Fabasoft Cloud Developer Information

Annex ./1 to Fabasoft Cloud Developer Agreement

Valid from October 13th, 2014

For the sake of convenience this document does not make use of gender-specific terms. Any terms shall refer to both women and men for the purposes of equal treatment.

Contents

1 New Cloud Apps on the basis of the Fabasoft Cloud

The Fabasoft Cloud offers software developers a platform for the development and distribution of application software (New Cloud Apps, NCAs) for secure and reliable collaboration both internally and cross-company.

The “Fabasoft Cloud Developer Information” describes the scope of service of all components that enable the quick and efficient implementation of your own NCAs for the Fabasoft Cloud.

With the components for the development of NCAs, the Developer Cloud Apps (DCA),

- you can manage your development projects and Cloud Apps directly in the Fabasoft Cloud (**Cloud App Development**, CAD),
- we provide you with your own virtual development environment (VDE),
- you can create your software with **Fabasoft app.ducx** and save the source code in a central software repository in the Fabasoft Cloud,
- you can use **Fabasoft app.test primo** to create and execute automated tests for your Cloud App,
- you can use **Fabasoft app.telemetry primo** for the runtime analysis of your source code,
- you can manage your project using the Cloud App „**Scrum Projects**“ directly in the Fabasoft Cloud,
- you can market your NCA in the Fabasoft **Cloud App Store** (http://www.cloudappstore.com).

1.1 Fabasoft Cloud Developer Agreement

The basis of this Cloud Developer Information is contained within the **Fabasoft Cloud Developer Agreement**, which you can find under the following link: http://www.fabasoft.com/developeragreement.

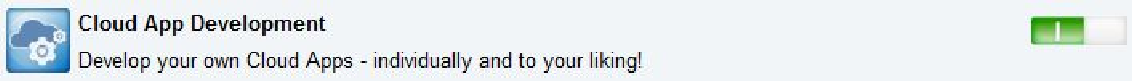
1.2 Prerequisites for the development of NCAs

To develop Cloud Apps you need to have the following:

- A passion for programming
- An idea that you want to implement for fellow Cloud users
- A Fabasoft Cloud account
- The Developer Cloud Apps (DCAs)

1.3 Cloud Apps for development

Before you can start with the development of your own Cloud App you need to activate two Cloud Apps for developers in the Fabasoft Cloud App Store.



Cloud App Development

Develop your own Cloud Apps - individually and to your liking!

The Cloud App “Cloud App Development” allows you to manage the development projects for your Cloud Apps and also makes the interface in the Fabasoft Cloud’s continuous integration infrastructure (CI) available.

The link to this Cloud App in the Fabasoft Cloud App Store can be found at: http://developer.fabasoft.com/editions/shop.

Cloud App VDE

Don't worry about infrastructure. Develop your Cloud Apps with a virtual development environment managed by Fabasoft.

The Cloud App “VDE” provides you with a virtual development environment that is almost equivalent to the full functionality of the Fabasoft Cloud environment – essentially a Fabasoft Cloud for you personally. You can use the VDE to create your Cloud App and test it during the development. It is also possible to carry out automated tests against the VDE.

The link to this Cloud App in the Fabasoft Cloud App Store can be found at: http://developer.fabasoft.com/editions/shop.

You program your Cloud App with Fabasoft app.ducx. For this you can use the Open Source development environment (IDE) Eclipse. Fabasoft app.ducx makes the corresponding plug-in available.

You can manage your Cloud App’s source code in the Fabasoft Cloud subversion (SVN) repository.

When you publish your development project a Fabasoft app.ducx and a Fabasoft app.test project are automatically set up for your Cloud App in the subversion repository.

2 Cloud App Development

2.1 Development project

The central object of the app “Cloud App Development” is the “Development project”. A development project needs to be created for each Cloud App. With the development project you manage your Cloud App “releases”, the presentation of your Cloud App in the Cloud App Store, as well as the commercial settings. You can use the development project to monitor the approval process (e.g. “Submit for testing”, “Manual test passed” …) and you can also find the results of automated tests for the version submitted for approval.

A directory in the Fabasoft Cloud repository for the management of your Cloud App’s source code is created for each development project.

2.1.1 Create a development project

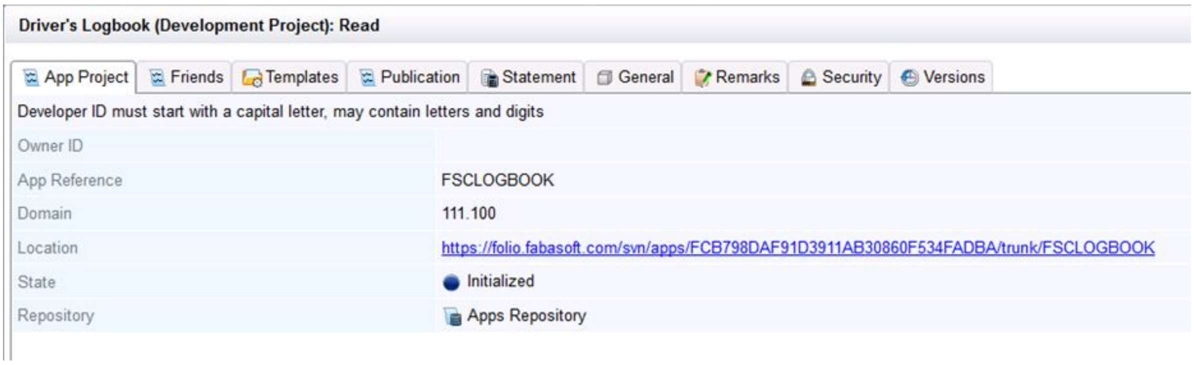
Create a Teamroom in which you can make all relevant information about your projects available to the entire development team. You can of course also easily manage the team.

Within a Teamroom you can create multiple development projects for different Cloud Apps.

With the access rights within a Teamroom you can determine who has read only and change access to the source code repository.

Important: The group Fabasoft Cloud App Reviewers needs to have “Full Control” as soon as your Cloud App is submitted for review. This group is automatically added to your Teamroom’s team after the publishing of the development project. A Cloud App cannot be reviewed if this group is not authorized.

