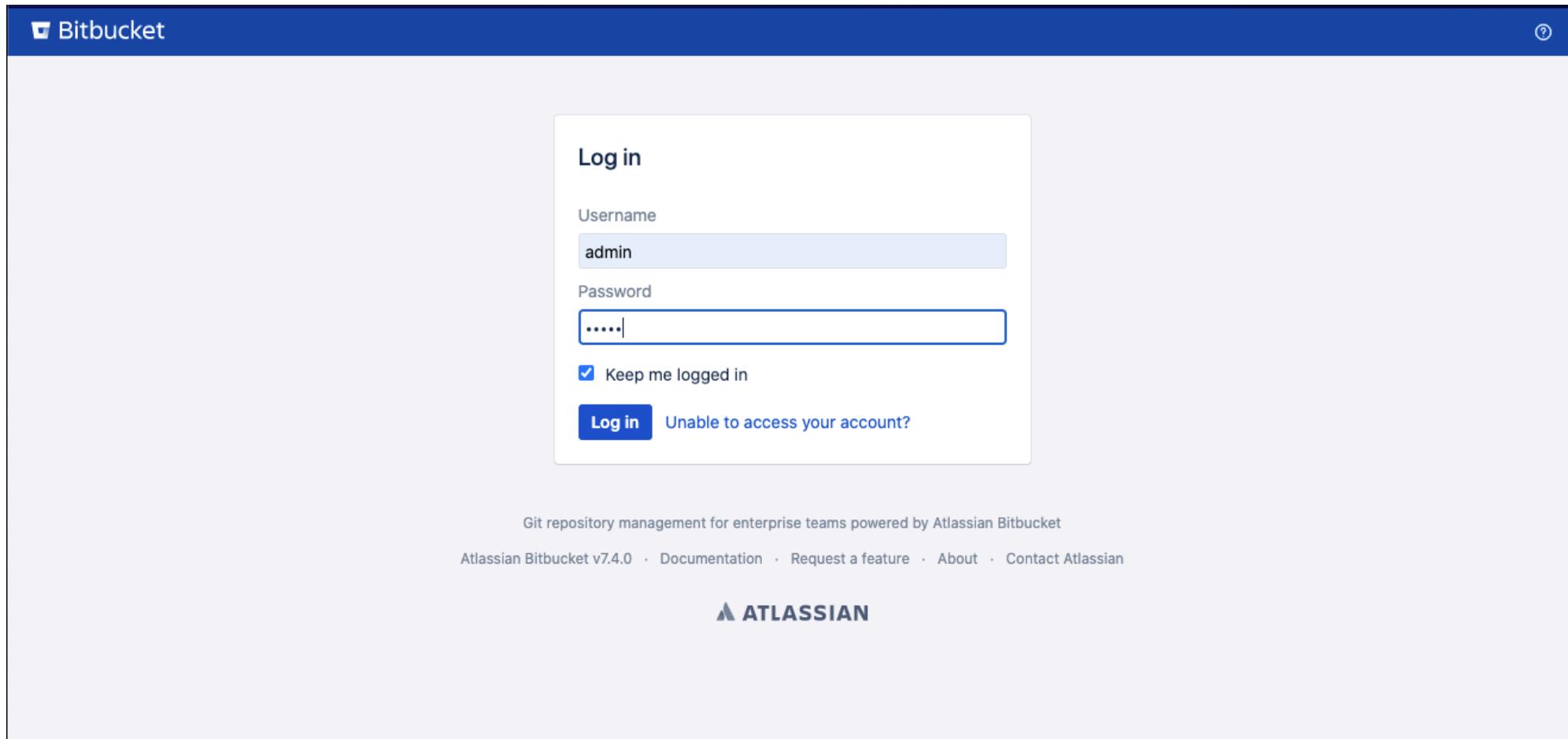
Owner

atlassian

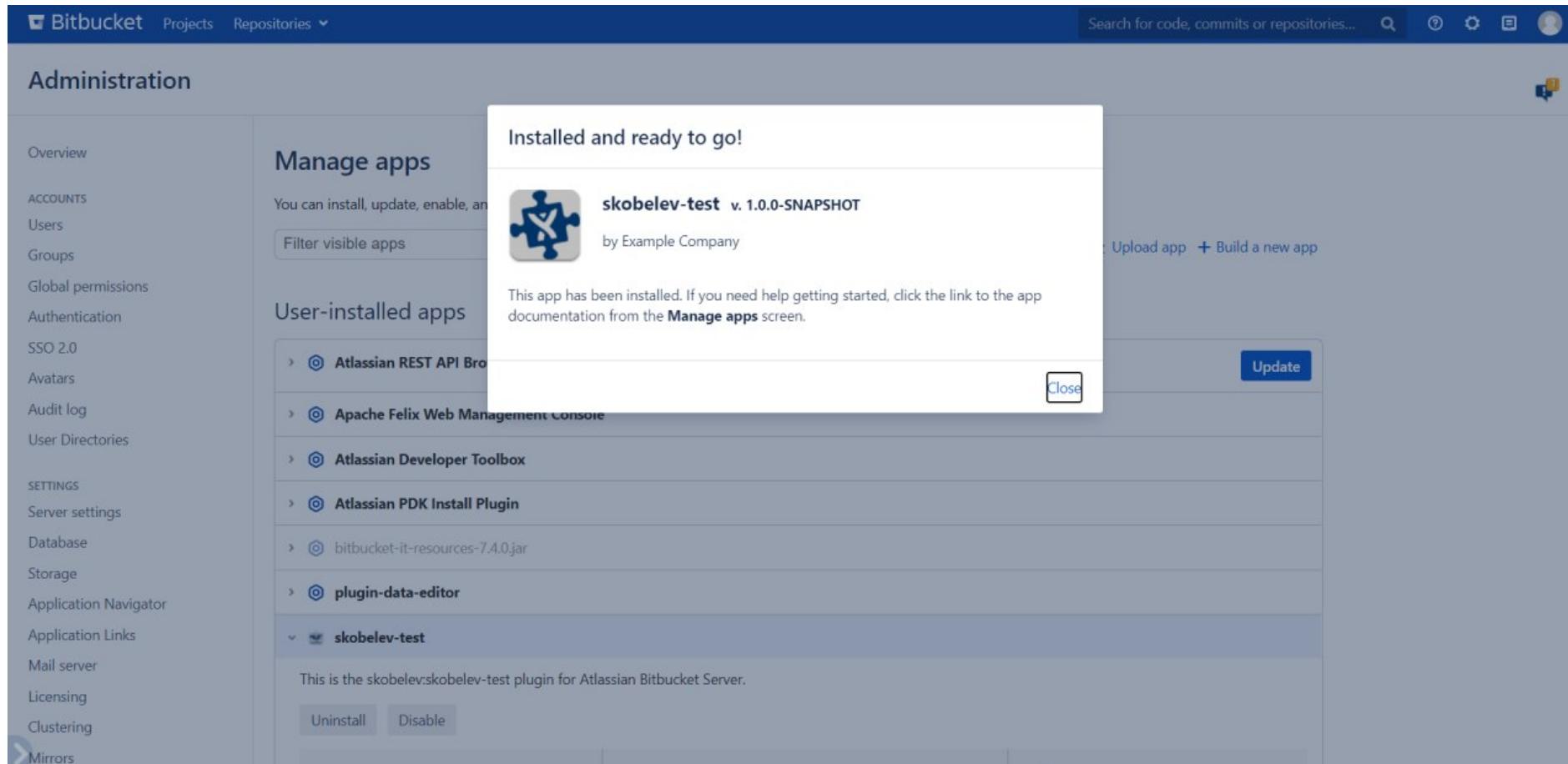
Разработка Atlassian плагинов

```
1 atlas-run-standalone --product bitbucket --version 7.4.0 --data-version 7.4.0
2 [INFO] Project POM found
3 [INFO] Scanning for projects...
4 Downloading from atlassian-plugin-sdk
5 [INFO]
6 [INFO] -----< bitbucket.dev.fest.demo:dev.fest >-----
7 [INFO] Building dev.fest 1.0.0-SNAPSHOT
8 [INFO] -----[ atlassian-plugin ]-----
9 [INFO]
10 [INFO] Copying embedded-elasticsearch-plugin-6.2.7.jar
     to /Users/grisha/IdeaProjects/atlassian/dev.fest/amps-standalone-bitbucket-7.4.0
     /target/bitbucket/app/WEB-INF/atlassian-bundled-plugins/embedded-elasticsearch-
     plugin-6.2.7.jar
11 [INFO] bitbucket started successfully in 57s at http://localhost:7990/bitbucket
12 [INFO] Type Ctrl-C to shutdown gracefully
```