Each Cloud App needs a unique reference. The uniqueness of the reference is checked during the publishing of the development project. The reference must have a connection to the developer (team) (owner ID) and to the solution being implemented in the Cloud App (app reference). A valid reference must begin with a capital letter and must only consist of numbers and capital letters. Fabasoft apps begin with COO or FSC – you are not allowed to use these owner IDs.



Driver's Logbook (Development Project): Read

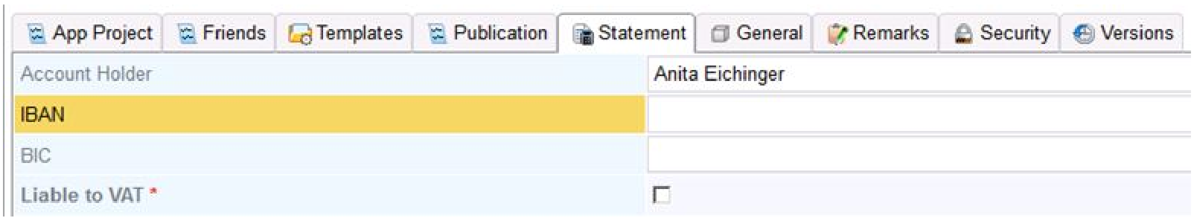
Developer ID must start with a capital letter, may contain letters and digits

Owner ID	
App Reference	FSCLOGBOOK
Domain	111.100
Location	https://folio.fabasoft.com/svn/apps/FCB798DAF91D3911AB30860F534FADBA/trunk/FSCLOGBOOK
State	● Initialized
Repository	Apps Repository

2.1.2 Determine commercial settings

Under the “Statement” tab you can determine the data relevant for the billing. You can set the price for your Cloud App and any activity points contained within it by assigning a pre-defined price tier. You also provide Fabasoft with your bank details and VAT number, so that Fabasoft can pay you your developer share of the income generated by your Cloud App.

The regularly created invoices will also be displayed under this tab.



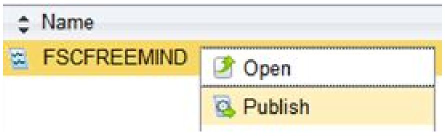
Account Holder	Anita Eichinger
IBAN	
BIC	
Liable to VAT *	☐

An overview of the available price tiers can be found at http://www.fabasoft.com/pricetiers.

2.1.3 Publish a development project

By publishing your development project you start the development process. This involves:

- Checking the availability, validity and uniqueness of the reference.
- Setting up a Fabasoft app.ducx and Fabasoft app.test project in the Fabasoft Cloud source code repository.
- You adding the group Fabasoft Cloud App Reviewers to your team in your Teamroom.



Only a user with full control in the Teamroom can publish the project.

You can find the repository directory path to your project in the properties of your development project.

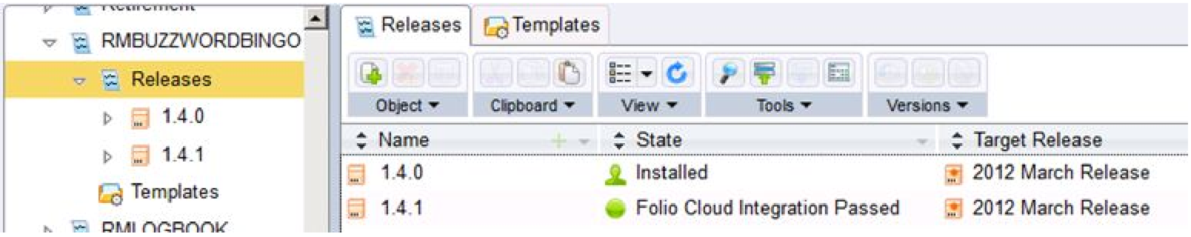
You determine the access rights to the source code in the Fabasoft Cloud repository via the access rights to the Teamroom in which the development project is assigned to.

An address area is also reserved for your Cloud App – this is necessary for the development with Fabasoft app.ducx.

2.2 Manage releases

Once you have finished your Cloud App and want to install it in the Fabasoft Cloud, create a release for the Cloud App in your development project.

You submit this release to the Fabasoft Cloud App Reviewers for testing.



Name	State	Target Release
1.4.0	Installed	2012 March Release
1.4.1	Folio Cloud Integration Passed	2012 March Release

After submitting the app for testing, a new branch in the source code repository is created for the current state (state in “trunk” branch). For the installation only the release software state (under “branches”) will be used. Possible changes by the developer during the course of the review process therefore have to be carried out in this new branch.

Before a version can be submitted for review, you need to ensure that your tests run completely error-free. During the review process you cannot carry out any functional changes to your Cloud App.

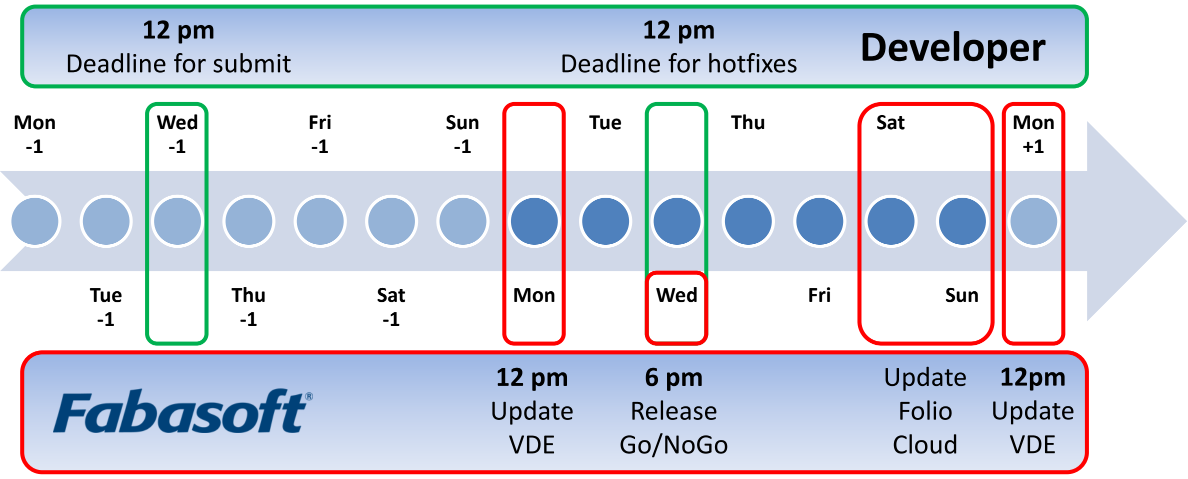
The release submitted for review is tested automatically in the CI using your tests (unit tests created with Fabasoft app.ducx and user acceptance tests created with Fabasoft app.test). During the course of these tests the coverage of your tests is also measured. The review process is only continued if your tests run without errors and if your tests achieve corresponding code coverage (at least 80%). The test results and coverage measuring are saved for you in the release object.

Fabasoft also conducts a manual testing of your Cloud App. After manual testing your Cloud App is automatically tested in an integration test in the CI system. This integration system is almost a complete replica of the Fabasoft Cloud production system. All previously approved Cloud Apps are also installed in this system.

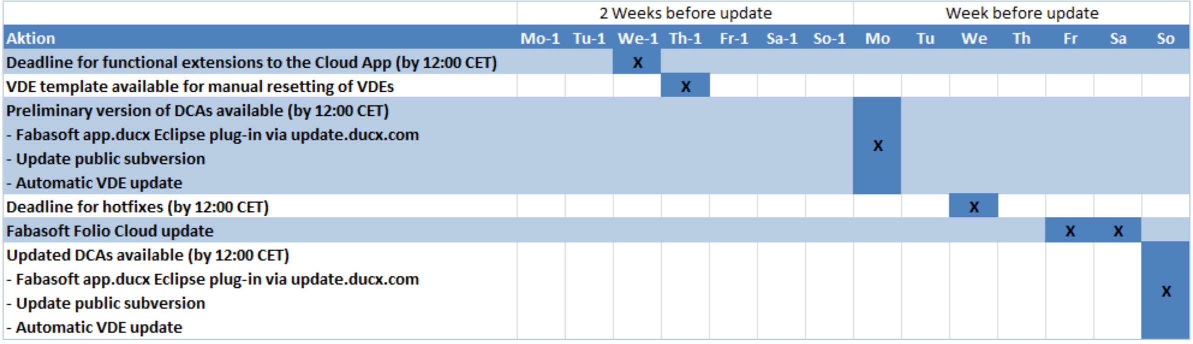
Important: Plan your Fabasoft Cloud app releases according to the Fabasoft update cycle in order to ensure that your own Fabasoft Cloud app is up to date with each Fabasoft Cloud update. Submission of a new version for testing is possible up to ten days before the Fabasoft Cloud update.

2.3 Update cycle

The Fabasoft update cycle defines up until when app developers can introduce new features and hotfixes for a new release and when Fabasoft makes DCA updates available. The reference point is the monthly Fabasoft Cloud update.



All times in CET



Aktion	2 Weeks before update							Week before update						
	Mo-1	Tu-1	We-1	Th-1	Fr-1	Sa-1	So-1	Mo	Tu	We	Th	Fr	Sa	So
Deadline for functional extensions to the Cloud App (by 12:00 CET)			x											
VDE template available for manual resetting of VDEs				x										
Preliminary version of DCAs available (by 12:00 CET) - Fabasoft app.ducx Eclipse plug-in via update.ducx.com - Update public subversion - Automatic VDE update								x						
Deadline for hotfixes (by 12:00 CET)										x				
Fabasoft Folio Cloud update												x	x	
Updated DCAs available (by 12:00 CET) - Fabasoft app.ducx Eclipse plug-in via update.ducx.com - Update public subversion - Automatic VDE update														x

The update normally takes place on the first weekend of the month. The exact update schedule is published in the scrum project Fabasoft Cloud and in the calendar Fabasoft Cloud.

The deadline for your functional extensions ends on Wednesday at 12:00 in the second week before the update (approximately 10 days before the Fabasoft Cloud update). After this date you cannot submit a new release or any functional changes to a release that has already been submitted for review.

On the Monday in the week of the update all VDEs are automatically updated to the preliminary version of the Fabasoft Cloud, irrespective of whether a manual reset has taken place.

This leaves two days' time (until Wednesday 12:00) to make any hotfixes available for your Fabasoft Cloud App.

By 12:00 on the Monday after the update all VDEs are automatically updated to the new Fabasoft Cloud version.

If you complete your development and all tests earlier then please submit your release straight away for review.

The times stated refer to Central European Time (UTC+1) and Central European Summer Time (UTC+2) respectively.

When resetting the VDE all configurations and data in the VDE are also reset. It is therefore recommended to create such configurations and test data automatically with Fabasoft app.test so that the VDE can be quickly adapted to individual needs.

2.4 Cloud App development use cases

- Create and manage a development project
- Determine commercial settings
- Publish a development project
- Start a release
- Submit a release for review

3 Virtual Development Environment

3.1 What is a virtual development environment (VDE)

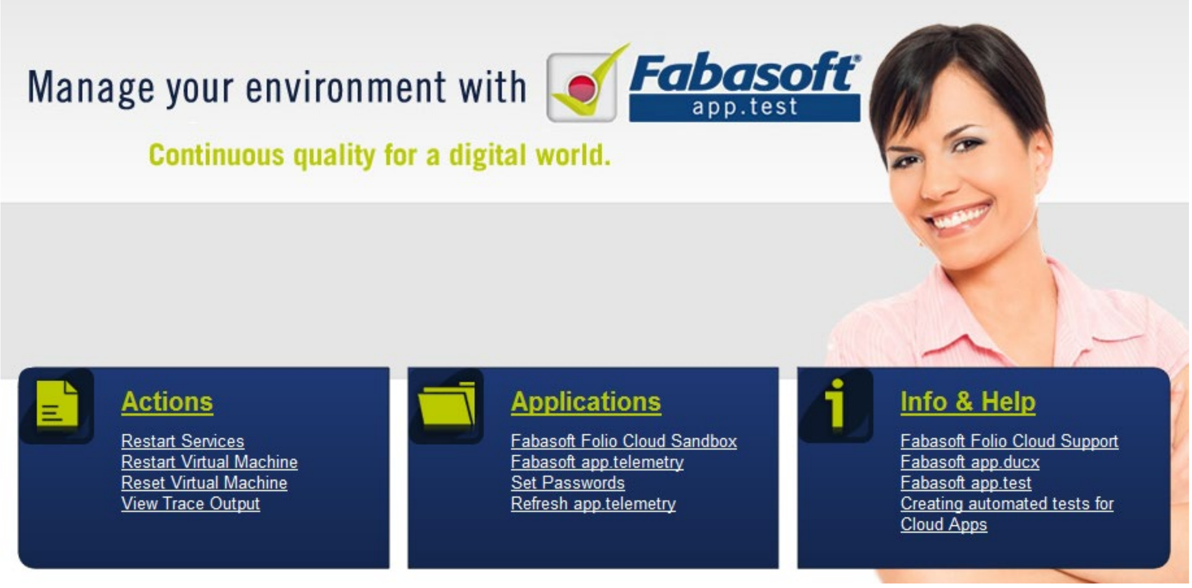
The Fabasoft Cloud App “Virtual Development Environment” (VDE) provides you with a virtual runtime environment for the development of your Cloud App – essentially a Fabasoft Cloud for you and your development team.