Разработка Atlassian плагинов



Разработка Atlassian плагинов



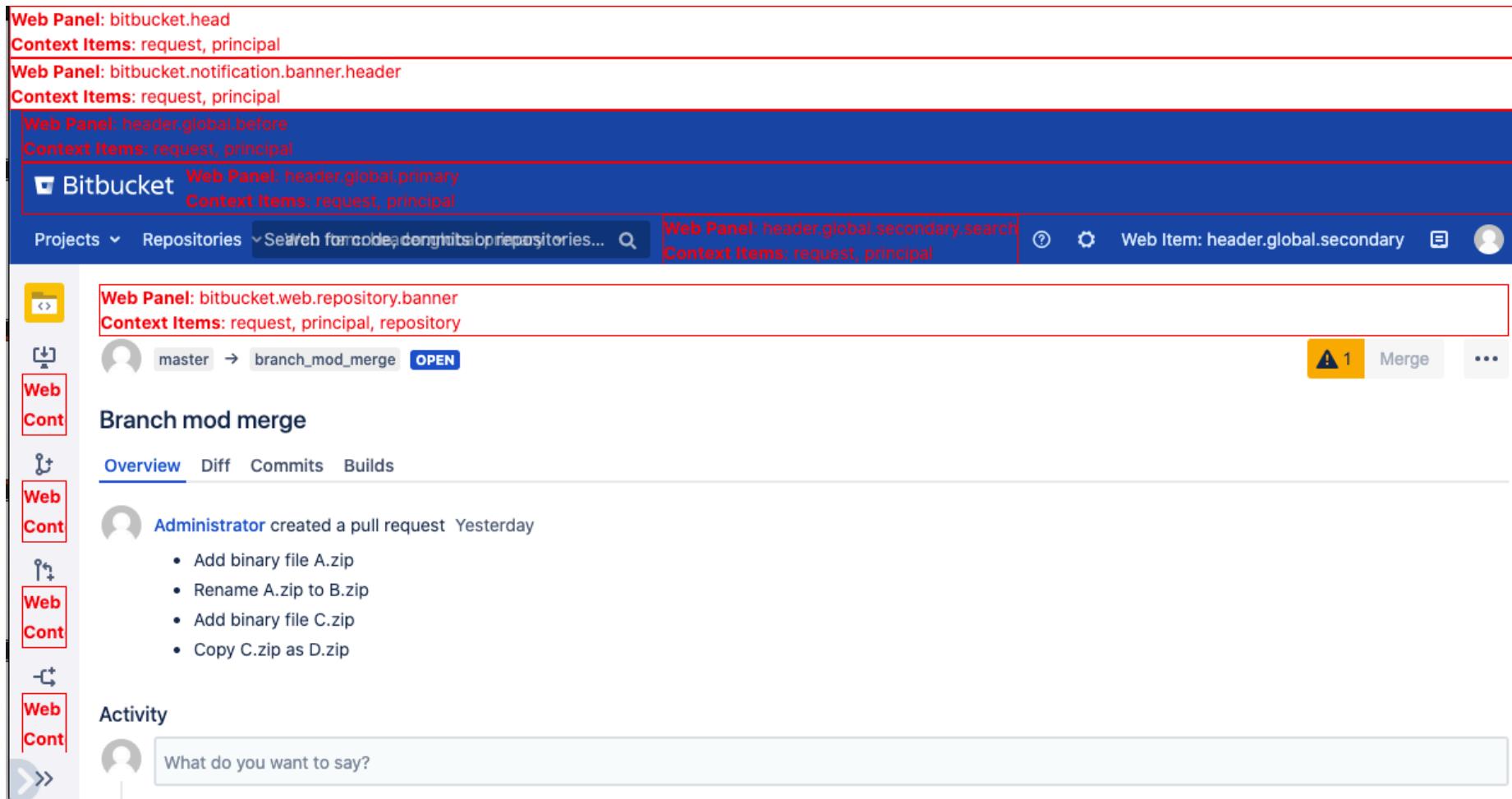
Разработка Atlassian плагинов

- Доработка ui
- Обработка событий от bitbucket
- Pull Request Hook
- Pull Request Merge Check
- Сохранение данных