The URL of your personal Fabasoft Cloud can be found in the VDE object, which you can create only once. The URL is normally constructed as follows:

https://vde.fabasoft.com/dev<ID>/vm<ID2>

Via this URL you can access the management portal of your VDE, via which you can execute the following use cases:

- Restart the Fabasoft Cloud Services
- Restart the entire VDE
- Display the Fabasoft Cloud Web Services‘ trace outputs
- Reset the VDE to template
- Start the Fabasoft Cloud client in the sandbox
- Start the Fabasoft app.telemetry client
- Change the test user’s password
- Display help and additional CDA information


Manage your environment with
Fabasoft
app.test
Continuous quality for a digital world.

Actions

Restart Services
Restart Virtual Machine
Reset Virtual Machine
View Trace Output

Applications

Fabasoft Folio Cloud Sandbox
Fabasoft app.telemetry
Set Passwords
Refresh app.telemetry

Info & Help

Fabasoft Folio Cloud Support
Fabasoft app.ducx
Fabasoft app.test
Creating automated tests for Cloud Apps

Via the URL https://vde.fabasoft.com/dev<ID>/vm<ID2>/folio you can access the VDE’s Fabasoft Cloud Web Services and then test your app with different test users.

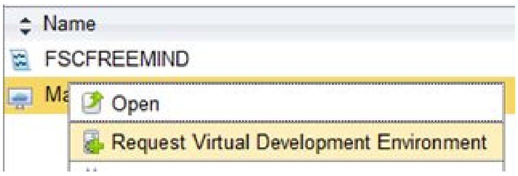
Please be aware of the following points when using your VDE:

- The VDEs are not secured and can be reset at any time (also by Fabasoft). All temporary objects and settings of your installation are lost once the VDE is reset.
- You can reset your VDE to its original settings at any time.

- Fabasoft provides 15 GB storage space for your VDE. The operating system, database and Fabasoft Cloud installation itself is included in these 15 GB. This leaves approximately 2 GB space available for data.
- No service level agreements exist for your VDE.
- Fabasoft will reset the VDE in line with the update cycle one week before and straight after each Fabasoft Cloud update. This enables you to adapt your apps in good time to the latest Fabasoft Cloud version where applicable.
- With the Cloud App VDE you can create one VDE. You must use this VDE for the development of all your apps.
- Multiple test users in up to 10 different scopes are available to you.
- The user name “developer” authorizes you as system administrator with full access. This gives you full control in your Fabasoft Cloud installation.
- No direct access is available to the VDE‘s operating system or database.

3.2 Create a virtual development environment

Create and set up a “virtual development environment” in a Teamroom. When creating a VDE, an existing VDE template is cloned, adapted to your environment and made available to you.



3.3 Reset VDE

Fabasoft makes updates VDEs available for each update. During the course of the Fabasoft Cloud update all VDEs are reset to the latest software version.

You have the possibility to independently reset your VDE to the current software version used in the Fabasoft Cloud.

Be aware that approximately one week before a Fabasoft Cloud update VDEs can only be updated to the future software version that will be operating the Fabasoft Cloud. This allows you to test your Cloud App for this software version and to prepare hotfixes where applicable.

The VDE can be reset either via the context menu of the VDE object or via the VDE management portal.

Please note that after resetting your VDE your Cloud Apps are no longer contained in your Fabasoft Cloud domain. In order to make these available again, you need to reload your development projects. You can find further details under the section „Development with Fabasoft app.ducx“.

3.4 Set password

After resetting your VDE, the password is changed to a random value so that no unauthorized person can access your VDE. You therefore have to change the password after each reset.

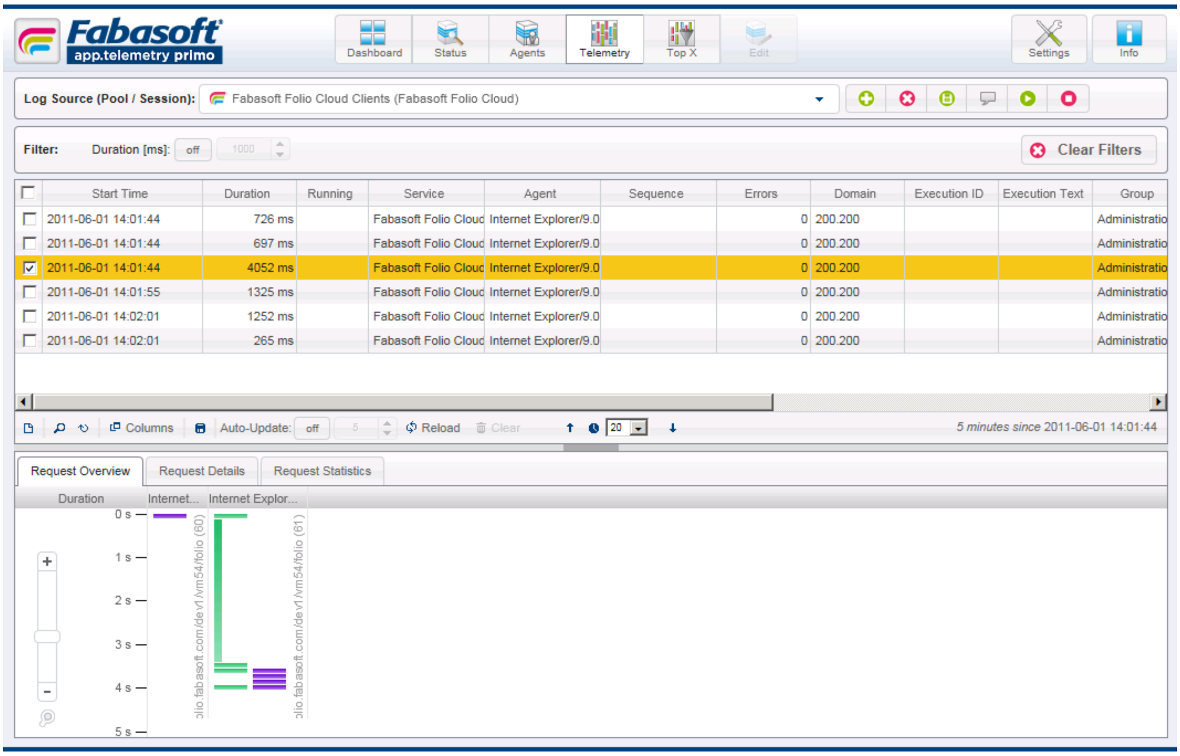
You can define the password via the context menu of the VDE object.

3.5 Fabasoft app.telemetry

Fabasoft app.telemetry primo is also installed in the VDE. Using Fabasoft app.telemetry's software telemetry you can optimize the performance of your Fabasoft Cloud App.

Be aware, however, that Fabasoft app.telemetry primo only allows the analysis of requests from the last 5 minutes.

You can find more information about app.telemetry at http://www.apptelemetry.com.



Log Source (Pool / Session): Fabasoft Folio Cloud Clients (Fabasoft Folio Cloud)

Filter: Duration [ms]: off 1000

Clear Filters

□	Start Time	Duration	Running	Service	Agent	Sequence	Errors	Domain	Execution ID	Execution Text	Group
□	2011-06-01 14:01:44	726 ms		Fabasoft Folio Cloud	Internet Explorer/9.0		0	200.200			Administratio
□	2011-06-01 14:01:44	697 ms		Fabasoft Folio Cloud	Internet Explorer/9.0		0	200.200			Administratio
☑	2011-06-01 14:01:44	4052 ms		Fabasoft Folio Cloud	Internet Explorer/9.0		0	200.200			Administratio
□	2011-06-01 14:01:55	1325 ms		Fabasoft Folio Cloud	Internet Explorer/9.0		0	200.200			Administratio
□	2011-06-01 14:02:01	1252 ms		Fabasoft Folio Cloud	Internet Explorer/9.0		0	200.200			Administratio
□	2011-06-01 14:02:01	265 ms		Fabasoft Folio Cloud	Internet Explorer/9.0		0	200.200			Administratio

Columns Auto-Update: off 5 Reload Clear 20

5 minutes since 2011-06-01 14:01:44

3.6 Virtual development environment use cases

- Set up a virtual development environment
- Reset a virtual development environment
- Give back a virtual development environment
- Set new test user password
- Restart the Fabasoft Cloud services
- Restart the entire VDE
- Display the Fabasoft Cloud Web Services' trace outputs
- Start the Fabasoft Cloud client in the sandbox
- Start the Fabasoft app.telemetry client
- Display help and additional CDS information
- Use app.telemetry's software telemetry to analyze requests from the last 5 minutes

4 Development with Fabasoft app.ducx

Fabasoft app.ducx is the development platform for the Fabasoft Cloud. You can find detailed information on the development of Cloud Apps with Fabasoft app.ducx in the book Developing Fabasoft Cloud Apps.

You can also view code examples in the Fabasoft Cloud subversion repository at https://cloud.fabasoft.com/svn/public/Folio%20Cloud%20Apps/samples.

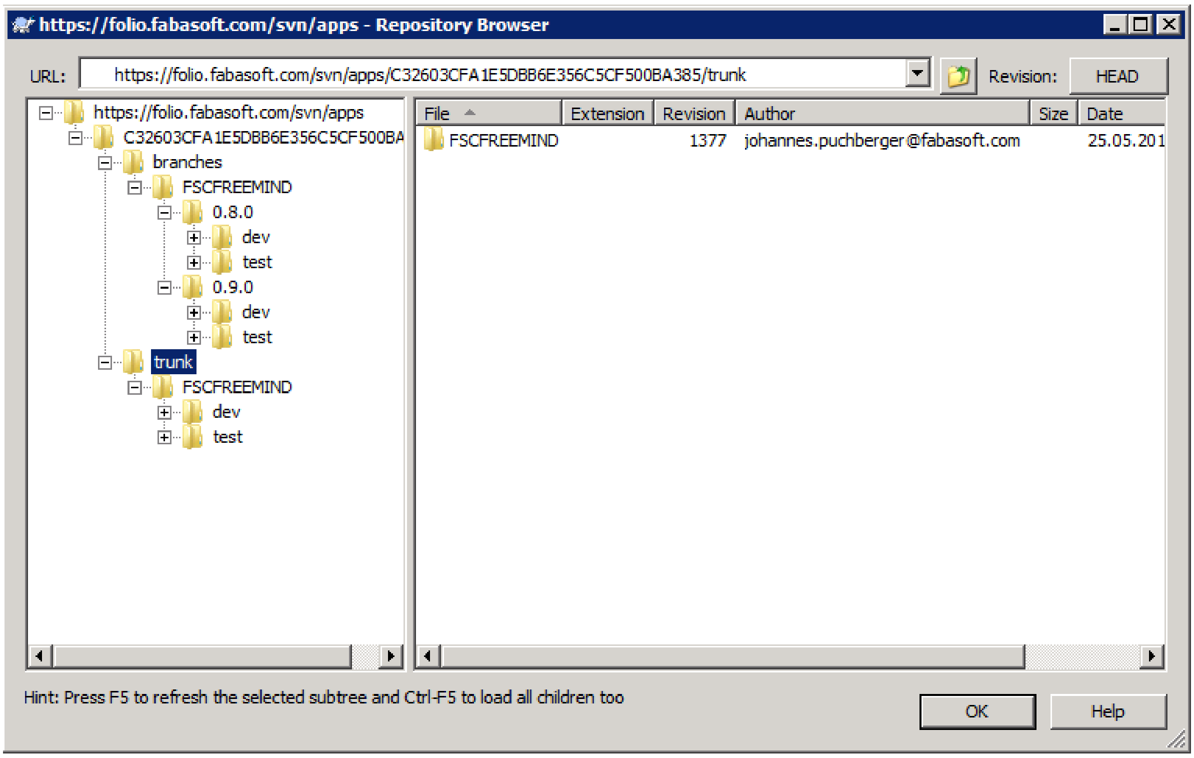
You can use the development environment (IDE) Eclipse to program with Fabasoft app.ducx. Fabasoft app.ducx makes a plug-in available for Eclipse. The current version of Eclipse supported by Fabasoft app.ducx including all necessary plug-ins can be found in the following folder: Fabasoft app.ducx for Cloud Development.