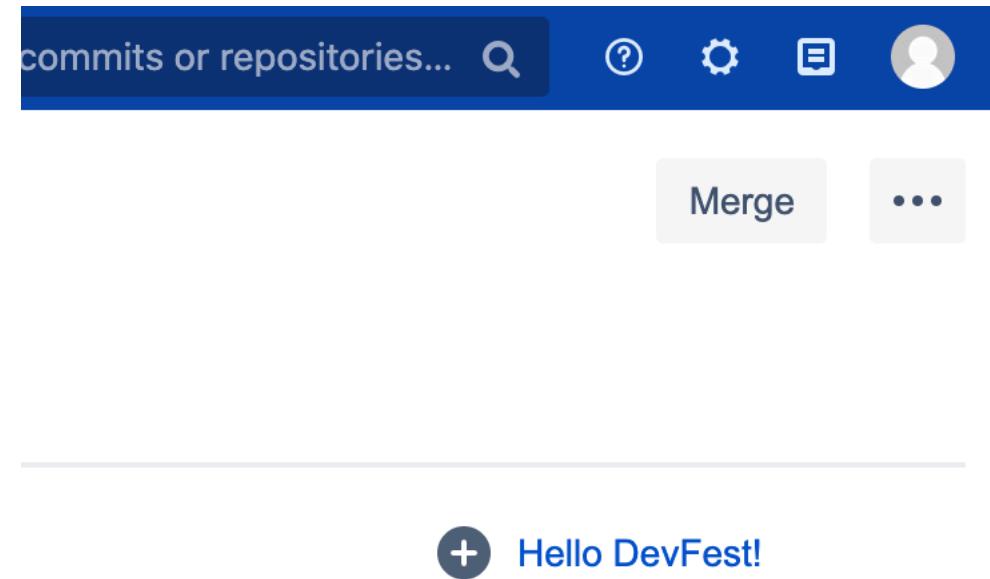
Доработка ui с помощью сервлетов

Query Parameter	Description
web.items	Отображение локаторов для Web Item и Client Web Item
web.panels	Отображение локаторов для Web Panel и Client Web Panel
web.sections	Отображение локаторов для Web Section и Client Web Section

Доработка UI с помощью сервлетов



Доработка ui



Доработка ui

1 build failed !

TEST-12345

TEST-12345 [Waiting For Rework]

FAILED stages: CheckSnapshots

Adjacent pull-requests

Доработка ui

```
1  /**
2   * @clientside-extension
3   * @extension-point bitbucket.ui.pullrequest.comment.action
4   */
5  export default ButtonExtension.factory((pluginApi, context) => {
6      const iconBefore = 'add-circle';
7
8      return {
9          hidden: false,
10         iconBefore,
11         label: 'Hello DevFest!',
12         onAction: () => {
13             console.log('My overview extension', context);
14         },
15     };
16 });


```

Обработка событий от bitbucket

```
1 public class TestEventListener {  
2     private static final Logger log = LoggerFactory.getLogger(TestEventListener.class);  
3  
4     @EventListener  
5     public void firstListener(RepositoryDeletionRequestedEvent deleteEvent) {  
6         log.warn("DevFest delete pull request event");  
7     }  
8  
9     @EventListener  
10    public void secondListener(RepositoryCreationRequestedEvent createEvent) {  
11        log.warn("DevFest create pull request event");  
12    }  
13 }
```

Pull Request Hook

Interface	Description
PostRepositoryHook<T extends RepositoryHookRequest>	Хук, который вызывается после внесения изменений.
PreRepositoryHook<T extends RepositoryHookRequest>	Хук, который вызывается до внесения изменений.
RepositoryMergeCheck	Используется для проверки условия для операции слияния.