You can manage your Cloud App's source code in the Fabasoft Cloud subversion (SVN) repository. It is recommended to use a client such as TortoiseSVN or the subversive SVN Eclipse plug-in for communication with the repository (checkout and commit).

Access to the Fabasoft Cloud subversion repository takes place with your Fabasoft Cloud username (e-mail address) and password. For the access to the repository the username (e-mail address) must be entered in lower case.

When you publish your development project a Fabasoft app.ducx and a Fabasoft app.test project are set up in the subversion repository. The path to your project can be found in the properties of the development project.

The trunk branch is used for the running development of your Cloud App. If needed, this branch may also contain an unstable version of your Cloud App. The software version in the trunk branch is not used in the review process. If you would like to distribute a version the corresponding software version needs to be saved to the branches branch. When you submit a release for review for the first time, a copy of the trunk branch is automatically created in the branches branch.



https://folio.fabasoft.com/svn/apps - Repository Browser

URL: https://folio.fabasoft.com/svn/apps/C32603CFA1E5DBB6E356C5CF500BA385/trunk

Revision: HEAD

```
https://folio.fabasoft.com/svn/apps
  C32603CFA1E5DBB6E356C5CF500BA
    branches
      FSCFREEMIND
        0.8.0
          dev
          test
        0.9.0
          dev
          test
    trunk
      FSCFREEMIND
        dev
        test
```

File	Extension	Revision	Author	Size	Date
FSCFREEMIND		1377	johannes.puchberger@fabasoft.com		25.05.201

Hint: Press F5 to refresh the selected subtree and Ctrl-F5 to load all children too

During the development of your Cloud App with Fabasoft app.ducx objects are created that require a worldwide unique identification. In the Fabasoft Cloud environment the so-called object address is used. To ensure uniqueness your Fabasoft app.ducx project is assigned an address range.

During the publishing of the project an address range of 500 addresses per developer is made available. Fabasoft app.ducx can be configured so that a new address range is automatically requested as soon as it is needed.

The management of this address range also takes place in the Fabasoft Cloud. You therefore have to configure the Fabasoft Cloud (https://at.cloud.fabasoft.com/folio) as the *Default range service* in Eclipse under *Window* > *Preferences* > *Fabasoft app.ducx*. Again, you need to use your username and password as login information.

In the Fabasoft Cloud these object addresses serve as the key for the data management of property values. The assignment of an object address to a class, property or other element cannot be changed once the Cloud App has been installed for the first time. To change identifiers, be sure to use the function *Refactor* > *Fabasoft app.ducx* > *Change Reference …*

4.1 Fabasoft Cloud subversion repository

The storage space that you use in the repository is assigned to your Fabasoft Cloud license and is therefore restricted. Multiple backups are carried out each day. The repository runs on one server and is therefore not safeguarded against downtime.

The access rights to your directories in the Fabasoft Cloud subversion repository are determined by the Teamroom to which the development project is assigned.

4.2 Test your Cloud App

You will only satisfy your users with high quality software. Continuous quality can only be achieved through the extensive automation of tests. Alongside the time saving of no longer having to repeatedly conduct manual tests, the monthly update cycle can be adhered to.

The Fabasoft Cloud therefore offers the opportunity to automatically test your Cloud App using both unit tests created as part of the Fabasoft app.ducx project and user acceptance tests on the basis of Fabasoft app.test primo.

If you submit your Cloud App for review your automated tests are carried out in different test systems at Fabasoft. Amongst others, the tests are carried out in an integration system that represents almost a full equivalent of the Fabasoft Cloud. In order to be able to execute the tests in the different CI systems, there is a library of test use cases available to you for the creation of your user acceptance tests with Fabasoft app.test. It is absolutely essential that this library is implemented into your tests.

You can find this library at:
https://cloud.fabasoft.com/svn/public/Folio%20Cloud%20Apps/apptestlib.

A description of how to use the app.test library can be found in this document Creating Automated Tests for Cloud Apps With Fabasoft app.test.

The code coverage achieved by these automated tests must be aimed at 100%.

4.3 Create templates

So that templates can be created, the type of Teamroom must be entered in the development project.

To create template, follow these steps:

1. Run “Activate templates” for the development project.

2. The “App Template Collection” is saved to the Teamroom.
3. In the “App Template Collection” create a template for a Teamroom.
4. Select where the template should be available.
5. Run “Forward for approval” from the extras menu in the desired template to send it to be approved.

If the template is approved, it is displayed under the tab “Approved Templates” and is available to all users.

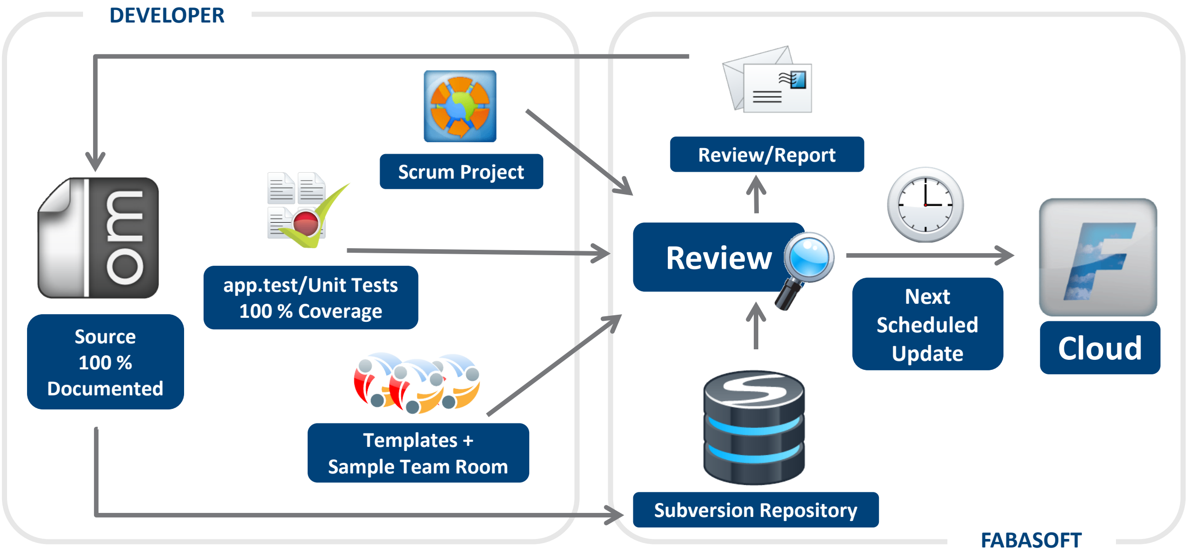
If the template is not approved, it is only visible under the tab “Templates”.