Pull Request Hook

```
1 public class LoggingPostRepositoryHook implements PostRepositoryHook<RepositoryHookRequest> {  
2  
3     private static final Logger log = LoggerFactory.getLogger(LoggingPostRepositoryHook.class);  
4  
5     @Override  
6     public void postUpdate(@Nonnull PostRepositoryHookContext context,  
7                           @Nonnull RepositoryHookRequest hookRequest) {  
8         log.info("[{}] {} updated [{}]",  
9                 hookRequest.getRepository(),  
10                hookRequest.getTrigger().getId(),  
11                hookRequest.getRefChanges().stream()  
12                    .map(change -> change.getRef().getId())  
13                    .collect(Collectors.joining(", "));  
14    }  
15 }  
16 }
```

Pull Request Hook

Trigger	Corresponding request type
BRANCH_CREATE	BranchCreationHookRequest
BRANCH_DELETE	BranchDeletionHookRequest
FILE_EDIT	FileEditHookRequest
MERGE	MergeHookRequest
PULL_REQUEST_MERGE	PullRequestMergeHookRequest
REPO_PUSH	RepositoryPushHookRequest
TAG_CREATE	TagCreationHookRequest
TAG_DELETE	TagDeletionHookRequest

Pull Request Hook

Post receive

Post receive hooks can perform actions after commits are processed.



Logging Post Hook

✓ Enabled



Pull Request Merge Check



Pull Request Merge Check

There are **2 issues** preventing you from merging this pull request.



Jira issue has inappropriate status: Unknown.
Must be in one of: [Checked, Closed, Waiting
for Release, Deployed on real, Checked on
real, Tested in release, Testing].



You need add to pull request users with role
наставник for 1 required approves; You need
add to pull request users with role
архитектор for 3 required approves

Pull Request Merge Check

```
1 @Component("testMergeCheck")
2 public class TestMergeCheck implements RepositoryMergeCheck {
3
4     @Override
5     public RepositoryHookResult preUpdate(PreRepositoryHookContext context,
6                                         PullRequestMergeHookRequest request) {
7         return RepositoryHookResult.rejected("DevFest", "You shall not pass!!!!");
8     }
9 }
```

Pull Request Merge Check

```
1 @Component("testMergeCheck")
2 public class TestMergeCheck implements RepositoryMergeCheck {
3
4     @Override
5     public RepositoryHookResult preUpdate(PreRepositoryHookContext context,
6                                         PullRequestMergeHookRequest request)
7         return RepositoryHookResult.rejected("DevFest", "You shall not pass");
8     }
9 }
```



Сохранение данных

```
1 public interface Todo extends Entity {  
2     String getDescription();  
3  
4     void setDescription(String description);  
5  
6     boolean isComplete();  
7  
8     void setComplete(boolean complete);  
9 }
```

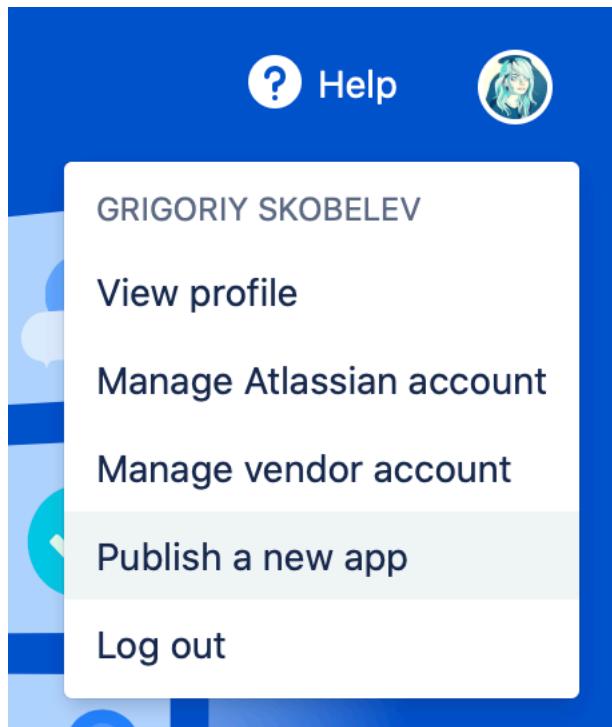
Сохранение данных

```
1 public class TodoServiceImpl implements TodoService {  
2     @ComponentImport  
3     private final ActiveObjects ao;  
4  
5     @Inject  
6     public TodoServiceImpl(ActiveObjects ao) {  
7         this.ao = checkNotNull(ao);  
8     }
```

Сохранение данных

```
10     @Override
11     public Todo add(String description) {
12         final Todo todo = ao.create(Todo.class);
13         todo.setDescription(description);
14         todo.setComplete(false);
15         todo.save();
16         return todo;
17     }
18
19     @Override
20     public List<Todo> all() {
21         return newArrayList(ao.find(Todo.class));
22     }
23 }
```

Marketplace



Create vendor

To get started listing apps on Marketplace, you'll need to create a vendor profile. This information is publicly visible on Marketplace.

Name*

Enter your vendor name. If you're not associated with a company or organization, use your own name.

Address line 1

Address line 2

City

State

Postal code

Country

Description

Describe your organization in 750 characters or less. This description is displayed on your vendor page in the Marketplace.

Logo

Marketplace

Atlassian Marketplace Developer Guides Reference Resources Q 

About Atlassian Marketplace Last updated Jun 5, 2020 Rate this page: 

BUILD

LICENSING

PRICING AND PAYMENTS

LIST

- App approval guidelines

Creating a Marketplace listing
Listing and managing apps
Creating a server app package
Declaring marketing assets for server apps
Listing an app version from Java
Listing an app version using REST
Managing permissions on your vendor account
Upgrading and versioning cloud apps
Archiving apps

SELL

App approval guidelines

After creating and testing your app, your next step is to submit it for approval. To uphold standards of quality and reliability that our customers expect, all publicly listed apps are subject to an approval process.

Which apps are subject to the approval process?

- Publicly listed, new apps
- Payment model changes: For example, if your app changes from free or paid-via-vendor to a paid-via-Atlassian app.
- Hosting changes: If you add a version that uses a different hosting model. For example, if you have a download/behind-the-firewall app, and add a version for Atlassian-hosted cloud products.

If an earlier app version is already approved, routine version updates are exempt from the approval process except in the above cases.

Approval process

Approval times vary depending on current volume and the Marketplace team's availability, submissions fall into an internal queue which the Marketplace team works through chronologically as they come in. Our team checks a range of requirements for your app, like if it installs properly and has documentation. It's not uncommon to experience a few rounds of the approval process. To avoid unnecessary updates and resubmissions, make sure your app adheres to the guidelines on this page. If you believe your approval is taking too long, feel free to check in via a question to our team.

- Log in to <https://marketplace.atlassian.com/> with your partner account.
- Click Publish a new app from the profile menu in the upper right.

ON THIS PAGE

[Which apps are subject to the approval process?](#)

Approval process
Criteria for all apps
Additional criteria for paid via Atlassian, server apps
Additional criteria for cloud apps

Полезные ссылки

- <https://developer.atlassian.com/server/bitbucket/reference/api-changelog/>
- <https://www.atlassian.com/software>
- <https://community.atlassian.com>

 master  1 branch  0 tags Go to file Add file   Code GSkoba demo2d2ccb5 3 days ago  1 commits

 src	demo	3 days ago
 .gitignore	demo	3 days ago
 README	demo	3 days ago
 dev.fest.iml	demo	3 days ago
 pom.xml	demo	3 days ago

README

You have successfully created an Atlassian Plugin!

Here are the SDK commands you'll use immediately:

```
* atlas-run -- installs this plugin into the product and starts it on localhost  
* atlas-debug -- same as atlas-run, but allows a debugger to attach at port 5005  
* atlas-help -- prints description for all commands in the SDK
```

Full documentation is always available at:

<https://developer.atlassian.com/display/DOCS/Introduction+to+the+Atlassian+Plugin+SDK>

About



No description, website, or topics provided.

 [Readme](#)

Releases

No releases published
[Create a new release](#)

Packages

No packages published
[Publish your first package](#)

Languages



Java 92.3% JavaScript 7.7%



Всем привет, я Скобелев Григорий Java backend разработчик в ЮMoney/Яндекс.Деньги в команде backend-platforma. Регулярный спикер. Занимаюсь созданием высоконагруженных систем с помощью Spring, любитель Java и Kafka.

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