Important: The group Fabasoft Cloud App Reviewers must be entered in the Teamroom with “Full Control” to be able to approve the templates.

Within the Teamroom in which you created your development project, you can test the templates.

The availability of a template specifies whether a user can select the template when creating an object or whether the template is automatically saved in “Home” after the app is activated.

5 The Release Process



5.1 Requirements for submitting your Cloud App

Before you submit your Cloud App for review, you need to check the following points:

- Your Fabasoft app.ducx project can be built and uploaded.
- Your project's source code is complete and extensively documented.
- You have made all strings available in all languages supported by your app.
- You have tested the desired functionality with manual tests.
- You have provided automated tests with Fabasoft app.tests and/or unit tests.
- The Fabasoft app.tests use the app.test library for the login use cases.
- The testing of coverage with automated tests aims at achieving 100%.

5.2 Submitting a release (Submit)

After your release has been submitted for review, your project is automatically checked out by our CI system, built, installed in a test system and the automated tests are carried out.

When all points have been successfully carried out, the release is approved for manual review and the Fabasoft Cloud App Reviewers group is informed.

If an error is discovered, you have to fix it and wait again for the results of the automated CI system.

Note: Once a release is submitted for review for the first time, a branch in the current trunk is created. When fixing errors therefore, the relevant revisions also need to be applied to the respective branch.

5.2.1 Submit timeline

You can take the exact timeframe for when your release and any hotfixes must be submitted from the update cycle.

5.3 Manual review by Fabasoft reviewers

A professional Fabasoft Cloud App Reviewers will exhaustively examine your source code and provide you with feedback regarding possible improvements or weaknesses so that the Fabasoft Cloud's high quality standard can be maintained. However, the review should not be viewed as a fundamental, full standard quality assurance, but as a check of your quality assurance measures using specific check points.

If the reviewer has comments about your release, these will be saved under the property "Previous Remarks" of the release object.

5.4 Hotfixes in the release process

Within the update cycle you can make hotfixes available for a release that has already been submitted for review up until 4 days before the update (Wednesday). If you do not make this deadline then you have to wait until the next Cloud update and therefore also have the chance to implement more new features.

5.5 Release process use cases

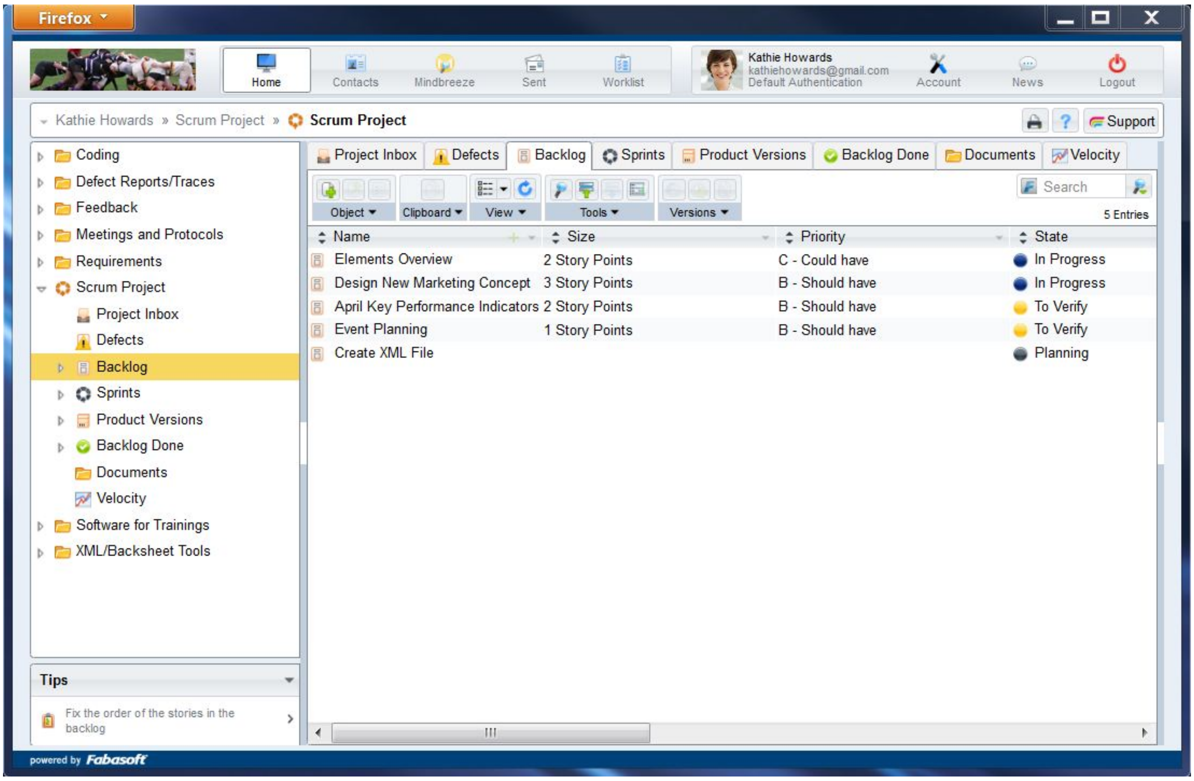
- Start a release
- Submit a release
- Check results of the automated test

6 Cloud App „Scrum Projects“

With the app for scrum projects teams of all different sizes can simply create, assess, plan and keep track of scrum projects – across the globe.

Scrum is an iterative, incremental framework for the management of agile projects. Scrum teams produce usable results in iterative sprints (e.g. product increments). After each sprint the requests (user stories) in the backlog are newly evaluated and prioritized to enable a quick reaction to changes. The scrum framework encourages scrum teams to permanently focus on improvements and on completing the tasks that have the most business value. These properties have led scrum to become one of the most popular project management methods worldwide.

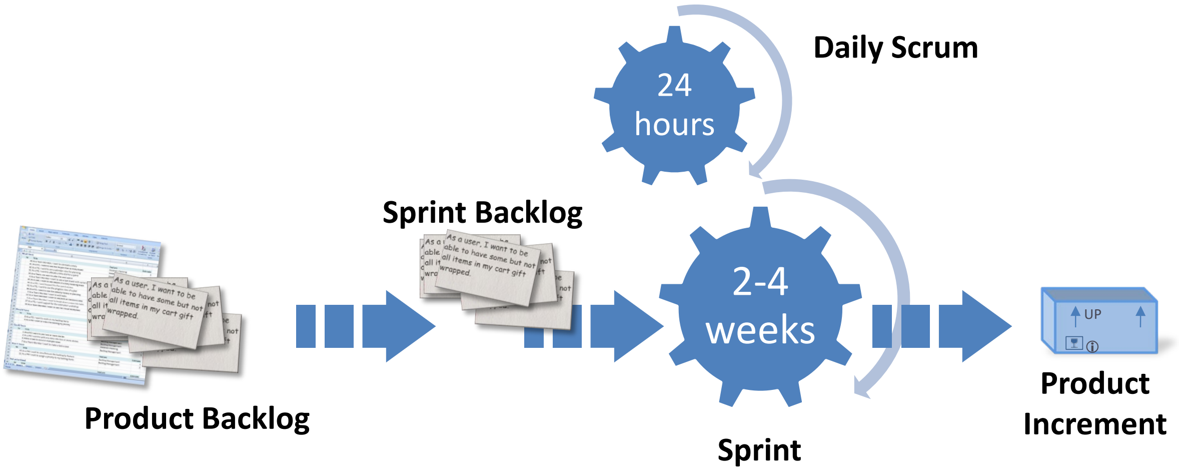
The Cloud App “Scrum Projects” is available to all Fabasoft Cloud developers – you just need to activate it.



Name	Size	Priority	State
Elements Overview	2 Story Points	C - Could have	● In Progress
Design New Marketing Concept	3 Story Points	B - Should have	● In Progress
April Key Performance Indicators	2 Story Points	B - Should have	● To Verify
Event Planning	1 Story Points	B - Should have	● To Verify
Create XML File			● Planning

Fix the order of the stories in the backlog

6.1 The scrum process



Project inbox

In the project inbox user stories and defects are created by users and stakeholders. In subsequent steps these are then prioritized by the product owner and either added to the backlog or discarded.

Product backlog

In a product backlog requests are formulated and prioritized by the product owner as so-called user stories. The product owner can also add stories from the project inbox.

Sprints

A sprint is fixed period of time – for example two or four weeks – during which a scrum team works on a self-determined number of user stories from the backlog. The result is a high quality product increment. The processing of user stories can be tracked via a task board. The size of the stories is estimated by the team in story points.

Task

For the implementation of a user story, the team creates tasks which are assigned to the story. Each team member takes on specific tasks to realize a user story. To what extent a task has been completed is visible via its status.

Velocity chart

The velocity chart shows in graphical form how well the sprints of the project are processed. The measured value is the team's velocity – i.e. the sum of the story points implemented per sprint.

Burndown chart

The burndown chart shows in clear graphical form the processing of user stories. This makes it easy to see the progress of the current sprint.

6.2 Create a scrum project

Scrum projects enable the planning and agile development of your Fabasoft Cloud app.

6.3 Create stories and defects

Define the desired functionality and write detailed stories for it. With the acceptance criteria you can set specific aims that you want to achieve during the course of the story. As soon as you have sufficiently defined the story you can add it to the backlog as a next step.

Users of your Cloud App can also create stories if they want to request more functions. The users can also create defects in your scrum project to fix errors in your Cloud App.

So that users can create stories and defects, you need to create your scrum project in a public Teamroom.

6.4 Backlog management

In a scrum project‘s project inbox all stories and defects are collected that have been assigned to this project inbox. You can add these stories and defects to the backlog, discard them, split them, combine them or convert them.

6.4.1 Add stories and defects to the backlog

Stories and defects that you want to implement are added to the backlog and prioritized and ordered according to their value and size. The size (effort) of stories is estimated in story points. Please be aware that defects should always have the highest priority.

6.4.2 Discard a story or defect

You can discard stories and defects that have not yet been added to the sprint. Discarded stories and defects are then moved to the tab “Backlog Done”.

Note: Only the product owner has the necessary rights to discard a story. A defect can be discarded by any team member.

6.4.3 Split a story

If you notice during the planning of a story that the request is too extensive to be implemented in one sprint, you split the story at any time to be able to concentrate better on the individual parts.

6.4.4 Combine stories and defects

Where there are multiple stories and/or defects for one request or problem, you can combine them, as long as they have not yet been added to a sprint.

6.4.5 Convert a story into a defect

When the creation of a story does not deal with a new functionality but an error or defect in an existing functionality, you can convert the story into a defect. You can of course also convert a defect into a story if it turns out that the issue actually deals with a new feature rather than an error/defect.

Note: A story can only be converted into a defect if it has not yet been added to the backlog.

6.5 Create a task

“Create Task” can be used to segment a story into individual tasks. Split the tasks into the following, for example:

- Implementation object model

- Implementation use case 1
- app.test
- Unit tests
- Documentation

6.6 Plan a sprint

Ideally you should plan your sprints according to our update cycle. This ensures that you do not miss out on being ready for the next Cloud update.

Estimate the size of the stories and at the beginning of the sprint add as many stories as your velocity allows.

At the end of the sprint you can release the completed stories and end the sprint.

6.7 Use cases for the Cloud App „Scrum Projects“

- Create a scrum project
- Create a story
- Create a defect
- Add/discard stories and defects to/from the backlog
- Add stories and defects to the sprint
- Request a hotfix and state why
- Start a sprint
- Carry out a sprint
- Create tasks
- Release a story or task
- Release a hotfix and state cause and measures
- End a sprint